

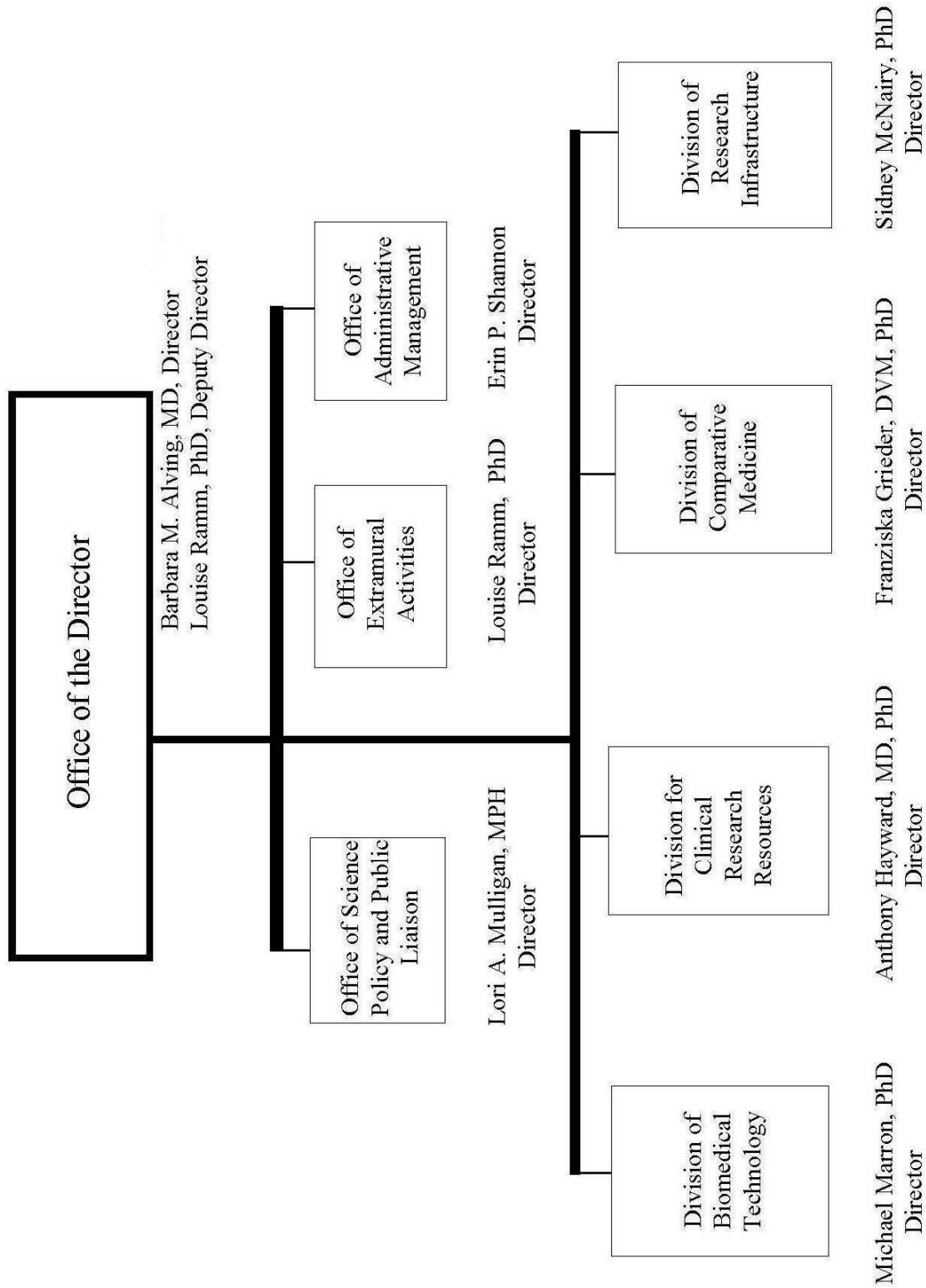
DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH

National Center for Research Resources

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National Center for Research Resources Organizational Chart



NATIONAL INSTITUTES OF HEALTH

National Center for Research Resources

For carrying out section 301 and title IV of the Public Health Service Act with respect to research resources and general research support grants, ~~\$1,169,884,000~~.

\$1,160,473,000 (Department of Health and Human Services Appropriation Act, 2008)

**National Institutes of Health
National Center for Research Resources**

Amounts Available for Obligation 1/

| Source of Funding | FY 2007 Actual | FY 2008 Enacted | FY 2009 Estimate |
|--|-------------------|--------------------|---------------------|
| Appropriation | \$1,133,101,000 | \$1,169,884,000 | \$1,160,473,000 |
| Pay cost add-on | 139,000 | 0 | 0 |
| Rescission | 0 | -20,438,000 | 0 |
| Subtotal, adjusted appropriation | 1,133,240,000 | 1,149,446,000 | 1,160,473,000 |
| Real transfer under Director's one-percent transfer authority (GEI) | -1,607,000 | 0 | 0 |
| Comparative transfer to NIBIB | -8,000 | 0 | 0 |
| Comparative transfer to OD | -4,000 | 0 | 0 |
| Comparative transfer to NCRR | 10,613,000 | 0 | 0 |
| Comparative transfer under Director's one-percent transfer authority (GEI) | 1,607,000 | 0 | 0 |
| Subtotal, adjusted budget authority | 1,143,841,000 | 1,149,446,000 | 1,160,473,000 |
| Subtotal, adjusted budget authority | 1,143,841,000 | 1,149,446,000 | 1,160,473,000 |
| Unobligated balance lapsing | -15,000 | 0 | 0 |
| Total obligations | 1,143,826,000 | 1,149,446,000 | 1,160,473,000 |

1/ Excludes the following amounts for reimbursable activities carried out by this account:
FY 2007 - \$6,415,000 FY 2008 -6,415,000 FY 2009 - \$6,415,000

**NATIONAL INSTITUTES OF HEALTH
National Center for Research Resources**

(Dollars in Thousands)

Budget Mechanism - Total

| MECHANISM | FY 2007 Actual | | FY 2008 Enacted | | FY 2009 Estimate | | Change | |
|---|-------------------|-----------|--------------------|-----------|---------------------|-----------|-------------|----------|
| | No. | Amount | No. | Amount | No. | Amount | No. | Amount |
| Research Grants: | | | | | | | | |
| Research Projects: | | | | | | | | |
| Noncompeting | 75 | \$24,471 | 79 | \$24,869 | 66 | \$20,072 | (13) | -\$4,797 |
| Administrative supplements | (4) | 176 | (3) | 193 | (3) | 193 | (0) | 0 |
| Competing: | | | | | | | | |
| Renewal | 5 | 1,934 | 10 | 2,920 | 9 | 2,554 | (1) | -366 |
| New | 20 | 5,202 | 22 | 6,205 | 24 | 6,905 | 2 | 700 |
| Supplements | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Subtotal, competing | 25 | 7,136 | 32 | 9,125 | 33 | 9,459 | 1 | 334 |
| Subtotal, RPGs | 100 | 31,783 | 111 | 34,187 | 99 | 29,724 | (12) | -4,463 |
| SBIR/STTR | 86 | 28,914 | 98 | 33,102 | 99 | 33,433 | 1 | 331 |
| Subtotal, RPGs | 186 | 60,697 | 209 | 67,289 | 198 | 63,157 | (11) | -4,132 |
| Research Centers: | | | | | | | | |
| Specialized/comprehensive | 94 | 217,885 | 96 | 217,830 | 96 | 217,830 | 0 | 0 |
| Clinical research | 78 | 322,191 | 83 | 355,839 | 68 | 369,839 | (15) | 14,000 |
| Biotechnology | 48 | 75,029 | 49 | 67,973 | 49 | 67,973 | 0 | 0 |
| Comparative medicine | 51 | 116,122 | 51 | 114,508 | 57 | 124,008 | 6 | 9,500 |
| Research Centers in Minority Institutions | 28 | 52,707 | 28 | 52,707 | 28 | 52,707 | 0 | 0 |
| Subtotal, Centers | 299 | 783,934 | 307 | 808,857 | 298 | 832,357 | (9) | 23,500 |
| Other Research: | | | | | | | | |
| Research careers | 155 | 41,521 | 159 | 46,047 | 160 | 46,147 | 1 | 100 |
| Cancer education | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cooperative clinical research | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Biomedical research support | 188 | 98,312 | 143 | 63,533 | 144 | 63,533 | 1 | 0 |
| Minority biomedical research support | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other | 161 | 71,810 | 156 | 73,102 | 150 | 63,602 | (6) | -9,500 |
| Subtotal, Other Research | 504 | 211,643 | 458 | 182,682 | 454 | 173,282 | (4) | -9,400 |
| Total Research Grants | 989 | 1,056,274 | 974 | 1,058,828 | 950 | 1,068,796 | (24) | 9,968 |
| Research Training: | | | | | | | | |
| Individual awards | 1 | 63 | 0 | 0 | 0 | 0 | 0 | 0 |
| Institutional awards | 124 | 5,303 | 132 | 5,210 | 132 | 5,254 | 0 | 44 |
| Total, Training | 125 | 5,366 | 132 | 5,210 | 132 | 5,254 | 0 | 44 |
| Research & development contracts (SBIR/STTR) | 80 | 54,244 | 69 | 54,100 | 69 | 54,645 | 0 | 545 |
| | (1) | (66) | (1) | (102) | (1) | (104) | (0) | (-2) |
| | <u>FTEs</u> | | <u>FTEs</u> | | <u>FTEs</u> | | <u>FTEs</u> | |
| Intramural research | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Research management and support | 108 | 27,957 | 108 | 31,308 | 109 | 31,778 | 1 | 470 |
| Construction | | 0 | | 0 | | 0 | | 0 |
| Buildings and Facilities | | 0 | | 0 | | 0 | | 0 |
| Total, NCRR | 108 | 1,143,841 | 108 | 1,149,446 | 109 | 1,160,473 | 1 | 11,027 |

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

NATIONAL INSTITUTES OF HEALTH
National Center for Research Resources

Budget Authority by Activity
(dollars in thousands)

| | FY 2005 Actual FTEs | FY 2005 Actual Amount | FY 2006 Actual FTEs | FY 2006 Actual Amount | FY 2007 Actual FTEs | FY 2007 Actual Amount | FY 2007 Comparable FTEs | FY 2007 Comparable Amount | FY 2008 Enacted FTEs | FY 2008 Enacted Amount | FY 2009 Estimate FTEs | FY 2009 Estimate Amount | Change FTEs | Change Amount |
|---|---------------------------|-----------------------------|---------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------------|---------------------------------|----------------------------|------------------------------|-----------------------------|-------------------------------|----------------|------------------|
| Extramural Research | | | | | | | | | | | | | | |
| <u>Detail:</u> | | | | | | | | | | | | | | |
| Clinical Research | | 366,563 | | 377,629 | | 389,439 | | 400,833 | | 440,234 | | 452,256 | | +12,022 |
| Clinical and Translational Science Awards/ General Clinical Research Centers | | 286,118 | | 302,106 | | 327,487 | | 327,487 | | 371,748 | | 391,748 | | +20,000 |
| Science Education Partnership Award | | 16,645 | | 15,980 | | 16,009 | | 16,009 | | 16,009 | | 16,009 | | 0 |
| Clinical Research Resources - General | | 63,800 | | 59,543 | | 45,943 | | 57,337 | | 52,477 | | 44,499 | | -7,978 |
| Biotechnology Research | | 205,026 | | 200,616 | | 233,635 | | 233,898 | | 202,271 | | 201,669 | | -602 |
| Shared Instrumentation Grants | | 69,675 | | 65,512 | | 98,312 | | 98,312 | | 63,533 | | 63,533 | | 0 |
| Biotechnology Research Resources - General | | 135,351 | | 135,098 | | 135,323 | | 135,586 | | 138,738 | | 138,136 | | -602 |
| Comparative Medicine | | 182,813 | | 189,096 | | 189,398 | | 189,617 | | 188,777 | | 186,867 | | -1,910 |
| National Primate Research Centers | | 75,843 | | 76,432 | | 79,638 | | 79,638 | | 79,235 | | 79,235 | | 0 |
| Comparative Medicine - General | | 106,970 | | 112,664 | | 109,760 | | 109,979 | | 109,542 | | 107,632 | | -1,910 |
| Research Infrastructure | | 326,369 | | 293,764 | | 291,192 | | 291,537 | | 286,856 | | 287,903 | | +1,047 |
| Research Centers in Minority Institutions | | 53,170 | | 52,627 | | 52,707 | | 52,707 | | 52,707 | | 52,707 | | 0 |
| Institutional Development | | 222,208 | | 219,986 | | 218,153 | | 218,153 | | 218,153 | | 218,153 | | 0 |
| Extramural Construction | | 29,760 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| Research Infrastructure - General | | 21,231 | | 21,151 | | 20,332 | | 20,677 | | 15,996 | | 17,043 | | +1,047 |
| Subtotal, Extramural | | 1,080,771 | | 1,061,105 | | 1,103,664 | | 1,115,884 | | 1,118,138 | | 1,128,695 | | +10,557 |
| Intramural research | | | | | | | | | | | | | | |
| Res. management & support | | 91 | 27,269 | 99 | 27,419 | 108 | 27,954 | 108 | 27,957 | 108 | 31,308 | 109 | 31,778 | +1 |
| NIH Roadmap for Medical Research | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | +0 |
| Total | | 91 | 1,108,040 | 99 | 1,088,524 | 108 | 1,131,618 | 108 | 1,143,841 | 108 | 1,149,446 | 109 | 1,160,473 | +1 |

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

Major Changes in the Fiscal Year 2009 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 2009 budget request for NCRR, which is +\$11.027 million more than the FY 2008 Enacted level, for a total of \$1,160.473 million.

Research Project Grants (-\$4.132 million, total \$63.157 million): NCRR will support a total of 198 Research Project Grant (RPG) awards in FY 2009. The NIH Budget policy for RPGs in FY 2008 is to provide no inflationary increases in noncompeting awards and no increase in average cost for competing RPGs. Noncompeting RPGs will decrease by 13 awards and decrease by \$4.797 million. Competing RPGs will increase by 1 award and increase by \$0.334 million. SBIR/STTR awards will increase by 1 award and increase by \$0.331 million.

Clinical Research, Research Centers (+\$14.000 million, total \$369.839 million): NCRR will continue to expand its support of the Clinical and Translational Science Awards (CTSAs) program, an increase of \$20.000 million for the Clinical and Translational Science Awards, and a decrease of \$6.000 million for other Clinical Research Centers.

Comparative Medicine, Research Centers (+\$9.500 million, total \$124.008 million): To bring all of NCRR's Specific-Pathogen-Free (SPF) Rhesus Breeding Program grants into the same program activity/mechanism, 6 awards totaling \$9.500 million currently in the Other Research, Other mechanism will be converted to Center's grants. Conversely, NCRR's Other Research, Other mechanism will decrease by \$9.500 million.

NATIONAL INSTITUTES OF HEALTH
National Center for Research Resources
Summary of Changes

| | | | |
|--|------------------------------|---------------------|-----------------------------|
| FY 2008 estimate | | \$1,149,446,000 | |
| FY 2009 estimated budget authority | | 1,160,473,000 | |
| Net change | | 11,027,000 | |
| CHANGES | 2008 Current Enacted Base | | Change from Base |
| | FTEs | Budget Authority | FTEs Budget Authority |
| A. Built-in: | | | |
| 1. Intramural research: | | | |
| a. Annualization of January | | | |
| 2008 pay increase | | \$0 | \$0 |
| b. January FY 2009 pay increase | | 0 | 0 |
| c. One less day of pay | | 0 | 0 |
| d. Payment for centrally furnished services | | 0 | 0 |
| e. Increased cost of laboratory supplies, materials, and other expenses | | 0 | 0 |
| Subtotal | | 0 | |
| 2. Research management and support: | | | |
| a. Annualization of January | | | |
| 2008 pay increase | | 108 | \$142,000 |
| b. January FY 2009 pay increase | | \$12,660,000 | 278,000 |
| c. One less day of pay | | 12,660,000 | (52,000) |
| d. Payment for centrally furnished services | | 2,936,000 | 44,000 |
| e. Increased cost of laboratory supplies, materials, and other expenses | | 15,712,000 | 297,000 |
| Subtotal | | 709,000 | |
| Subtotal, Built-in | | 709,000 | |

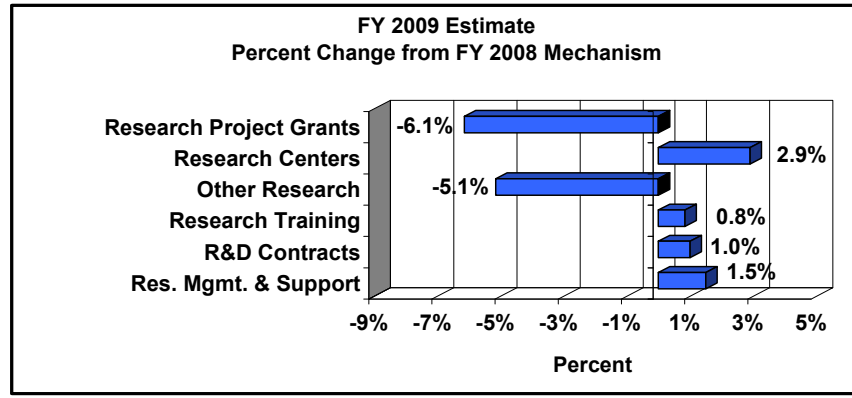
**NATIONAL INSTITUTES OF HEALTH
National Center for Research Resources**

Summary of Changes--continued

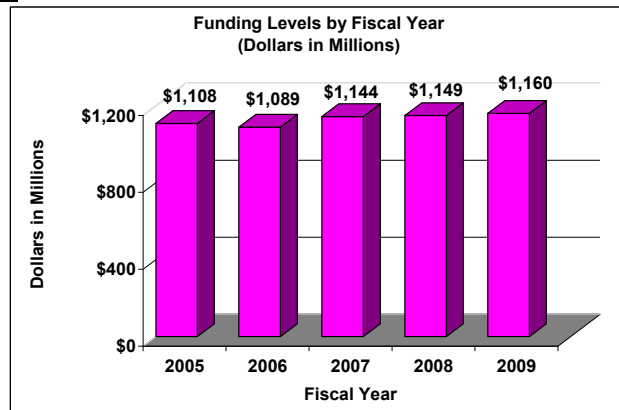
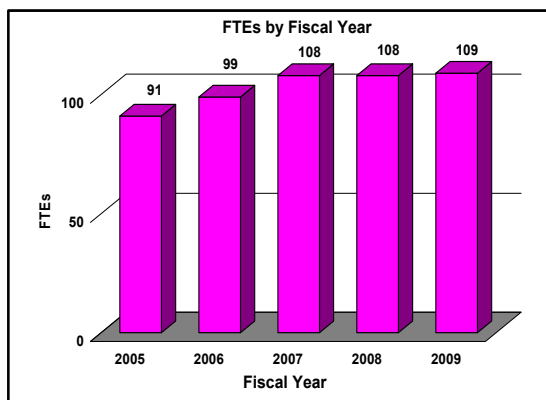
| CHANGES | 2008 Current Enacted Base | | Change from Base | |
|---------------------------------------|------------------------------|---------------|------------------|---------------|
| | No. | Amount | No. | Amount |
| B. Program: | | | | |
| 1. Research project grants: | | | | |
| a. Noncompeting | 79 | \$25,062,000 | (13) | (\$4,797,000) |
| b. Competing | 32 | 9,125,000 | 1 | 334,000 |
| c. SBIR/STTR | 98 | 33,102,000 | 1 | 331,000 |
| Total | 209 | 67,289,000 | (11) | (4,132,000) |
| 2. Research centers | 307 | 808,857,000 | (9) | 23,500,000 |
| 3. Other research | 458 | 182,682,000 | (4) | (9,400,000) |
| 4. Research training | 132 | 5,210,000 | 0 | 44,000 |
| 5. Research and development contracts | 69 | 54,100,000 | 0 | 545,000 |
| Subtotal, extramural | | | | 10,557,000 |
| 6. Intramural research | <u>FTEs</u> 0 | 0 | <u>FTEs</u> 0 | 0 |
| 7. Research management and support | 108 | 31,308,000 | 1 | 470,000 |
| 8. Construction | | 0 | | 0 |
| 9. Buildings and Facilities | | 0 | | 0 |
| Subtotal, program | | 1,149,446,000 | | 11,027,000 |
| Total changes | 108 | | 1 | 11,736,000 |

Fiscal Year 2008 Budget Graphs

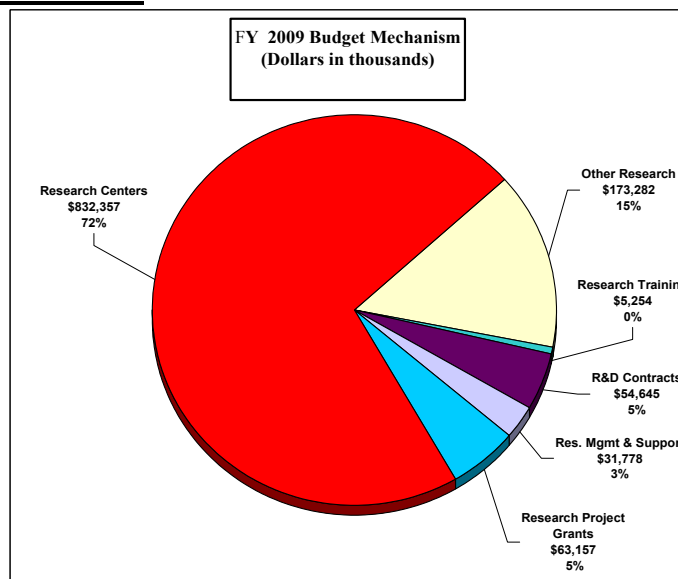
Change by Selected Mechanisms:



History of Budget Authority and FTE's:



Distribution by Mechanism:



**Justification of Budget Request
National Center for Research Resources**

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

Budget Authority:

| FY 2007 Actual | | FY 2008 Enacted | | FY 2009 Estimate | | Increase or Decrease | |
|-------------------|-----------------|--------------------|-----------------|---------------------|-----------------|-------------------------|---------------|
| <u>FTE</u> | <u>BA</u> | <u>FTE</u> | <u>BA</u> | <u>FTE</u> | <u>BA</u> | <u>FTE</u> | <u>BA</u> |
| 108 | \$1,143,841,000 | 108 | \$1,149,446,000 | 109 | \$1,160,473,000 | +1 | +\$11,027,000 |

This document provides justification for the Fiscal Year (FY) 2009 activities of the National Center for Research Resources, including NIH/AIDS activities. Details of the FY 2009 HIV/AIDS activities are in the “Office of AIDS Research (OAR)” Section of the Overview. Details on the Common Fund are located in the Overview, Volume One. Program funds are allocated as follows: Competitive Grants/Cooperative Agreements; Contracts; Direct Federal/Intramural and Other.

Director’s Overview

NCCR provides NIH-supported laboratory and clinical investigators with the resources, tools, and training they need to understand, detect, treat, and prevent a wide range of diseases. With this support, scientists engage in basic laboratory research, translate their findings to animal-based studies, and then apply them to patient-oriented research. Through the Clinical and Translational Science Award (CTSA) consortium and other collaborations, NCCR supports all aspects of translational and clinical research, connecting researchers with one another, and with patients and communities across the nation.

Building a Matrix of Clinical and Translational Research Programs

NCCR continues to expand the CTSA consortium with the addition of 12 more academic health centers in FY 2007 to the 12 awarded in FY 2006. The national consortium, which grew out of the NIH Roadmap for Medical Research, is transforming the conduct of clinical and translational research to advance predictive, preemptive, personalized, and participatory medicine. Its major goal is to speed the translation of laboratory discoveries into treatments for patients. Currently, the CTSA consortium is working to address three major priorities: standardizing clinical research informatics, streamlining clinical research management, and developing national curricula for clinical and translational science.

As the CTSA consortium continues to develop, its connections with other NCCR programs are enhanced, helping to strengthen NIH’s matrix of clinical and translational research programs. Through increased collaboration, the CTSA’s are forging

partnerships among interdisciplinary scientists that are sparking innovative approaches to research challenges.

Fostering Translational Research

The benefits of increased collaboration are apparent in the expanding partnerships among the CTSA and the National Primate Research Centers (NPRCs). By working together, CTSA and NPRC researchers are blending their unique perspectives and expertise and developing research approaches that maximize what is known in human and nonhuman primate models of disease to identify the most efficient avenues to future advances. Enhanced collaboration among CTSA and NPRCs is helping improve treatments for diseases such as asthma, cancer, and diabetes. See the program portrait on CTSA and NPRCs for more information.

At the same time, the CTSA are benefiting from increased access to the translational expertise in the NCRB Biomedical Technology Research Resources (BTRRs). The BTRRs are powerful interdisciplinary engines for the translation of advances in the physical and computational sciences into the cutting edge technological infrastructure that underpins much of modern biomedical research. The CTSA are leveraging these unique resources to create new diagnostic tests, to adopt advanced research computing infrastructure, and to explore the molecular fingerprints of various diseases. For example, the Translational Biomedical Imaging Center at the University of Pennsylvania CTSA is fully integrated with the Metabolic Magnetic Resonance and Computing Center, an NCRB supported BTRR, and they are working together to move advanced imaging modalities into the clinic. For more information on the BTRRs, see the program portrait.

Leveraging Partnerships to Benefit Biomedical Science

NCRB is maximizing its investment in biomedical research by strengthening existing partnerships as well as forging new connections among NCRB activities, across NIH programs and with other Federal agencies. These connections will help to improve efficiencies and ultimately enhance the beneficial outcomes of the individual programs.

For example, three of the 12 new CTSA grantees have partnerships with institutions funded through NCRB's Research Centers in Minority Institutions (RCMI) program. They include Emory University (Atlanta, Georgia) partnering with Morehouse School of Medicine, Vanderbilt University (Nashville, Tennessee) partnering with Meharry Medical College, and Weill Cornell Medical College (New York, New York) partnering with Hunter College. Additionally, the University of Washington is partnering with academic institutions in states supported by NCRB's Institutional Development Award (IDeA) program to create greater opportunities to reach underserved populations. Similarly, connections between the CTSA consortium and NCRB's Science Education Partnership Award (SEPA) program are growing, helping to inspire the next generation of researchers. As an example, investigators from the Oregon Health and Science University CTSA and SEPA developed a series of interactive exhibits about different health topics at the Oregon Museum of Science and Industry.

Also speeding the translation of research discoveries, the new RCMI Translational Research Network (RTRN) will focus on leveraging partnerships and resources. Through the network, RCMI-supported investigators will pool resources and expertise to conduct high quality, collaborative, multi-center research that will increase the productivity and impact of each of the individual centers. It is designed to integrate clinical, biomedical, and behavioral research with community health providers and community leaders to form geographic and ethnically diverse research partnerships. The RTRN program portrait includes additional details about the network.

Improving Research Informatics and Connectivity

NCRR continues to expand the use of its informatics tools and enhance network connectivity. NIH is exploring ways to build upon the success of the Biomedical Informatics Research Network (BIRN), an NCRR-funded initiative to foster large-scale collaborations that use high-speed networks, high-performance computing, and integrated software. BIRN and NRCRC researchers are working together to apply the BIRN model for data storage and sharing, which was first used in neuroimaging, to establish a non-human primate pathology database.

NCRR remains committed to enhancing network connectivity so that research institutions in underserved states can participate in bandwidth-intensive science applications. The Northeast Network Initiative, launched in FY 2007, is a collaborative regional effort to improve access to nationwide research networks and resources and facilitate collaboration in five IDeA states (Delaware, New Hampshire, Maine, Rhode Island, and Vermont). The Initiative is modeled after the NCRR Lariat pilot program, which enhanced connectivity in the western region. Similarly, NCRR's support for network upgrades will enhance participation of northeastern IDeA institutions in NCRR programs.

Identifying NCRR's Future Priorities

NCRR is developing its strategic plan for 2009-2013 to ensure NCRR is poised to foster new collaborations across the entire research enterprise that will accelerate the translation of research findings from bench to bedside and ultimately into medical practice. As part of the planning process, NCRR held a Strategic Planning Forum and solicited input from more than 80 participants, who included a cross-section of investigators, clinicians, and other representatives of NCRR's core constituencies. Additionally, more than 500 comments were received from the research community and the public through the NCRR Web site. This input will be used to draft the strategic plan, which will be posted in early 2008 for public comment. The final plan will be released in FY 2008.

NCRR's goals are to build a matrix of clinical and translational research programs as well as leverage partnerships and improve research informatics and connectivity. NCRR is maximizing its research investment to ensure that medical advances are reaching the people who need them.

Justification of the FY 2009 Budget by Activity Detail

Program Descriptions and Accomplishments

Overall Budget Policy: NCRR's highest priorities are to continue to support all aspects of translational and clinical research, develop versatile new technologies and methods, provide access to critical animal models, and enhance development programs for underserved states and institutions. The largest portion of NCRR's budget supports Research Center grants. These grants provide support for long-term, multi-disciplinary biomedical research programs, and the development of essential research resources for more than 30,000 scientists. The NCRR gives priority to those resources and projects that are critical to the research enterprise and without which the national biomedical community could not achieve its full potential or harness innovation to advance human health. The Center evaluates investigator-initiated grant applications for all large programs, conducts a scientific review of NCRR grant applications, and presents the results to the NCRR Advisory Council for review. Research Management and Support receives a modest increase to help offset the cost of pay and other increases. NCRR will continue to support new investigators and to maintain an adequate number of competing RPGs.

Division for Clinical Research Resources: This division funds biomedical research institutions to establish and maintain specialized clinical research facilities and to train the clinical researchers of tomorrow. It is leading NIH in efforts to help institutions create a new integrated discipline of clinical and translational sciences through the Clinical and Translational Science Awards (CTSA) program. Additionally, the division provides clinical-grade biomaterials that enable clinical and patient-oriented research, supports the development of clinical research informatics, and improves the nation's understanding of medical research through Science Education Partnership Awards.

In FY 2007, the division's primary focus was the launch of the CTSA program. One of the many CTSA activities sponsored throughout the year included a webconference workshop on the "Challenges in the Review of Pediatric Research for Institutional Review Boards" conducted by the CTSA Pediatric Oversight Committee in September 2007. IRB members, investigators, regulators, and other interested parties discussed challenges in the review, approval, and monitoring of pediatric research.

Budget Policy: The FY 2009 budget estimate for the Division for Clinical Research is \$452,256,000, an increase of \$12,022,000 or 2.7 percent from the FY 2008 enacted level. The FY 2009 request includes an additional \$20,000,000 for new Clinical and Translational Science Awards, including the linked career development and research training awards, and General Clinical Research Centers. In addition, funds realized from General Clinical Research Centers transitioning to CTSAAs will be redirected to the CTSAAs.

To accommodate the additional investment in the CTSA program, General Clinical Research Resources were decreased by \$7,978,000 or 15.2 percent from the FY 2008 enacted level. To capitalize on clinical research investments and meet our commitment

to the CTSA program, the Center will link programs with the CTSA's and continue to evaluate and restructure support of NCRR's current clinical resources.

Portrait of a Program: Clinical and Translational Science Awards - Enhancing Collaboration with National Primate Research Centers

FY 2008 Level: \$371,748,000

FY 2009 Level: \$391,748,000

Change: + \$ 20,000,000

The Clinical and Translational Science Award (CTSA) program is designed to more rapidly and efficiently transfer discoveries made in the laboratory into new treatments for patients. Through the CTSA's, academic health centers are working together as a consortium and also are forging new collaborations to advance the discipline of clinical and translational research.

Since animal models bridge basic science with human medicine, the synergies that are emerging among the CTSA's and the eight National Primate Research Centers (NPRCs) will help promote a pathway to move discoveries from the bench to the bedside. CTSA clinical researchers are benefiting from increased knowledge of and access to animal models, such as nonhuman primates, which provide options for testing early interventions prior to conducting human trials. Results from these animal studies can lead to improved treatments, help to speed discoveries, and may ultimately improve human health.

For example, at the University of California, Davis, clinical and NPRC researchers are working together to improve treatments for asthma by studying commonalities in airway inflammation among humans and non-human primates. Potential treatments will then be evaluated in the animal model, helping to guide the development of treatments for humans. Similarly, at the University of Wisconsin, clinical and NPRC researchers are developing improved treatments for cancer and diabetes.

The CTSA – NPRC partnership is also facilitating the sharing of research cores, such as statistics, pathology, and informatics, thus helping to increase resource utilization and cost effectiveness among these resource centers. The CTSA and NPRC collaborations have primarily involved labor costs associated with researchers working together to accomplish a common mission, and these costs have been supported within each program's budget. As CTSA researchers continue to strengthen their existing relationships and establish new partnerships with other NCRR and NIH programs, as well as public and private foundations, research throughout the clinical and translational continuum will benefit from increased collaboration.

Clinical and Translational Science Awards (CTSA's)/General Clinical Research Centers (GCRC's): Working together as a national consortium, the CTSA institutions have begun to design clinical research informatics tools, forge new partnerships with health care organizations, expand outreach to minority and medically underserved communities, develop better designs for clinical trials, and train the next generation of clinical and translational researchers, including physicians, researchers, and nurses. Additionally, each CTSA is creating an academic home at their institution for clinical and translational research.

In FY 2007, NIH funded 12 additional CTSA's, expanding the consortium to include 24 academic health centers (AHC's). Through CTSA solicitations, AHC's, including those with GCRC's, will have the opportunity to build on their existing resources and transform into this integrated program over a period of years.

Budget Policy: The FY 2009 funding support provided by NCRP for the combined CTSA and GCRC programs is \$391,748,000, an increase of \$20,000,000 or 5.4 percent over the FY 2008 enacted level. Additional CTSA awards are anticipated each year until the program is fully implemented in 2012, when the program is expected to support about 60 TSAs. This budget will support existing and new TSAs, including funding that has been transitioned into the TSAs from the GCRCs, as well as funding for existing training and career development grants that have been incorporated into the TSAs. In addition, the FY 2009 budget includes funds for a support center that will assist with coordination across the TSA Consortium, as well as funds that will support the existing GCRCs that have not transitioned into TSAs. The NIH Common Fund/Roadmap for Medical Research will contribute \$83,224,000 in FY 2009, bringing the total NIH funding for the TSAs to \$474,972,000. (More information on the NIH Common Fund/Roadmap is provided in Volume One – Overview).

Science Education Partnership Award (SEPA) Program: The two major goals of the SEPA program are to 1) increase the pipeline of future scientists and clinicians, especially from minority, underserved, and rural kindergarten to grade 12 students and 2) to engage and educate the general public on the health-related advances made possible by NIH-funded research. By creating relationships among educators, museum curators, and medical researchers, SEPA encourages the development of hands-on, inquiry-based curricula that inform participants about such timely issues as obesity, stem cells, and infectious diseases. In addition, SEPA provides professional development for teachers and mentoring opportunities for students.

In FY 2007, NCRP funded 10 SEPAs to engage students and the public in health sciences. This round of new awards brings the SEPA portfolio to 62 active grants. The program continues its emphasis on rural and underserved populations with 16 out of the 23 Institutional Development Award (IDeA) states and Puerto Rico receiving current SEPA funding.

Budget Policy: The FY 2009 budget estimate for the SEPA program is \$16,009,000, the same funding level as the FY 2008 enacted level. NCRP will continue to develop our outreach efforts to expand the benefits of the SEPA program to other NCRP programs such as IDeA, RCMI, and TSAs. The expectation is that researchers who study human disease and illness will make major contributions to science education by passing on their knowledge and demonstrating the excitement of carrying out health-related research.

Clinical Research Resources- General: NCRP funds specialized support programs and initiatives that provide clinical researchers with the facilities and resources they need to conduct patient-oriented research and clinical trials. Researchers using these facilities and resources are studying diseases such as diabetes, cancer, HIV/AIDS, heart disease, cystic fibrosis, and multiple sclerosis. One of the resources supported, the Biomedical Informatics Research Network (BIRN), is developing bioinformatics standards and improving data exchange.

In FY 2007, NCRR sponsored meetings on clinical research topics including building collaborations for clinical research networks and improving standards for research informatics and data storage. Through these efforts as well as those of the CTSA consortium and the BIRN, NCRR is helping to address the challenges associated with clinical research informatics. The BIRN program is supported by two divisions at NCRR, The Division of Clinical Research Resources and the Division of Biomedical Technology. This joint support illustrates the importance NCRR places on supporting informatics initiatives.

Budget Policy: The FY 2009 budget estimate for the Clinical Research Resources – General program is \$44,499,000, a decrease of \$7,978,000 or 15.2 percent from the FY 2008 enacted level. To maximize its investments in clinical research, NCRR will link a number of the programs described above with the CTSA program, such as training and research career awards that will be integrated under the umbrella of CTSAs. To accommodate the increased investment in the CTSA program, only institutional career training awards will be funded. In response to the overall restructuring of NIH mechanisms that support the production and testing of clinical grade vectors, NCRR is phasing out support to the National Gene Vector Laboratories. Instead, NCRR has issued a Funding Opportunity Announcement to create a National Gene Vector Biorepository that will preserve the storage facilities and unique vector-related pharmacology and toxicology databases that would otherwise not be available as resources to the research community.

Division of Biomedical Technology: This division supports the development of a broad spectrum of technologies, techniques, and methods through 50 Biomedical Technology Research Resources (BTRRs) at academic and other research institutions nationwide. The BTRRs develop versatile new technologies and methods that help researchers who are studying virtually every human disease, each creating innovative technologies in one of five broad areas: informatics and computation, optics and spectroscopy, imaging, structural biology, and systems biology. They are complemented by programs providing research project grants to individual investigators and small businesses, often focusing on high risk, high reward technological innovation.

In FY 2007, the BTRRs, which are located in 20 states, were used by nearly 7,000 scientists from across the United States and beyond, representing over \$1.4 billion of NIH funding from 23 Institutes and Centers.

Budget Policy: The FY 2009 budget estimate for the Biomedical Technology Program is \$201,669,000, a decrease of \$602,000 or 0.3 percent from the FY 2008 enacted level. To accommodate the additional investment in the CTSA and SBIR/STTR programs, NCRR will reduce technology development funding in three areas: synchrotron radiation for structural biology, optical spectroscopy for clinical diagnosis, and mass spectrometry for proteomics/glycomics. This Division's Biomedical Informatics Research Network (BIRN) uses emerging technology advances to enhance collaboration efforts that integrate data, expertise, and unique technologies from research centers across the country. BIRN is one of two large NIH supported

infrastructure projects that allow data and tool sharing. Starting in FY 2008, NCRR will participate in a trans-NIH effort to encourage researchers to use the BIRN infrastructure to make either data or tools more broadly available to the research community.

Portrait of a Program: Biomedical Technology Research Resources

FY 2008 Level: \$67,973,000

FY 2009 Level: \$67,973,000

Change: \$ 0

Technology underpins all of biomedical research. To solve structures of proteins or to peer inside the human body, biomedical researchers need advanced instruments, methods, and computing tools. Scientists, clinicians, and engineers work together in Biomedical Technology Research Resources (BTRR) to translate advances in chemistry and physics into the realm of biomedical research. These collaborations create unique cutting-edge technologies necessary to attack the most challenging problems in basic, translational, and clinical research. BTRR scientists actively engage other biomedical researchers, providing them with training and access to these new tools. Thus, the broader research community benefits from these innovative technologies. In addition to being rapidly and widely adopted by individual laboratories, technologies developed in the BTRRs are incorporated into state-of-the-art commercial products.

Recently, BTRR scientists began using laser spectroscopy in the operating room to help surgeons make better decisions more quickly. Others use synchrotron X-rays to create 3-D images of cells. BTRR-created resources in glycomics were leveraged by a new National Cancer Institute program to translate these discoveries into clinically useful biomarkers. Similarly, the CTSA program is beginning to access and leverage the translational expertise in the BTRR program.

This ongoing center grant program, which is comprised of individual grants awarded for five years, is responsible for seminal developments in numerous technology areas that include magnetic resonance imaging (MRI), proteomics, microscopy, protein crystallography, and biomedical computing. The program is strengthening its efforts to educate and engage researchers and to establish new mechanisms to capture and develop more cutting edge ideas.

Shared Instrumentation (SIG) and High-End Instrumentation (HEI) Grant Programs:

The goal of these programs is to provide new generation technologies to NIH-supported investigators for a broad array of basic, translational, and clinical research. The Shared Instrumentation program funds equipment in the \$100K-\$500K range and the High-End Instrumentation program funds instrumentation in the \$750K-\$2M range. To increase cost effectiveness of the programs, instruments are placed in core facilities where they benefit a large community of NIH researchers. Research tools funded through these programs enable researchers to make breakthroughs in biomedical research.

NCRR Instrumentation Program
(dollars in thousands)

| | FY 2007 Actual | | FY 2008 Enacted | | FY 2009 Estimate | |
|---------------------------------|----------------|-----------|-----------------|-----------|------------------|-----------|
| | # Awards | \$ Amount | # Awards | \$ Amount | # Awards | \$ Amount |
| Shared Instrumentation | 165 | \$61,836 | 132 | \$42,073 | 133 | \$42,073 |
| High-End Instrumentation | 23 | 36,476 | 11 | 21,460 | 11 | 21,460 |
| Total - Instrumentation Program | 188 | \$98,312 | 143 | \$63,533 | 144 | \$63,533 |

Budget Policy: The FY 2009 budget estimate for the Shared Instrumentation/High-End Instrumentation grant programs is \$63,533,000, the same funding level as the FY 2008 enacted level. Due primarily to the increased cost of some instruments, the average SIG award has increased by over \$100,000 since 2000. NCRR will fund fewer competing grants and/or reduce the funding levels of these grants to accommodate this increase.

Division of Comparative Medicine: This division provides scientists with essential resources—including specialized laboratory animals, research facilities, training, and other tools—that enable health-related discoveries. Animal models are a critical part of the biomedical research continuum to bridge the gap between basic science and human medicine. Discoveries in one species enhance the understanding of other species. Because many diseases need to be studied in living organisms, researchers have developed animal models, which mimic human conditions. In fact, virtually every major medical advance of the last century resulted from research involving animal models.

Budget Policy: The FY 2009 budget estimate for the Division of Comparative Medicine is \$186,867,000, a decrease of \$1,910,000 or 1.0 percent from the FY 2008 enacted level.

National Primate Research Centers (NPRCs): The major goal of the NPRC program is to facilitate the use of nonhuman primates (NHPs) as models of human health and disease for basic, translational, and clinical biomedical research. It provides animals, facilities, and expertise in all aspects of NHP biology and husbandry through funding to eight institutions. It is neither cost effective nor feasible to reproduce these specialized facilities and expertise at every research institution, so the NPRCs are a valuable resource to the research community. Major areas of research benefiting from the resources of the NPRCs include AIDS, avian flu, Alzheimer's disease, Parkinson's disease, diabetes, asthma, and endometriosis. Benefit

During FY 2007, the NPRCs provided support to more than 2,000 investigators. To facilitate these studies, the NPRCs house 28,000 NHPs, 62 percent of which are rhesus monkeys, the most widely used NHP for HIV research and translational studies. In FY 2007, the NCRR funded an initiative to increase training of clinical veterinarians in the field of NHP clinical medicine.

Budget Policy: The FY 2009 budget estimate for the NPRC program is \$79,235,000, the same funding level as the FY 2008 enacted level. The program's highest funding priority will be to maintain the breadth of activities supported by the program. To further this goal, the NCRR and NPRCs are working together to determine specific ways in which consortium-based activities can be enhanced to make more efficient use of existing funding. Topics to be covered by specific working groups include colony management, training, genetics and genome banking, among others. Another activity of the NPRCs is working with the CTSA consortium to help clinical researchers increase their knowledge of and access to animal models, such as nonhuman primates. For more information on the NPRC and CTSA collaboration, see the "clinical and

Translational Science Awards – Enhancing Collaboration with National Primate Research Centers” program portrait.

The completion of the rhesus genome sequence is expected to greatly enhance the utility of the rhesus for translational research. To guide the optimal use of rhesus macaques, NCRR held a workshop to define the need for and properties of physical maps for the rhesus, and the best methods for making the data available to the research community. The workshop defined the parameters and utility of a single nucleotide polymorphism (SNP) map of the rhesus. The NCRR will fund studies aimed at better characterizing SNP frequencies in the rhesus genome. The NCRR will also establish plans to develop a database that will facilitate use of currently available data on the population of rhesus used for translational research. This database will assist correlations of genotype and phenotype in this animal model.

Comparative Medicine – General: NCRR funds research to create, develop, characterize, preserve, and study a broad array of high-quality animal models and biological materials, such as cell cultures. This funding also supports research to safeguard the health and welfare of laboratory animals and provides career development opportunities in specialized areas of translational science. Non-mammalian models, such as bacteria, fish, worms, and fruit flies, continue to make cost-effective and invaluable contributions to studies of gene function, protein interactions, and disease processes related to humans. The mouse model and other genetically-altered animals provide new opportunities for preclinical testing and the development of therapies for genetic disorders.

In FY 2007, NCRR established the Knockout Mouse Project (KOMP) Repository to acquire and distribute mouse models produced by the trans-NIH KOMP initiative. NCRR also sponsored a workshop to advance cryopreservation of animal models used for translational research. Two new solicitations targeted to the small business community were released in FY 2007 to encourage novel research in cryopreservation technologies.

Budget Policy: The FY 2009 budget estimate for the Comparative Medicine – General Program is \$107,632,000, a decrease of \$1,910,000 or 1.7 percent from the FY 2008 enacted level. To accommodate the additional investment in the CTSA and SBIR/STTR programs, NCRR will reduce funding for services and programs in resource centers providing animal models and research products to grantees. The Division will also continue funding for the KOMP Repository and the Ruth L. Kirschstein National Research Service Awards (NRSA), where NCRR plans to support approximately 132 full-time training positions.

In FY 2009, one of the program’s highest priorities will be to address the growing need for research-trained veterinarians by sponsoring career development programs that attract and train graduate veterinarians in the highly specialized clinical and management procedures required for primate research. Through interactions with its NIH partners and scientific community, NCRR’s Division of Comparative Medicine plans

to maintain scientific priorities that best meet the broad needs of the multidisciplinary biomedical research community. NCRR will also expand the newly established electronic catalog of animal models, linking their relevant features to appropriate human diseases and allow discovery of new interactions, connections and relationships between models and disease states. Finally, continued enhancement of activities related to cryopreservation of animal germplasm and related technologies remains a major goal of the division's efforts.

Division of Research Infrastructure: Developing and invigorating the nation's research capacity and infrastructure at all stages of research—from basic discoveries in the laboratory to advanced treatments for patients—is the goal of this division. Its programs provide research opportunities for junior investigators, enhance the caliber of scientific faculty, and increase the number of competitive investigators from minority and underserved communities. Additionally, the division continues to monitor grants previously made to modernize and construct research facilities that support basic and/or clinical investigations.

In FY 2007, NCRR convened two one-day workshops focused on fostering collaborative community-based clinical and translational research. These workshops brought together more than 200 participants representing academic health centers (AHCs) from across the country, community health care providers, major payers including the Health Resources and Services Administration and Kaiser Permanente, and community-based organizations and advocacy groups. Discussion topics included building academic-community partnerships and community trust; identifying barriers to community health care provider participation in research; and determining core infrastructure requirements for research in community settings. Workshop recommendations will guide ongoing and future NCRR initiatives.

Budget Policy: The FY 2009 budget estimate for the Division of Research Infrastructure is \$287,903,000, an increase of \$1,047,000 and 0.4 percent from the FY 2008 enacted level.

Portrait of a Program: Research Centers in Minority Institutions Translational Research Network

FY 2008 Level: \$3,000,000

FY 2009 Level: \$3,400,000

Change: \$ 400,000

In FY 2007, NCRR launched the Research Centers in Minority Institutions Translational Research Network (RTRN), a continuing five-year grant program that will enhance and establish partnerships among researchers based at minority institutions and other collaborating institutions throughout the United States. The RTRN encourages sharing of resources and expertise among researchers who are studying diseases that disproportionately affect minority and other medically underserved populations, such as cancer, diabetes, infant mortality, HIV/AIDS, and renal and cardiovascular diseases.

The RTRN provides infrastructure, training, and resources for facilitating multi-site, collaborative research that applies discoveries generated in the laboratory to clinical trials, and develops common practices in disease prevention and intervention in local communities. In particular, by providing computer-based tools for managing clinical research data, recruiting for clinical studies, and sharing information with study

participants, the network enables researchers to collaborate more efficiently with each other and their communities. The network's first multi-site studies will focus on cardiovascular disease.

RTRN activities are coordinated by Charles R. Drew University of Medicine and Science on behalf of the 18 RCMI-supported institutions. Jackson State University serves as the Data and Technology Coordinating Center (DTCC) for the network. The DTCC, the first of its kind in a minority institution, represents a partnership with the Duke Clinical Research Institute. The National Center on Minority Health and Health Disparities, another component of NIH, is also contributing funds for the network.

Research Centers in Minority Institutions (RCMI): The goal of the program is to develop and enhance the research infrastructure of minority institutions to expand their capacity for conducting basic, translational, and clinical research. It provides grants to institutions that award doctoral degrees in health-related fields and have student populations that are 50 percent or greater African American, Hispanic, American Indian, Alaska Native, or Pacific Islander. It funds grants to 18 minority institutions in ten states, the District of Columbia, and Puerto Rico and provides a wide array of research resources to enhance institutional infrastructure, ranging from state-of-the-art instrumentation to outpatient clinical research facilities. Research areas supported by the RCMI program include health disparities, HIV/AIDS, cardiovascular disease, cancer, diabetes, obesity, and Alzheimer's and Parkinson's disease.

In FY 2007, NCRR launched the RCMI Translational Research Network, a consortium of RCMI-supported institutions. It will enable clinical and translational researchers to collaborate more efficiently and effectively across the RCMI centers and with other researchers. The network includes a data and technology coordinating center to provide remote data capture, analysis, and storage capability to facilitate multi-site studies.

Budget Policy: The FY 2009 budget estimate for the RCMI program is \$52,707,000, the same funding level as the FY 2008 enacted level. The program's highest funding priority will be to sustain the range of activities supported by the program, including improving network connectivity through the RCMI Translational Research Network (RTRN) to promote interdisciplinary interactions and collaborations with the biomedical community.

Funding for the RTRN will be accomplished through funds realized from reducing costs for competing grants, as well as cost –containment measures applied to non-competing grants. This network will benefit all RCMI grantees and serve as a resource to increase their competitiveness when applying for other grants.

Institutional Development Award (IDeA): This program fosters health-related research and increases the competitiveness of investigators at institutions in 23 states and Puerto Rico with historically low aggregate success rates for grant awards from the NIH. The two major initiatives of the IDeA program are IDeA Networks of Biomedical Research Excellence (INBRE) and Centers of Biomedical Research Excellence (COBRE). INBREs establish a multi-disciplinary research network that strengthens the lead and partner institutions' biomedical research expertise and infrastructure while providing research support to faculty and students including those from community and tribal colleges. COBREs support thematic multidisciplinary centers that strengthen

institutional research capacity by expanding and developing biomedical faculty capability and enhancing research infrastructure that encompasses the full spectrum of the basic and clinical sciences.

In FY 2007, NCRN funded three new IDeA COBREs focused on studies of diabetes, cartilage and joint health, and the molecular regulation of cell development. IDeA investigators and NCRN staff participated in four regional meetings, which were focused on achieving program goals, building collaborations, and improving access to regional infrastructure.

Budget Policy: The FY 2009 budget estimate for the IDeA program is \$218,153,000 the same funding level as the FY 2008 enacted level. This budget will support existing, new, and re-competing INBRE and COBRE awards. NCRN will continue its commitment to COBREs to ensure growth through the promotion of collaborative and interactive efforts among researchers with complementary backgrounds, skills, and expertise. The current INBRE awards are on a 5-year cycle and the majority of them will re-compete in FY 2009. It is anticipated that about 18 new INBRE grants will be awarded in FY 2009, which will further develop the caliber of scientific faculty at research institutions and undergraduate schools and attract more promising students to these organizations.

Research Infrastructure – General: Funding for these programs increase the competitiveness of investigators in underserved states and institutions and enhance research capacity. One of these programs, the Clinical Research Education and Career Development (CRECD) in Minority Institutions program, trains clinical investigators at minority institutions to conduct sound clinical research and be competitive in obtaining external research support. Another program, the Animal Facilities Improvement Program, upgrades animal facilities, improves research animal care, and assists institutions in complying with the regulations and policies related to the use of laboratory animals.

In FY 2007, NIH re-issued a solicitation for the CRECD. This trans-NIH program is managed by NCRN and receives additional funding from seven other NIH Institutes and Centers. The CRECD scholars receive didactic training and participate in a mentored-research project based on their area of interest, such as cardiovascular disease, aging, reproductive health, obesity, diabetes, and health disparities.

Budget Policy: The FY 2009 budget estimate for the Research Infrastructure – General Program is \$17,043,000, an increase of \$1,047,000 or 6.5 percent from the FY 2008 enacted level. NCRN will continue to provide support to institutions for alterations and renovations to improve laboratory animal facilities and to purchase equipment for animal resources, diagnostic laboratories, transgenic animal resources, and similar activities.

Research Management and Support: The NCRN 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.

Budget Policy: In FY 2009, NCRR's request provides \$31,778,000 for RMS, an increase of \$470,000 or 1.5 percent from the FY 2008 enacted level. These resources will be used to support the above activities and to promote sound stewardship of our resources by effectively leveraging technology.

Common Fund/Roadmap: The NCRR is the lead Institute/Center for the following Roadmap initiatives supported through the NIH Common Fund: National Technology Centers and Metabolomics Development, Interdisciplinary Research Centers, Feasibility of Integrating and Expanding Clinical Research Networks, and Clinical and Translational Science Awards. All of these activities will continue in FY 2009. The NCRR participates in the support of the Enhancing Clinical Research Training via the National Multi-disciplinary Clinical Research Career Development Programs funded through the NIH Common Fund.

**NATIONAL INSTITUTES OF HEALTH
National Center for Research Resources**

Budget Authority by Object

| | FY 2008 Enacted | FY 2009 Estimate | Increase or Decrease |
|---|-----------------------------|-----------------------------|---------------------------------|
| Total compensable workyears: | | | |
| Full-time employment | 108 | 109 | 1 |
| Full-time equivalent of overtime and holiday hours | 0 | 0 | 0 |
| Average ES salary | \$165,061 | \$168,362 | \$3,301 |
| Average GM/GS grade | 12.8 | 12.8 | 0.0 |
| Average GM/GS salary | \$101,917 | \$106,605 | \$4,688 |
| Average salary, grade established by act of July 1, 1944 (42 U.S.C. 207) | \$103,259 | \$105,324 | \$2,065 |
| Average salary of ungraded positions | 167,911 | 171,269 | 3,358 |
| OBJECT CLASSES | FY 2008 Estimate | FY 2009 Estimate | Increase or Decrease |
| Personnel Compensation: | | | |
| 11.1 Full-time permanent | \$8,251,000 | \$8,722,000 | \$471,000 |
| 11.3 Other than full-time permanent | 1,348,000 | 1,425,000 | 77,000 |
| 11.5 Other personnel compensation | 532,000 | 562,000 | 30,000 |
| 11.7 Military personnel | 120,000 | 127,000 | 7,000 |
| 11.8 Special personnel services payments | 0 | 0 | 0 |
| Total, Personnel Compensation | 10,251,000 | 10,836,000 | 585,000 |
| 12.0 Personnel benefits | 2,308,000 | 2,440,000 | 132,000 |
| 12.2 Military personnel benefits | 101,000 | 107,000 | 6,000 |
| 13.0 Benefits for former personnel | 0 | 0 | 0 |
| Subtotal, Pay Costs | 12,660,000 | 13,383,000 | 723,000 |
| 21.0 Travel and transportation of persons | 634,000 | 640,000 | 6,000 |
| 22.0 Transportation of things | 17,000 | 17,000 | 0 |
| 23.1 Rental payments to GSA | 0 | 0 | 0 |
| 23.2 Rental payments to others | 9,000 | 9,000 | 0 |
| 23.3 Communications, utilities and miscellaneous charges | 158,000 | 155,000 | (3,000) |
| 24.0 Printing and reproduction | 27,000 | 27,000 | 0 |
| 25.1 Consulting services | 13,701,000 | 13,797,000 | 96,000 |
| 25.2 Other services | 2,867,000 | 2,830,000 | (37,000) |
| 25.3 Purchase of goods and services from government accounts | 41,082,000 | 41,269,000 | 187,000 |
| 25.4 Operation and maintenance of facilities | 15,000 | 15,000 | 0 |
| 25.5 Research and development contracts | 10,817,000 | 10,907,000 | 90,000 |
| 25.6 Medical care | 0 | 0 | 0 |
| 25.7 Operation and maintenance of equipment | 2,255,000 | 2,224,000 | (31,000) |
| 25.8 Subsistence and support of persons | 0 | 0 | 0 |
| 25.0 Subtotal, Other Contractual Services | 70,737,000 | 71,042,000 | 305,000 |
| 26.0 Supplies and materials | 231,000 | 228,000 | (3,000) |
| 31.0 Equipment | 934,000 | 921,000 | (13,000) |
| 32.0 Land and structures | 0 | 0 | 0 |
| 33.0 Investments and loans | 0 | 0 | 0 |
| 41.0 Grants, subsidies and contributions | 1,064,038,000 | 1,074,050,000 | 10,012,000 |
| 42.0 Insurance claims and indemnities | 0 | 0 | 0 |
| 43.0 Interest and dividends | 1,000 | 1,000 | 0 |
| 44.0 Refunds | 0 | 0 | 0 |
| Subtotal, Non-Pay Costs | 1,136,786,000 | 1,147,090,000 | 10,304,000 |
| Total Budget Authority by Object | 1,149,446,000 | 1,160,473,000 | 11,027,000 |

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

**NATIONAL INSTITUTES OF HEALTH
National Center for Research Resources**

Salaries and Expenses

| OBJECT CLASSES | FY 2008 Enacted | FY 2009 Estimate | Increase or Decrease |
|---|--------------------|---------------------|-------------------------|
| Personnel Compensation: | | | |
| Full-time permanent (11.1) | \$8,251,000 | \$8,722,000 | \$471,000 |
| Other than full-time permanent (11.3) | 1,348,000 | 1,425,000 | 77,000 |
| Other personnel compensation (11.5) | 532,000 | 562,000 | 30,000 |
| Military personnel (11.7) | 120,000 | 127,000 | 7,000 |
| Special personnel services payments (11.8) | 0 | 0 | 0 |
| Total Personnel Compensation (11.9) | 10,251,000 | 10,836,000 | 585,000 |
| Civilian personnel benefits (12.1) | 2,308,000 | 2,440,000 | 132,000 |
| Military personnel benefits (12.2) | 101,000 | 107,000 | 6,000 |
| Benefits to former personnel (13.0) | 0 | 0 | 0 |
| Subtotal, Pay Costs | 12,660,000 | 13,383,000 | 723,000 |
| Travel (21.0) | 634,000 | 640,000 | 6,000 |
| Transportation of things (22.0) | 17,000 | 17,000 | 0 |
| Rental payments to others (23.2) | 9,000 | 9,000 | 0 |
| Communications, utilities and miscellaneous charges (23.3) | 158,000 | 155,000 | (3,000) |
| Printing and reproduction (24.0) | 27,000 | 27,000 | 0 |
| Other Contractual Services: | | | |
| Advisory and assistance services (25.1) | 1,781,000 | 1,794,000 | 13,000 |
| Other services (25.2) | 2,867,000 | 2,830,000 | (37,000) |
| Purchases from government accounts (25.3) | 4,361,000 | 4,152,000 | (209,000) |
| Operation and maintenance of facilities (25.4) | 0 | 0 | 0 |
| Operation and maintenance of equipment (25.5) | 2,255,000 | 2,224,000 | (31,000) |
| Subsistence and support of persons (25.8) | 0 | 0 | 0 |
| Subtotal Other Contractual Services | 11,264,000 | 11,000,000 | (264,000) |
| Supplies and materials (26.0) | 231,000 | 228,000 | (3,000) |
| Subtotal, Non-Pay Costs | 12,340,000 | 12,076,000 | (264,000) |
| Total, Administrative Costs | 25,000,000 | 25,459,000 | 459,000 |

NATIONAL INSTITUTES OF HEALTH
National Center for Research Resources

Authorizing Legislation

| | PHS Act/ Other Citation | U.S. Code Citation | 2007 Amount Authorized | FY 2008 Enacted | 2008 Amount Authorized | FY 2009 Budget Estimate |
|--------------------------------|----------------------------|-----------------------|---------------------------|----------------------|---------------------------|----------------------------|
| Research and Investigation | Section 301 | 42§241 | Indefinite | | Indefinite | |
| Resources | Section 402(a) | 42§281 | Indefinite | \$1,149,446,000 | Indefinite | \$1,160,473,000 |
| Total, Budget Authority | | | | 1,149,446,000 | | 1,160,473,000 |

**NATIONAL INSTITUTES OF HEALTH
National Center for Research Resources**

Appropriations History

| Fiscal Year | Budget Estimate to Congress | House Allowance | Senate Allowance | Appropriation <u>1/</u> |
|-------------|-----------------------------|-----------------|------------------|-------------------------|
| 2000 | 469,684,000 <u>2/ 3/</u> | 642,311,000 | 625,988,000 | 980,176,000 |
| Rescission | 0 | 0 | 0 | 3,619,000 |
| 2001 | 602,728,000 <u>2/</u> | 832,027,000 | 775,212,000 | 817,475,000 |
| Rescission | | | | (52,000) |
| 2002 | 974,038,000 <u>2/</u> | 966,541,000 | 1,014,044,000 | 1,012,627,000 |
| Rescission | | | | (89,000) |
| 2003 | 1,090,217,000 | 1,090,217,000 | 1,161,272,000 | 1,146,272,000 |
| Rescission | | | | (7,451,000) |
| 2004 | 1,053,926,000 | 1,053,926,000 | 1,186,483,000 | 1,186,183,000 |
| Rescission | | | | (7,125,000) |
| 2005 | 1,094,141,000 | 1,094,141,000 | 1,213,400,000 | 1,124,141,000 |
| Rescission | | | | (9,051,000) |
| 2006 | 1,100,203,000 | 1,100,203,000 | 1,188,079,000 | 1,110,203,000 |
| Rescission | | | | (11,102,000) |
| 2007 | 1,098,242,000 | 1,123,242,000 | 1,104,346,000 | 1,133,240,000 |
| 2008 | 1,112,498,000 | 1,171,095,000 | 1,177,997,000 | 1,169,884,000 |
| Rescission | | | | (20,438,000) |
| 2009 | 1,160,473,000 | | | |

1/ Reflects enacted supplementals, rescissions, and reappropriations.

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

**NATIONAL INSTITUTES OF HEALTH
National Center for Research Resources**

Details of Full-Time Equivalent Employment (FTEs)

| OFFICE/DIVISION | FY 2007 Actual | FY 2008 Enacted | FY 2009 Estimate |
|--|---------------------|--------------------|---------------------|
| Office of the Director | 8 | 8 | 8 |
| Office of Extramural Activities | 30 | 30 | 30 |
| Office of Administrative Management | 17 | 17 | 17 |
| Office of Science Policy & Public Liaison | 12 | 12 | 12 |
| Division for Clinical Research Resources | 13 | 13 | 14 |
| Division of Biomedical Technology | 9 | 9 | 9 |
| Division of Comparative Medicine | 8 | 8 | 8 |
| Division of Research Infrastructure | 11 | 11 | 11 |
| Total | 108 | 108 | 109 |
| Includes FTEs which are reimbursed from the NIH Roadmap for Medical Research | | | |
| FTEs supported by funds from Cooperative Research and Development Agreements | | | |
| | (0) | (0) | (0) |
| FISCAL YEAR | Average GM/GS Grade | | |
| 2005 | 12.9 | | |
| 2006 | 12.7 | | |
| 2007 | 12.7 | | |
| 2008 | 12.8 | | |
| 2009 | 12.8 | | |

**NATIONAL INSTITUTES OF HEALTH
National Center for Research Resources**

Detail of Positions

| GRADE | FY 2007 Actual | FY 2008 Enacted | FY 2009 Estimate |
|---|-------------------|--------------------|---------------------|
| Total, ES Positions | 2 | 2 | 2 |
| Total, ES Salary | 322,069 | 330,121 | 336,723 |
| GM/GS-15 | 14 | 14 | 14 |
| GM/GS-14 | 36 | 36 | 37 |
| GM/GS-13 | 18 | 18 | 17 |
| GS-12 | 15 | 16 | 17 |
| GS-11 | 1 | 0 | 0 |
| GS-10 | 3 | 3 | 3 |
| GS-9 | 5 | 5 | 6 |
| GS-8 | 1 | 1 | 1 |
| GS-7 | 2 | 3 | 3 |
| GS-6 | 1 | 1 | 0 |
| GS-5 | 1 | 1 | 1 |
| GS-4 | 0 | 0 | 0 |
| GS-3 | 0 | 0 | 0 |
| GS-2 | 0 | 0 | 0 |
| GS-1 | 0 | 0 | 0 |
| Subtotal | 97 | 98 | 99 |
| Grades established by Act of July 1, 1944 (42 U.S.C. 207): | | | |
| Assistant Surgeon General | 0 | 0 | 0 |
| Director Grade | 1 | 1 | 1 |
| Senior Grade | 0 | 0 | 0 |
| Full Grade | 0 | 0 | 0 |
| Senior Assistant Grade | 0 | 0 | 0 |
| Assistant Grade | 0 | 0 | 0 |
| Subtotal | 1 | 1 | 1 |
| Ungraded | 20 | 21 | 21 |
| Total permanent positions | 101 | 103 | 104 |
| Total positions, end of year | 120 | 124 | 125 |
| Total full-time equivalent (FTE) employment, end of year | 108 | 108 | 109 |
| Average ES salary | 161,035 | 165,061 | 168,362 |
| Average GM/GS grade | 12.8 | 12.8 | 12.8 |
| Average GM/GS salary | 96,148 | 101,917 | 106,605 |

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

**NATIONAL INSTITUTES OF HEALTH
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New Positions Requested

| | FY 2009 | | |
|-----------------|---------|--------|---------------|
| | Grade | Number | Annual Salary |
| Medical Officer | GS -14 | 1 | \$116,102 |
| Total Requested | | 1 | \$116,102 |