

2010 Fact Book

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

2010 Fact Book

The information set forth in this publication is compiled and amended annually by the budget and finance staff of the National Cancer Institute and is intended primarily for the use by members of the Institute and others involved in the administration and management of the National Cancer Program.

Questions regarding any of the information contained herein may be directed to the Office of Budget and Finance, National Cancer Institute, 9000 Rockville Pike, Bethesda, Maryland, 20892

This document is also available online on the Office of Budget and Finance homepage (http://obf.cancer.gov/) on the National Cancer Institute's website (http://www.cancer.gov).

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Fiscal Year 2010 Annual Report

BUDGET IN REVIEW

This report provides a summary of the distribution of the Fiscal Year 2010 budget among the various National Cancer Institute (NCI) research programs and funding mechanisms, funding policies influencing grant awards, and comparisons with prior year allocations. Additional information on the NCI budget is accessible from the NCI Home Page (http://www.cancer.gov).

Summary

Funds available to the NCI in FY 2010 totaled over \$5.098 billion, reflecting an increase of 2.6% and \$131 million from the previous fiscal year.

Fiscal highlights from FY 2010 include:

- Of the total NCI budget, 43% of the funds were allocated for Research Project Grants (RPGs).
- The total number of RPGs funded was 5,079 (includes SBIR).
- Almost one-fourth of the RPGs awarded were new (Type 1) or competing renewal (Type 2) awards.
- 1,253 competing RPGs were funded.
- Almost one-third of the total NCI budget supported ongoing non-competing (Type 5) RPGs.
- R01 grants were funded to the 15th percentile.
- 207 grants totaling almost \$86 million were funded as Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) awards.
- Intramural Research comprised just under 16% of the total NCI budget in FY 2010. Of this amount, 10% was for Labs and Bench Research and 5.8% was for infrastructure and support.

NCI Dollars by Mechanism for FY 2009 and 2010 (in thousands)

| | - | | Change '09 | to '10 |
|-------------------------------------|-------------|--------------|------------|--------|
| _ | 2009 | 2010 | Am't | % |
| Research Project Grants: | | | | _ |
| Noncompeting | 1,550,906 | 1,536,844 | -14,062 | -0.9% |
| Admin Supplements | 33,257 | 28,947 | -4,310 | -13.0% |
| Competing | 457,834 | 516,598 | 58,764 | 12.8% |
| Subtotal, RPG | 2,041,997 | 2,082,389 | 40,392 | 2.0% |
| SBIR/STTR | 91,954 | 85,669 | -6,285 | -6.8% |
| Total, RPG | 2,133,951 | 2,168,058 | 34,107 | 1.6% |
| Cancer Centers | 285,608 | 295,856 | 10,248 | 3.6% |
| SPOREs | 131,360 | 133,810 | 2,450 | 1.9% |
| Other P50s/P20s | 28,105 | 38,765 | 10,660 | 37.9% |
| Other Specialized Centers | 116,380 | 142,702 | 26,322 | 22.6% |
| Total: Centers, Spec Ctrs, & SPOREs | 561,453 | 611,133 | 49,680 | 8.8% |
| Research Career Program | 79,120 | 74,914 | -4,206 | -5.3% |
| Cancer Education | 31,945 | 35,444 | 3,499 | 11.0% |
| Clinical Cooperative Groups | 234,531 | 254,487 | 19,956 | 8.5% |
| Other Grants | 71,698 | 77,768 | 6,070 | 8.5% |
| Subtotal, Other _ | 417,294 | 442,613 | 25,319 | 6.1% |
| Total, Research Grants | 3,112,698 | 3,221,804 | 109,106 | 3.5% |
| National Research Service Awards | 70,134 | 67,564 | -2,570 | -3.7% |
| R&D Contracts | 610,142 | 613,762 | 3,620 | 0.6% |
| Intramural Research | 781,389 | 805,332 | 23,943 | 3.1% |
| Research Management & Support | 384,644 | 381,765 | -2,879 | -0.7% |
| Construction | - | - | - | 0.0% |
| Buildings and Facilities | 7,920 | 7,920 | - | 0.0% |
| Total, NCI | 4,966,927 * | 5,098,147 ** | 131,220 | 2.6% |
| AIDS research included above | [265,882] | [272,130] | 6,248 | 2.3% |

^{*}Cancer Prevention and Control w as eliminated as a Budget Mechanism in FY09.

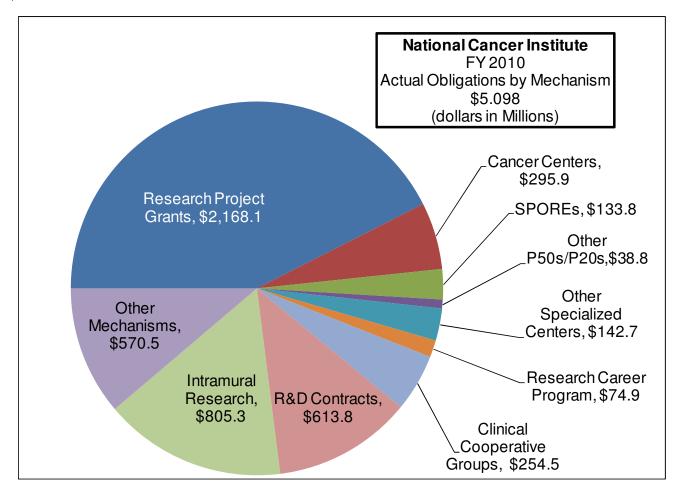
^{**}EXCLUDES projects aw arded with Stamp Out Breast Cancer funds.

Percent Share of Total NCI Dollars

Summary Points

 The mechanism shares of the total budget have remained relatively stable from FY 2006 to FY 2010, taking into account the elimination of Cancer Prevention and Control as a budget mechanism in FY 2009

| Percent Share of Total NCI Dollars | | | | | |
|--|------------|-------|-------|-------|-------|
| | 2006 | 2007 | 2008 | 2009 | 2010 |
| Research Project Grants | 45.4% | 44.1% | 43.3% | 43.0% | 42.5% |
| Cancer Centers | 5.6% | 5.7% | 5.7% | 5.8% | 5.8% |
| SPOREs | 2.6% | 2.6% | 2.6% | 2.6% | 2.6% |
| Specialized Centers | 1.6% | 1.6% | 1.6% | 2.3% | 2.8% |
| Other P50s/P20s | - | - | - | 0.6% | 0.8% |
| Clinical Cooperative Groups | 3.1% | 3.1% | 3.0% | 4.7% | 5.0% |
| R&D Contracts | 7.3% | 8.7% | 9.2% | 12.3% | 12.0% |
| Intramural Research | 14.5% | 14.7% | 14.9% | 15.7% | 15.8% |
| Cancer Prevention & Control* | 10.7% | 10.4% | 9.9% | 0.0% | 0.0% |
| Other Mechanisms | 9.3% | 9.2% | 9.9% | 13.0% | 12.7% |
| *Cancer Prevention and Control Eliminated as a Budget Mechanis | m in FY09. | | | | |



Funding Trends

- The NCI budget has increased by \$350.9 million or 7.4% since FY 2006.
- Increase for R&D contracts, Clinical Cooperative Groups, and other mechanisms are due in part to the elimination of the Cancer Prevention and Control Mechanism

| Historical Funding Trends | | | | | | | | | |
|------------------------------|-----------------------|-----------|-----------|-----------|-----------|--|--|--|--|
| | (Dollars in Millions) | | | | | | | | |
| _ | 2006 | 2007 | 2008 | 2009 | 2010 | | | | |
| Total NCI | \$4,747.2 | \$4,792.6 | \$4,827.6 | \$4,966.9 | \$5,098.1 | | | | |
| Research Project Grants | 2,156.9 | 2,111.8 | 2,089.9 | 2,134.0 | 2,168.1 | | | | |
| Cancer Centers | 265.0 | 273.2 | 274.5 | 285.6 | 295.9 | | | | |
| SPOREs | 124.9 | 123.8 | 123.3 | 131.4 | 133.8 | | | | |
| Other P50s/P20s | - | - | - | 28.1 | 38.8 | | | | |
| Other Specialized Centers | 73.9 | 74.7 | 79.3 | 116.4 | 142.7 | | | | |
| Clinical Cooperative Groups | 145.9 | 148.2 | 144.0 | 234.5 | 254.5 | | | | |
| R&D Contracts | 347.8 | 416.9 | 444.2 | 610.1 | 613.8 | | | | |
| Intramural Research | 687.3 | 706.2 | 718.4 | 781.4 | 805.3 | | | | |
| *Cancer Prevention & Control | 505.6 | 498.4 | 471.5 | - | - | | | | |
| Other Mechanisms | 439.8 | 439.4 | 482.5 | 645.5 | 645.4 | | | | |

| % Growth by Mechanism | | | | | | | |
|------------------------------|--------------|-----------------|-----------------|-----------------|-----------------|--|--|
| | 2006 to 2007 | 2007 to 2008 | 2008 to 2009 | 2009 to 2010 | 2006 to 2010 | | |
| Total NCI | 1.0% | 0.7% | 2.9% | 2.6% | 7.4% | | |
| Research Project Grants | -2.1% | -1.0% | 2.1% | 1.6% | 0.5% | | |
| Cancer Centers | 3.1% | 0.5% | 14.3% | 3.6% | 11.6% | | |
| SPOREs | -0.9% | -0.4% | 6.5% | 1.9% | 7.1% | | |
| Other P50s/P20s | - | - | 100.0% | 37.9% | 100.0% | | |
| Specialized Centers | 1.0% | 6.2% | 46.8% | 22.6% | 93.0% | | |
| Clinical Cooperative Groups | 1.6% | -2.8% | 62.9% | 8.5% | 74.4% | | |
| R&D Contracts | 19.9% | 6.6% | 6.6% | 0.6% | 76.5% | | |
| Intramural Research | 2.7% | 1.7% | 8.8% | 3.1% | 17.2% | | |
| *Cancer Prevention & Control | 1.4% | -5.4% | -100.0% | 0.0% | -100.0% | | |
| Other Mechanisms | -0.1% | 9.8% | 33.8% | 0.0% | 46.7% | | |

 $^{^{\}star}\text{Cancer}$ Prevention and Control Eliminated as a Budget Mechanism in FY09.

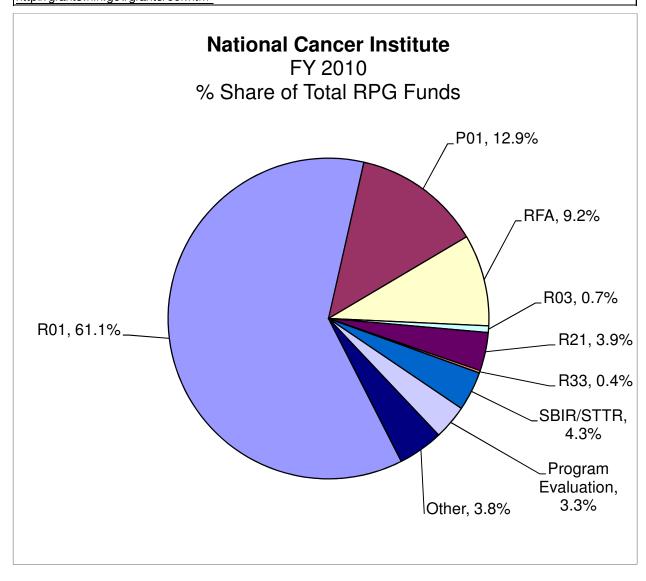
Research Project Grants

- 91% of competing dollars supported grants awarded within the established payline; 9% supported grants as an exception to the payline.
- RFA funds increased from FY 2009 dollar level and accounted for 12.6% of FY 2010 competing dollars.
- Research Project Grant applications submitted to NCI increased by approximately 14%.
- A total of 1,253 competing RPG's were funded.

| Research Project Grants* (Dollars in Thousands) | | | | | | |
|---|-----------|----------------|-------|-------------|--|--|
| | 2009 2010 | | | | | |
| | No. | A mount | No. | Amount | | |
| Total funding for RPGs | 5,179 | \$2,133,951 | 5,078 | \$2,169,058 | | |
| SBIR/STTR | 261 | \$91,954 | 207 | \$85,669 | | |
| Funding for RPGs without SBIR/STTR Program | 4,918 | \$2,041,997 | 4,871 | \$2,082,389 | | |
| Competing grants funded | 1,235 | \$457,834 | 1,253 | \$516,598 | | |
| Administrative Supplements | 267 | \$33,257 | 258 | \$29,022 | | |
| Partial assessment for DHHS Program Evaluation | | \$70,912 | | \$75,329 | | |
| Funds set aside within competing dollars for: | | | | | | |
| Grants within Paylines: | 1,169 | \$423,668 | 1,134 | \$468,594 | | |
| Traditional R01 | 680 | \$259,819 | 726 | \$284,237 | | |
| Program Projects (P01) | 23 | \$39,339 | 26 | \$53,174 | | |
| RFA Grants | 89 | \$49,001 | 95 | \$65,168 | | |
| Share of competing grant funds | | 10.7% | | 12.6% | | |
| Exception Grants | 66 | \$34,165 | 119 | \$48,004 | | |
| Share of competing grant funds | | 7.5% | | 9.3% | | |
| Competing Application Requests | 6,419 | \$2,570,862 | 7,338 | \$3,065,725 | | |
| Funding Success Rate | | 19.2% | | 20.2% | | |
| Percentile funding for R01 grants | | 16th | | 15th | | |
| Average Cost-Competing | | \$371 | | \$412 | | |
| Average Reduction from recommended/requested | | | | | | |
| levels | | -17% | | -17% | | |
| *EXCLUDES projects aw arded w ith Stamp Out Breast Cancer | funds. | | | | | |

| Grant Funding Paylines | | | | | | |
|--------------------------|------|--------|----------------|--|--|--|
| RPG Mechanisms: | 2009 | 2010** | | | | |
| R01 Traditional Grants | 16th | 15th | percentile | | | |
| P01 Program Projects* | N/A | N/A | priority score | | | |
| R03 Small Grants | 210 | 30 | priority score | | | |
| R21 Exploratory Phase I | 16th | 15th | percentile | | | |
| R33 Exploratory Phase II | 155 | 17 | priority score | | | |
| R41/R42 STTR | 180 | 29 | priority score | | | |
| R43/R44 SBIR | 210 | 29 | priority score | | | |

^{*} Formal paylines for P01 grants are determined by the Executive Committee ** In FY 2010, NIH instituted a new peer review scoring system resulting in a two digit priority score. More information on the new system is available under "Peer Review Process" online at: http://grants.nih.gov/grants/oer.htm

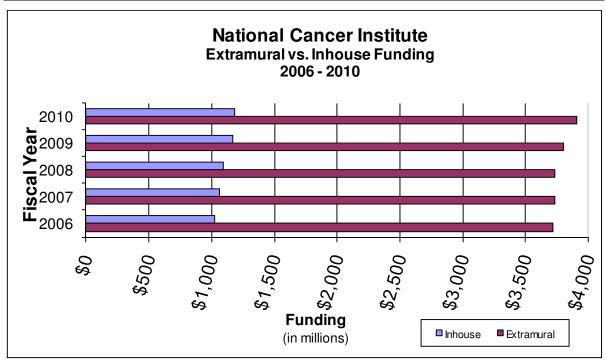


National Cancer Institute Extramural vs. Inhouse Funding

(dollars in millions)

| Extramural | | | | | | | | |
|---------------------------|--|-----------|-----------|-----------|-----------|-------------|--|--|
| Mechanism | 2006 | 2007 | 2008 | 2009 | 2010 | 06-10% chg. | | |
| Research Project Grants | \$2,156.9 | \$2,111.8 | \$2,089.9 | \$2,134.0 | \$2,168.1 | 0.5% | | |
| Cancer Centers | 265.0 | 273.2 | 274.5 | 285.6 | 295.9 | 10.4% | | |
| SPOREs | 124.9 | 123.8 | 123.3 | 131.4 | 133.8 | 6.6% | | |
| Other P50s/P20s | - | - | - | 28.1 | 38.8 | 100.0% | | |
| Other Specialized Centers | 73.9 | 74.7 | 79.3 | 116.4 | 142.7 | 48.2% | | |
| Other Research Grants | 327.1 | 322.9 | 317.8 | 417.3 | 442.6 | 26.1% | | |
| NRSA | 66.6 | 68.2 | 69.9 | 70.1 | 67.6 | 1.4% | | |
| R&D Contracts | 347.8 | 416.9 | 444.2 | 610.1 | 613.8 | 43.3% | | |
| Cancer Control Grants* | 213.5 | 200.1 | 190.4 | - | - | -100.0% | | |
| Cancer Control Contracts* | 137.1 | 133.7 | 134.8 | - | - | -100.0% | | |
| Construction | - | - | - | - | - | 0.0% | | |
| Buildings & Facilities | 7.9 | 7.9 | 7.9 | 7.9 | 7.9 | 0.0% | | |
| Total Extramural Funds | Total Extramural Funds 3,720.7 3,733.2 3,732.0 3,800.9 3,911.1 5 | | | | | | | |

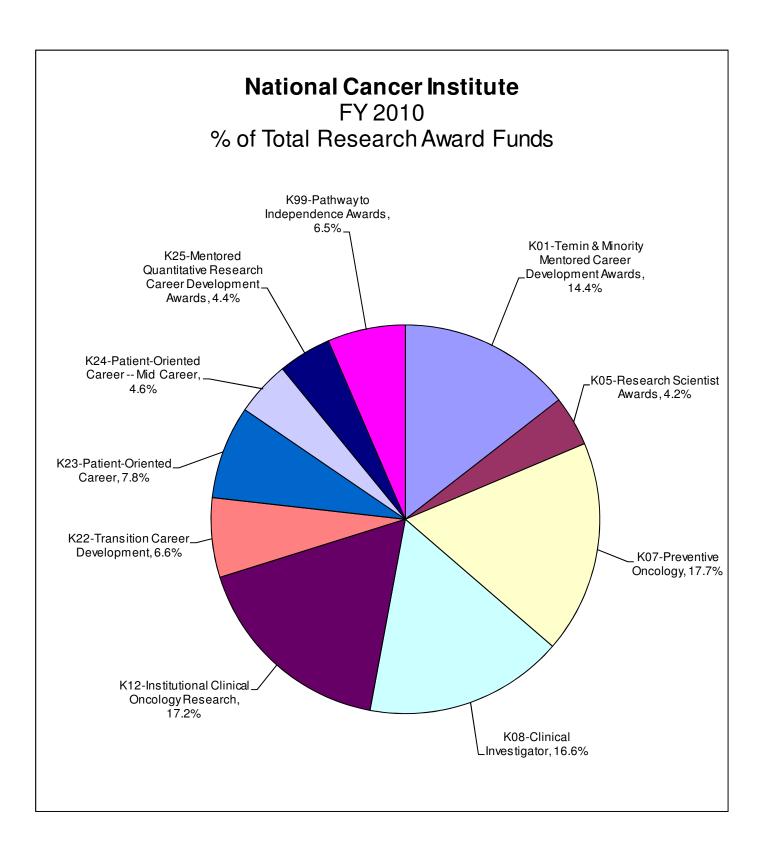
| Inhouse | | | | | | | | |
|---|---------|---------|---------|---------|---------|-------------|--|--|
| Mechanism | 2006 | 2007 | 2008 | 2009 | 2010 | 06-10% chg. | | |
| Intramural Research | \$687.3 | \$706.2 | \$718.4 | \$781.4 | \$805.3 | 17.2% | | |
| RMS | 184.1 | 188.7 | 231.0 | 384.6 | 381.8 | 107.4% | | |
| Control Inhouse* | 155.0 | 164.5 | 146.3 | - | - | -100.0% | | |
| Total Inhouse Funds | 1,026.5 | 1,059.4 | 1,095.7 | 1,166.0 | 1,187.1 | 15.6% | | |
| Total NCI | 4,747.2 | 4792.6 | 4,827.7 | 4,966.9 | 5,098.1 | 7.4% | | |
| Cancer Prevention and Control Eliminated as a Budget Mechanism in FY09. | | | | | | | | |



Research Career Awards - "K" Program

- The Research Career Award mechanism decreased by 5.3% in FY 2010.
- The number of Research Career Awards decreased by 47 between FY 2009 and FY 2010.
- NCI funded 41 awards for the NIH Pathway to Independence program.

| | (Dollars in Thousands) | | | | | |
|-----|---|-----|----------------|-----|---------|--|
| | , | 20 | 09 | 20 | 2010 | |
| | | No. | A mount | No. | Amount | |
| K01 | Temin Awards | 47 | \$7,170 | 30 | \$4,520 | |
| K01 | Minority Mentored Career Development Award | 49 | 6,576 | 47 | 6,303 | |
| | Subtotal, K01s | 96 | 13,746 | 77 | 10,823 | |
| K05 | Research Scientist Award | 20 | 2,926 | 21 | 3,134 | |
| K07 | Preventive Oncology | 108 | 14,585 | 97 | 13,278 | |
| K08 | Clinical Investigator | 85 | 11,779 | 83 | 12,407 | |
| K12 | Institutional Clinical Oncology Research | 17 | 11,643 | 18 | 12,922 | |
| K22 | Transition Career Development | 43 | 6,763 | 30 | 4,963 | |
| K23 | Patient-Oriented Career | 44 | 6,179 | 40 | 5,812 | |
| K24 | Patient-Oriented Career Mid Career | 18 | 2,916 | 20 | 3,422 | |
| K25 | Mentored Quantitative Research Career Development Award | 22 | 3,087 | 25 | 3,311 | |
| | | | | | | |
| K99 | NIH Pathway to Independence Awards | 46 | 5,496 | 41 | 4,842 | |
| | Total Research Career Program | 499 | 79,120 | 452 | 74,914 | |



Research Dollars by Various Cancers

- Funding for various cancers listed below may overlap
- Funding for cancers listed below do not represent the entire NCI budget
- Based on NCI Coding Methodology.

| Research Dollars by Various Cancers (Dollars in Millions) | | | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|--|--|--|
| 2006 2007 2008 2009 2010 | | | | | | | | |
| Total NCI | \$4,747.2 | \$4,792.6 | \$4,827.6 | \$4,966.9 | \$5,098.1 | | | |
| AIDS | 253.7 | 253.7 | 258.5 | 265.9 | 272.1 | | | |
| Brain & Central Nervous System | 130.3 | 148.2 | 153.7 | 151.5 | 156.8 | | | |
| Breast Cancer | 584.7 | 572.4 | 586.8 | 599.4 | 631.2 | | | |
| Cervical Cancer | 83.3 | 82.4 | 76.8 | 70.8 | 77.0 | | | |
| Clinical Trials | 822.3 | 843.7 | 853.2 | 882.8 | 852.3 | | | |
| Colorectal Cancer | 244.1 | 258.4 | 273.7 | 264.1 | 270.4 | | | |
| Head and Neck | 71.3 | 66.2 | 76.1 | 77.1 | 62.7 | | | |
| Hodgkin's Disease | 20.9 | 16.5 | 17.5 | 18.2 | 14.6 | | | |
| Leukemia | 223.5 | 205.5 | 216.4 | 220.5 | 239.7 | | | |
| Liver Cancer | 62.7 | 67.7 | 74.2 | 69.0 | 72.6 | | | |
| Lung Cancer | 242.9 | 226.9 | 247.6 | 246.7 | 281.9 | | | |
| Melanoma | 108.0 | 97.7 | 110.8 | 103.7 | 102.3 | | | |
| Multiple Myeloma | 30.3 | 32.3 | 41.5 | 45.2 | 48.5 | | | |
| Non Hodgkin's Lymphoma | 114.1 | 113.0 | 122.6 | 131.3 | 122.4 | | | |
| Ovarian Cancer | 95.1 | 96.9 | 100.0 | 110.1 | 112.3 | | | |
| Pancreatic Cancer | 74.2 | 73.3 | 87.3 | 89.6 | 97.1 | | | |
| Prostate Cancer | 293.2 | 296.1 | 285.4 | 285.1 | 300.5 | | | |
| Stomach Cancer | 11.5 | 12.0 | 12.4 | 15.4 | 14.5 | | | |
| Uterine Cancer | 19.4 | 16.6 | 17.1 | 18.0 | 14.2 | | | |

| FY 2009 and 2010 NCI American Recovery and Reinvestment Act (Recovery Act) Spending by Mech (dollars in thousands) | | | | |
|--|------|-----------|------|-----------|
| (donais iii triousarius) | | | | |
| | 2009 | | | 2010 |
| | No. | Amount | No. | Amount |
| Research Project Grants: | | | | |
| Noncompeting | - | - | 479 | \$183,403 |
| Admin Supplements | 487 | \$141,375 | (12) | 6,586 |
| Competing | 543 | 230,825 | 3 | 5,392 |
| Subtotal, RPG | 1030 | 372,200 | 482 | 195,381 |
| SBIR/STTR | 1 | 6,906 | - | 47 |
| Total, RPG | 1031 | 379,106 | 482 | 195,428 |
| Cancer Centers | 13 | 72,212 | - | 9,007 |
| Specialized Cancer Centers (U54) | 6 | 18,040 | 4 | 7,698 |
| SPOREs | 2 | 6,831 | - | - |
| Total: Centers, Spec Ctrs, & SPOREs | 21 | 97,083 | 4 | 16,705 |
| Research Career Program | - | 11,360 | - | -67 |
| Cancer Education | 1 | 1,292 | - | - |
| Clinical Cooperative Groups | - | 19,821 | - | 4,598 |
| Other Grants | 1 | 11,201 | - | 9,998 |
| Subtotal, Other | 2 | 43,674 | 0 | 14,529 |
| Total, Research Grants | 1054 | 519,863 | 486 | 266,662 |
| National Research Service Awards | 10 | 1,109 | - | - |
| R&D Contracts | - | 318,458 | 78 | 175,284 |
| Intramural Research | - | 143 | - | 5,490 |
| Research Management & Support | - | 6,023 | - | 3,484 |
| Total, NCI | 1064 | 845,596 | 564 | 410,920 |
| Total Recover Act Amount 1, | | | | 1,256,516 |

NCI received \$1.257 billion in American Recovery and Reinvestment Act (Recovery Act) funds to be awarded over a two year period -- FY 2009 and FY 2010. These Recovery Act funds are an investment in building a strong foundation for a 21st century economy, including sustaining and building the American workforce. The following programs of note are receiving Recovery Act funds through NCI:

- Accelerating Clinical Trials of Novel Oncologic PathWays (ACTNOW) Funding 37 promising clinical trials of molecularly-targeted therapies to speed the delivery of personalized cancer treatments to patients.
- Cancer Centers Programs 62 NCI designated Cancer Centers across the country received \$63 million in Recovery Act funding to supplement Cancer Center Support Grants.
- Personalized Cancer Care / Drug Development Platform Enabling drug development that begins with the discovery of genetic changes and ends with targeted cancer therapies.
 Programs that support this vision include:
 - The Cancer Genome Atlas (TCGA) is developing a comprehensive catalog of genomic changes found in adult cancers;
 - Therapeutically Applicable Research to Generate Effective Treatments (TARGET) is mapping the genetic changes associated with childhood cancers;
 - The Cancer Human Biobank (caHUB) leads quality biospecimen collection and management The NCI Community Cancer Centers Program (NCCCP) involves patients around the
 - country who provide data and volunteer for clinical trials.
- Physical Sciences in Oncology Centers Exploring perspectives from the physical sciences to enhance our understanding of cancer biology.

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