

DEPARTMENT OF HEALTH AND HUMAN SERVICES

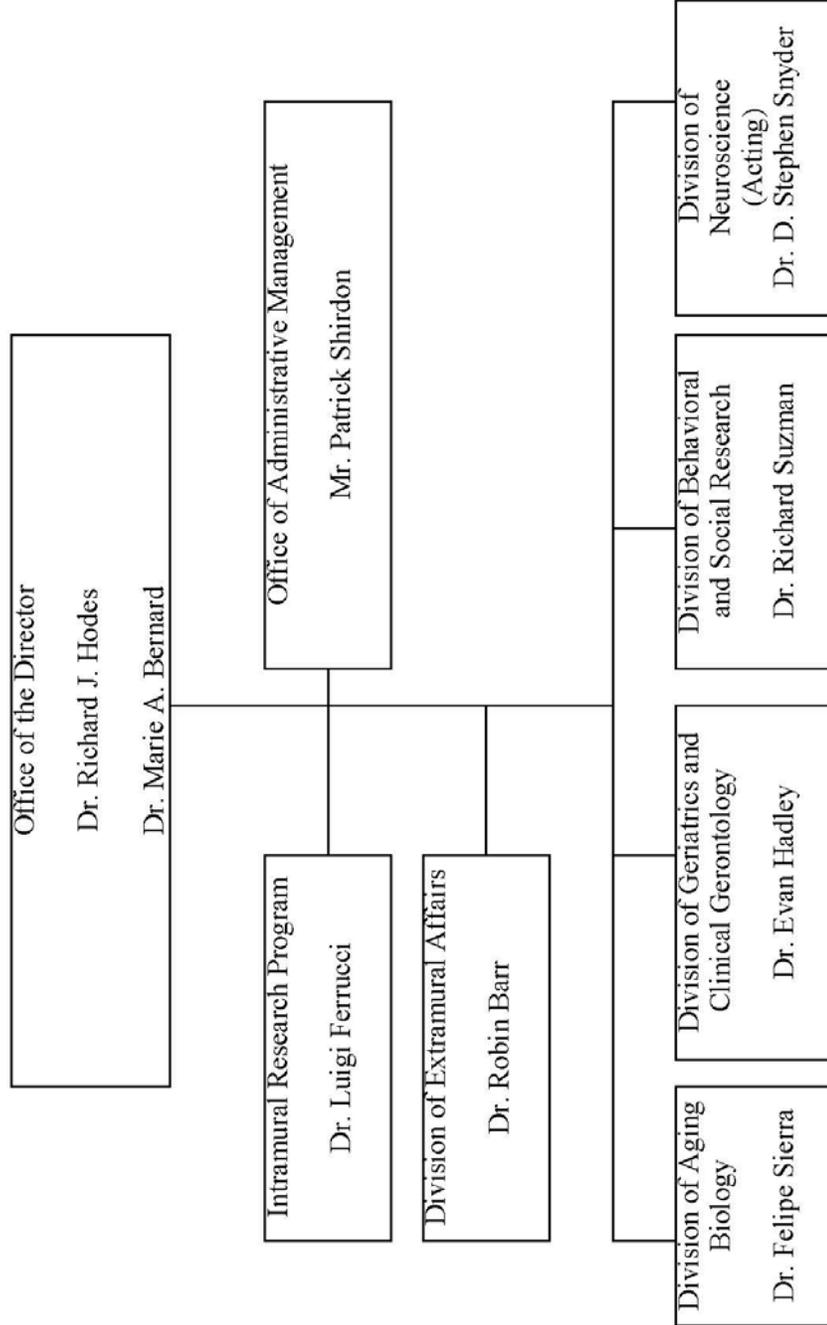
NATIONAL INSTITUTES OF HEALTH

National Institute on Aging (NIA)

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**NATIONAL INSTITUTES OF HEALTH
National Institute on Aging**

Organizational Structure



NATIONAL INSTITUTES OF HEALTH

National Institute on Aging

For carrying out section 301 and title IV of the Public Health Services Act with respect to aging,
[\$1,105,530,000] \$1,102,650,000. (*Department of Health and Human Services Appropriations
Act, 2012.*)

National Institute on Aging

Amounts Available for Obligation ¹
(Dollars in Thousands)

Source of Funding	FY 2011 Actual	FY 2012 Enacted	FY 2013 PB
Appropriation	1,110,229	1,105,530	1,102,650
Type 1 Diabetes	0	0	0
Rescission	(9,748)	(2,089)	0
Supplemental	0	0	0
Subtotal, adjusted appropriation	1,100,481	1,103,441	1,102,650
Real transfer under Secretary's transfer authority	0	(314)	0
Comparative Transfers to NCATS for Therapeutics and Rare and Neglected Diseases (TRND)	(906)	0	0
Comparative Transfers to NLM for NCBI and Public Access	(944)	(999)	0
Subtotal, adjusted budget authority	1,098,631	1,102,128	1,102,650
Unobligated balance, start of year	0	0	0
Unobligated balance, end of year	0	0	0
Subtotal, adjusted budget authority	1,098,631	1,102,128	1,102,650
Unobligated balance lapsing	(36)	0	0
Total obligations	1,098,595	1,102,128	1,102,650

¹ Excludes the following amounts for reimbursable activities carried out by this account:
FY 2011 - \$11,188 FY 2012 - \$11,188 FY 2013 - \$11,188

NATIONAL INSTITUTES OF HEALTH
National Institute on Aging
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	1,005	\$538,823	1,061	\$548,110	1,070	\$523,025	9	(\$25,085)
Administrative Supplements	69	6,357	69	6,357	69	6,357	0	0
Competing:								
Renewal	78	55,703	133	53,079	143	56,499	10	3,420
New	312	100,404	239	95,674	274	108,433	35	12,759
Supplements	5	1,975	5	1,882	5	1,863	0	(19)
Subtotal, Competing	395	\$158,082	377	\$150,635	422	\$166,795	45	\$16,160
Subtotal, RPGs	1,400	\$703,262	1,438	\$705,102	1,492	\$696,177	54	(\$8,925)
SBIR/STTR	62	\$26,457	66	\$28,039	69	\$28,727	3	\$688
Research Project Grants	1,462	\$729,719	1,504	\$733,141	1,561	\$724,904	57	(\$8,237)
<u>Research Centers</u>								
Specialized/Comprehensive	78	\$88,173	78	\$87,765	78	\$87,765	0	\$0
Clinical Research	0	0	0	0	0	0	0	0
Biotechnology	0	0	0	0	0	0	0	0
Comparative Medicine	0	1,208	0	1,190	0	1,190	0	0
Research Centers in Minority Institutions	0	0	0	0	0	0	0	0
Research Centers	78	\$89,381	78	\$88,955	78	\$88,955	0	\$0
<u>Other Research</u>								
Research Careers	215	\$28,442	215	\$28,442	215	\$28,442	0	\$0
Cancer Education	0	0	0	0	0	0	0	0
Cooperative Clinical Research	0	0	0	0	0	0	0	0
Biomedical Research Support	0	0	0	0	0	0	0	0
Minority Biomedical Research Support	0	0	0	0	0	0	0	0
Other	52	5,031	52	5,031	52	5,031	0	0
Other Research	267	\$33,473	267	\$33,473	267	\$33,473	0	\$0
Total Research Grants	1,807	\$852,573	1,849	\$855,569	1,906	\$847,332	57	(\$8,237)
<u>Research Training</u>								
Individual Awards	187	\$7,232	185	\$7,232	182	\$7,232	(3)	\$0
Institutional Awards	440	17,595	433	17,595	426	17,595	(7)	0
Total Research Training	627	\$24,827	618	\$24,827	608	\$24,827	(10)	\$0
Research & Development Contracts	133	\$63,218	133	\$63,755	133	\$72,514	0	\$8,759
<i>SBIR/STTR</i>	<i>1</i>	<i>\$40</i>	<i>1</i>	<i>\$40</i>	<i>1</i>	<i>\$40</i>	<i>0</i>	<i>\$0</i>
Intramural Research	252	\$115,525	252	\$115,525	250	\$115,525	(2)	\$0
Research Management and Support	152	42,488	152	42,452	150	42,452	(2)	0
Construction		0		0		0		0
Buildings and Facilities		0		0		0		0
Total NIA	404	\$1,098,631	404	\$1,102,128	400	\$1,102,650	(4)	\$522

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 budget request for NIA, which is \$.522 million more than the FY 2012 level, for a total of \$1,102.7 million.

Research Project Grants (-\$8.237 million; total \$724.904 million): NIA will award a total of 1,561 RPGs, an increase of 57 from FY 2012. The decline in RPG funding is due to a decline in Noncompeting Commitments, a \$25.1 million decline from FY 2012. 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 and Development Contracts (+\$8.759 million; total \$72.514 million): Funds are included in R&D contracts to support trans-NIH initiatives, such as the Basic Behavioral and Social Sciences Opportunity Network (OppNet).

Intramural Research (total \$115.525 million): NIA will continue work to identify areas of potential savings within the Intramural Research Program that will allow the institute to continue to achieve its program goals and accomplishments, with a small reduction in FTE.

Research Management and Support (total \$42.452 million): The NIA oversees 1,906 research grants, 608 full-time training positions, and 133 research and development contracts. Funding will be used to cover the expenses associated with providing for the effective, administrative, planning and evaluation, public information and communications, and scientific leadership of the institute. NIA will make incremental reductions and find cost savings in administrative areas to absorb cost increases, and a small reduction in FTE.

NATIONAL INSTITUTES OF HEALTH
National Institute on Aging
Summary of Changes
(Dollars in Thousands)

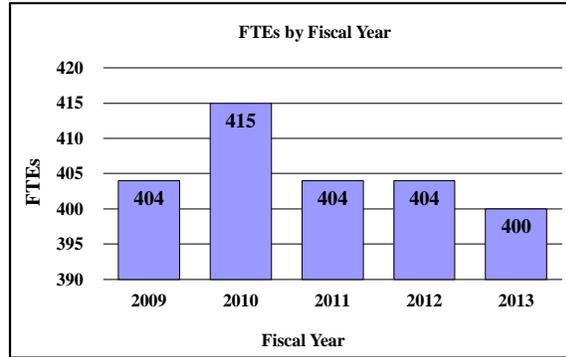
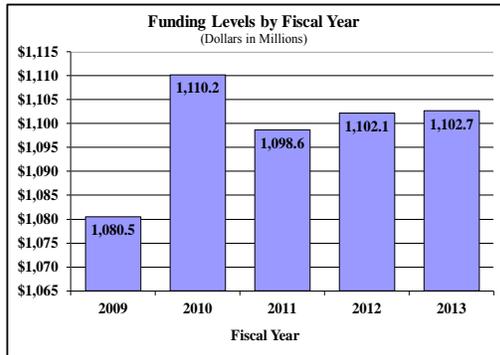
FY 2012 Enacted				\$1,102,128
FY 2013 President's Budget				\$1,102,650
Net change				\$522
CHANGES	2013 President's Budget		Change from FY 2012	
	FTEs	Budget Authority	FTEs	Budget Authority
A. Built-in:				
1. Intramural Research:				
a. Annualization of January 2012 pay increase & benefits		\$43,514		\$0
b. January FY 2013 pay increase & benefits		43,514		133
c. One more day of pay		43,514		167
d. Annualization of PY net hires		43,514		0
e. Payment for centrally furnished services		11,325		0
f. Increased cost of laboratory supplies, materials, other expenses, and non-recurring costs		60,686		0
Subtotal				\$300
2. Research Management and Support:				
a. Annualization of January 2012 pay increase & benefits		\$22,315		\$1
b. January FY 2013 pay increase & benefits		22,315		70
c. One more day of pay		22,315		86
d. Annualization of PY net hires		22,315		0
e. Payment for centrally furnished services		5,339		0
f. Increased cost of laboratory supplies, materials, other expenses, and non-recurring costs		14,798		0
Subtotal				\$158
Subtotal, Built-in				\$458

NATIONAL INSTITUTES OF HEALTH
National Institute on Aging
Summary of Changes--continued

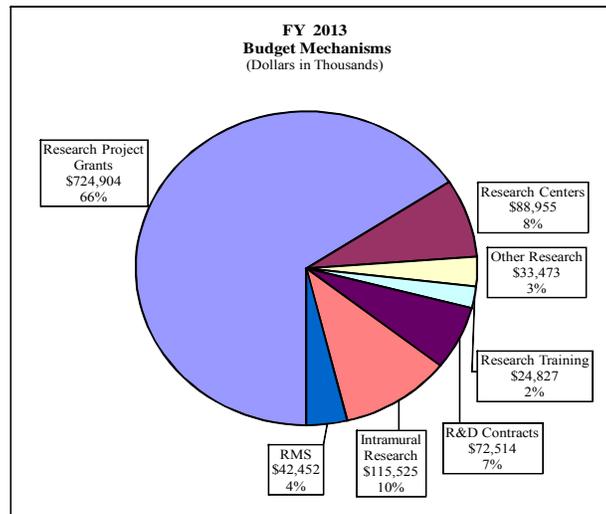
CHANGES	2013 President's Budget		Change from FY 2012	
	No.	Amount	No.	Amount
B. Program:				
1. Research Project Grants:				
a. Noncompeting	1,070	\$529,382	9	(\$25,085)
b. Competing	422	166,795	45	16,160
c. SBIR/STTR	69	28,727	3	688
Total	1,561	\$724,904	57	(\$8,237)
2. Research Centers	78	\$88,955	0	\$0
3. Other Research	267	33,473	0	0
4. Research Training	608	24,827	(10)	0
5. Research and development contracts	133	72,514	0	8,759
Subtotal, Extramural		\$944,673		\$522
6. Intramural Research	<u>FTEs</u> 250	\$115,525	<u>FTEs</u> (2)	(\$300)
7. Research Management and Support	150	42,452	(2)	(158)
8. Construction		0		0
9. Buildings and Facilities		0		0
Subtotal, program	400	\$1,102,650	(4)	\$64
Total changes				\$522

Fiscal Year 2013 Budget Graphs

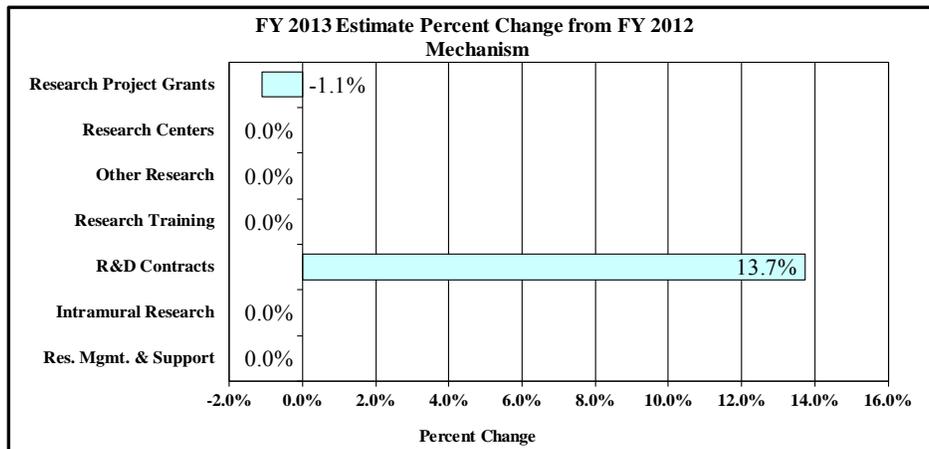
History of Budget Authority and FTEs:



Distribution by Mechanism:



Change by Selected Mechanism:



NATIONAL INSTITUTES OF HEALTH
National Institute on Aging
Budget Authority by Activity
(Dollars in Thousands)

	FY 2011 Actual		FY 2012 Enacted		FY 2013 PB		Change vs. FY 2012 Enacted	
	<u>FTEs</u>	<u>Amount</u>	<u>FTEs</u>	<u>Amount</u>	<u>FTEs</u>	<u>Amount</u>	<u>FTEs</u>	<u>Amount</u>
<u>Extramural Research</u>								
Detail:								
Aging Biology		\$175,495		\$176,154		\$176,251		97
Behavioral & Social Research		194,330		195,060		195,167		107
Neuroscience		436,866		438,507		438,751		244
Geriatrics & Clinical Gerontology		133,927		134,430		134,504		74
Subtotal, Extramural		\$940,618		\$944,151		\$944,673		\$522
Intramural Research	252	\$115,525	252	\$115,525	250	\$115,525	(2)	\$0
Research Management & Support	152	\$42,488	152	\$42,452	150	\$42,452	(2)	\$0
TOTAL	404	\$1,098,631	404	\$1,102,128	400	\$1,102,650	(4)	\$522

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 on Aging**

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	\$1,102,128,000	Indefinite	\$1,102,650,000
National Institute on Aging	Section 401(a)	42§281	Indefinite		Indefinite	
Total Budget Authority				\$1,102,128,000		\$1,102,650,000

NATIONAL INSTITUTES OF HEALTH
National Institute on Aging

Appropriations History

Fiscal Year	Budget Estimate to Congress	House Allowance	Senate Allowance	Appropriation
2004	\$994,411,000	\$994,411,000	\$1,031,411,000	\$1,024,598,000
Rescission				(\$6,557,000)
2005	\$1,055,666,000	\$1,055,666,000	\$1,094,500,000	\$1,060,666,000
Rescission				(\$8,676,000)
2006	\$1,057,203,000	\$1,057,203,000	\$1,090,600,000	\$1,057,203,000
Rescission				(\$10,572,000)
2007	\$1,039,828,000	\$1,039,828,000	\$1,039,828,000	\$1,039,828,000
Rescission				\$0
2008	\$1,047,148,000	\$1,062,833,000	\$1,073,048,000	\$1,047,260,000
Rescission				(\$18,621,000)
Supplemental				\$0
2009	\$1,048,278,000	\$1,084,321,000	\$1,077,448,000	\$1,080,796,000
Rescission				\$0
2010	\$1,093,413,000	\$1,119,404,000	\$1,099,409,000	\$1,110,229,000
Rescission				\$0
2011	\$1,142,337,000		\$1,140,547,000	\$1,110,229,000
Rescission				(\$9,748,472)
2012	\$1,129,987,000	\$1,129,987,000	\$1,088,091,000	\$1,105,530,000
Rescission				(\$2,089,452)
2013	\$1,102,650,000			

Justification of Budget Request

National Institute on Aging

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

Budget Authority:

	FY 2011 Actual	FY 2012 Enacted	FY 2013 President's Budget	FY 2013 +/- FY 2012
BA	\$1,098,631,000	\$1,102,128,000	\$1,102,650,000	+522,000
FTE	404	404	400	-4

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

Director's Overview

The National Institute on Aging (NIA) leads a national scientific effort to understand the nature of aging in order to promote the health and well-being of older adults. NIA's mission is to support and conduct genetic, biological, clinical, behavioral, social, and economic research related to the aging process, diseases and conditions associated with aging, and other special problems and needs of older Americans; foster the development of research and clinician-scientists for research on aging; and communicate information about aging and advances in research on aging with the scientific community, health care providers, and the public. We carry out our mission by supporting extramural research at universities, research centers, and medical centers across the United States and around the world as well as a vibrant intramural research program at NIA laboratories in Baltimore and Bethesda, Maryland.

The American population as a whole is rapidly aging; by 2030, there will be some 72 million Americans ages 65 or older – more than double the number in that age group in 2000. The number of “oldest old” – people age 85 or older – is expected to more than triple between 2008 and 2050.¹ Population aging is causing profound changes to our economic, health care, and social systems. With age a primary risk factor for many disabling diseases and conditions, it is imperative that we discover new and effective ways to make added years as healthy and productive as possible, continuing the recent trend of decline in disability across all segments of the population. Through its broad and diverse research programs, NIA is well poised to address these challenges.

A major priority for NIA is investment in research on the aging process at the most fundamental levels. New and emerging technologies such as genome-wide association studies (rapid comparisons of the full genomes of thousands of individuals), as well as related “deep-sequencing” technologies, are supporting and accelerating basic discovery, particularly the

¹ Federal Interagency Forum on Aging-Related Statistics. Older Americans 2010: Key Indicators of Well-Being. Federal Interagency Forum on Aging-Related Statistics. Washington, DC: U.S. Government Printing Office. July 2010. <http://www.agingstats.gov>.

identification of genes or genetic alterations involved in disease, disability, or the aging process itself. Recently, an international team of scientists led by NIA intramural researchers found that human aging is associated with a small number of focused changes in gene expression, mainly in individual genes associated with immune cell function.² Many of the changes appeared to be involved with processing messenger RNA – the molecule that carries information from the nucleus of the cell into the cytoplasm, where it is instrumental in developing proteins. These findings suggest that disruption to messenger RNA processing may be a key underpinning of human aging processes. Elsewhere, NIA-supported investigators were part of an international team that identified the most common genetic causes known to date for two devastating neurological diseases, amyotrophic lateral sclerosis and frontotemporal dementia – a milestone discovery that offers clues to these diseases’ underlying mechanisms and may contribute to the design and testing of possible therapies. Initiatives to explore the basic biology of aging from a systems perspective – i.e., by investigating the complex interactions among individual gene products, biochemical pathways and cell biological mechanisms that impact aging,– and to elucidate the effects of aging at the single-cell level began in FY 2011 and will continue to be active in FY 2013.

NIA supports a comprehensive portfolio of research that builds on basic discovery to develop new preventive, diagnostic, and therapeutic interventions for age-related diseases and conditions. For example, the identification of relevant Alzheimer’s Disease (AD) biomarkers through the groundbreaking Alzheimer’s Disease Neuroimaging Initiative, along with a deeper understanding of the disease’s pathology and clinical course, have facilitated the first revision of the clinical diagnostic criteria for AD in 27 years. These new criteria address for the first time the use of imaging and biomarkers in blood and spinal fluid, and unlike the previous guidelines they cover the full spectrum of the disease, from mild cognitive impairment (MCI) through clinical dementia. To expand and intensify the translation of basic research findings into clinical studies and human trials, NIA, the National Institute of Neurological Diseases and Stroke, and the National Institute of Mental Health support an AD Translational and Drug Discovery Initiative that currently funds over 40 projects, including a number of pilot clinical trials. In a recent, highly promising pilot trial, a nasal-spray form of insulin delayed memory loss and preserved cognition in people with cognitive deficits ranging from MCI to moderate AD. A larger-scale study to confirm and extend these results is under development.

Other NIA-supported clinical trials include the LIFE Study (determining whether a structured exercise program can prevent mobility disability in older people) as well as trials of interventions for osteoporosis, hypertension, anemia, chronic pain, diabetes, and other conditions.

NIA also continues to support research on the economic implications of aging and health care reform. In an ongoing study, the state of Oregon randomly assigned 10,000 low-income uninsured adults to the state’s Medicaid program (out of a pool of 90,000 individuals who applied). The initial results from this study indicate that enrollees increased use of health care services and therefore program costs, but also reported improved health and well-being and reduced financial strain.

² Harries LW et al. Human aging is characterized by focused changes in gene expression and deregulation of alternative splicing. *Aging Cell* 10: 868-878, 2011.

Finally, NIA supports several innovative programs dedicated to the task of training the next generation of aging researchers. For example, the prestigious Paul B. Beeson Career Development Awards in Aging Research, co-funded by NIA and several philanthropic concerns, support outstanding junior and mid-career faculty committed to academic careers in aging-related research, training, and practice. Beeson scholars are emerging as leaders in the field of aging research. NIA's new Grants for Early Medical/Surgical Specialists Transition to Aging Research (GEMSSTAR) program provides support for early stage clinician-scientists who have recently completed their clinical training and are embarking on a career in aging research in their specialty area. Recognizing the need to promote diversity in the research workforce, NIA also participates in the NIH Clinical Research Education and Career Development (CRECD) Program, which provides grant support to minority institutions that offer doctoral degrees in the health professions or in a health-related science.

For a comprehensive overview of NIA's plans and priorities, see *Living Long and Well in the 21st Century: Strategic Directions for Research on Aging*, at www.nia.nih.gov/about/living-long-well-21st-century-strategic-directions-research-aging.

Overall Budget Policy: The FY 2013 President's Budget request for NIA is \$1,102.650 million, an increase of \$0.522 million, over the FY 2012 Enacted level.

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

Biology of Aging Program: Understanding Aging Processes, Health, and Longevity

Investigators supported by NIA's Biology of Aging Program seek to improve our understanding of the basic biological mechanisms underlying the process of aging and age-related diseases. Basic biochemical, genetic, and physiological studies are carried out primarily in animal models, including both mammals and non-mammalian organisms (e.g., flies, worms, yeast). The program's goal is to provide the biological basis for interventions in the process of aging, which is the major risk factor for many chronic diseases affecting the American population. Initiatives that will remain active during FY 2013 include the Interventions Testing Program to identify compounds that extend median and/or maximal life span in a mouse model; an initiative to explore the basic biology of aging from a systems perspective – i.e., by investigating the complex interactions at the single-cell level among individual gene products, biochemical pathways and cell biological mechanisms that impact aging, as well as interactions between tissues; and studies to identify neural, neuroendocrine, and other mechanisms that influence age-related changes in bone metabolism and health. The program also coordinates the Nathan Shock Centers of Excellence in the Basic Biology of Aging.

Budget Policy: The FY 2013 President's Budget request is \$176.251 million, an increase of \$0.097 million, over the FY 2012 Enacted level.

Behavioral and Social Research Program: Understanding and Addressing the Behavioral, Emotional, and Social Dynamics of Aging

NIA's Behavioral and Social Research Program supports social and behavioral research to increase our understanding of the processes of aging at the individual, institutional, and societal levels. Research areas include the behavioral, psychological, and social changes individuals experience over the adult lifespan; participation of older people in the economy, families, and communities; the development of interventions to improve the health and cognition of older adults, and the societal impact of population aging and of trends in labor force participation, including fiscal effects on the Medicare and Social Security programs. The program also supports research training; development of research resources such as publicly available, cross-nationally comparable studies that support research to understand the sources of international variations in health outcomes; interdisciplinary studies that integrate biological and genetic measures with traditional social, behavioral and economic measures; longitudinal studies; and interventions to maximize active life and health expectancy. The program coordinates the long-running Health and Retirement Study, the nation's leading source of combined data on health and financial circumstances of Americans over age 50; the Centers on the Demography and Economics of Aging; the Roybal Centers for Translational Research on Aging; and the Resource Centers for Minority Aging Research (RCMARs). A major program activity for FY 2013 will be the coordination of a broad trans-NIH initiative to improve our understanding of the basic mechanisms of behavior change by bridging work in the laboratory and the field.

Budget Policy: The FY 2013 President's Budget request is \$195.167 million, an increase of \$0.107 million, over the FY 2012 Enacted level.

Neuroscience Program: Understanding, Preventing, and Treating Cognitive Decline and Disability

NIA's Neuroscience Program supports a broad spectrum of research and training aimed at better understanding age-related normal and pathological changes in the structure and function of the aging nervous system and how such changes affect behavior. The program's basic mission is to expand knowledge on the aging nervous system to allow improvement in the quality of life of older people. Activities include basic and clinical studies of the nervous system, clinical trials of treatments and preventive interventions for neurological disease, and epidemiological research to identify risk factors and to establish prevalence and incidence estimates of pathologic conditions. Additionally, this program supports research relevant to problems arising from psychiatric and neurological disorders associated with aging. NIA is also the lead federal agency for research on Alzheimer's disease (AD). The Institute supports a national network of Alzheimer's Disease Centers to translate research advances into improved diagnosis and care of AD patients while pursuing development of effective preventive and treatment interventions for AD, as well as a broad array of initiatives aimed at improving our understanding of this disease.

Budget Policy: The FY 2013 President's Budget request is \$438.751 million, an increase of \$0.244 million, over the FY 2012 Enacted level.

Program Portrait: Prevention and Treatment of Alzheimer's Disease

FY 2012 Level: \$271.4 million

FY 2013 Level: \$271.5 million

Difference: \$0.1 million

Millions of Americans currently have Alzheimer's disease, and millions more are at risk. Unfortunately, the only agent shown to delay clinical diagnosis of AD in people with mild cognitive impairment (donepezil [Aricept®]) appears to forestall the transition from MCI to full-blown AD for only a brief period of time, and the few agents that have been approved by the Food and Drug Administration for treatment of AD have demonstrated only modest effects in modifying the clinical symptoms for relatively short periods. However, a number of promising findings are now emerging to provide directions for potential interventions, and the NIA is at the forefront of efforts to prevent and treat AD.

The development of new drugs is a primary focus of our efforts, particularly through our AD Translational and Drug Discovery Initiative, which supports the development of investigational agents from basic discovery through early clinical trials. Over 40 projects are currently funded through this program, including a number of pilot clinical trials. In a recent, highly promising pilot trial, a nasal-spray form of insulin delayed memory loss and preserved cognition in people with cognitive deficits ranging from MCI to moderate AD. A larger-scale study to confirm and extend these results was developed and is under consideration, and the Translational and Drug Discovery Initiative will be active in FY 2013.

The cornerstone of the NIA's AD clinical trials effort is the Alzheimer's Disease Cooperative Study (ADCS). Since its establishment in 1991, the ADCS has initiated 30 research studies (23 drug trials and 7 instrument development protocols). There are currently 35 ADCS member sites and over 50 affiliated sites around the nation. Ongoing studies include a phase III clinical trial of intravenous immunoglobulin (IVIg) for the treatment of mild to moderate AD. IVIg is a type of immune therapy that carries antibodies against beta amyloid, the accumulation of which leads to the formation of the AD characteristic amyloid plaques. Research has shown that people who receive IVIg treatment for other conditions (e.g., immune deficiency and autoimmune disease) may also have a reduced risk of developing AD later in life. The IVIg study will be completed in FY 2013.

Alzheimer's research at NIH crosses both budget activity details and mechanisms as part of our efforts to identify preventive/treatment interventions.

Geriatrics and Clinical Gerontology Program: Reducing Disease and Disability among Older People

As we age, our risk for many types of disease and/or disability increases dramatically. NIA's Geriatrics and Clinical Gerontology Program supports research on health, disease, and disability in the aged (other than neurodegeneration, which is the focus of the NIA's Neuroscience Program). Areas of focus include age-related physical changes and their relationship to health outcomes, the maintenance of health and the development of disease, and specific age-related risk factors for disease. Program staff work closely with other NIH Institutes to coordinate research on diseases and conditions that are common among older people (for example, a long-term partnership with National Cancer Institute encourages coordination of aging and cancer research) or represent a growing threat (for example, an ongoing collaboration with National Institute of Allergy and Infectious Diseases addresses the increasing incidence of HIV/AIDS among older Americans). The program also plans and administers clinical trials for a number of age-related conditions. In addition, the program coordinates the Claude D. Pepper Older Americans Independence Centers Program, the goal of which is to increase scientific knowledge leading to better ways to maintain or restore independence in older persons.

Budget Policy: The FY 2013 President's Budget request is \$134.504 million, an increase of \$0.074 million, over the FY 2012 Enacted level.

Program Portrait: Understanding Menopause and Treating Its Symptoms

FY 2012 Level: \$27.1 million

FY 2013 Level: \$27.1 million

Difference: \$0.0 million

As recently as 20 years ago, scientists knew little about how women navigate the menopausal transition. In 1994, the Study of Women's Health Across the Nation (SWAN), the first major longitudinal study of the biological, behavioral, and psychosocial changes that occur in women as they transition from pre- to postmenopause, was established. Supported by the NIA, the National Institute of Nursing Research, and the NIH Office of Research on Women's Health, SWAN has provided a wealth of information about how women age in America. As the original participants reach their postmenopausal years, SWAN is transitioning to a study of aging in women that will advance our understanding of how modifiable risk factors related to the menopause transition are linked to health outcomes later in life. This may lead to improved strategies for preventing disease and maintaining robust health in older women. SWAN will be active in FY 2013.

NIA also supports studies of interventions for menopausal symptoms such as hot flashes. Menopausal hormone therapy (MHT) was once the mainstay of such treatment. However, after landmark results from the NIH-supported Women's Health Initiative demonstrated that certain forms of MHT were associated with dangerous long-term side effects, researchers began to seek alternative interventions. The MsFLASH (Menopause Strategies: Finding Lasting Answers for Symptoms and Health) network was created to conduct clinical trials aimed at finding new, safe, effective treatment options for women experiencing menopausal symptoms. Recently, MsFLASH investigators found that the antidepressant escitalopram (Lexapro) significantly reduced hot flashes in perimenopausal women. MsFLASH will be active into FY 2013.

NIA supports a number of other studies exploring the physical, emotional, and cognitive outcomes of the menopausal transition, including the KEEPS Cognitive and Affective Study and the Women's Health Study of Cognitive Aging. Research in this important area will be ongoing in FY 2013

Program Portrait: The LIFE Study: Can Physical Activity Prevent Mobility Disability in At-Risk Elders?

FY 2012 Level: \$11.0 million

FY 2013 Level: \$11.9 million

Difference: +\$0.9 million

The National Heart, Lung, and Blood Institute is providing cofunding for this initiative of: \$2.8 million in FY12, \$1.8 million in FY13.

The ability to move without assistance is a vital component of independence. Older people who retain their mobility are more likely than their less active counterparts to remain in their communities; have lower rates of illness and hospitalization; and experience a higher quality of life. Studies have shown that regular physical activity can improve physical performance in older people, but there is no definitive evidence that physical activity can prevent mobility disability.

The NIA-supported Lifestyle Interventions and Independence for Elders (LIFE) Study was designed to provide such evidence. The LIFE Study is a Phase 3, multicenter randomized controlled trial to compare the effects of structured physical activity program to a successful aging health education program in 1,600 sedentary older individuals. The primary study outcome is major mobility disability, defined as inability to walk 400 meters in 15 minutes, but the investigators are also assessing the intervention's effects on cognition, falls, overall mortality and an array of other functional outcomes of importance to older individuals. The intervention's cost effectiveness will also be established.

Results of a pilot study (LIFE-P) completed in 2005 suggested that a structured physical activity program could improve physical performance in sedentary older people, and that some of benefits of the intervention could be sustained for up to two years after the intervention ended. The current study, which will confirm and expand the LIFE-P findings, was initially supported through American Recovery and Reinvestment Act funds and is now funded through NIA's annual appropriation. Recruitment is ahead of schedule, and we anticipate completing the study in 2015.

LIFE is one of a number of ongoing studies to evaluate more precisely the effects of exercise or physical activity programs on physical and cognitive health in older people. Recognizing the value of exercise, the NIA has recently unveiled its nationwide *Go4Life* campaign, which is designed to motivate older Americans to become physically active for the first time, return to exercise after a break in their routines, or build more exercise and physical activity into weekly routines. The campaign can be found at: www.nia.nih.gov/Go4Life.

Intramural Research (IRP)

NIA's Intramural Research Program conducts research in the areas of basic, behavioral, clinical, epidemiologic and translational research. High priority research endeavors and areas of specific focus include: *Molecular and Cellular Biology*, including caloric restriction, cell cycle control, signal transduction, DNA damage and repair, physiology, and medicinal chemistry; *Neuroscience*, including neurodegenerative diseases, drug design and development, and neuronal cell apoptosis; *Genetics*, particularly genetic determinants of aging as an integrated part of human development; *Behavioral Research*, including personality, cognition, and psychophysiology; *Clinical and Translational Research* in the disciplines of cardiology, oncology, immunology, neurology, and endocrinology; and *Epidemiology*, including studies of frailty, cognition, body composition, disability, molecular biomarkers of aging. The clinical research effort focuses on the translation of basic research findings, prevention and therapeutic clinical trials focused on age-associated diseases, modulation of treatment efficacy and toxicity in older patients, and establishment of and maintenance of diverse longitudinal cohorts for aging research. Many studies focus on common age-related diseases such as Alzheimer's disease,

Parkinson's disease, stroke, atherosclerosis, and diabetes. Others, such as the groundbreaking Baltimore Longitudinal Study of Aging, explore the determinants of healthy aging. Work is also continuing on the Healthy Aging in Neighborhoods of Diversity Across the Life Span (HANDLS) study, which is examining the influences of race and socioeconomic status on the development of age-related health disparities among socioeconomically diverse African Americans and whites living in Baltimore.

Budget Policy: The FY 2013 President's Budget request is \$115.525 million, the same as the FY 2012 Enacted level.

Research Management and Support (RMS)

NIA 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. The Institute currently oversees more than 1,300 research project grants and centers, as well as 556 full-time training positions and 100 research and support contracts.

Budget Policy: The FY 2013 President's Budget request is \$42.452 million, the same as the FY 2012 Enacted level.

Common Fund

The NIA participates in the support of the following initiatives funded through the NIH Common Fund:

- Interdisciplinary Research Consortium
- Using Metabolomics to Investigate Biological Pathways and Networks
- Supplements for Methodological Innovations – Behavioral and Social Science

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**Budget Authority by Object
(Dollars in Thousands)**

	FY 2012 Enacted	FY 2013 PB	Increase or Decrease
Total compensable workyears:			
Full-time employment	404	400	(4)
Full-time equivalent of overtime and holiday hours	0	0	0
Average ES salary (<i>in dollars</i>)	\$179,700	\$179,700	\$0
Average GM/GS grade	11.9	11.9	0.0
Average GM/GS salary (<i>in dollars</i>)	\$95,832	\$96,215	\$383
Average salary, grade established by act of July 1, 1944 (42 U.S.C. 207) (<i>in dollars</i>)	\$107,691	\$108,122	\$431
Average salary of ungraded positions (<i>in dollars</i>)	138,844	139,399	555
OBJECT CLASSES	FY 2012 Enacted	FY 2013 PB	Increase or Decrease
Personnel Compensation:			
11.1 Full-time permanent	\$27,520	\$27,314	(\$206)
11.3 Other than full-time permanent	15,289	15,322	33
11.5 Other personnel compensation	1,152	1,153	1
11.7 Military personnel	492	499	7
11.8 Special personnel services payments	8,255	8,323	68
Total, Personnel Compensation	\$52,708	\$52,611	(\$97)
12.0 Personnel benefits	\$12,898	\$12,862	(\$36)
12.2 Military personnel benefits	406	404	(2)
13.0 Benefits for former personnel	0	0	0
Subtotal, Pay Costs	\$66,012	\$65,877	(\$135)
21.0 Travel and transportation of persons	\$1,321	\$1,321	\$0
22.0 Transportation of things	88	88	0
23.1 Rental payments to GSA	0	0	0
23.2 Rental payments to others	3	3	0
23.3 Communications, utilities and miscellaneous charges	863	863	0
24.0 Printing and reproduction	38	38	0
25.1 Consulting services	1,231	1,318	87
25.2 Other services	12,685	13,005	320
25.3 Purchase of goods and services from government accounts	91,921	98,606	6,685
25.4 Operation and maintenance of facilities	288	288	0
25.5 Research and development contracts	35,150	36,952	1,802
25.6 Medical care	311	311	0
25.7 Operation and maintenance of equipment	2,230	2,230	0
25.8 Subsistence and support of persons	0	0	0
25.0 Subtotal, Other Contractual Services	\$143,816	\$152,710	\$8,894
26.0 Supplies and materials	\$8,034	\$8,034	\$0
31.0 Equipment	1,553	1,553	0
32.0 Land and structures	0	0	0
33.0 Investments and loans	0	0	0
41.0 Grants, subsidies and contributions	880,396	872,159	(8,237)
42.0 Insurance claims and indemnities	0	0	0
43.0 Interest and dividends	4	4	0
44.0 Refunds	0	0	0
Subtotal, Non-Pay Costs	\$1,036,116	\$1,036,773	\$657
Total Budget Authority by Object	\$1,102,128	\$1,102,650	\$522

Includes FTEs which are reimbursed from the NIH Common Fund.

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Salaries and Expenses
(Dollars in Thousands)

OBJECT CLASSES	FY 2012 Enacted	FY 2013 PB	Increase or Decrease
Personnel Compensation:			
Full-time permanent (11.1)	\$27,520	\$27,314	(\$206)
Other than full-time permanent (11.3)	15,289	15,322	33
Other personnel compensation (11.5)	1,152	1,153	1
Military personnel (11.7)	492	499	7
Special personnel services payments (11.8)	8,255	8,323	68
Total Personnel Compensation (11.9)	\$52,708	\$52,611	(\$97)
Civilian personnel benefits (12.1)	\$12,898	\$12,862	(\$36)
Military personnel benefits (12.2)	406	404	(2)
Benefits to former personnel (13.0)	0	0	0
Subtotal, Pay Costs	\$66,012	\$65,877	(\$135)
Travel (21.0)	\$1,321	\$1,321	\$0
Transportation of things (22.0)	88	88	0
Rental payments to others (23.2)	3	3	0
Communications, utilities and miscellaneous charges (23.3)	863	863	0
Printing and reproduction (24.0)	38	38	0
Other Contractual Services:			
Advisory and assistance services (25.1)	1,231	1,318	87
Other services (25.2)	12,685	13,005	320
Purchases from government accounts (25.3)	58,487	58,540	53
Operation and maintenance of facilities (25.4)	288	288	0
Operation and maintenance of equipment (25.7)	2,230	2,230	0
Subsistence and support of persons (25.8)	0	0	0
Subtotal Other Contractual Services	\$74,921	\$75,381	\$460
Supplies and materials (26.0)	\$8,032	\$8,032	\$0
Subtotal, Non-Pay Costs	\$85,266	\$85,726	\$460
Total, Administrative Costs	\$151,278	\$151,603	\$325

**NATIONAL INSTITUTES OF HEALTH
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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									
Direct:	26	0	26	26	0	26	26	0	26
Reimbursable:	0	0	0	0	0	0	0	0	0
Total:	26	0	26	26	0	26	26	0	26
Intramural Research Program									
Direct:	251	1	252	251	1	252	249	1	250
Reimbursable:	0	0	0	0	0	0	0	0	0
Total:	251	1	252	251	1	252	249	1	250
Office of Administrative Management									
Direct:	40	0	40	40	0	40	39	0	39
Reimbursable:	0	0	0	0	0	0	0	0	0
Total:	40	0	40	40	0	40	39	0	39
Division of Extramural Affairs									
Direct:	28	0	28	28	0	28	27	0	27
Reimbursable:	0	0	0	0	0	0	0	0	0
Total:	28	0	28	28	0	28	27	0	27
Division of Aging Biology									
Direct:	14	0	14	14	0	14	14	0	14
Reimbursable:	0	0	0	0	0	0	0	0	0
Total:	14	0	14	14	0	14	14	0	14
Division of Geriatrics & Clinical Gerontology									
Direct:	11	1	12	11	1	12	11	1	12
Reimbursable:	0	0	0	0	0	0	0	0	0
Total:	11	1	12	11	1	12	11	1	12
Division of Behavioral & Social Research									
Direct:	13	0	13	13	0	13	13	0	13
Reimbursable:	0	0	0	0	0	0	0	0	0
Total:	13	0	13	13	0	13	13	0	13
Division of Neuroscience									
Direct:	17	2	19	17	2	19	17	2	19
Reimbursable:	0	0	0	0	0	0	0	0	0
Total:	17	2	19	17	2	19	17	2	19
Total	400	4	404	400	4	404	396	4	400
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	11.6								
2010	11.8								
2011	11.9								
2012	11.9								
2013	11.9								

NATIONAL INSTITUTES OF HEALTH
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Detail of Positions

GRADE	FY 2011 Actual	FY 2012 Enacted	FY 2013 PB
Total, ES Positions	1	1	1
Total, ES Salary	179,700	179,700	179,700
GM/GS-15	34	34	34
GM/GS-14	44	44	44
GM/GS-13	55	55	51
GS-12	66	66	66
GS-11	29	29	29
GS-10	1	1	1
GS-9	31	31	31
GS-8	9	9	9
GS-7	18	18	18
GS-6	2	2	2
GS-5	0	0	0
GS-4	2	2	2
GS-3	0	0	0
GS-2	0	0	0
GS-1	0	0	0
Subtotal	291	291	287
Grades established by Act of July 1, 1944 (42 U.S.C. 207):			
Assistant Surgeon General	0	0	0
Director Grade	4	4	4
Senior Grade	0	0	0
Full Grade	0	0	0
Senior Assistant Grade	0	0	0
Assistant Grade	0	0	0
Subtotal	4	4	4
Ungraded	108	108	108
Total permanent positions	299	299	299
Total positions, end of year	404	404	400
Total full-time equivalent (FTE) employment, end of year	404	404	400
Average ES salary	179,700	179,700	179,700
Average GM/GS grade	11.9	11.9	11.9
Average GM/GS salary	95,832	95,832	96,215

Includes FTEs which are reimbursed from the NIH Common Fund.