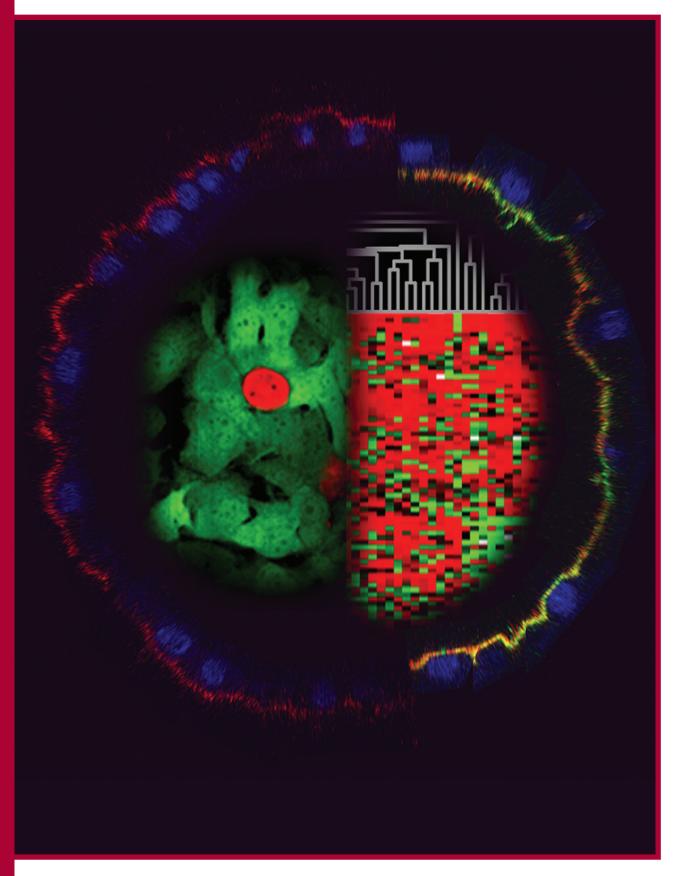
Division of Extramural Activities Annual Report 2011



Deciphering the Complexity of Drug Resistance in Cancer

For more than 30 years, the Laboratory of Cell Biology has focused on understanding the mechanisms by which cancer cells elude the toxic effects of chemotherapy. This work was initially stimulated by the observation that while some cancers go into remission following treatment with anti-cancer drugs, others fail to respond at all (intrinsic resistance), or once in remission relapse with tumors that are difficult to treat with chemotherapy (acquired resistance). New, targeted anti-cancer drugs are not exempt from the problem of both intrinsic and acquired multidrug resistance (MDR). This functional complexity of drug resistance suggests that the mechanisms underlying resistance are likely to be complex as well.

It was something of a surprise when we and others discovered in 1985 that the product of a single gene (ABCB1 or MDR1), an energy-dependent multidrug efflux pump termed P-glycoprotein (P-gp), could account for both intrinsic and acquired resistance in cultured cancer cells. We showed that at least 50 percent of drug-resistant human cancers expressed P-gp at levels sufficient to confer MDR, and strategies to inhibit P-gp in cancers and restore sensitivity to anti-cancer drugs were devised. Along the way, we discovered that common polymorphisms in the *ABCB1* gene, including single nucleotide changes that do not alter the amino acids in P-gp (so-called "silent" mutations), can significantly alter the pattern of MDR and sensitivity to inhibitors. It soon became apparent that we were not curing most MDR cancers with strategies that inhibit P-gp, even in cases where P-gp was expressed and functional.

We decided to reconsider some of the assumptions that had gone into studies on MDR in cancer. First and foremost was the underlying hypothesis that resistance mechanisms that operated in cultured cancer cells reflected mechanisms of resistance in cancers in patients. Growth conditions of such cells differ dramatically from the environment *in vivo*. Furthermore, most cultured cancer cells have been grown outside of the body for many years and have adapted to these highly altered culture conditions by expressing many genes involved in environmental adaptation and traditionally associated with the development of drug resistance. Although cultured cells could be used to catalog *possible* mechanisms of MDR, they by no means reflected the likely mechanisms active in clinical cancers.

Using the tools of modern molecular biology, it was possible to interrogate samples from human cancers, such as ovarian cancer, acute myelogenous leukemia, and hepatoma, and correlate expression of specific drug-resistance genes with clinical outcome. This analysis of clinical cancers revealed robust, but complex, signals predicting clinical outcome involving multiple genes that could independently confer drug-resistance, but seemed to be working together in clinical cancers to thwart effective chemotherapy. P-gp expression was embedded in some of these signals as a potential predictor of poor response to chemotherapy, but was by no means the only MDR gene capable of predicting poor response. It appears that resistance derives from a reprogramming of cellular pathways that regulate growth and response to environmental adversity, and that the cancer cell can draw from many different built-in mechanisms to survive chemotherapy.

Our challenge now is to use system and computational approaches to define the pathways involved in drug resistance, and to develop better *ex vivo* systems to dissect the contribution of the many gene products and pathways involved in the development of MDR in cancer. This would allow development and testing of new approaches to circumventing or targeting resistance, such as RNAi and small molecule inhibitors of some pathways, targeting the Achilles' heel of some MDR cancers that overexpress P-gp (and other MDR cancers) with agents that specifically kill such cells, and strategies that alter resistance pathways through epigenetic changes leading to new patterns of gene expression.

References:

Shen DW, Pouliot LM, Hall MD, and Gottesman MM. Cisplatin resistance: a cellular self-defense mechanism resulting from multiple epigenetic and genetic changes. [Review] *Pharm. Rev.* 2012:64(3);706-721.

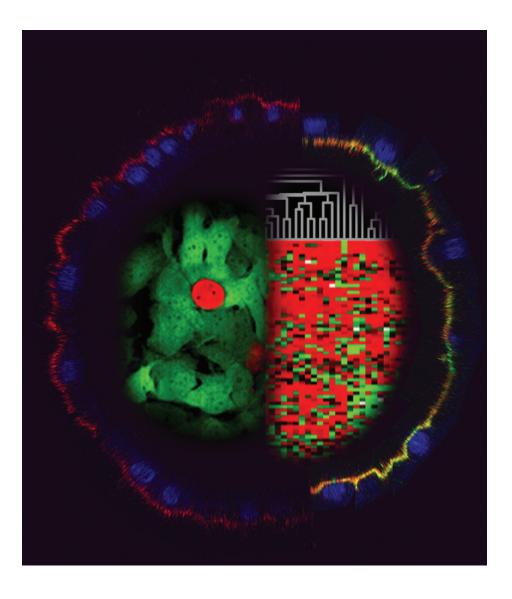
Gillet JP, Calcagno AM, Varma S, Davidson B, Bunkholt Elstrand M, Ganapathi R, Kamat AA, Sood AK, Ambudkar SV, Seiden MV, Rueda BR, and Gottesman MM. Multidrug resistance-linked gene signature predicts overall survival of patients with primary ovarian serous carcinoma. *Clin. Cancer Res.* 2012:18;3197-3206.

Gillet JP, Calcagno AM, Varma S, Marino M, Green LJ, Vora M, Patel C, Orina JN, Eliseeva T, Singal V, Padmanabhan R, Davidson B, Ganapathi R, Sood AK, Rueda BR, Ambudkar SV, and Gottesman MM. Redefining the relevance of established cancer cell lines to the study of mechanisms of clinical anti-cancer drug resistance. *Proc. Natl. Acad. Sci. U.S.A.* 2011:108;18708-18713.

Hall MD, Handley MD, and Gottesman MM. Is resistance useless? Multidrug resistance and collateral sensitivity. [Review] *Trends Pharma-col. Sci.* 2009:30;546-555.

Fung KL and Gottesman MM. A synonymous polymorphism in a common MDR1 (ABCB1) haplotype shapes protein function. *Biochim Biophys Acta* 2009:1794:860-871.

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Cover Images: Cellular and molecular approaches to the study of multidrug resistance in cancer. The outer circle demonstrates the polarized expression of the multidrug transporter, P-glycoprotein, on the apical membrane of kidney epithelial cells. The left panel uses fluorescently labeled drug-resistant cells (green) to show how resistant ovarian cancer cells overgrow sensitive cells (red) following selection in the anti-cancer drug paclitaxel. The right panel illustrates the use of expression arrays to identify genes whose expression is associated with poor response to chemotherapy.

Images and narrative are courtesy of Michael M. Gottesman, M.D., Chief, Laboratory of Cell Biology, Center for Cancer Research, National Cancer Institute, National Institutes of Health

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Introduction



The Division of Extramural Activities (DEA) is the organizational component of the National Cancer Institute (NCI) responsible for coordinating the scientific review of extramural research before funding and for conducting systematic

surveillance of that research after funding. The Division solicits advice from individuals and/or committees of experts on the technical and scientific merit of grants, cooperative agreements, and contracts. The peer review process is critically important to science in that it allows good ideas to surface and to be judged on their merit and promise. The peer review system is the keystone for ensuring that the best science is supported.

The DEA coordinates the activities of: (1) the National Cancer Advisory Board (NCAB), which consists of members appointed by the President, and conducts the second-level review of grants and cooperative agreements and advises the Director, NCI, on policy for the conduct of the National Cancer Program; (2) the Board of Scientific Advisors (BSA) with distinguished scientists from outside the NCI and representatives from the advocacy community advises the NCI leadership on the progress and future direction of the NCI extramural program, evaluates NCI extramural programs, and reviews NCI-initiated research concepts; and (3) extramural training opportunities for NCI program and review staff.

As a Division, we: evaluate the content of all extramural research funded by the NCI and annually track the NCI research portfolio of more than 8,055 research and training awards by using consistent budget-linked scientific information to provide a basis for budget projections; maintain extensive records of this research and provide specialized analyses of the costs, goals, and

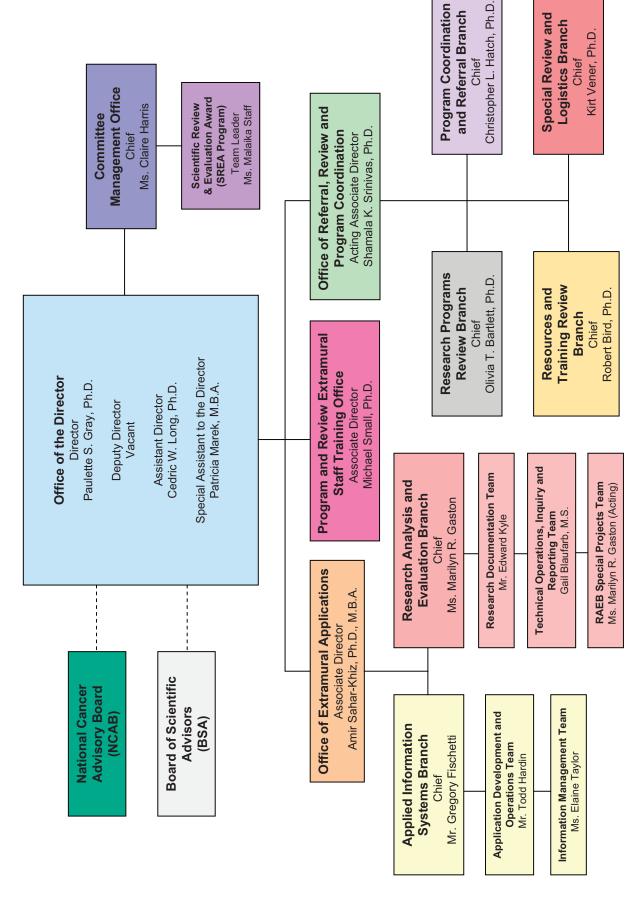
accomplishments of the research; and serve as an NCI resource to others for reporting and dissemination of the NCI's research portfolio. The DEA: monitors budgetary limitations for grant applications; participates in establishing policies to expedite funding; and initiates and implements changes to applications, guidelines, and award processes. The Division also: coordinates, for the NCI, the review and response to appeals from applicants regarding the peer review process or the subsequent disposition and management of grants, cooperative agreements, and contracts; and responds and coordinates requests from the NIH Office of Extramural Research's Agency Extramural Research Integrity Officer for information and assistance regarding scientists (or institutions) supported by NCI research funds who were the subject of allegations, inquiries, and/or investigations of possible research misconduct.

The intent of this annual report is to provide insight and useful information about the research funding process and the role of the DEA in support of NCI's mission. A comprehensive look at each of the major areas of responsibility within the Division is provided. The data presented cover Fiscal Year (FY) 2011 (1 October 2010 - 30 September 2011) and provide data comparison with previous years.

To implement a biomedical research program of the highest quality, the NCI draws on the national pool of scientists actually engaged in research for assistance in selecting the best research and training projects. We sincerely want to thank the more than 2,341 researchers, clinicians, and advocates who gave unselfishly of their time in FY2011 and have contributed to the continuing success of NCI's peer review and advisory activities.

Paulette S. Gray, Ph.D.
Director
Division of Extramural Activities

Division of Extramural Activities



Overview of the Division of Extramural Activities

The paramount goal of the National Cancer Institute (NCI) is to develop the knowledge base that will ultimately lessen the impact of cancer. Among the most important contributors to this base are the outstanding extramurally funded scientists supported by the NCI through grants, contracts, and cooperative agreements. The DEA was established within the NCI to provide the Institute and the scientific community with expert scientific review of the merits of extramural research. An important part of DEA's mission is to manage and coordinate the second level of grants review by the National Cancer Advisory Board (NCAB) and the concept review of all new and reissued Requests for Applications (RFAs) and research and development (R&D) Requests for Proposals (RFPs) with the Board of Scientific Advisors (BSA).

The Committee Management Office (CMO) provides oversight of all NCI-chartered advisory boards and committees, working groups, task forces, and chartered review groups, and it serves as an NIH service center for the National Center for Complementary and Alternative Medicine, the NIH Council of Councils, and a Department of Health and Human Services (HHS) chartered advisory committee. The CMO provides policy guidance and assistance to ensure that the NCI and client HHS/NIH Institutes, Centers, and Offices operate within the appropriate Federal Advisory Committee Act (FACA), the Government in Sunshine Act, and various other policies, procedures, and guidelines.

The DEA also provides effective and timely coordination of program initiatives from the initial concept stage through publication of RFAs, PAs, Notices, and RFPs, and, finally, through the peer review of grant and cooperative agreement applications and contract proposals. The Office of Referral, Review, and Program Coordination (ORRPC), with four branches, was established for: (1) coordination of the development and issuance of NCI program initiatives; (2) execution of grant referral; and (3) management of NCI review activities. Review activities include the organization and management of peer review for all applications and proposals received in response to RFAs, R&D RFPs, Program Announcements with Special Receipt (PARs), and multi-component grant initiatives. The program coordination responsibilities of the DEA, in cooperation with NCI extramural program divisions, offices, and centers, extend to the development of all new extramural program guidelines and funding opportunity announcements (FOAs).

Another program coordination activity is the development and maintenance of referral guidelines for assignment of grant applications to the NCI. These guidelines, included in the *Referral Guidelines for Funding Components of PHS*, are critical to the development of program initiatives across the NIH, as well as to the prompt referral of unsolicited grant applications to the NCI. These guidelines differ from the NCI Internal Referral Guidelines, which are vital to the prompt referral of grant applications to the appropriate NCI program areas.

The Research Analysis and Evaluation Branch (RAEB) works closely with the NCI Office of Budget and Finance to provide budget-linked portfolio data for NCI grants and contracts. In doing so, the Institute has the capability of responding expeditiously to congressional and other inquiries. This Branch has historical budget-linked portfolio data that go back to the 1930s.

The DEA conducts continual evaluation of program initiatives and coordinates policies and procedures to ensure that all aspects are as clear and accessible as possible to staff, advisory groups, and applicants. To facilitate this evaluation, the Office of Extramural Applications (OEA), through the Applied Information Systems Branch (AISB), maintains a Web-based information system to provide key information on new initiatives. This Web-based information system includes early notice of approved concepts, listings of active PAs and recently published RFAs, and policies related to the clearance of new program initiatives. This information is provided in both public Internet (http://deainfo.nci.nih.gov/ funding.htm) and NCI limited-access Intranet versions. Both RAEB and AISB were actively involved in continuing to provide data for the NCI Funded Research Portfolio (NFRP) website (http://fundedresearch.cancer.gov).

Special Activities in the Office of the Director, DEA

In addition to managing and coordinating the extramural operations described in this report, the DEA Office of the Director (OD) is a focal point and repository of information and policies related to various funding mechanisms for NIH grants, staff and awardee responsibilities, eligibility requirements, receipt dates for all granting mechanisms, and special programs. The DEA OD is, for example, the coordinating center for submission of applications for special NIH-wide awards, such as the James A. Shannon Director's Award and the Institutional Development Awards (IDeAs).

The DEA OD ensures that the NCI meets the congressional mandate to promote increased participation of women, children, and members of minority and medically underserved populations in the research areas of cancer cause, prevention, control, diagnosis, and treatment. The NIH Revitalization Act of 1993 mandates that women and members of minority groups be included as subjects in each research project, unless there are clear scientific or ethical reasons that inclusion is inappropriate with respect to the health of the subject or the purpose of the research. Administrative procedures allow NCI staff to resolve inclusion problems after initial review of grant applications that are otherwise highly meritorious. In the event that a grantee believes the proposed study does not warrant or require inclusion of women or persons from minority groups, he or she can apply for a waiver of this requirement. The DEA Director is the Appeals Officer for the NCI and has the authority to grant waivers. In FY2011, 25 applications with preliminary bars to award were received by the DEA. Through corrective action, working with the applicants and program directors, all bars to award were brought into compliance before awards were made.

Additionally, the DEA Director serves as the locus for implementation and oversight of NCI policies concerning extramural research integrity and serves as a resource to all NCI staff with questions in this area. In this role, the DEA Director and designees work to address concerns about extramural research misconduct, misuse of human and animal research subjects, financial mismanagement, and financial conflict of interest involving NCI-supported research. The DEA Director functions as the NCI Research Integrity Officer (RIO) and receives from the appropriate sources all documents related to research misconduct for transmittal and reporting to relevant sources. In FY2011, 10 cases of alleged research misconduct involving NCI funding were opened and under investigation by the Office of Research Integrity, HHS, and referred to the Director, DEA. Five cases were closed, and one of the cases was found to involve research misconduct.*

Extramural Staff Training

Program and Review Extramural Staff Training Office (PRESTO)

The Program and Review Extramural Staff Training Office (PRESTO) was created in 2010 to develop and coordinate the training of scientific Program and Review Staff, and other extramural staff (e.g., members of the NIH Division of Extramural Activities Support) upon request. The mission of PRESTO, which resides in the DEA OD, is to increase the knowledge base of new and experienced staff members and optimize their effectiveness in supporting the goals of the NCI. To accomplish this mission, PRESTO staff members will: (1) design and implement a broadbased curriculum for Program and Review staff; (2) provide training on specialized topics related to understanding of and compliance with NIH

^{*}Cases found to involve research misconduct are published in the Federal Register and NIH Guide for Grants and Contracts.

policies; and (3) identify and develop resources to facilitate individual learning and performance. PRESTO also will collaborate with the Trans-NCI Extramural Awareness Group (TEAG) and the NCI Office of Workforce Management and Development to provide customized job-related training and career development opportunities. Finally, its staff members will monitor the participation of extramural staff in NIH- and NCI-sponsored training activities as well as continuously evaluate the efficacy of these activities.

For FY2012, PRESTO plans to develop and conduct the following activities:

 Surveying NCI extramural staff to identify training needs.

- Launching a website to serve as a training resource.
- Establishing a liaison group consisting of Division/Office/Center (DOC) representatives to provide ongoing feedback to PRESTO.
- Implementing an NCI-specific curriculum for extramural staff.
- Coordinating a series of forums on core extramural staff responsibilities (e.g., NCAB Closed Sessions, Funding Opportunity Announcement Development).
- Publishing a guide for new NCI extramural staff as well as best practice handbooks for Program and Review operations.

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Program Coordination: A Resource for New Funding Initiatives

The DEA performs critical functions in the development of new strategic funding initiatives at the NCI and in the coordination of their publication as Funding Opportunity Announcements, which comprise both RFAs and Program Announcements (PAs). Specifically, members of the Program Coordination and Referral Branch (PCRB) provide expert assistance to NCI program staff members as they work to develop and publish new (and reissue) FOAs. PCRB staff members disseminate various operating policies and procedures pertaining to extramural funding programs. To maintain consistency and completeness, all new and reissued NCI FOAs, Notices, and various associated guidelines are reviewed, edited as needed, and cleared through the DEA, under PCRB coordination, before being forwarded to the National Institutes of Health (NIH) Office of Extramural Research for approval and publication in the NIH Guide for Grants and Contracts and on Grants.gov. In these steps, PCRB staff members help to streamline and clarify FOA technical parameters and requirements as well as optimize accuracy, precision, and clarity of their presentation in proper format. The PCRB verifies consistency with NIH-wide requirements, provides quality control, and coordinates timelines throughout the development and publication processes. Overall, these services ensure the high quality and timely availability of NCI's funding opportunities for cancer researchers as prospective applicants.

Tables 1a and **1b** show the variety of RFAs issued by the NCI in FY2011, and **Table 2** lists RFAs issued by other NIH institutes or centers (ICs) that the NCI has joined as a participating partner. **Tables 3a** and **3b** show the variety of PAs issued by the NCI in FY2011, and **Table 4** lists PAs issued by other NIH ICs that the NCI has joined as a participating partner.

The PCRB continues to provide relevant information and timely updates to all NCI extramural staff members on activities and results related to the requirements for and uses of electronic grant applications. The Branch also serves as a direct source of guidance on this topic for program directors at the NCI and applicants in the extramural scientific community. The Referral Office (RO) staff collaborated with NCI information technology staff members and their contractors to successfully develop and deploy an improved Web-based Awaiting Receipt of Application (ARA) management system (permission for special application receipts), which contributes to an improved efficiency of use by NCI staff members and quality of service for the NCI's grant applicants and awardees. In addition to performing their program coordination and referral responsibilities, PCRB Health Scientist Administrators also served as Scientific Review Officers (SROs) in managing the reviews of 383 student loan repayment program (LRP) contract proposals in FY2011.

Grant Referral: A First Point of Contact for NCI Grant Applicants and Receipt of Applications

In FY2011, a total of 14,312 grant applications were submitted to the NCI for funding with appropriated funds (see Figure 1 and Table 5). Applications for 56 different types of funding award mechanisms (see Appendix E), including the Investigator-Initiated Research Project (R01), Career Development Awards (K series), Research Program Project (P01), Cancer Center Support Grant (CCSG, P30), Specialized Program of Research Excellence (SPORE, P50), Small Research Project (R03), Exploratory/ Developmental Project (R21), Exploratory/ Developmental Phase II Project (R33), Small Business Technology Transfer (STTR) Grant (R41/R42), Small Business Innovation Research (SBIR) Grant (R43/R44), and U-series (Cooperative Agreement) mechanisms, were received.

All applications submitted to the National Institutes of Health (NIH) are assigned to an Institute or Center (IC). The IC in turn has a structure in place to address internal assignments. DEA's Program Coordination and Referral Branch is responsible for receipt, referral, and assignment of applications as well as for program (i.e., scientific initiative and funding opportunity) development functions. Upon receipt of primary and secondary assignments of applications to the NCI by the NIH Center for Scientific Review (CSR), the DEA Referral Officers (ROs): (1) assign all incoming applications to one of the 50 NCI extramural research program areas; (2) track program acceptance; and (3) whenever necessary, negotiate transfers of grant applications to and from other NIH ICs and even other HHS

FY2007 - 2011 18,000 *All Applications Received and Referred by NCI 17,000 -Total R01 Applications 16,000 Grant Applications Received and Referred -Total R21 Applications 15,000 Total R03 Applications 14,000 14,312 13,935 13,000 12,915 12,000 12,147 11,778 11,000 10,000 9,000 8,000 7,000 6,000 6,143 6,418 6,485 5,795 5,785 5,000 4,000 3,000 2,325 2,995 2,771 2,621 2,529 2,000 1,000 478 489 566 515 0 2007 2008 2009 2010 2011 **Fiscal Year**

Figure 1. Receipt and Referral of NCI Grant Applications*

FY2007 - 2011

^{*}Includes NCI Primary and Secondary applications received and referred.

Grant Referral: A First Point of Contact for NCI Grant Applicants and Applications _____

research funding agencies, such as the Agency for Healthcare Research and Quality (AHRQ) and the Centers for Disease Control and Prevention (CDC).

The ROs distribute all of the applications that are to be directly reviewed by NCI DEA-managed peer review groups. These applications include those for P01, Planning Grants (P20), Cancer Centers, Specialized Centers (P50), Conference Grants (R13), Small Grants, certain Phased Innovation Grants (R21/R33), Training Grants (T32 and R25), K-series Career Development Grants, certain R01 Research Project Grants (such as large multi-site clinical trials), and Cooperative Agreement applications.

The first point of contact for applicants is often the RO. The RO is the receipt point for Letters of Intent (LOIs) from potential applicants for multi-component P01 and R13 grants and applications for Academic Research Enhancement Award (AREA, R15) grants for research at institutions and organizations that have little or no current NIH grant award support. Additionally, applicants contact the Referral Office for information about NCI programs, their eligibility to apply the relevance of their proposed research to the missions of various NCI programs, and the names and contact information of NCI program staff members to guide them through the application process. In addition, ROs work with program staff members to determine and/or verify the responsiveness of R21 exploratory/developmental grant applications to the specific FOAs.

DEA's RO serves as the primary NCI contact locus for the extramural scientific community in need of information related to funding opportunities, mechanisms, policies, processes, procedures, new initiatives announced as RFAs or PAs, and the peer review process. In addition, the ROs assist members of the extramural community in navigating NIH and NCI Web pages to obtain current grants-related information, forms, and guidelines.

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Peer Review—The Next Step

Once applications are referred to the NCI and the appropriate program, they must be reviewed. The high caliber of NCI-sponsored research is maintained through a peer review process in which experts in the appropriate fields review and score the merit of research grant applications and contract proposals. The peer review mechanism helps to ensure that the NCI uses its resources wisely and funds research that has the potential to make a significant contribution to science and medicine. The NCI's extramural programs and activities are funded primarily through peer reviewed grants and cooperative agreements. Programs that are funded through research and development contracts also are subject to peer review, including contract-supported projects conducted within the intramural research program.

The peer review system of the NIH consists of two sequential levels of review mandated by statute. The first level is of grant applications assigned to the NCI. This review is performed by either an NIH Center for Scientific Review (CSR) study section, a chartered NCI Initial Review Group (IRG) subcommittee, or an NCI Special Emphasis Panel (SEP), whose primary purpose is to review and evaluate the scientific merit/impact of research grant and cooperative agreement applications. The second level of review, which is for program relevance, is conducted by the National Cancer Advisory Board.

Most investigators are familiar with the NIH CSR study sections, which have primary responsibility for managing the peer review of R01 grant and Fellowship applications. It is less widely known, however, that grant applications representing requests for more than 50 percent of the NCI's extramural budget are reviewed by chartered IRGs and SEPs that are directly formed and managed within the NCI by the DEA. Peer review managed by either the CSR or the DEA is usually determined by the choice of grant mechanism.

The NCI has no direct input into the selection of peer reviewers who serve on CSR study sections. In contrast, members of the NCI IRG and SEPs are selected by DEA review staff, with suggestions from NCI program staff. All chartered DEA review subcommittee members are approved by the Director, DEA, based on their knowledge of the various disciplines and fields related to cancer. There are five active NCI IRG specialized review subcommittees; for example, Subcommittee A reviews Cancer Center grant applications and Subcommittee I reviews career development applications. (The membership of NCI-chartered subcommittees may be found in Appendix C (pp. 104-112) and at http://deainfo. nci.nih.gov/advisory/irg/irg.htm.) IRG members are appointed for varying terms of service, which may be up to 6 years. DEA SEPs may be formed to review grant applications received in response to RFAs and PARs, other specialized applications, or R&D contract proposals received in response to RFPs. Members of such panels are selected on a one-time, as-needed basis to review specific grant and cooperative agreement applications, or contract proposals. Additional information about NCI SEPs can be accessed at http://deainfo.nci. nih.gov/advisory/sep/sep.htm.

Both the SEPs and IRGs provide advice on the scientific and technical merit of applications for research and research training grants, cooperative agreements, and contract proposals relating to scientific areas relevant to cancer. DEA SROs manage the scientific reviews of grant applications and R&D contract proposals, including the selection of peer reviewers and the overall administration of the peer review process.

The peer review of grant applications generally occurs in the fall, winter, and spring prior to the February, June, and September NCAB meetings, respectively.

Review Workload

In FY2011, the DEA organized, managed, and reported the review of a total of 2,032 grant and cooperative agreement applications (see Table 6) and 679 contract proposals (see Table 12) assigned to the NCI for funding with appropriated dollars. The total number of grant, cooperative agreement applications, and contract proposals reviewed in FY2011 was 2,711 (see Figure 2). Table 7 provides a summary of the applications reviewed by NCI IRG subcommittees and SEPs. Fifteen meetings of the NCI IRG subcommittees and 111 SEPs were convened to review grant applications and contract proposals of various types. In addition, there were 16 site visits and 53 other review-associated meetings, such as orientation teleconferences, applicant interviews, and fact-finding review panel work groups. Approximately 2,039 peer reviewers and expert consultants served on the NCI DEA-managed IRG subcommittees, SEPs, and work groups in FY2011 (see **Appendixes C** and **D**). Members were selected because they are authorities in relevant fields of biomedical research or because they represent informed consumer perspectives.

Peer Review Functions

The Office of Referral, Review, and Program Coordination (ORRPC) is responsible for the coordination and management of the review of grant applications, cooperative agreement applications, and contract proposals for the Institute, and it includes three review branches, a referral branch, and the Office of the Associate Director. The review branches are responsible for organizing, managing, and reporting the scientific peer review of applications for a wide variety of grant

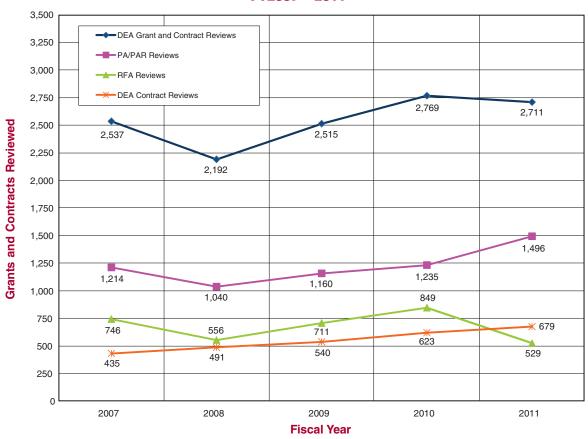


Figure 2. DEA Review Workload* FY2007 - 2011

^{*}Withdrawn applications are not included. LRP contracts are not included in the RFAs.

mechanisms and topics. Reviews are conducted by one of the five subcommittees of the NCI IRG or by one of the specially convened SEPs as shown in Table 7.

The Research Programs Review Branch (RPRB) and the Resources and Training Review Branch (RTRB) are primarily responsible for the peer review of a variety of unsolicited multi-component and career development grant applications (see Table 6). The RPRB has primary responsibility for review of unsolicited P01 and SPORE applications involving translational research focused on various disease sites. All of these applications are reviewed by SEPs. The RTRB manages the five active subcommittees of the NCI IRG (see Appendix D). Specifically, the RTRB has primary responsibility for review of applications for cancer centers, cancer training and career development, as well as for managing the corresponding five subcommittees of the NCI IRG.

The Special Review and Logistics Branch (SRLB) organizes and manages peer review primarily for grant applications in response to most of NCI's RFAs, specialized PARs, and R&D contract proposals submitted in response to RFPs; all of these reviews are conducted by SEPs. In addition, the Program Coordination and Referral Branch (PCRB) often collaborates with the review branches to assist in the review of special initiatives and also has responsibility for the review of conference grant and loan repayment program applications.

SROs in these review units prepare the summary statements, which present the peer reviewers' written evaluations of and recommendations for the applications considered at each review committee meeting. Each principal investigator (applicant) for an application also receives the summary statement as do the NCAB members for second-level review.

Reviews conducted by the RTRB, including those of the Cancer Center Support Grant (CCSG) applications, involve a two-tier initial peer review

process. Normally, the first tier of the review involves a site visit to the applicant's institution by an expert review panel; these review formats provide an opportunity for the reviewers to question the applicants directly to clarify issues in the application, thereby enhancing the review process. The review panel members prepare a draft review report, which is then considered, along with the application, by the relevant subcommittee of the NCI IRG. One of the five active NCI subcommittees of the NCI IRG serves as the "parent committee" for final scoring of CCSG applications after expert panel reviews: Subcommittee A is the "parent committee" for the P30 applications. The other four subcommittees of the NCI IRG (Subcommittees F. G. I. and J) review all of the career development, training, and education grant applications submitted to the NCI.

Research Programs Review Branch

Program Project (P01) Applications

A significant proportion of the effort of the RPRB during FY2011 was associated with the review of unsolicited P01 applications. During FY2011, the SROs in the RPRB organized and managed the review of 122 new, renewal (recompeting), resubmitted (amended), and revised (competitive supplement) P01 applications (see Table 8), which was a higher P01 workload than the NCI has seen in the past 4 years, as shown in Figure 3. Approximately 53 percent of the applications were proposing new multidisciplinary research programs, and 38 percent of the applications were amended (see Table 8). Sixty-two (51%) of the 122 applications were referred to NCI's Division of Cancer Treatment and Diagnosis (DCTD) (see Table 9). The 122 applications requested approximately \$312 million in total costs for the first year (see Table 9) and more than \$1.6 billion in total costs for all years. Of the 122 P01 applications reviewed in FY2011, 21 (17%) included multiple PIs.

P01 applications are reviewed in groups of up to 10 applications by a one-tier, "paper only"

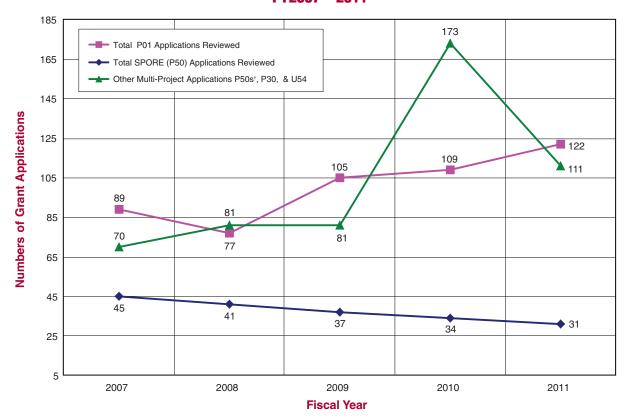


Figure 3. P01, SPORE, and Other Multi-Project Research Applications Reviewed*
FY2007 - 2011

review process. All review panels are constituted as SEPs, with reviewers recruited based on the expertise needed for the applications being reviewed. The applications are grouped based on science, typically into four to six SEPs. Although the groupings vary depending on the applications that are received in each review round, the SEPs typically address: molecular biology; cellular and tissue biology; prevention, epidemiology, and control; discovery and development; and clinical studies. A SEP may include applications representing a continuum of research from basic through translational studies. The SEP reviewers evaluate and score projects, cores, and integration, and then assign the overall impact/priority score to each application.

Specialized Centers of Research Excellence (P50)

The other major responsibility for RPRB during FY2011 was the peer review of applications

received for the NCI SPORE. These large, complex multidisciplinary P50 research center applications focus on translational research directly applicable to human disease in various organ sites. During FY2011, the RPRB organized and managed five SEPs for the review of a total of 31 SPORE applications (see Figure 3). These 31 applications addressed multiple organ sites, with the following distribution of applications: Brain (2); Breast (5); Gastrointestinal (GI)(3); Head and Neck (HN)(1); Leukemia (1); Lymphoma (2); Lung (4); Liver (1); Multiple Myeloma (2); Pancreatic (1); Prostate (4); Ovarian (2); Skin (2); and Genitourinary (1). Overall, 20 (65%) of the 31 applications were for new SPOREs, and 11 (35%) of the 31 applications were renewal applications. The applications requested \$84,221,617 in total costs for the first year of support and more than \$402,500,000 in total costs for all years.

^{*}Withdrawn applications are not included.

[†]Non-SPORE applications.

The disease sites addressed in SPORE applications for each review round continue to be very varied. Five applications addressing four different disease sites were reviewed for the February 2011 NCAB meeting, 21 applications addressing 12 disease sites were reviewed for the June 2011 NCAB meeting, and five applications addressing five disease sites were reviewed for the September 2011 NCAB meeting.

The large number of new and resubmitted (amended) applications related to multiple disease sites resulted in increased complexity for the SROs who manage the reviews of the SPORE applications. Due to the complexity of the review, the special review criteria, and the large number of reviewers required for the research proposed, the SROs who organize the SPORE reviews routinely conduct orientation conference calls with all of the reviewers 3 to 4 weeks before the review meeting to explain the special features of this program and the associated special review criteria.

Potential applicants for both P01 and SPORE grants are strongly encouraged to have pre-sub-mission conferences with the appropriate NCI program (and review) staff members so that they fully understand the guidelines, requirements, and goals of these complex applications. SROs from RPRB routinely participate in these pre-submission conferences to ensure that applicants also understand the formatting requirements, the review process, the special review criteria, and the special scoring paradigms for these applications.

Resources and Training Review Branch

In FY2011, the Resources and Training Review Branch administered five NCI IRG subcommittees (A, F, G, I, and J). This Branch has the responsibility for the reviews of applications for cancer centers, institutional training and education programs, and career development awards. Its staff members also participate in the reviews of applications for other funding mechanisms handled by the DEA.

The reviews conducted by the RTRB subcommittees are of two types: (1) the complex, multidisciplinary applications, such as the CCSG; and (2) single component training and career development applications. The review formats for the Cancer Center Support Grant applications generally involve a two-step initial review. The first step of the review involves a site visit to the applicant institution. Each group of experts serves as a fact-finding body to clarify any information or issues related to the application through discussion with the applicants. This site visit committee prepares a draft report that is presented, with the full application, for discussion, evaluation, and final scoring by the parent subcommittee, NCI IRG Subcommittee A. Scoring by a parent subcommittee provides a more uniform evaluation of applications than scoring by individual review teams. The single component applications are reviewed by a chartered subcommittee. Please note that the NCI's clinical trial enterprise is undergoing review, and changes in clinical trial approval and funding are expected in the future.

NCI Cancer Centers

The CCSG Funding Opportunity Announcement (FOA) was released in conjunction with revisions to the guidelines and other supporting documents in October 2010. The SRO for NCI-Subcommittee A played a major role in drafting the CCSG FOA and the subsequent drafting of guidelines for both applicants and reviewers. During FY2011, Subcommittee A reviewed 16 applications.

Training and Career Development

Between 2007 and 2009, the number of applications for career development awards had declined. The significant increase from 385 applications in 2009 to 474 in 2010, however, was stabilized to 438 in 2011. The number of training grant applications was 142 in 2011 (see Figure 4).

National Clinical Trials Network

Late in FY2010, the NCI initiated a new effort entitled "Transforming the NCI Clinical Trials

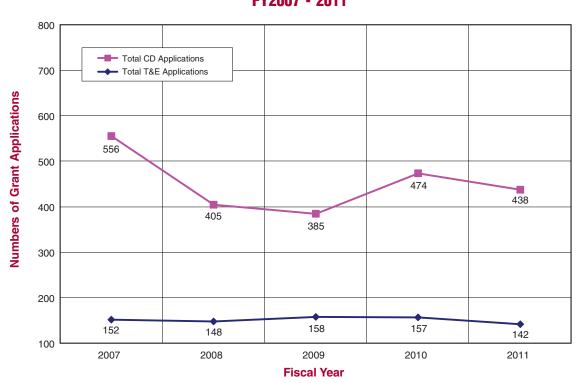


Figure 4. Numbers of Career Development (CD) and Training and Education (T&E)

Applications Reviewed*

FY2007 - 2011

CD Mechanisms: K01, K07, K08, K18, K22, K23, K24, K25, K99. T&E Mechanisms: K12, R25, T32. *Withdrawn applications are not included.

Enterprise," to fully evaluate and upgrade the Clinical Cooperative Group Program. Although this process is ongoing, and until a new FOA and Guidelines document for the National Clinical Trials Network (NCTN) are written and approved, the NCI is not accepting new or competing U10 Cooperative Agreement applications that request funding. It is anticipated that the NCI will again be receiving applications for NCTN review in FY2013.

Other RTRB Activities

To assist reviewers in preparing for their participation in peer review, Reviewer Guides are maintained for all of the application types reviewed by the RTRB. These Reviewer Guides were updated for the newly reissued FOAs and for electronic receipt. This resource was especially helpful for the subcommittee members who evaluate Training and Career Development grant applications because most reviewers on each sub-

committee review several types of applications. The Reviewer Guides contain general information on peer review and NIH rules regarding the use of human subjects in research, as well as specific instructions for each of the mechanisms to be reviewed by that subcommittee. These mechanism-specific guides have been completed for all education, training, and career development types of applications that are reviewed in the RTRB, and for the Cancer Centers applications that are evaluated by Subcommittee A.

Special Review and Logistics Branch

The SRLB organizes and manages peer review primarily for grant applications submitted in response to NCI RFAs and specialized PARs as well as for contract proposals submitted in response to specific RFPs. The reviews are conducted with SEPs and involve recruiting scientists with the appropriate expertise for each review meeting. During FY2011, the DEA reviewed

2,025 applications received in response to 22 RFAs and 40 PAs/PARs.

Following approval of RFA concepts by the NCI Scientific Program Leaders (SPL) and the BSA, program staff members prepare RFAs for publication in the NIH Guide for Grants and Contracts. DEA staff members, including members of the SRLB, assist in critically reading the draft documents and in providing recommendations for clarity relative to application requirements and review criteria. In an RFA, a specific, published dollar amount is set aside by the Institute and approved by the BSA, whereas for a PAR, there is no dollar set-aside and no requirement for BSA review. Table 10 lists the RFAs and number of related applications that were reviewed by the DEA in FY2011. Table 11 presents the number of applications submitted in response to PAs or PARs, the review of which is shared by the SRLB, the RPRB, and the RTRB. The Institute also issues RFP solicitations seeking offers for contracts to support activities targeted to highly specific Institute goals.

Technology Research Applications

The majority of technology research initiatives use the R21 Exploratory/Developmental award mechanism and the R33 Exploratory/Developmental Phase II award mechanism. The R21 mechanism is intended to encourage exploratory/ developmental research by providing support for exploratory pilot projects in the early stages of project development. The R33 mechanism is suitable for projects where "proof-of-principle" of the proposed technology or methodology already has been established and supportive preliminary data are available. Both of these mechanisms are well suited for technology development. In FY2011, 191 technology applications for Exploratory/Developmental grants (R21) and Exploratory/Developmental Phase II grants (R33) were reviewed under five RFAs. In addition, 25 cooperative agreement (U24) applications were reviewed for "Clinical Proteomic Technologies for Cancer (CPTC) Initiative: Proteome Characterization Centers" and seven P50 applications for "In Vivo Cellular and Molecular Imaging Centers." Furthermore, 44 R01 applications were submitted in response to an RFA entitled "Advanced In Vivo Imaging to Understand Cancer Systems."

The Small Business Innovation Research (SBIR) program supports Phase I feasibility applications (R43), Phase II applications (R44), and Fast-Track applications (R43/R44). In 2009, there was the first issuance of the SBIR Phase II Bridge Award RFA designed to "bridge the gap" between the end of the Phase II award and commercial development. That program continued in 2011. As shown in **Figure 5**, the total number of SBIR applications received and reviewed in 2011 (130) represents a fivefold increase from the number submitted in 2010 (25).

Multi-Component Research Applications

Figure 3 describes the historic and current workload for multi-component grant applications. In addition to the FOAs for SPORE (peer reviewed in RPRB) and Cancer Centers (peer reviewed in RTRB), there were an additional five multi-component initiatives: Barrett's Esophagus Translational Research Network (RFA-CA-10-014); Tumor Microenvironment Network (TMEN) (RFA CA-10-021); Comprehensive Partnerships to Reduce Cancer Health Disparities (RFA CA-11-001); Population-based Research Optimizing Screening Through Personalized Regimens (RFA CA11-003); and *In Vivo* Cellular and Molecular Imaging Centers (ICMICs) (PAR09-157).

Small Grant Programs

Several small grant (R03) PAR program initiatives stimulated increased interest in the applicant community. These initiatives provided support for many new investigators and pilot studies in cancer prevention (PAR-08-055); cancer epidemiology (PAR-08-237); and behavior research in cancer control (PAR-09-003). In FY2010, there were 351 applications submitted in response to the three initiatives. In FY2011, those same initiatives attracted 428 applications, a significant increase. In FY2011, an additional 139 R03

Technology Applications† SBIR/STTR Applications **Numbers of Grant Applications**

Fiscal Year

Figure 5. Technology Initiatives
Applications Reviewed*
FY2007 - 2011

*Withdrawn applications are not included. †2011 includes: R01, R21, R33, P50, U01, U24.

applications were submitted under other Program Announcements and were reviewed in CSR.

Research and Development Contract Proposals

The DEA SRLB and PCRB reviewed 679 R&D contract proposals (including 386 Loan Repayment Program applications) received in response to 38 RFPs. Of those 38 RFPs, 35 were part of the Omnibus Solicitation for SBIR published each fall (Phase I and II topics) (see Table 12).

During review, several elements of each proposal are individually evaluated and scored, with the combined score indicating the overall merit. After negotiations, contract awards result from the RFP solicitation. Phase II SBIR proposals can be submitted only at the request of the Institute. To facilitate the contract review process, the SRLB has been working with the staff of DEA's Applied Information Systems Branch to develop a series of Web-based documents to be used for contract peer review.

NCI Grant and RFA Funding

The Board of Scientific Advisors (BSA) is responsible for advising the NCI Director on the extramural program and the future direction and funding of each Division's extramural research. As such, it provides concept review for NCI-sponsored RFAs. **Figures 6** and **7** show total NCI Grant and RFA funding according to scientific concept area in FY2010 and FY2011. **Figure 8** shows RFA concepts that the BSA approved from FY2008 through FY2011 according to the sponsoring NCI Division, Office, and Center.

Table 13 presents a summary of total funding of NCI grant awards by mechanism for FY2011. In Table 14, a comparison is made of the average

cost and number of NCI R01, P01, R03, R13, R21, P30, P50, U01, U10, and U19 grants and cooperative agreements awarded in FY2007 through FY2011 according to the extramural divisions, offices, and centers.

Trends in grant funding according to scientific discipline and organ site are provided in Tables 15 and 16. Table 17 reports NCI's funding of foreign research grants in FY2011, and Table 18 reports foreign components of U.S. domestic research grants in FY2011. Note: Some grant awards made during a fiscal year may have been for grant applications reviewed in a prior fiscal year.

Training and Education Tumor Immunology (5.73%; 0.30%) (3.86%; 0.25%) Special Populations (2.34%; 1.2%) Cancer Biology (21.14%; 1.24%) Rehabilitation/Survivorship (0.48%; 0%) Organ Systems (4.63%; 0.10%) Cancer Causation Multi-Disciplinary (0.08%; 0%) (9.64%; 0%) Cancer Control (4.63%; 1.08%) Epidemiology/Surveillance **Cancer Genetics** (0.6%; 0.20%) (1.57%; 1.57%) Cancer Prevention **Developmental Therapeutics** (5.93%; 1.39%) (8.21%; 0.21%) Cancer Technology (5.92%; 5.50%) **Detection and Diagnosis** (8.18%; 1.01%) Clinical Trials Community (12.83%; 1.37%) Oncology/Rehabilitation (4.22%; 3.26%)

Figure 6. NCI Grant and RFA Funding Percentages by Concept Area FY2010

Percents represent Total Funding and RFA Funding for the Concept Area as a percentage of Total NCI Grants.

Concept Area (% of Total Funding to Total NCI Grants; % of RFA Funding to Total NCI Grants)

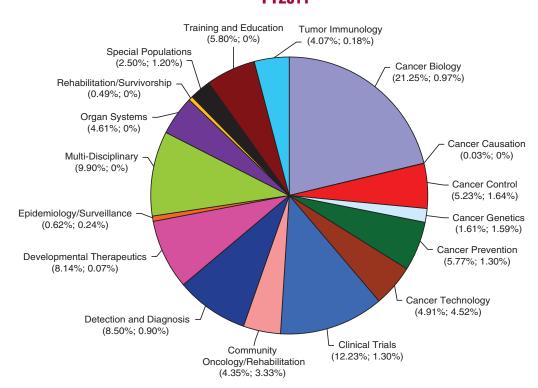


Figure 7. NCI Grant and RFA Funding Percentages by Concept Area FY2011

Percents represent Total Funding and RFA Funding for the Concept Area as a percentage of Total NCI Grants. Concept Area (% of Total Funding to Total NCI Grants; % of RFA Funding to Total NCI Grants)

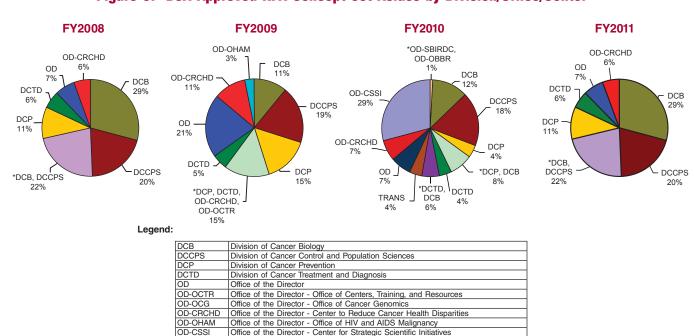


Figure 8. BSA Approved RFA Concept Set-Asides by Division/Office/Center

OD-OHAM OD-OBBR

Office of the Director - Office of Biorepositories and Biospecimen Research Office of the Director - Small Business Innovation Research Development Center

NCI (DCTD), Trans-NIH * Indicates co-funding among NCI Divisions/Offices/Centers.

Supporting Peer Review Consultants

Ensuring that highly qualified individuals are available for expert review of grant applications and contract proposals requires an efficient administrative support system. The DEA's Scientific Review and Evaluation Activities (SREA) unit, residing within the NCI Committee Management Office (CMO), supports the NCI peer review process by compensating consultants for their services on the NCI IRG subcommittees or SEPs and by reimbursing for their travel and other expenses (see Appendixes C and D). The SREA staff also approves and processes payments for other activities related to review, including hotel contracts, teleconferencing services, and contract-supported ticketing services.

The NCI SREA program is a multi-million dollar program. The staff members of CMO continue to oversee the successful reconciliation of peer review costs charged against the SREA account, identify erroneous charges, and keep an extensive tracking sheet on all costs related to approximately 135 peer review-associated meetings, which all contribute to successfully managing the budget. The CMO is able to provide the DEA Director with a clear picture of funds spent against the SREA budget throughout the year to ensure there are enough funds to cover all NCI peer review activities.

During FY2011, approximately 2,039 consultants were paid honoraria and a flat-rate reimbursement for meals and incidental expenses for serving at more than 135 peer review meetings (Appendix D). There were 4,083 instances of honoraria and flat rate payments to NCI's peer review consultants. The SREA staff works diligently to ensure reviewers are reimbursed in a timely manner and, when appropriate, contacts every reviewer with an unpaid or returned reimbursement status. The SROs have expressed their gratitude to the members of the SREA team for tracking the reviewers' payments and, when necessary, helping reviewers complete their Secure Payee Registration System (SPRS) registration. Due to

these proactive efforts by the SREA staff, only 21 of 4,083 instances of honoraria and flat-rate payments owed to NCI peer review consultants were not paid in FY2011.

The NCI continued to be a participant in the Hotel Centralization Program with the NIH SREA Management and Service Center in FY2011. The NIH SREA Management and Service Center conducts the final review and processing of all NCI peer review meeting hotel contracts and invoices. The SREA staff, however, is responsible for ensuring all hotel charges are valid and accurate before all hotel invoices are processed for payment by the NIH SREA Management and Service Center. Teleconference meeting costs and airline tickets were paid expeditiously throughout the year, and SREA staff ensured the timely review and approval of 105 hotel contracts and 96 hotel invoices.

The CMO and its SREA program created new training materials and conducted training sessions for NCI DEA staff. These training sessions encompass all facets of the peer review process as it relates to the CMO and SREA. The Committee Management Activities section includes the specific training sessions that were held in FY2011.

The SREA staff collaborates with the Associate Director, ORRPC, NCI DEA Branch Chiefs, and SROs on the development of NCI SREA policies and procedures. On an ongoing basis, they monitor and evaluate current SREA activities, and they initiate changes and improvements whenever warranted. The NCI Committee Management Procedures for Peer Review Meetings training book, which contains detailed guidelines, policies, and procedures for all aspects of SREA activities, is updated as needed. This training book is given to all NCI SROs and Extramural Support Assistants (ESAs) as a reference guide for important CMO and SREA policies and procedures that are integral to the peer review process and the NCI's mission.

DEA's Role in Advisory Activities

Beyond its central role in coordinating the referral of grants and peer review, perhaps the most far-reaching role the DEA plays across the NCI is the coordination and administration of NCI's nine chartered Federal advisory committees (see **Appendix C**). The memberships and activities of these advisory bodies are coordinated by the Office of the Director, DEA, and the Committee Management Office, DEA, in consultation with the NCI Director. A primary responsibility of the DEA is coordination of the activities of the NCAB, whose members are appointed by the President and whose responsibilities include conducting the second-level review of grant and cooperative agreement applications, as well as advising the NCI Director on policy for the conduct of the National Cancer Program. The DEA also coordinates administration of the Board of Scientific Advisors (BSA), the body responsible for the oversight and concept review of the extramural programs and initiatives of the NCI. Under the various chartered committees, working groups are formed to address and make recommendations on several important areas of cancer research related to basic research, clinical trials, diverse populations, cancer advocacy, treatment, cancer control, drug development, prevention, communication, education, and so on. As such, the DEA plays a major role in the development and issuance of PAs, PARs, and RFAs, the major extramural program initiatives used by the NCI to fund extramural research. The DEA Director serves as Executive Secretary to the NCAB and the BSA. (See Appendixes A and B for highlights of the activities of these Boards in FY2011 and Appendix C for a list of current chartered committee members.)

Major NCI Advisory Bodies Administered by the DEA

National Cancer Advisory Board (NCAB). NCI's principal advisory body is the Presidentially appointed **NCAB**. The Board advises the Department of Health and Human Services (HHS) Secretary and the NCI Director on issues

related to the entire National Cancer Program and provides a second level of review for grant applications referred to the NCI and for the U.S. Food and Drug Administration (FDA) (see Appendix A).

President's Cancer Panel (PCP). The PCP consists of three members appointed by the President, who by virtue of their training, experience, and background, are exceptionally qualified to appraise the National Cancer Program. At least two members of the Panel are distinguished scientists or physicians, and the third member is a nationally recognized cancer research advocate. The Panel monitors the development and execution of the activities of the National Cancer Program, and reports directly to the President. Any delays or hindrances in the rapid execution of the Program are immediately brought to the attention of the President.

Board of Scientific Advisors (BSA). The BSA represents the scientific community's voice in NCI-supported extramural science. The Board, composed of distinguished scientists from outside the NCI and representatives from the advocacy community, advises the NCI leadership on the progress and future direction of the Institute's Extramural Research Program. The Board evaluates NCI extramural programs and policies, and it reviews concepts for new research opportunities and solicitations to ensure that those concepts are meritorious and consistent with the Institute's mission (see Appendix B).

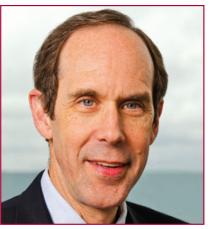
Boards of Scientific Counselors (BSCs) for Basic Sciences, and for Clinical Sciences and Epidemiology. The two BSCs, managed through the Office of the Director (OD), NCI, advise the Institute leadership on the progress and future direction of NCI's Intramural Research Program residing in the Center for Cancer Research (CCR) and the Division of Cancer Epidemiology and Genetics (DCEG). These groups of scientific experts from outside the NCI evaluate the performance and productivity of NCI staff sci-

NCI Advisory Boards

BSA New Members



Dr. Sangeeta N. Bhatia Massachusetts Institute of Technology



Dr. Brian J. Druker Oregon Health and Science University



Dr. Karen M. Emmons
Harvard School of Public Health



Dr. Stanton L. Gerson
Case Western Reserve University



Dr. Theodore S. Lawrence
University of Michigan
Medical School

NCI Advisory Boards (continued)

BSA New Members



Dr. Francis Ali-Osman

Duke University School of Medicine



Dr. Luis F. Parada University of Texas Southwestern Medical Center



Dr. Lincoln Stein
Ontario Institute for Cancer Research



Dr. Gregory L. Verdine Harvard University

entists through periodic site visits to intramural laboratories and provide evaluation and advice on the course of research for each Laboratory and Branch.

Director's Consumer Liaison Group (DCLG). The DCLG advises the NCI Director with respect to promoting research outcomes that are in the best interest of cancer patients. To this end, the DCLG will conduct these activities with the intent to identify new approaches, promote innovation, recognize unforeseen risks or barriers, and identify unintended consequences that could result from NCI decisions or actions. Additionally, the DCLG will provide insight into enhancing input, optimizing outreach, and promoting strong collaborations, all with respect to non-scientist stakeholders.

Clinical Trials and Translational Research Advisory Committee (CTAC). The CTAC advises and makes recommendations to the NCI Director, NCI Deputy Directors, and the NCI Division/ Office/Center (DOC) Directors on the NCIsupported national clinical trials enterprise to build a strong scientific infrastructure by bringing together a broadly developed and engaged coalition of stakeholders involved in the clinical trials process. In addition, the Committee makes recommendations regarding the effectiveness of NCI's translational research management and administration program, including needs and opportunities across disease sites, patient populations, translational developmental pathways, and the range of molecular mechanisms responsible for cancer development. The CTAC also will advise on the appropriate magnitude for dedicated translational research priorities and recommend allocation of translational research operations across organizational units, programs, disease sites, populations, developmental pathways, and molecular mechanisms. This responsibility encompasses oversight of all clinical trials, both extramural and intramural. The Committee provides broad scientific and programmatic advice on the investment of taxpayer dollars in clinical trials and related science.

NCI Frederick Advisory Committee (NFAC). The NFAC will provide advice and make recommen-

dations to the Director, NCI, and the Associate Director, NCI-Frederick, on the optimal use of the NCI-Frederick facility to rapidly meet the most urgent needs of the Institute. The NCI facility in Frederick, Maryland, was established in 1972 as a Government-owned Contractor-operated facility. In 1975, the facility was designated as a Federally Funded Research and Development Center (FFRDC) to provide a unique national resource for the development of new technologies and the translation of basic science discoveries into novel agents for the prevention, diagnosis and treatment of cancer and AIDS. The Committee will review major new projects proposed to be performed at NCI-Frederick and advise the Director, NCI, and Associate Director, NCI-Frederick, about the intrinsic merit of the projects and about whether they should be done at the Frederick facility.

NCI Initial Review Group (IRG). The IRG, composed of five active subcommittees, reviews grants for centers, research projects, and research training activities in the areas of cancer cause. prevention, diagnosis, treatment, and control. Members may be appointed as standing committee members with overlapping terms of up to 6 years, or as "temporary" members with all of the rights and obligations of committee membership. including the right to vote on recommendations in which the individual fully participated as a reviewer for a specific meeting. Consultants also may be invited to serve as special experts or ad hoc members to provide information or advice. These individuals generally serve on site visit groups or work groups providing critical information to the chartered advisory subcommittees responsible for initial peer review.

NCI Special Emphasis Panels (SEPs). The SEPs advise the NCI Director and the DEA Director regarding research grant and cooperative agreement applications, contract proposals, as well as concept reviews relating to basic and clinical sciences, and applied research and development programs of special relevance to the NCI. Membership of a SEP is fluid, with individuals designated to serve for individual meetings rather than for fixed terms. These individuals have all of the rights and obligations of committee membership, including the right to vote on recommendations.

Committee Management Activities

The NCI Committee Management Office (CMO) is critical to the continued success of all NCI Federal advisory committee activities, including Boards, Advisory Committees, subcommittees, working groups, review panels, and so on. The CMO is located in in the Office of the Director, DEA, NCI. This office continues to provide expert advice to the NCI Director, NCI Deputy Directors, the NCI DEA Director, and other senior-level Institute/Center/Client staff persons on all rules, regulations, guidelines, policies, procedures, etc., governing the Federal Advisory Committee Act (FACA). The CMO also is an established service center for the management of other Institute's Federal advisory committees. Service Center Clients include the following: NIH Council of Councils (CoC), National Center for Complementary and Alternative Medicine (NCCAM)(Note: this agreement was terminated in October 2011 for budgetary reasons); and the Secretary's Advisory Committee on Genetics, Health and Society (SACGHS)(Note: this agreement was terminated in February 2011 when the Committee was dissolved per an HHS directive).

As a service center for the Office of the Director, NIH, and NCCAM, the NCI CMO continued to provide exceptional service to these Client-Institutes on the management of their Federal advisory committees. The CMO effectively managed a comprehensive ethics program in support of NCCAM and CoC. Ethics services include review of OGE-450s of new NCCAM Council and CoC advisory committee members. For all NCI Service Center advisory committees, the CMO also provides the following committee management services: charter renewals, analysis of potential nominees, and preparation of nomination slates, *Federal Register* notices, annual and fiscal year reports, and so on.

In March 2011, the CMO worked closely with the Director, DEA, NCI, to expeditiously establish the NCI-Frederick Advisory Committee (NFAC). With the addition of this Federal advisory committee, the CMO successfully manages 14 Federal advisory committees and numerous subcommittees and working groups. The Office also is responsible for providing logistical planning and support of the four National Cancer Advisory Board meetings, three Board of Scientific Advisors meetings, and three NCI-Frederick Advisory Committee meetings as well as several subcommittees and working groups.

Highlights of FY2011 CMO activities include the following:

- Provided training on the following topics at Brown Bag sessions and Retreats for DEA staff:
 - Overview of the FACA
 - Temporary Member & SEP Waiver Policy and Procedures
 - Pre & Post Peer Review Meeting Activities for Committee Management
 - Peer Review Meeting Logistics for Committee Management
 - Hotel contract review and processing procedures
 - Components of the NIH Reimbursement Process
 - Coding of Meeting Attendees in the CM IMPAC II Module
- At the request of the Assistant Director, DEA, the CMO reviewed various DEA guidelines throughout the year to determine whether they were correct and consistent with FACA regulations. The documents reviewed were the DEA Consumer Guide, NCAB Orientation Book, and BSA Orientation Book.
- CMO staff members constantly keep abreast of potential legislation as it relates to Federal advisory committees, and they communicate any concerns to the NCI DEA Director. In terms of major policy changes, the Office of Management and Budget issued Final

Guidance on Appointment of Lobbyists to Federal Boards and Commissions. This guidance affected not only SGE advisory boards/councils but also peer review committees. The CMO was called upon by the Office of Federal Advisory Committee Policy (OFACP) Director to help develop policy and procedure guidance for the NIH community. As a result, CMO suggestions were incorporated into the OFACP Policy: Implementing Ban on Lobbyists Serving on Advisory Committees, which was issued in December 2011.

- Met with the acting ORRPC Associate Director on several occasions to discuss SREA issues and met with several Executive Secretaries to orient them on their roles and responsibilities related to the advisory committees and discuss the policies and procedures. The CMO also participated in several conference calls to discuss various topics, such as NIH Ethics procedures for SGEs.
- In terms of FACA guidance, worked with NCI's Division of Cancer Control and Population Sciences on appropriate language in support of their "Health 2.0 Developer Challenge."
- Participated in several Program Review and Extramural Staff Training Office (PRESTO) meetings to advise PRESTO staff on the placement of CMO and SREA documents on their new website.
- Responded to several FOIA requests, initiated a cleanup of SEP female/minority data, and oversaw travel authorizations and vouch-

- ers for more than 100 Special Government Employee (SGE) travel instances.
- The Committee Management IMPAC II Module is an integral part of the day-to-day activities in the management of advisory committees. As such, the CMO regularly provides feedback to the Committee Management Users Group Representative on potential modifications to the Module. NCI CMO staff also participated in piloting several NIH projects throughout the year.
- Participated in the following NIH/NCI working groups:
 - Food Service Working Group—tasked to make recommendations on healthy food choices, cafeteria space, and meeting room space.
 - Shady Grove Facilities Working Group tasked to review required Branch space to ensure it meets the needs of current office space.
 - OFACP 1810 Working Group—The purpose of this working group is to rewrite the NIH 1810-1 Procedures for Avoiding Conflict of Interest for NIH SGE Advisory Committee Members Manual Issuance and develop new and innovative practices for ensuring SGEs are in compliance with all conflict of interest and ethics regulations.
- Served in numerous meetings to provide advice on working groups, FACA, and SGE rules and regulations.
- Responded to requests from senior NCI and Client staff about various non-FACA meetings and working group concerns.

Portfolio Tracking and Analysis

The DEA's Research Analysis and Evaluation Branch (RAEB) is the officially designated contact for scientific information on NCI-supported research. The NCI needs to collect and maintain consistent budget-linked scientific information across all of its scientific programs to analyze the Institute's research funding portfolio, make budget projections, and disseminate information about cancer. The DEA conducts analyses to project future NCI research expenditures and to provide budget justifications to Congress. The work of the RAEB allows the DEA to respond immediately to requests for information from NCI staff, the broader NIH community, and requesters nationally and worldwide regarding the NCI Funded Research Portfolio (http://funded research.cancer.gov). The RAEB reviews both unfunded applications and funded extramural grants supported by the NCI to consistently link scientific categories to budget categories on all Institute programs. These capabilities are based on a sophisticated system of indexing in which research documentation staff members analyze grant applications to classify each project for its degree of relevance to Special Interest Category (SIC) and Organ Site Codes (SITE). SIC Codes are meant to describe in a consistent way the major scientific disciplines that are of stated or growing interest to the NIH, HHS, Congress, and the public. A critical characteristic of these data is comparability from one fiscal year to the next.

Trends in funding from FY2007 through FY2011 for selected organ sites and SIC Codes are presented in Tables 15 and 16. In addition, RAEB staff members serve as DEA or NCI representatives on NCI or NIH-wide scientific reporting initiatives. These groups and committees deal with various aspects of NIH grants and contracts or tracking and reporting on areas of special interest to the NIH, NCI, and/or Congress.

FY2011 Highlights

- Provided portfolio analyses for congressional requests, including one on pediatric cancer and for numerous requesters. For example: Provided analyses to Program Directors for research on early life exposure and cancer, Ductal Carcinoma *In Situ*, and NCI-sponsored research in China. Provided NCI analysis for Dr. Francis Collins' contribution to the HIRO World RePORT Database on NIH research in Sub-Saharan Africa.
- Indexed and coded nearly 16,000 funded and unfunded applications.
- Supported the NCI-Funded Research Portfolio (NFRP) website by providing scientific indexing for NCI-funded extramural projects (http://fundedresearch.cancer.gov).
- Supported the ICR Partners (ICRP), a group of international cancer funding organizations, by coding NCI extramural projects to the common scientific outline (CSO) and participating in the ICRP.
- Continued coordination with the NCI Office of Budget and Finance (OBF) to update and align budget reporting categories.
- Chaired the NCI Accrual Working Group to prepare data for biennial reporting of NCI compliance with Congressional Health Disparities reporting requirements, and represented the NCI on the NIH Population Tracking Users Group. Served as NCI Subject Matter Experts on the Population Tracking Redesign Working Group.
- Served as DEA representative to the NCI Communications Committee.
- Served as DEA representative to the NCI Planning and Evaluation Special Interest Group (SIG).
- Continued data quality comparison checks with DCTD program staff for RAEB multiproject clinical trials coding.

Extramural Research by Foreign Research Institutions and Extramural NCI Research Grants With a Foreign Research Component

In FY2011, the NCI allocated \$20.7 million to support 58 grants received by foreign research institutions. These foreign grants are listed by country, mechanism, disease area, and total funding support in Table 17. Canadian institutions received the most funding from the NCI, with 26 grants totaling \$9.3 million. R01 is the most common mechanism funded, with 32 grants receiving \$12.6 million. Disease areas receiving the most NCI funding to foreign institutions were Lung (\$4.4 million), Breast (\$2.6 million), Colon (\$3 million), and Kidney (\$1.3 million).

FY2011 Funding of Foreign Institutions (See **Table 17** for more information.)

Country	Grants #	Funding \$
Canada	26	\$9,260,672
France	3	\$3,820,749
Australia	6	\$2,450,009
United Kingdom	8	\$2,232,776
Israel	6	\$1,389,516
Switzerland	2	\$355,057
Belgium	1	\$232,518
Netherlands	1	\$217,378
India	1	\$195,671
Ireland	1	\$187,983
Korea	1	\$170,273
Spain	2	\$149,495

In FY2011, the NCI supported 228 U.S. Domestic grants with 391 foreign components. These grants are listed in Table 18 by country, mechanism, and number of grants. Because many grants have multiple foreign contributors, the total count is greater than the total number of grants. Canadian and United Kingdom institutions are the NCI's most frequent collaborators, with 50 and 43 grants, respectively. R01 is the most common mechanism used for collaborations, with 209 grants.

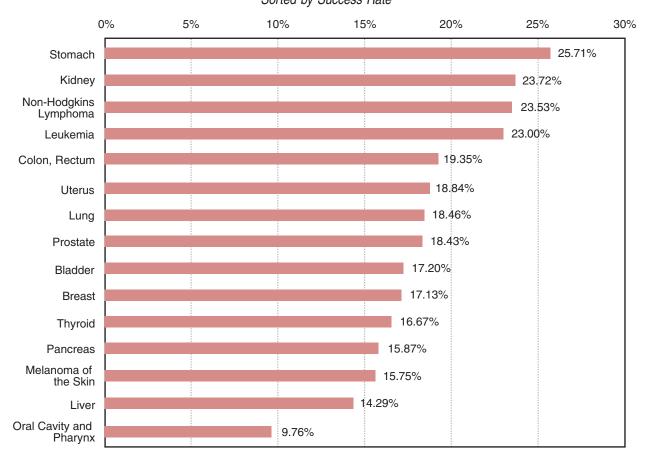
Success Rates of Extramural Science Categories

The RAEB assigns scientific indexing to both funded and unfunded applications, so it is possible to calculate success rates for funding in scientific categories. For example, the following graphs and tables illustrate success rates for selected Special Interest Categories (SIC) and for the highest incidence cancers (see Figures 9 and 10). The highest incidence cancer rankings are from the SEER rank of top 15 cancer sites, 2004-2008, age-adjusted incidence for all races and sexes.

Success rates were calculated by dividing the total number of applications newly funded in 2011 (type 1 and 2 grants) for that research category (SIC or Organ Site) by the total number of applications for that research category.

Figure 9. FY2011 Success Rates for Applications in High Incidence Cancers*

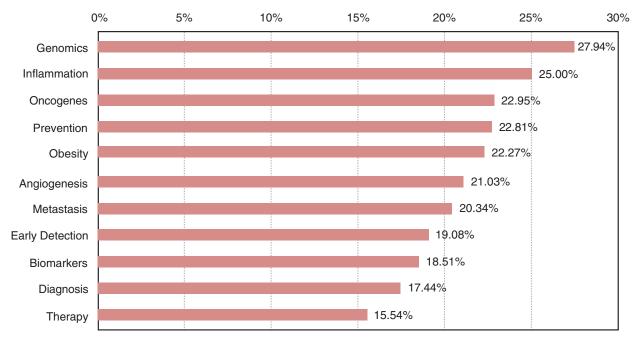
Sorted by Success Rate



Cancer Organ Site	SEER Rank*	Types 1 & 2 Funded in 2011 for This Site	Total Applications Received in 2011 for This Site	2011 Success Rate for This Site	Total Funding for Types 1 & 2 in 2011 for This Site
Stomach	14	9	35	25.71%	\$777,428
Kidney	8	37	156	23.72%	\$7,310,916
Non-Hodgkins Lymphoma	7	72	306	23.53%	\$19,682,105
Leukemia	10	141	613	23.00%	\$37,226,907
Colon and Rectum	4	167	863	19.35%	\$46,910,052
Uterus	9	13	69	18.84%	\$1,342,345
Lung	3	168	910	18.46%	\$56,305,735
Prostate	1	197	1,069	18.43%	\$52,756,440
Bladder	5	32	186	17.20%	\$4,478,854
Breast	2	372	2,172	17.13%	\$119,146,667
Thyroid	12	10	60	16.67%	\$2,095,530
Pancreas	11	90	567	15.87%	\$20,659,104
Melanoma	6	66	419	15.75%	\$18,188,846
Liver	15	48	336	14.29%	\$11,014,551
Oral Cavity and Pharynx	13	8	82	9.76%	\$1,295,763

^{*}SEER rank of top 15 cancer sites 2004-2008 age-adjusted incidence for all races and sexes.





Special Interest Category	Types 1 & 2 Funded in 2011 for This SIC	Total Applications Received in 2011 for This SIC	2011 Success Rate for This SIC	Total Funding for Types 1 & 2 in 2011 for This SIC
Genomics	209	748	27.94%	\$80,074,084
Inflammation	106	424	25.00%	\$25,370,685
Oncogenes	275	1,198	22.95%	\$80,472,422
Prevention	221	969	22.81%	\$68,614,209
Obesity	49	220	22.27%	\$16,799,728
Angiogenesis	94	447	21.03%	\$23,247,468
Metastasis	279	1,372	20.34%	\$77,102,659
Early Detection	154	807	19.08%	\$61,236,904
Biomarkers	366	1,977	18.51%	\$112,370,701
Diagnosis	377	2,162	17.44%	\$145,229,794
Therapy	691	4,447	15.54%	\$235,433,481

Information Resources Management

The Applied Information Systems Branch (AISB) provides integrated computer support, information technology expertise, and information systems development for the DEA. The AISB maintains and monitors the DEA Internet and Intranet websites; designs, develops, and maintains Division-specific software applications; administers and maintains various DEA servers; provides help desk support; provides oversight of hardware and connectivity; and serves as a liaison with the NIH Center for Information Technology (CIT) and the NCI Center for Biomedical Informatics and Information Technology (CBIIT). Its mission is critical to the Division in communicating current information technology activities and new developments to all components of the NCI and NIH as well as to external reviewer and applicant communities.

DEA's Information Technology and Information Systems contracts are managed by the AISB. The AISB has a computer support team to track staff requests, manage the Division's computer equipment inventory, and provide computer-related training, as needed. Specific projects utilizing the technologies and services provided by the AISB are described under the appropriate functions of the DEA throughout this report. For FY2011, specific AISB accomplishments are highlighted below.

System Administration and Desktop Support

- Created and administered five new Microsoft SharePoint websites.
- Planned and performed extraordinary provisions to secure servers for power disruptions due to natural disaster events (i.e., Hurricane Irene, Virginia earthquake) and anticipated government shutdowns.
- Performed additional server room environment and intrusion detection improvements.
- Implemented improved structured workflows for application life-cycle development, testing, and deployment to production.

- Arranged and coordinated DEA Personal Identity Verification (PIV) card personal identification number (PIN) reset stations with CBIIT in preparation for the implementation of PIV card login.
- Performed FY2011 Annual Assessment (AA)/
 Continuous Monitoring for Certification and
 Accreditation (C&A) of the Fiscal Linked
 Analysis of Research Emphasis (FLARE)
 application, which included remediation of
 system control deficiencies, fulfilling Plan of
 Actions and Milestones (POA&M), contingency plans, and required system table-top
 exercises.
- Completed submission of C&A for the DEA GSS (General Support System) applications, which resulted in the Authorization To Operate (ATO) from the NCI Information Systems Security Officer.
- Collaborated with NCI CIO and CBIIT staff to identify and resolve problems associated with purchased equipment processed through NCI's Central Receiving.

Major DEA Internet/Intranet Development

- Developed and deployed new Intranet pages for the new NCI Program and Review Extramural Training Office (PRESTO).
- Redesigned and deployed DEA's Intranet site with an improved interface and navigation.

Application Development Projects

- Implemented the NIH Login for application development and test environments; production environment scheduled for deployment in 2012.
- Developed and tested a new Web-based peer review scoring (PRS) application.
- Developed, tested, and scheduled an application to replace the existing FedEX Shipping application for production in 2012.
- Migrated the application environment to the latest Java JDK and Tomcat 6.

- Established integration of data collection and sharing in Funding Opportunity Announcements (FOA) applications between the DEA's Program Coordination and Referral Branch (PCRB) and NCI's Office of Extramural Finance and Information Analysis (OEFIA).
- Implemented meeting information distribution via the Internet for Board of Scientific Advisors (BSA) and BSA workgroup members
- Initiated work and collaboration with the NIH eRA on the migration of the NCAB early concurrence application to the Electronic Council Book module.
- Coordinated the Glossary business owner transition, led discussions for business case, purpose, ideas for further development and enhancement.
- Completed development and implementation of new Staff Listing application using XSL and XML, which included the migration of SQL Server to Oracle database.

Development and Support of Software Applications for the Research Analysis and Evaluation Branch's Scientific Coding and Analysis

 Coordinated user support, application enhancement and environment management, scientific coding data management, dissemination and reporting to FLARE. Major enhancements included: New Women's Health Report; New Audit Report Module; New Biomarker Coding Module; FLARE running under SSL; FLARE running under NIH Login/PIV (Test environment); Separation of FLARE application server from database server; Principal Investigator Module enhancements; and Translational Research Module enhancements.

User Training

AISB staff provided user training and ongoing support for Adobe Connect Web Conferencing, Microsoft SharePoint services, and NIH Secure Email Transfer utility to promote increased usage of collaborative tools in the work environment. Other user training performed by AISB staff included the Review Material Preparation application and other AISB developed applications.

AISB Staff Involvement

AISB staff members were involved with many NCI and NIH information systems and information technology groups and organizations, including:

- International Cancer Research Portfolio (ICRP) Data Meetings;
- NCI Change Management Group;
- NCI Coding QA/QC Team;
- NCI Division, Office, and Centers IT Contacts Group;
- NCI Science Management Workspace;
- NCI Subproject Re-engineering Users Group;
- NIH CIT Architecture Review Board;
- NIH SharePoint Users Forum;
- NIH Server Consolidation Planning Team:
- NIH Electronic Council Book and Query View Reporting Steering Committee;
- NIH eRA RCDC Data Analysis Working Group/Power User Group;
- NIH eRA Review Users Group (RUG);
- NIH eRA Subproject Re-engineering Focus Group; and
- NIH eRA Technical Coordinators Group.

Organizational Structure of the Division of Extramural Activities

Office of the Director

- Directs and administers the operations of the Division, including those activities relating to grant review and administration, contract review, and Advisory Committee and Board activities.
- Directly coordinates and manages the NCAB and the BSA.
- Coordinates coding of NCI's grant portfolio.
- Initiates, coordinates, and implements Institute policies and procedures relating to grants and contracts reviews.
- Oversees the NCI's Committee Management Office.
- Implements NCI policies regarding extramural research integrity.
- Advises the Scientific Program Leadership (SPL) Committee, NCI, on extramural guidelines, review, advisory activities, and implementation strategies.
- Coordinates NCI extramural staff training requirements with the NIH.
- Represents the NCI on the NIH-wide Extramural Program Management Committee (EPMC)
 with responsibility for development of extramural policy and procedures across all NIH Institutes
 and Centers.
- Oversees inclusion of gender, minority, and children.
- Serves as the NCI Research Integrity Office.
- Coordinates, develops, and implements extramural policy.

Director
Deputy Director
Assistant Director
Special Assistant to the Director
Secretary
Secretary

Committee Management Office, OD

- Coordinates functionally related Federal advisory committee activities across the Institute and
 its client-Institutes. The office manages NCI advisory committees, and serves as an NIH service
 center for the NIH National Center for Complementary and Alternative Medicine (NCCAM),
 the NIH Council of Councils, and a HHS chartered advisory committee to ensure that appropriate policies and procedures are in place to conduct the designated mission of each committee.
- Acts as a Service Center to provide advisory committee policy and management services to the Office of Biotechnology Activities, Office of the Director, NIH, and the NCCAM.
- Provides policy guidance to the NCI and client-Institute staff on administrative and technical aspects of Federal advisory committees; coordinates activities with all other NCI advisory committees; implements policies and procedures designed to avoid conflicts in the nomination, selection, and recruitment of board members; implements CM Module guidelines and procedures to ensure that all committee-related data are correctly entered into the database for preparation and submission of required annual reports to the President of the United States, HHS, and NIH; provides logistical support for NCAB, NFAC, and BSA meetings, subcommittees, and work groups; and facilitates NCAB and BSA committee-related travel.
- Researches and evaluates conflict of interest and foreign activities issues for client-Institutes and provides advice on resolutions affecting advisory committee members serving as special government employees.
- Provides administrative support for the peer review system by compensating consultants for their services on NCI IRG subcommittees and SEPs, reimbursing consultants for travel and other expenses, and approving and processing payments for other activities related to review such as hotel contracts and teleconferencing.

Claire Harris	Committee Management Officer
Andrea Collins	Deputy Committee Management Officer
Linda Southworth	Senior Committee Management Specialist
Malaika Staff	Senior Committee Management Specialist
Natasha Copeland	Committee Management Specialist
Hing Lee	Committee Management Specialist
Alonda Lord	Committee Management Specialist
Ricardo Rawle	Committee Management Specialist
Kate Reardon	Committee Management Specialist
Kimberly Taylor	Committee Management Specialist

Program and Review Extramural Staff Training Office

- Develops and implements both broad-based and focused curricula for NCI Program and Review staff.
- Coordinates training for other extramural staff (e.g., in the Division of Extramural Activities Support) upon request.
- Identifies and develops resources (electronic and human) to facilitate learning and optimal individual, group, and organizational performance.
- Collaborates with other entities (including NCI Office of Workforce Management and Development) to provide customized job-related training and career development opportunities.
- Monitors participation of extramural staff in NIH- and NCI-sponsored training activities.

Michael Small, Ph.D	Chief
Ivan Ding, M.D	Health Scientist Administrator
Peter Wirth, Ph.D	Health Scientist Administrator
Gregory Jones	Program Analyst
Elena Kusterer	Program Analyst
Cecily Nelson, M.S	Program Analyst
Denise Santeufemio	Program Analyst

Office of Referral, Review, and Program Coordination

- Coordinates program concept development; publication functions; and receipt, referral, and assignment of all NCI applications.
- Coordinates review activities of the SRLB, RTRB, RPRB, and PCRB.

Shamala Srinivas, Ph.D	Acting Associate Director
Catherine Battistone	Program Analyst
Linda Brown	Program Specialist
Linda Coleman	Committee Management Specialist

Special Review and Logistics Branch

- Plans, manages, and assists in the scientific merit review of special grant and cooperative agreement applications (received in response to RFAs and PARs) and the technical merit review of contract proposals (received in response to RFPs).
- Identifies and recommends appropriate review committee members and site visitors, as required for the review of assigned applications and proposals.
- Provides the SROs and other support staff for the technical review committees.
- Serves as the information and coordination center for all grant applications and contract proposals pending review by the Branch.
- Provides input and advice on grant and contract review policy and procedures, application and proposal patterns, and research trends and other related information, as required.
- Coordinates second-level review activities of the NCAB with staff of other NCI Divisions, other Branches of the Division, and the NCI Office of Grants Administration.
- Provides logistical support for primary- and second-level review activities in support of other Division and Institute units.

Kirt Vener, Ph.D	Chief
Thomas Vollberg, Ph.D	Deputy Chief

Special Review Unit

Kenneth Bielat, Ph.D.	Scientific Review Officer
Eun-Ah Cho, Ph.D.*	
Donald Coppock, Ph.D	Scientific Review Officer
Jeffrey DeClue, Ph.D	Scientific Review Officer
Irina Gordienko, Ph.D.†	Scientific Review Officer
Gerald Lovinger, Ph.D	Scientific Review Officer
Savvas Makrides, Ph.D	Scientific Review Officer
Isis Mikhail, Ph.D.‡	Scientific Review Officer
Thu Nguyen	Program Analyst
Lalita Palekar, Ph.D	Scientific Review Officer
Joyce Pegues, Ph.D	Scientific Review Officer
Marvin Salin, Ph.D	Scientific Review Officer
Ellen Schwartz, Ph.D.*	Scientific Review Officer
Cliff Schweinfest, Ph.D.*	Scientific Review Officer
Viatcheslav Soldatenkov, Ph.D	Scientific Review Officer
Adriana Stoica, Ph.D	Scientific Review Officer
Zhiqiang Zou, Ph.D.*	Scientific Review Officer

Review Processing and Distribution Unit

Adrian Bishop	Mail and File Clerk
Sanjeeb Choudhry	Mail and File Clerk
Robert Kruth	Mail and File Clerk
Clara Murphy	Program Assistant

^{*}Joined in 2011.

[†]Passed away February 2011.

[‡]On detail from February to September 2011.

Program Coordination and Referral Branch

- Serves as the information and coordination point within the NCI for the development, clearance, publication, and tracking of all NCI extramural program (funding) initiatives, which include all RFAs, PAs, and Notices submitted for publication in the NIH Guide for Grants and Contracts, and also on Grants.gov, which is a Federal-wide online portal for electronic submission of grant applications.
- Coordinates the development and periodic revision of referral (i.e., application assignment) guidelines within the NCI for both external and internal use.
- Coordinates the development of shared (referral) interest statements with other NIH Institutes and Centers (ICs) so that grant applications of possible or real mutual interest can be properly assigned for receipt, review, and/or funding.
- Serves as liaison to the Center for Scientific Review (CSR), NIH, to ensure the appropriate referrals (i.e., assignments) of grant applications to the Institute and the transfers of grant applications between the NCI and other NIH ICs.
- Refers new (Type 1) applications to the appropriate cancer activity area(s) according to the NCI Internal Referral Guidelines that define the program interests of each of the 50 cancer activity areas (which typically represent program branches in the NCI extramural divisions).
- Semi-automatically refers resubmission (amended) and renewal (competing continuation, Type 2) applications to the cancer activity area that accepted the previously submitted application (with quality control measures performed to ensure the accuracy of referrals).
- Coordinates requests from program staff for application status changes (including corrections of application assignments and numbers, which is done in collaboration with NCI program staff, CSR referral staff, and referral staff of other ICs and agencies) and for acceptance of grant assignments.
- Serves as the NCI contact point and liaison to involved parties at the NIH for approval of the
 use of cooperative agreement mechanisms and for conversion of grants to cooperative agreements
- Works with NCI program and review staff and with NIH referral liaisons to address unresolved referral and review issues with the CSR and other NIH ICs.
- Receives and distributes advance copies of applications to review and program staff.
- Receives Letters of Intent from applicants (principal investigators) intending to submit large budget grants (including, but not limited to, program projects and cooperative agreements for clinical trials).
- By handling communications with applicants and NCI program staff members, coordinates approvals (and disapprovals) of the NCI to sponsor the submission of individual conference (R13) grant applications.
- Serves as the primary point of contact and assistance at the NCI for applicants who want to apply for an Academic Research Enhancement Award (i.e., the NIH R15 AREA grant mechanism).
- Processes and tracks requests for submissions of large-budget grant applications that allow them to be received at the NIH, peer reviewed, and possibly awarded by the NCI.
- Maintains database records of prospective large-budget grant and conference grant applications for each council round.
- Serves as the primary NCI information and referral point for the extramural scientific community on a broad range of subjects, including grant guidelines, application information, new initiatives announced as RFAs or PAs, and the review process.

- Assists the extramural community in navigating the NIH and NCI Web pages to help users obtain current information, forms, and guidelines.
- Directs applicants to the appropriate SROs and Program Directors for information regarding the status of the review and award of their grant applications.
- Tracks and analyzes trends of CSR referral to study sections and resultant review outcomes.
- Provides data and data analyses on funding opportunities and on the receipt and referral of grant applications to NCI senior staff members and committees.

Christopher L. Hatch, Ph.D	Chief
David Contois	Referral Officer, NCI/NIH Referral Liaison
Anandarup Gupta, Ph.D	RFA/PA Coordinator, Scientific Review Officer
Leota Hall	Referral Officer, NCI/NIH Referral Liaison
Natacha P. Lassègue	Program Analyst
Bratin Saha, Ph.D	Referral Officer, Scientific Review Officer
Jan Woynarowski, Ph.D	RFA/PA Coordinator, Scientific Review Officer

Research Programs Review Branch

- Plans, coordinates, and manages the scientific merit review of program project grants, specialized centers, and other grant mechanisms, as necessary, by chartered review committees and Special Emphasis Panels.
- Arranges for and participates in onsite assessments of the research capabilities and facilities of selected applicants.
- Identifies and recommends appropriate review committee members and site visitors, as required, for the review of assigned applications.
- Provides input and advice on grant review policy and procedures, application patterns, research trends, and other related information, as required.
- Coordinates grant review activities with staff of other NCI Divisions/Offices/Centers and other DEA Branches.

Olivia Bartlett, Ph.D	Chief
Virginia Wray, Ph.D	Deputy Chief
Shakeel Ahmad, Ph.D	Scientific Review Officer
Monica Congo	Program Specialist
Majed Hamawy, Ph.D., M.B.A	Scientific Review Officer
Wlodek Lopaczynski, M.D., Ph.D	Scientific Review Officer
Caron Lyman, Ph.D	Scientific Review Officer
David Ransom, Ph.D	Scientific Review Officer
Delia Tang, Ph.D	Scientific Review Officer
Shamala Srinivas, Ph.D.*	Scientific Review Officer
Peter Wirth, Ph.D.†	Scientific Review Officer

^{*}Moved to ORRPC in FY2011.

[†]Moved to PRESTO in FY2011.

Resources and Training Review Branch

- Plans, coordinates, and manages the scientific merit review of cancer center, training, education, and career development grant and cooperative agreement applications by chartered review committees and Special Emphasis Panels.
- Arranges for and participates in onsite assessments of the research capabilities and facilities of selected applicants.
- Identifies and recommends appropriate review committee members and site visitors, as required, for the review of assigned applications.
- Provides input and advice on grant review policy and procedures, application patterns, and research trends and other related information, as required.
- Coordinates grant review activities with staff of other NCI Divisions/Offices/Centers, other DEA Branches, and the Center for Scientific Review.

Robert E. Bird, Ph.D	Chief
Lynn Amende, Ph.D	Scientific Review Officer
Gail Bryant, M.D	Scientific Review Officer
Jeannette Korczak, Ph.D	Scientific Review Officer
Ilda McKenna, Ph.D	Scientific Review Officer
Timothy Meeker, M.D	Scientific Review Officer
Sergei Radaev, Ph.D	Scientific Review Officer
Sonya Roberson, Ph.D	Scientific Review Officer
Denise M. Santeufemio*	Program Specialist

Office of Extramural Applications

- Coordinates activities of the Research Analysis and Evaluation Branch and the Applied Information Systems Branch.
- Provides budget-linked research portfolio data and coordinates the information management of extramural NCI-supported research.

Amir Sahar-Khiz, Ph.D.,	M.B.A., PMP	. Associate	Director
Justin Rhoderick		. Program A	nalyst

Research Analysis and Evaluation Branch

- Serves as the Institute's officially designated, centralized source of scientific information and science-based budget information on NCI-supported research.
- Analyzes and classifies the science content of all Institute-supported research projects.
- Analyzes the distribution of funds among research areas; these analyses serve as a basis for budget projections.
- Reports and answers inquiries on the scientific and budgetary aspects of Institute-funded research, including research grants, center grants, training grants, and research contracts.
- Maintains liaisons with other organizations involved in related classification activities.
- Documents the need for proposed RFAs by comparing RFA concepts with existing NCI-supported research and with unsolicited applications.

Marilyn Gaston	Chief	
Edward Kyle	Deputy	Chief

^{*}Moved to PRESTO in FY2011.

Research Documentation

- Analyzes and indexes grants and contracts for the Branch's computerized systems.
- Analyzes extramural projects for relevance to SICs and Anatomic Sites to determine the officially reported figures for Institute support and to provide a basis for budget projections.
- Maintains liaison with other offices within the Institute to ensure consistent reporting of data.
- Monitors the results of NCI's grant-supported research.
- Assists other NCI organizations by indexing NCI research projects for attributes other than SICs and Sites, for example, Common Scientific Outline (CSO) Codes and AIDS Categories.

Edward Kyle	Lead Biologist/Team Leader
Beth Buschling	Biologist
Beverly Johnson, M.S	Biologist
Ernestyne Watkins, M.S	Biologist
Bernard Whitfield	Biologist
Tyrone Wilson	Biologist

Technical Operations, Inquiry, and Reporting

- Provides specialized data querying, archiving, and reporting functions for the Division and the Institute.
- Coordinates Institute data reporting with the NCI Office of Budget and Financial Management, NIH Population Tracking and Inclusion Committee, and others.
- Answers inquiries from Congress, the public, the press, and others concerning any phase of Institute-supported work.
- Conducts indepth analyses of extramural research data, including trends analyses.
- Identifies emerging priority areas for data collection and analysis.
- Ensures that terms and categories for indexing are updated and reflect current trends in cancer research, and maintains a thesaurus of term definitions.
- Manages RAEB's FLARE grants documentation and indexing database, ensuring reliability and completeness of its contents.
- Maintains and updates archival document files.
- Works with contractors and the AISB to refine RAEB's computer applications to meet the Branch's needs and resolve FLARE computer application problems for the Branch.
- Represents the DEA as its communications coordinator in the Office of Communications and Education Steering Committee.

Gail Blaufarb, M.S	Lead Biologist/Team Leader
Clarissa Douglas	Program Specialist
William Clark, M.S	Biologist
Rajasri Roy, Ph.D	Epidemiologist
Vacant	Biological Statistician

Applied Information Systems Branch

- Fulfills the information technology (IT) requirements of the Division by coordinating information resources management (IRM) activities with other relevant NCI and NIH units, and by providing high-quality information analysis, design, development, and coordination of applications in support of the Division's business processes.
- Serves as the focal point for the Division in the development, deployment, and application of specialized software and databases required for the conduct of review, referral, coding, advisory, and other extramural applications.
- Serves as the liaison with the NCI Center for Biomedical Informatics and Information Technology (CBIIT) staff; NCI computer professionals; NCI units charged with execution of extramural IRM functions; trans-NIH functional units such as the CSR, Office of Policy for Extramural Research Administration (OPERA), and Office of Extramural Research (OER); and the IMPAC II and NIH eRA (electronic Research Administration) staff and systems.
- Supports connectivity and design of Internet and Intranet applications.
- Establishes, administers, and monitors commercial support contracts to provide design, production, and maintenance for microcomputer equipment and information storage and retrieval systems that are not covered by CBIIT.
- Formulates DEA-specific office automation policy.
- Provides staff/lead users with technical support and training for DEA IT applications.
- Coordinates general user support and training with NCI and NIH services.
- Provides Division-specific applications of video teleconferencing and audiovisual services in support of review and Board activities.
- Provides management with recommendations for establishing and implementing policies for conducting Division computer-assisted presentations, as necessary.
- Reviews user-created applications and recommends and/or designs changes to improve efficiency and effectiveness.

Gregory Fischetti...... Chief

Application Development and Operations Team

- Analyzes and coordinates life-cycle development of software for the Division.
- Develops and designs applications to support the Division's business practices, including user guides.
- Develops, administers, and monitors contracts for acquisition, support, and maintenance of database systems.
- Administers office automation contracts as well as DEA-wide Blanket Purchase Agreements for computer equipment maintenance and supplies.
- Formulates office automation policy, system development, and eRA/IMPAC II operations for the Division.
- Coordinates internal user groups and the provision of training for specific DEA applications and the use of office automation equipment technology.

Todd Hardin	Team Leader
Deborah Buranich*	Information Technology Specialist
Richard Florence	Information Technology Specialist
Roderick James	Information Technology Specialist
Teresa Park	Information Technology Specialist
Raymond Vidal	Information Technology Specialist

*Left in 2011.

Information Management Team

- Designs and maintains the Division's Intranet and Internet sites and pages, and identifies documents to be placed on the NCI website to make Division information more accessible to the public.
- Develops new Web-based software applications that will enhance the productivity and efficiency
 of extramural processes within the DEA and the distribution of Division information throughout
 the NCI.
- Coordinates application development and supports the Research Analysis and Evaluation Branch in the areas of scientific coding and analysis.
- Establishes partnerships and ongoing communications with staff and external customers to foster openness and collaboration in accomplishing the information initiatives of the Division.
- Works with DEA staff to ensure the current utility and linkages of documents placed on the Web.

Elaine Taylor	Team Leader
Michael Hu	Information Technology Specialist
Joshua Rhoderick	Information Technology Specialist
Lorrie Smith	Information Technology Specialist

Table 1a. Requests for Applications (RFAs) Published by the NCI in FY2011 Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center
10/14/2010	CA11-001	U54	Comprehensive Partnerships to Reduce Cancer Health Disparities	CRCHD
11/12/2010	CA11-003	U54	Population-based Research Optimizing Screening through Personalized Regimens (PROSPR)	- DCCPS
11/12/2010	CA11-004	U01	Statistical Coordination Center for the Population-based Research Optimizing Screening through Personalized Regimens (PROSPR)	DCCF3
12/8/2010	CA11-005	R01	Advanced In Vivo Imaging to Understand Cancer Systems	DCTD
2/3/2011	CA11-002	R44	SBIR Phase IIB Bridge Awards to Accelerate the Development of Cancer Therapeutics, Imaging Technologies, Interventional Devices, Diagnostics, and Prognostics Toward Commercialization	SBIRDC
02/17/2011	CA11-501	U24	Childhood Cancer Survivor Study (CCSS) (Limited Competition)	DCTD
	CA11-006		Community Clinical Oncology Program Groups	
05/24/2011	CA11-007	U10	Community Clinical Oncology Program Research Bases	DCP
	CA11-008		Minority-Based Community Clinical Oncology Program Groups	
05/26/2011	CA11-010	U01	Cancer Target Discovery and Development (CTDD) Network	CSSI
07/28/2011	CA11-009	U01	Alliance of Glycobiologists for Detection of Cancer	DCP
08/25/2011	CA11-011	R01	Research Answers to NCI's Provocative Questions	*
00/23/2011	CA11-012	R21	nesearch Answers to Nots Provocative Questions	
09/29/2011	CA11-502	U24	Cancer Research Network: A Research Resource Within Health Care Delivery System (Limited Competition)	DCCPS

^{*}All Divisions, Centers, and Offices may participate.

Source: Office of Referral, Review and Program Coordination. IMPACII (Retrieved 11/15/11).

Table 1b. Requests for Applications (RFAs) Published by the NCI in FY2011

Sorted by Division, Office, and Center

Division, Office, and Center	RFA	Mechanism	Title	Date of Publication
CRCHD	CA11-001	U54	Comprehensive Partnerships to Reduce Cancer Health Disparities	10/14/2010
CSSI	CA11-010	U01	Cancer Target Discovery and Development (CTDD) Network	05/26/2011
DCCPS	CA11-003	U54	Population-based Research Optimizing Screening through Personalized Regimens (PROSPR)	- 11/12/2010
	CA11-004	U01	Statistical Coordination Center for the Population-based Research Optimizing Screening through Personalized Regimens (PROSPR)	11/12/2010
DCCPS	CA11-502	U24	Cancer Research Network: A Research Resource Within Health Care Delivery System (Limited Competition)	09/29/2011
	CA11-006		Community Clinical Oncology Program Groups	
DCP	CA11-007	U10	Community Clinical Oncology Program Research Bases	05/24/2011
	CA11-008		Minority-Based Community Clinical Oncology Program Groups	
DCP	CA11-009	U01	Alliance of Glycobiologists for Detection of Cancer	07/28/2011
DCTD	CA11-005	R01	Advanced In Vivo Imaging to Understand Cancer Systems	12/8/2010
	CA11-501	U24	Childhood Cancer Survivor Study (CCSS) (Limited Competition)	02/17/2011
SBIRDC	CA11-002	R44	SBIR Phase IIB Bridge Awards to Accelerate the Development of Cancer Therapeutics, Imaging Technologies, Interventional Devices, Diagnostics, and Prognostics Toward Commercialization	2/3/2011
*	CA11-011	R01	Decearch Anguara to NCPa Provincetive Questions	00/05/0011
	CA11-012	R21	Research Answers to NCI's Provocative Questions	08/25/2011

^{*}All Divisions, Centers, and Offices may participate.

Source: Office of Referral, Review and Program Coordination. IMPACII (Retrieved 11/15/11).

Table 2. NCI Participation in Trans-NIH Requests for Applications (RFAs) in FY2011Sorted by Date of Publication

			Title	Division
10/6/2010 R	RM10-019	DP5	NIH Director's Early Independence Awards	*
10/29/2010 E	ES11-006	U19	Deepwater Horizon Disaster Research Consortia: Health Impacts and Community Resiliency	DCCPS
11/12/2010 R	RM11-001	R21	Integrating Comparative Effectiveness Research Findings Into Care Delivery Through Economic Incentives	DCCPS
11/12/2010 R	RM11-002	R01	The Market for Long-Term Care Insurance	DCCPS
11/16/2010 R	RM10-020	U54	Institutional Clinical and Translational Science Award	*
11/24/2010 D	DE11-003	K18	Short-Term Mentored Career Development Awards in the Basic Behavioral and Social Sciences for Mid-Career and Senior Investigators	CCT
01/20/2011 E	ES11-002	R21	Dietary Influence on the Human Health Effects of Environmental Exposures	DCCPS
2/2/2011 O	D11-001	SI2	Lasker Clinical Research Scholars Program	CCT
02/17/2011 R	RM11-003	U54	Limited Competition: NIH-HMO Collaboratory Coordinating Center	DCCPS
4/5/2011 A	AI11-003	R01	NIH/PEPFAR Collaboration for Implementation Science and Impact Evaluation	OHAM
5/4/2011 O	D11-004	R25	Limited Competition: Strengthening Behavioral and Social Science in Medical School Education	CCT
07/12/2011 T	W11-003	R01	International Tobacco and Health Research and Capacity Building Program	DCCPS
07/18/2011 H	ID12-204	R21	Sleep and Social Environment: Basic Biopsychosocial Processes	DCCPS
07/21/2011 O	D11-002	K12	Building Interdisciplinary Research Careers in Women's Health	CCT
8/5/2011 R	RM11-004	DP1	2012 NIH Director's Pioneer Award Program	*
08/10/2011 R	RM11-005	DP2	2012 NIH Director's New Innovator Award Program	*
08/16/2011 T	W11-001	R25	Limited Competition: Global Health Program for Fellows and Scholars (Global Health Fellows)	CCT
08/22/2011 R	RM11-012	R01	Economic Research on Incentives for Efficient Use of Preventive Services	DCCPS
08/23/2011 R	RM11-010	U41	Human Heredity and Health in Africa (H3Africa): Bioinformatics Network	OD
9/2/2011 M	/IH12-130	R01	Basic Research on Decision Making: Cognitive, Affective, and Developmental Perspectives	DCCPS
09/14/2011 R	RM11-011	UH2, UH3	Human Heredity and Health in Africa (H3Africa): H3Africa Biorepository Grants	OD
09/21/2011 E	ES11-010	R21	Environmental Influences on Stem Cells in Development, Health, and Disease	DCB
09/21/2011 R	RM11-006	R01	NIH Director's Transformative Research Awards	*
09/22/2011 H	HL12-037	R01	Mechanistic Pathways Linking Psychosocial Stress and Behavior	DCCPS

^{*}All Divisions, Centers, and Offices may participate.

Source: Office of Referral, Review and Program Coordination. IMPACII (Retrieved 11/15/11).

Table 3a. Program Announcements (PAs) Published by the NCI in FY2011 Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center	
10/12/2010	PAR11-005	P30	Cancer Center Support Grants (CCSGs) for NCI-Designated Cancer Centers	occ	
12/3/2010	PAR11-079	R03	Cancer Prevention Research Small Grant Program	DCP	
12/9/2010	PA11-073	R01	Mitochondria in Cancer Epidemiology, Detection, Diagnosis,	DCCPS, DCP,	
12/3/2010	PA11-074	R21	and Prognosis	DCTD	
3/14/2011	PAR11-150	U01	Quantitative Imaging for Evaluation of Responses to Cancer Therapies	DCTD	
3/14/2011	PAR11-151	U01	Strategic Partnering to Evaluate Cancer Signatures (SPECS II)	DCTD	
3/15/2011	PAR11-152	U01	The Role of Microbial Metabolites in Cancer Prevention and Etiology	DCP	
0/46/0044	PAR11-146	U01	Collaborative Research in Integrative Cancer Biology and the Tumor Microenvironment	DCB	
3/16/2011	PAR11-156	U01	Basic Cancer Research in Cancer Health Disparities	DCB, DCP, CRCHD	
	PA11-158		- Biomarkers of Infection-Associated Cancers	DCP	
	PA11-159	R21	Biomarkers of injection-Associated Cancers	DOF	
	PA11-160	R01	Enhancing Tumoricidal Activity of Natural Killer (NK) Cells by	DCP	
	PA11-161	R21	Dietary Components for Cancer Prevention		
3/17/2011	PA11-162	R01	- T. F		
	PA11-163	R21	The Effect of Racial and Ethnic Discrimination/Bias on Health Care Delivery	DCCPS	
	PA11-164	R03			
	PAR11-167	UM1	Core Infrastructure and Methodological Research for Cancer Epidemiology Cohorts	DCCPS	
5/24/2011	PAR11-216	R21	Early Phase Clinical Trials in Imaging and Image-Guided Interventions	DCTD	
	PA11-238	R01			
6/17/2011	PA11-239	R21	Spatial Uncertainty: Data, Modeling, and Communication	DCP	
	PA11-240	R03			
0/0/0044	PA11-297	R21	Dilat Chudian in Denovactic Course	DCCDC	
0/9/2011	8/9/2011 PA11-298 R03		- Pilot Studies in Pancreatic Cancer	DCCPS	
9/22/2011	PAR11-346	R01	Interventions for Health Promotion and Disease Prevention in Native American Populations	DCCPS	

Source: Office of Referral, Review and Program Coordination.

Table 3b. Program Announcements (PAs) Published by the NCI in FY2011 Sorted by Division, Office, and Center

Division, Office, and Center	PA/PAR	Mechanism	Title	Date of Publication	
OCC	PAR11-005	P30	Cancer Center Support Grants (CCSGs) for NCI-Designated Cancer Centers	10/12/2010	
DCB	PAR11-146	U01	Collaborative Research in Integrative Cancer Biology and the Tumor Microenvironment	- 3/16/2011	
DCB, DCP, CRCHD	PAR11-156	U01	Basic Cancer Research in Cancer Health Disparities	- 3/16/2011	
DCCPS, DCP,	PA11-073	R01	Mitochondria in Cancer Epidemiology, Detection, Diagnosis,	10/0/0010	
DCTD	PA11-074	R21	and Prognosis	12/9/2010	
	PA11-162	R01			
DCCPS	PA11-163	R21	The Effect of Racial and Ethnic Discrimination/Bias on Health Care Delivery	3/17/2011	
	PA11-164	R03	- Galo Bolloly		
DCCPS	PAR11-167	UM1	Core Infrastructure and Methodological Research for Cancer Epidemiology Cohorts	3/17/2011	
DOODO	PA11-297	R21	Dilat Otalias in December Consen	0/0/0044	
DCCPS	PA11-298	R03	Pilot Studies in Pancreatic Cancer	8/9/2011	
DCCPS	PAR11-346	R01	Interventions for Health Promotion and Disease Prevention in Native American Populations	9/22/2011	
DCP	PAR11-079	R03	Cancer Prevention Research Small Grant Program	12/3/2010	
DCP	PAR11-152	U01	The Role of Microbial Metabolites in Cancer Prevention and Etiology	3/15/2011	
DCD	PA11-158	R01	Diamentary of Infection Associated Conserve	0/17/0011	
DCP -	PA11-159	R21	Biomarkers of Infection-Associated Cancers	3/17/2011	
DCP	PA11-160	R01	Enhancing Tumoricidal Activity of Natural Killer (NK) Cells by	0/17/0011	
DCP	PA11-161	R21	Dietary Components for Cancer Prevention	3/17/2011	
	PA11-238	R01			
DCP	PA11-239	R21	Spatial Uncertainty: Data, Modeling, and Communication	6/17/2011	
	PA11-240	R03			
DCTD	PAR11-150	U01	Quantitative Imaging for Evaluation of Responses to Cancer Therapies	3/14/2011	
DCTD	PAR11-151	U01	Strategic Partnering to Evaluate Cancer Signatures (SPECS II)	, · ·-	
DCTD	PAR11-216	R21	Early Phase Clinical Trials in Imaging and Image-Guided Interventions	5/24/2011	

Source: Office of Referral, Review and Program Coordination.

Table 4. NCI Participation in Trans-NIH Program Announcements (PA/PARs) in FY2011Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
10/14/2010	PA11-009	K23	Translational Scholar Career Awards in Pharmacogenomics and Personalized Medicine	CCT	NCRR
	PAR11-028	R01	Continued Development and Maintenance of Software	DCB	NCRR
11/12/2010	PAR11-032	R21	Methods and Approaches for Detection of Gene-Environment Interactions in Human Disease	DCCPS	NIEHS
11/17/0010	PAR11-036	R03	Fogarty International Research Collaboration—Behavioral and Social Sciences (FIRCA-BSS) Research Award	DCCDC	FIC
11/17/2010	PAR11-037	R03	Fogarty International Research Collaboration—Basic Biomedical (FIRCA-BB) Research Award	DCCPS	FIC
	PAR11-057	R01			
12/03/2010	PAR11-058	R03	Developmental Pharmacology	DCTD	NICHD
	PAR11-059	R21			
12/7/2010	PA11-063	R01	Translating Basic Behavioral and Social Science Discoveries Into Interventions to Improve Health-Related Behaviors	DCCPS	OBSSR
4/04/0044	PA11-096 R43, R44		PHS 2011-02 Omnibus Solicitation of the NIH, CDC, FDA, and ACF for Small Business Innovation Research Grant Applications (Parent SBIR)	ODIDDO	NIII I
1/24/2011	PA11-097	R41, R42	PHS 2011-02 Omnibus Solicitation of the NIH for Small Business Technology Transfer Grant Applications (Parent STTR)	SBIRDC	NIH
02/09/2011	PAR11-108	P30	Centers for AIDS Research and Developmental Centers for AIDS Research	ОНАМ	NIAID
	PA11-110	F30	Ruth L. Kirschstein National Research Service Awards (NRSA) for Individual Predoctoral M.D./Ph.D. and Other Dual Doctoral Degree Fellows (Parent F30)	CCT	NIH
	PA11-111	F31	Ruth L. Kirschstein National Research Service Awards (NRSA) for Individual Predoctoral Fellows (Parent F31)	CCT	NIH
02/10/2011	PA11-112	F31	Ruth L. Kirschstein National Research Service Awards (NRSA) for Individual Predoctoral Fellowships to Promote Diversity in Health-Related Research (Parent - Diversity)	CCT	NIH
	PA11-113	F32	Ruth L. Kirschstein National Research Service Awards (NRSA) for Individual Postdoctoral Fellows (Parent F32)	CCT	NIH
	PA11-114	F33	Ruth L. Kirschstein National Research Service Awards (NRSA) for Individual Senior Fellows (Parent F33)	CCT	NIH
0/14/0011	PA11-148 R01		- Nanosaianaa and Nanotashnalasu in Dialasu and Madisirs	CCCI	NIDID
3/14/2011	PA11-149	R21	Nanoscience and Nanotechnology in Biology and Medicine	CSSI	NIBIB
	PA11-180	R01			
3/24/2011	B/24/2011 PA11-181 R03		Research on Ethical Issues in Biomedical, Social, and Behavioral Research	DCTD	NIH
	PA11-182				

Source: Office of Referral, Review and Program Coordination.

Table 4. NCI Participation in Trans-NIH Program Announcements (PA/PARs) in FY2011Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
3/25/2011	PA11-184	T32	Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grants (Parent T32)	CCT	NIH
	PAR11-130	R01	Genetic Screens to Enhance Zebrafish Research	DCB	NICHD
3/30/2011	PAR11-131	R01	Enhancing Zebrafish Research With Research Tools and Techniques	DCB	NIDDK
	PA11-193	K08	Mentored Clinical Scientist Research Career Development Award (Parent K08)	CCT	NIH
	PA11-194 K23		Mentored Patient-Oriented Research Career Development Award (Parent K23)	CCT	NIH
4/8/2011	PA11-195 K24 PA11-196 K25		Midcareer Investigator Award in Patient-Oriented Research (Parent K24)	CCT	NIH
			Mentored Quantitative Research Development Award (Parent K25)	CCT	NIH
	PA11-197	K99, R00	NIH Pathway to Independence Award (Parent K99/R00)	CCT	NIH
4/15/2011	PAR11-203	U01	Predictive Multiscale Models for Biomedical, Biological, Behavioral, Environmental, and Clinical Research	DCB	NIBIB
04/29/2011	PAR11-210	X01	Center for Inherited Disease Research (CIDR) High Throughput Genotyping and Sequencing Resource Access	CSSI	NIH
7/18/2011	PA11-250	R01	Ethical, Legal, and Social Implications (ELSI) of Genomic Research Regular Research Program	DCCPS	NIH
7/22/2011	PA11-260	R01	Research Project Grant (Parent R01)	*	NIH
08/17/2011	PAR11-314	R01	Systems Science and Health in the Behavioral and Social Sciences	DCCPS	OBSSR
09/01/2011	PAR11-325	R25	Clinical Research Education and Career Development (CRECD) in Minority Institutions	CCT	NCRR

^{*}All NCI Divisions, Offices, and Centers may participate. Source: Office of Referral, Review and Program Coordination.

Table 5. Applications Received for Referral by the NCI/DEA in FY2011*†

Sorted by Mechanism

			Applications by Board				
Mechanism	Activity Code	Total by Activity	Feb	June	Aug	Sept	Total Costs Requested First Year
International Training Grants in Epidemiology (FIC)	D43	9	9	0	0	0	\$4,864,003
Individual Predoctoral National Research Service Award (NRSA) for M.D./Ph.D. Fellowships (ADAMHA)	F30	43	0	0	0	43	\$0 ‡
Predoctoral Individual National Research Service Award (NRSA)	F31	222	46	34	0	142	\$0 ‡
Postdoctoral Individual National Research Service Award (NRSA)	F32	429	117	167	0	145	\$0 ‡
National Research Service Award (NRSA) for Senior Fellows	F33	2	0	1	0	1	\$0 ‡
Research Scientist Development Award – Research and Training	K01	31	8	16	0	7	\$3,733,741
Research Scientist Award	K05	8	3	2	0	3	\$1,214,935
Academic/Teacher Award	K07	80	27	21	0	32	\$11,483,231
Clinical Investigator Award	K08	89	24	44	0	21	\$14,057,060
Physician Scientist Award (Program)	K12	11	11	0	0	0	\$5,599,443
Career Enhancement Award	K18	4	2	1	0	1	\$557,347
Career Transition Award	K22	48	10	19	0	19	\$8,010,577
Mentored Patient-Oriented Research Development Award	K23	47	17	13	0	17	\$7,677,567
Midcareer Investigator Award in Patient-Oriented Research	K24	7	0	3	0	4	\$1,215,582
Mentored Quantitative Research Career Development	K25	27	14	6	0	7	\$3,841,387
Career Transition Award	K99	204	64	64	0	76	\$21,958,086
Research Program Projects	P01	127	35	45	0	47	\$324,501,470
Exploratory Grants	P20	26	0	1	0	25	\$7,134,156
Center Core Grants	P30	23	12	5	0	6	\$101,982,068
Specialized Center	P50	38	5	28	0	5	\$90,232,268
Research Project	R01	6,485	2,070	2,321	76	2,018	\$3,109,129,921
Small Research Grants	R03	566	163	193	0	210	\$44,276,298
Conferences	R13	203	74	87	0	42	\$8,092,766
Academic Research Enhancement Awards (AREA)	R15	255	97	82	0	76	\$103,772,697
Exploratory/Developmental Grants	R21	2,995	1,035	1,107	2	851	\$697,020,889
Resource-Related Research Projects	R24	1	0	1	0	0	\$423,810
Education Projects	R25	72	39	18	0	15	\$21,466,909
Exploratory/Developmental Grants Phase II	R33	48	17	29	0	2	\$20,998,973
Method to Extend Research in Time (MERIT) Award	R37	5	3	1	0	1	\$3,086,852

^{*}Source: Office of Referral, Review and Program Coordination. IMPACII (Retrieved 11/15/11). Includes NCI Primary and Secondary

assigned applications and withdrawn applications. Excludes deleted applications.

†Of the applications received during the year, 6,192 were not recommended for further consideration by the initial review committee, and an additional 6,641 received scores in the bottom 33 percent and were not submitted for NCAB action.

^{*}NRSA Stipend Levels include: (Pre-doc = \$21,180) and (Post-doc Level 0 through Level 7 = \$37,740 - \$52,068)

Table 5. Applications Received for Referral by the NCI/DEA in FY2011*† Sorted by Mechanism

			A	pplication	s by Boa	ard	
Mechanism	Activity Code	Total by Activity	Feb	June	Aug	Sept	Total Costs Requested First Year
Small Business Technology Transfer (STTR) Grants – Phase I	R41	143	42	61	0	40	\$26,407,253
Small Business Technology Transfer (STTR) Grants – Phase II	R42	29	9	13	0	7	\$13,368,937
Small Business Innovation Research Grants (SBIR) - Phase I	R43	1,228	363	436	54	375	\$250,865,513
Small Business Innovation Research Grants (SBIR) - Phase II	R44	246	68	90	19	69	\$146,129,773
High Priority, Short Term Project Award	R56	9	4	5	0	0	\$0 ‡
Research and Institutional Resources Health Disparities Endowment Grants – Capacity Building	S21	1	0	0	1	0	\$25,000,000
Research Enhancement Award	SC1	25	5	4	0	16	\$7,518,299
Pilot Research Project	SC2	12	3	5	0	4	\$1,660,106
Intramural Clinical Scholar Research Award	SI2	20	0	0	20	0	\$0 ‡
Institutional National Research Service Award (NRSA)	T32	82	24	34	0	24	\$28,042,893
Research Project (Cooperative Agreements)	U01	194	77	61	31	25	\$196,059,520
Cooperative Clinical Research (Cooperative Agreements)	U10	38	11	27	0	0	\$19,069,525
Conference (Cooperative Agreement)	U13	1	0	1	0	0	\$29,907
Research Program (Cooperative Agreements)	U19	4	0	4	0	0	\$6,866,988
Resource-Related Research Project (Cooperative Agreements)	U24	26	25	0	0	1	\$85,727,009
Biotechnology Resource (Cooperative Agreements)	U41	1	0	0	0	1	\$818,146
Animal (Mammalian and Nonmammalian) Model, and Animal and Biological Materials Resource Cooperative Agreements (NCRR)	U42	1	0	1	0	0	\$12,400,000
Small Business Innovation Research (SBIR) Cooperative Agreements – Phase I	U43	46	0	2	0	44	\$8,749,249
Small Business Innovation Research (SBIR) Cooperative Agreements – Phase II	U44	2	0	0	1	1	\$938,896
Specialized Center (Cooperative Agreements)	U54	93	0	3	90	0	\$271,147,594
Academic Research Enhancement Awards (AREA) Cooperative Agreements	UA5	1	0	1	0	0	\$380,871
Exploratory/Developmental Cooperative Agreement – Phase I	UH2	5	1	4	0	0	\$1,242,042
Totals		14,312	4,534	5,061	294	4,423	\$5,718,754,557

^{*}Source: Office of Referral, Review and Program Coordination. IMPACII (Retrieved 11/15/11). Includes NCI Primary and Secondary assigned applications and withdrawn applications. Excludes deleted applications.

[†]Of the applications received during the year, 6,192 were not recommended for further consideration by the initial review committee, and an additional 6,641 received scores in the bottom 33 percent and were not submitted for NCAB action.

‡NRSA Stipend Levels include: (Pre-doc = \$21,180) and (Post-doc Level 0 through Level 7 = \$37,740 - \$52,068)

Table 6. Grant and Cooperative Agreement Applications Reviewed by the NCI/DEA in FY2011*†

Sorted by Mechanism

			A	pplication	s by Boa	ard	
Mechanism	Activity Code	Total by Activity	Feb	June	Aug	Sept	Total Costs Requested First Year
Research Scientist Development Award – Research and Training	K01	30	8	15	0	7	\$3,653,408
Research Scientist Award	K05	8	3	2	0	3	\$1,214,935
Academic/Teacher Award	K07	73	26	19	0	28	\$11,304,323
Clinical Investigator Award	K08	76	21	38	0	17	\$11,900,835
Physician Scientist Award (Program)	K12	9	9	0	0	0	\$5,599,443
Career Enhancement Award	K18	4	2	1	0	1	\$557,347
Career Transition Award	K22	44	9	18	0	17	\$8,010,577
Mentored Patient-Oriented Research Development Award	K23	35	12	11	0	12	\$6,675,203
Midcareer Investigator Award in Patient-Oriented Research	K24	7	0	3	0	4	\$1,215,582
Mentored Quantitative Research Career Development	K25	26	14	5	0	7	\$3,691,432
Career Transition Award	K99	165	62	47	0	56	\$18,596,133
Research Program Projects	P01	122	32	43	0	47	\$320,181,263
Exploratory Grants	P20	25	0	1	0	24	\$7,134,156
Center Core Grants	P30	16	5	5	0	6	\$89,181,482
Specialized Center	P50	37	5	27	0	5	\$88,777,479
Research Project	R01	99	3	50	44	2	\$66,544,517
Small Research Grants	R03	427	117	152	0	158	\$35,108,815
Conferences	R13	121	41	54	0	26	\$5,282,894
Exploratory/Developmental Grants	R21	158	55	102	0	1	\$55,368,865
Education Projects	R25	60	30	15	0	15	\$20,306,052
Exploratory/Developmental Grants - Phase II	R33	33	13	20	0	0	\$16,270,835
Small Business Innovation Research Grants (SBIR) - Phase I	R43	64	0	20	44	0	\$11,626,568
Small Business Innovation Research Grants (SBIR) - Phase II	R44	21	0	2	19	0	\$16,066,366
Institutional National Research Service Award	T32	73	22	31	0	20	\$27,393,895
Research Project (Cooperative Agreements)	U01	129	57	28	21	23	\$146,208,021
Cooperative Clinical Research (Cooperative Agreements)	U10	11	11	0	0	0	\$8,700,720
Resource-Related Research Project (Cooperative Agreements)	U24	26	25	0	0	1	\$85,727,009
Small Business Innovation Research (SBIR) Cooperative Agreements – Phase I	U43	43	0	0	0	43	\$8,749,249
Small Business Innovation Research (SBIR) Cooperative Agreements – Phase II	U44	2	0	0	1	1	\$938,896
Specialized Center (Cooperative Agreements)	U54	88	0	0	88	0	\$256,526,326
Totals		2,032	582	709	217	524	\$1,338,512,626

^{*}Source: Office of Referral, Review and Program Coordination. IMPACII (Retrieved 11/15/11). Includes NCI Primary and Secondary assigned applications and withdrawn applications. Excludes deleted applications. Withdrawn applications have been subtracted from the total count.

[†]Of the applications received during the year, 161 were withdrawn, 676 were not recommended for further consideration by the initial review committee, and an additional 838 received scores in the bottom 33 percent and were not submitted for NCAB action.

Table 7. Applications Reviewed by NCI IRG Subcommittees and Special Emphasis Panels (SEPs) in FY2011*

NCI IRG Subcommittee	Types of Applications Reviewed	Number of Applications	Total Costs Requested First Year
A - Cancer Centers	P30	16	\$89,181,482
F - Manpower and Training	K99, T32	228	\$43,195,843
G - Education	K01, K05, K07, K12, K22, K24, R01, R25	91	\$27,041,208
I - Career Development	K01, K08, K18, K22, K25	162	\$25,051,148
J - Population and Patient-Oriented Training	K07, K23, R25	109	\$18,115,540
Totals - NCI IRG Subcommittees		606	202,585,221
Total SEPs	K01, K07, K12, K22, K23, K99, P01, P20, P50, R01 R03, R21, R25, R33, R43, R44, T32, U01, U10, U24, U43, U44, U54	1,426	\$1,135,927,405
Totals		2,032	\$1,338,512,626

^{*}Source: Office of Referral, Review and Program Coordination. IMPACII. Application count includes Secondary assignments. There were 18 withdrawn applications that have been subtracted from the total count.

Table 8. Summary of Investigator-Initiated P01 Applications Reviewed in FY2011*

		Applications by Board	d	
Type of Application	February 2011	June 2011	September 2011	FY 2011 Total
New	8	14	23	45
Resubmitted New	7	11	6	24
Renewal	10	9	10	29
Resubmitted Renewal	7	8	7	22
Revisions			2	2
Total	32	42	48	122

^{*}Source: Office of Referral, Review and Program Coordination.

Table 9. Summary of Investigator-Initiated P01 Applications Reviewed, Sorted by NCI Program Division, in FY2011*

Program Division	Number of Applications	Total Costs Requested First Year	Total Costs for Requested Period
Division of Cancer Biology (DCB)	35	\$77,066,588	\$397,863,927
Division of Cancer Control and Population Sciences (DCCPS)	17	\$66,008,510	\$349,825,742
Division of Cancer Prevention (DCP)	8	\$16,280,214	\$83,879,567
Division of Cancer Treatment and Diagnosis (DCTD)	62	\$152,323,000	\$809,368,019
Grand Total	122	\$311,678,312	\$1,640,937,255

^{*}Source: Office of Referral, Review and Program Coordination.

Table 10. Requests for Applications (RFAs) Reviewed by the NCI/DEA in FY2011*

			Applications by Board					Total Costs
Title of Initiative	RFA Number	Activity Code	Totals	Feb	June	Aug	Sept	Requested First Year
The Early Detection Research Network: Biomarker Developmental Laboratories	CA09-017	U01	3	3	0	0	0	\$2,352,163
Innovative and Early-Stage Development of Emerging Technologies in Biospecimen Science	CA10-001	R21	16	3	13	0	0	\$3,811,958
Validation and Advanced Development of Emerging Technologies in Biospecimen Science	CA10-002	R33	8	6	2	0	0	\$3,688,115
Application and Early Stage Development of Emerging Technologies in Cancer Research	CA10-003	R21	41	15	26	0	0	\$16,010,939
Validation and Advanced Development of Emerging Technologies for Cancer Research	CA10-004	R33	26	7	19	0	0	\$12,927,538
Innovative Technology Development for Cancer Research	CA10-005	R21	100	37	63	0	0	\$35,307,063
Community Clinical Oncology Program Groups	CA10-010	U10	6	6	0	0	0	\$4,729,892
Community Clinical Oncology Program Research Bases	CA10-011	U10	1	1	0	0	0	\$1,492,608
Minority-Based Community Clinical Oncology Program Groups	CA10-012	U10	3	3	0	0	0	\$1,967,600
Innovative Emerging Molecular Analysis	CA10-013	R43	64	0	20	44	0	\$11,626,568
Technologies (SBIR)	OA10-013	R44	3	0	2	1	0	\$428,827
Barrett's Esophagus Translational Research Network	CA10-014	U54	10	0	0	10	0	\$156,905,142
Coordinating Center for the Barrett's Esophagus Translational Research Network	CA10-015	U01	3	0	0	3	0	\$1,490,669
Clinical Proteomic Technologies for Cancer Initiative (CPTC): Proteome Characterization Centers	CA10-016	U24	25	25	0	0	0	\$81,348,033
Scientific Meetings for Creating Interdisciplinary Research Teams in Basic Behavioral and Social Science Research	CA10-017	R13	26	0	26	0	0	\$1,676,320
Tumor Microenvironment Network (TMEN)	CA10-021	U54	41	0	0	41	0	\$45,466,301
Comprehensive Partnerships to Reduce Cancer Health Disparities	CA11-001	U54	16	0	0	16	0	\$22,715,205
SBIR Phase IIB Bridge Awards to Accelerate the Development of Cancer Therapeutics, Imaging	CA11-002	R44	18	0	0	18	0	\$15,637,539
Technologies, Interventional Devices, Diagnostics, and Prognostics Toward Commercialization	OATT-002	U44	1	0	0	1	0	\$323,069
Population-Based Research Optimizing Screening Through Personalized Regimens	CA11-003	U54	21	0	0	21	0	\$31,439,678

^{*}Source: Office of Referral, Review and Program Coordination. IMPACII (Retrieved 11/15/11). Includes NCI Primary and Secondary assigned applications and withdrawn applications. Excludes deleted applications. There were 114 withdrawn applications that have been subtracted from the total count.

Table 10. Requests for Applications (RFAs) Reviewed by the NCI/DEA in FY2011*

			Applications by Board				Total Costs	
Title of Initiative	RFA Number	Activity Code	Totals Feb		June	Aug	Sept	Requested First Year
Population-Based Research Optimizing Screening Through Personalized Regimens Statistical Coordination Center	CA11-004	U01	7	0	0	7	0	\$13,757,814
Advanced <i>In Vivo</i> Imaging to Understand Cancer Systems	CA11-005	R01	44	0	0	44	0	\$31,605,780
Childhood Cancer Survivor Study (CCSS)	CA11-501	U24	1	0	0	0	1	\$4,378,976
Exceptional, Unconventional Research Enabling Knowledge Acceleration (EUREKA)	GM11- 003	R01	45	0	45	0	0	\$15,460,067
Totals			529	106	216	206	1	\$516,547,867

^{*}Source: Office of Referral, Review and Program Coordination. IMPACII (Retrieved 11/15/11). Includes NCI Primary and Secondary assigned applications and withdrawn applications. Excludes deleted applications. There were 114 withdrawn applications that have been subtracted from the total count.

Table 11. Program Announcements (PAs) Reviewed by the NCI/DEA in FY2011*

			Applications by Board					Total Costs
Title of Initiative	PA/PAR Number	Activity Code	Totals	Feb	June	Aug	Sept	Requested First Year
Decision Making in Cancer: Single-Event Decisions	PA08-063	R01	1	1	0	0	0	\$1,041,897
Career Enhancement Award for Stem Cell Research	PA09-110	K18	4	2	1	0	1	\$557,347
Research on Clinical Decision Making in People With or At Risk for Life-Threatening Illness	PA09-122	R01	1	0	0	0	1	\$804,493
Exploratory Grants for Behavioral Research in Cancer Control	PA09-130	R21	1	0	0	0	1	\$238,905
Development, Application, and Evaluation of Prediction Models for Cancer Risk and Prognosis	PA10-025	R01	1	1	0	0	0	\$351,435
Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grants	PA10-036	T32	73	22	31	0	20	\$27,393,895
Mentored Clinical Scientist Research Career Development Award (Parent)	PA10-059	K08	70	20	35	0	15	\$10,985,952
Mentored Patient-Oriented Research Career Development Award (Parent)	PA10-060	K23	31	11	9	0	11	\$5,904,635
Midcareer Investigator Award in Patient-Oriented Research (Parent)	PA10-061	K24	7	0	3	0	4	\$1,215,582

^{*}Source: Office of Referral, Review and Program Coordination. IMPACII (Retrieved 11/15/11). Includes NCI Primary and Secondary assigned applications and withdrawn applications. Excludes deleted applications. There were 69 withdrawn applications that have been subtracted from the total count.

Table 11. Program Announcements (PAs) Reviewed by the NCI/DEA in FY2011*

			Applications by Board					Total Costs
Title of Initiative	PA/PAR Number	Activity Code	Totals	Feb	June	Aug	Sept	Requested First Year
Mentored Quantitative Research Development Award (Parent)	PA10-062	K25	26	14	5	0	7	\$3,691,432
NIH Pathway to Independence Award (Parent)	PA10-063	K99	165	62	47	0	56	\$18,596,133
Research Project Grant (Parent)	PA10-067	R01	5	1	3	0	1	\$15,278,997
NIH Support for Conferences and Scientific Meetings (Parent)	PA10-071	R13	93	40	28	0	25	\$3,573,824
Scientific Meetings for Creating Interdisciplinary Research Teams	PA10-106	R13	3	1	1	0	1	\$82,750
Cancer Prevention Research Small Grant	PAR08-055	R03	105	49	56	0	0	\$8,692,910
Program	PAR11-079	nuo	91	0	0	0	91	\$7,996,528
NCI Cancer Education and Career Development	PAR08-120	R25	36	17	8	0	11	\$12,250,756
Program	PAR10-165	ΠZIJ	24	13	7	0	4	\$8,055,296
Quantitative Imaging for Evaluation of Responses to Cancer Therapies	PAR08-225	U01	27	9	11	0	7	\$18,242,979
Small Grants Program for Cancer Epidemiology	DA DAO 227	R03	141	36	60	0	45	\$11,200,973
	PAR08-237	U01	1	1	0	0	0	\$70,404
Small Grants for Behavioral Research in Cancer Control	PAR09-003	R03	91	32	36	0	23	\$7,290,314
NCI Program Project Applications	PAR09-025	P01	118	30	43	0	45	\$312,371,355
Collaborative Research in Integrative Cancer Biology and the Tumor Microenvironment	PAR09-026	U01	17	0	6	11	0	\$12,279,925
NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity	PAR09-050	K08	6	1	3	0	2	\$914,883
NCI Mentored Patient-Oriented Research Career Development Award to Promote Diversity	PAR09-051	K23	4	1	2	0	1	\$770,568
NCI Mentored Research Scientist Development Award to Promote Diversity	PAR09-052	K01	30	8	15	0	7	\$3,653,408
NCI Transition Career Development Award to Promote Diversity	PAR09-069	K22	20	3	8	0	9	\$3,266,660
Cancer Prevention, Control, Behavioral, and Population Sciences Career Development Award	PAR09-078	K07	73	26	19	0	28	\$11,304,323
Established Investigator Award in Cancer Prevention and Control	PAR09-088	K05	8	3	2	0	3	\$1,214,935
The NCI Transition Career Development Award	PAR09-089	K22	24	6	10	0	8	\$4,743,917

^{*}Source: Office of Referral, Review and Program Coordination. IMPACII (Retrieved 11/15/11). Includes NCI Primary and Secondary assigned applications and withdrawn applications. Excludes deleted applications. There were 69 withdrawn applications that have been subtracted from the total count.

Table 11. Program Announcements (PAs) Reviewed by the NCI/DEA in FY2011*

			Applications by Board					Total Costs
Title of Initiative	PA/PAR Number	Activity Code	Totals	Feb	June	Aug	Sept	Requested First Year
Etiology, Prevention, and Treatment of Hepatocellular Carcinoma	PAR09-147	P01	2	0	0	0	2	\$4,090,759
In Vivo Cellular and Molecular Imaging Centers (ICMICs)	PAR09-157	P50	7	0	7	0	0	\$13,931,599
Feasibility Studies for Collaborative Interaction for Minority Institution/Cancer Center Partnership	PAR09-201	P20	24	0	0	0	24	\$4,634,156
Specialized Programs of Research Excellence	D4 D 4 0 000	P20	1	0	1	0	0	\$2,500,000
(SPOREs) in Human Cancer for Years 2010, 2011, and 2012	PAR10-003	P50	30	5	20	0	5	\$74,845,880
Strategic Partnering to Evaluate Cancer Signatures	PAR10-126	U01	44	44	0	0	0	\$52,837,105
Paul Calabresi Career Development Award for Clinical Oncology	PAR10-155	K12	9	9	0	0	0	\$5,599,443
The Role of Microbial Metabolites in Cancer Prevention and Etiology	PAR10-208	U01	11	0	11	0	0	\$8,847,827
Core Infrastructure and Methodological Research for Cancer Epidemiology Cohorts	PAR10-283	U01	16	0	0	0	16	\$36,329,135
Cancer Diagnostic and Therapeutic Agents	PAR10-286	U43	43	0	0	0	43	\$8,749,249
Enabled by Nanotechnology (SBIR)	FAN 10-200	U44	1	0	0	0	1	\$615,827
Cancer Center Support Grants (CCSGs) for NCI-designated Cancer Centers	PAR11-005	P30	11	0	5	0	6	\$73,695,474
Totals			1,496	468	493	11	524	\$800,713,865

^{*}Source: Office of Referral, Review and Program Coordination. IMPACII (Retrieved 11/15/11). Includes NCI Primary and Secondary assigned applications and withdrawn applications. Excludes deleted applications. There were 69 withdrawn applications that have been subtracted from the total count.

Table 12. Requests for Proposals (RFPs) and SBIR Topics Reviewed by the NCI/DEA in FY2011*

Announcement/ Topic Number	Announcement Title	Workload Round	No. of Proposals
N01-CM01018-83	Early Therapeutics Development With Phase II Emphasis	Feb-11	12
Topic 268 (Phase II)	Novel Antibody Epitope Mapping Techologies	Feb-11	1
Topic 255	Development of Anticancer Agents	Jun-11	45
Topic 277 (FT) (Phase I: 13) (Phase I & II: 2)	Companion Diagnostics: Predictive and Prognostic Tests Enabling Personalized Medicine in Cancer Therapy	Jun-11	17
Topic 283	Development of a Molecular Diagnostic Assay to Detect Basal-Like Breast Cancer	Jun-11	7
Topic 284	Alternative Biospecimen Stabilization and Storage Solutions	Jun-11	5
Topic 291 (FT) (Phase I: 11) (Phase I & II: 1)	Radioprotector/Mitigator Development to Decrease Normal Tissue Injury During Radiotherapy	Jun-11	13
Topic 292 (FT) (Phase I: 2) (Phase I & II: 1)	Development of Molecular Pharmacodynamic Assays for Targeted Therapies	Jun-11	4
Topic 293 (FT) (Phase I: 24) (Phase I & II: 3)	Development of Devices for Point of Care Analysis of Circulating Tumor Cells	Jun-11	30
Topic 294	Development of Glycosylation-Specific Research Reagents (Antibodies and Aptamers)	Jun-11	14
Topic 295	Algorithms for Automated Quantitative Imaging of Tumor Microenvironment	Jun-11	1
Topic 296	Systems for Automated Storage, Analysis, and Reporting of Objective Behavioral Exposures	Jun-11	15
Topic 297	Methods and Tools for Quantitatively Measuring Non-Coding RNAs in Cancer Early Detection, Prediction, and Diagnosis	Jun-11	8
Topic 298	Low-Field Electron Paramagnetic Resonance Imaging Device to Optimize Development of Anti-Angiogenic Therapeutics in Cancer Animal Models (NIH TT)	Jun-11	3
Topic 299	A New Type of Vaccine for Prevention of HIV Infection and HIV-Associated Cancers (NIH TT)	Jun-11	1
Topic 300 (FT) (Phase I: 18) (Phase I & II: 2)	Therapeutics and Theranostics Based on Nanotechnology	Jun-11	22
Topic 301 (FT) (Phase I: 15) (Phase I & II: 2)	Nanotechnology Sensing Platforms for Improved Diagnosis of Cancer	Jun-11	19
Topic 302 (FT) (Phase I: 9) (Phase I & II:1)	Development of Clinical Automated Multiplex Affinity Capture Technology for Detecting Low Abundance Cancer-Related Proteins/Peptides	Jun-11	11

^{*}The NCI reviewed a total of 679 proposals. The proposals were in response to SBIR Contract Solicitations – Phase I (139) and Fast Track Phase I/II (116), Phase II (26), RFP (12), and Loan Repayment (386). Source: Office of Referral, Review and Program Coordination.

Table 12. Requests for Proposals (RFPs) and SBIR Topics Reviewed by the NCI/DEA in FY2011*

Announcement/ Topic Number	Announcement Title	Workload Round	No. of Proposals
Topic 304	Development of Blood-Based Methods for the Detection of Cancer Recurrence in Post-Therapy Breast Cancer Patients	Jun-11	6
Topic 305	Novel Digital X-Ray Sources for Cancer Imaging Applications	Jun-11	7
Topic 306	Development of Innovative Algorithms/Software for Processing and Analysis of <i>In Vivo</i> Images in Oncology	Jun-11	11
Topic 307	Novel Imaging Agents to Expand the Clinical Toolkit for Cancer Diagnosis, Staging, and Treatment	Jun-11	16
Topic 256 (Phase II)	Innovative Methods for Manufacturing Safe, Effective Cancer Therapeutics	Jun-11	1
Topic 264 (Phase II)	Novel and Improved Methods for Detecting Epigenetic Modifications	Jun-11	2
Topic 259 (Phase II)	Quantitative Tissue Imaging for Clinical Diagnosis and Treatment	Jun-11	1
Topic 242 (Phase II)	Biosensors for Early Cancer Detection and Risk Assessment	Jun-11	1
Topic 260 (Phase II)	High Level Programming Language to Expedite Development of User Interfaces	Jun-11	1
Topic 261 (Phase II)	Mobile Computing for Consumer-Centered Cancer Prevention and Control	Jun-11	2
Topic 262 (Phase II)	Health Information Technology to Facilitate Patient-Centered Communication in Cancer-Related Care	Jun-11	2
Topic 249 (Phase II)	System to Analyze and Support Biomarker Research and Development Strategies	Jun-11	1
Topic 246 (Phase II)	Integrating Patient-Reported Outcomes in Hospice and Palliative Care Practices	Jun-11	1
Topic 266 (Phase II)	Nanotechnology Imaging and Sensing Platforms for Improved Diagnosis of Cancer	Jun-11	2
Topic 229 (Phase II)	Developmnet of Molecular Pharmacodynamic Assays for Targeted Therapies	Oct-11	1
Topic 255 (Phase II)	Development of Anticancer Agents	Oct-11	5
Topic 269 (Phase II)	Development of Novel Protein Expression Technologies for Glycosylated Cancer-Related Proteins	Oct-11	1
Topic 267 (Phase II)	Multifunctional Therapeutics Based on Nanotechnology	Oct-11	4
L30	- Loop Denoument	Oct-11	288
L40	Loan Repayment	Oct-11	98
Total			679

^{*}The NCI reviewed a total of 679 proposals. The proposals were in response to SBIR Contract Solicitations – Phase I (139) and Fast Track Phase I/II (116), Phase II (26), RFP (12), and Loan Repayment (386). Source: Office of Referral, Review and Program Coordination.

Table 13. Summary of NCI Grant Awards by Mechanism in FY2011*†

Fund Type: Appropriated				% of No				
Cost Centers Mechanisms	Awards Count	Awards Dollars	Average Cost	Number	Dollars	Competing Requested	Competing Awarded	Success Rate
Research Project Grants								
Traditional Research Grants – R01/ RL1	3,648	1,331,624,576	365,029	56.5%	40.9%	4,497	655	14.6%
Program Projects – P01	129	259,232,124	2,009,551	2.0%	8.0%	108	22	20.3%
Small Grants – R03	127	9,646,392	75,956	2.0%	0.3%	427	72	16.9%
Exploratory/Developmental Research – R21	442	88,480,688	200,183	6.8%	2.7%	2,240	223	10.0%
Phased Innovation Grant (Phase 2) – R33	9	3,165,203	351,689	0.1%	0.1%	9	2	22.2%
Pathway to Independence - R00	71	17,238,093	242,790	1.1%	0.5%	0	0	0.0%
Exploratory/Development Coop Agreements – UH2/UH3	1	254,808	254,808	0.0%	0.0%	3	1	33.3%
Merit Awards – R37	59	30,327,664	514,028	0.9%	0.9%	8	7	87.5%
NIH Director Pioneer Award (NDPA) – DP1	8	7,639,418	954,927	0.1%	0.2%	0	0	0.0%
Academic Research Enhancement Awards (AREA) – R15	24	9,564,898	398,537	0.4%	0.3%	186	24	12.9%
Request for Applications	159	51,662,462	324,921	2.5%	1.6%	387	57	14.7%
Cooperative Agreements – RFA-U01/ U19	131	142,484,439	1,087,667	2.0%	4.4%	22	11	50.0%
Cooperative Agreements – U01/U19	67	52,976,533	790,695	1.0%	1.6%	151	32	21.2%
Small Business Innovation Research	123	72,253,449	587,426	1.9%	2.2%	1,038	53	5.1%
Small Business Technology Transfer – R41/R42	21	11,801,000	561,952	0.3%	0.4%	154	7	4.6%
Program Evaluation – R01	0	75,329,000	75,329,000	0.0%	2.3%	0	0	0.0%
Subtotal Research Project Grants	5,019	2,163,680,747	431,098	77.7%	66.5%	9,230	1,166	12.6%
Other Research								
Clinical Cooperative Groups	135	239,990,437	1,777,707	2.1%	7.4%	14	9	64.3%
Clinical Cooperative Groups – U10 Specials	0	3,590,000	3,590,000	0.0 %	0.1%	0	0	0.0%
Clinical Cooperative Groups – CCCT	0	299,979	299,979	0.0%	0.0%	0	0	0.0%
Cooperative Conference Grants – U13	0	2,500	2,500	0.0%	0.0%	0	0	0.0%
Conference Grants – D43/R13	92	5,934,287	64,503	1.4%	0.2%	109	56	51.3%
Training Conference Grants – T15/ RL9	3	259,560	86,520	0.1%	0.0%	0	0	0.0%
Cancer Education Awards - R25	90	32,589,783	362,109	1.4%	1.0%	62	21	33.9%
Research/Resource Grant – R24/ U24	50	68,416,186	1,368,324	0.8%	2.1%	35	15	42.9%
Research Enhancement Award - SC1	2	633,050	316,525	0.0%	0.0%	0	0	0.0%
Pilot Research Project - SC2	0	0	0	0.0%	0.0%	0	0	0.0%
Exploratory Grants - Cooperative Agreement (NCI)-U56	0	299,999	299,999	0.0%	0.0%	0	0	0.0%
Subtotal Other Research	372	352,015,781	946,279	5.8%	10.8%	220	101	45.9%

^{*} A grant award count of zero showing a dollar amount represents either administrative supplements to existing grants, which are not factored into the grant count but are factored into the average cost of an award, or co-funded grants, which are not factored into the grant count for the NCI but are factored into the average cost of an award.

[†]Courtesy of the Office of Extramural Finance and Information Analysis.

Table 13. Summary of NCI Grant Awards by Mechanism in FY2011*†

Fund Type: Appropriated				% of N Gra				
Cost Centers Mechanisms	Awards Count	Awards Dollars	Average Cost	Number	Dollars	Competing Requested	Competing Awarded	Success Rate
Centers								
Core	82	269,467,323	3,286,187	1.3%	8.3%	31	17	54.8%
Core – CCCT	0	4,556,664	4,556,664	0.0%	0.1%	0	0	0.0%
Center for AIDS Research – CFAR – OHAM – P30	0	4,320,870	4,320,870	0.0%	0.1%	0	0	0.0%
Spore Grants	61	121,867,640	1,997,830	0.9%	3.7%	38	7	18.4%
Other P50/P20	22	35,172,495	1,598,750	0.3%	1.1%	4	3	75.0%
Specialized Center (Cooperative Agreement)	111	162,652,253	1,465,336	1.7%	5.0%	91	30	33.0%
Subtotal Centers	276	598,037,245	2,166,802	4.3%	18.4%	164	57	34.8%
NRSA								
NRSA Institution	172	59,515,764	346,022	2.7%	1.8%	66	37	56.1%
NRSA Fellowships	184	8,138,094	44,229	2.9%	0.3%	347	81	23.%
Subtotal NRSA	356	67,653,858	190,039	5.5%	2.1%	413	118	28.6%
Careers								
Career Enhancement Award for Stem Cell Research – K18	1	117,208	117,208	0.0%	0.0%	3	1	33.3%
Mentored Clinical Scientist – K08	91	14,128,973	155,263	1.4%	0.4%	77	29	37.7%
Preventive Oncology Award – K07	88	12,257,057	139,285	1.4%	0.4%	65	17	26.2%
Mentored Career Award – K12	18	12,423,662	690,203	0.3%	0.4%	9	4	44.4%
Mentored Research Scientist Develop- ment Awards, Mentored Career Development to Promote Diversity/ Temin – K01	56	7,377,036	131,733	0.9%	0.2%	27	11	40.7%
Clinical Research Track – K22	28	4,826,847	172,387	0.4%	0.2%	39	9	23.1%
Mentored Patient – Oriented Research Career Development Award – K23	38	5,936,804	156,232	1.0%	0.2%	45	12	26.7%
Mid-Career Investigator in Patient- Oriented Research Award – K24	16	2,859,540	178,721	0.3%	0.1%	4	1	25.0%
Mentored Quantitative Research Career Development Award – K25	21	2,867,576	136,551	0.3%	0.1%	25	2	8.0%
Established Investigator Award in Cancer Prevention & Control – K05	25	3,740,870	149,635	0.4%	0.1%	8	5	62.5%
Pathway to Independence – K99	56	7,079,750	126,424	0.9%	0.2%	141	32	22.7%
Subtotal Careers	438	73,615,323	168,072	6.8%	2.3%	443	123	27.8%
Total	6,461	3,255,002,954	503,792	100.0%	100.0%	10,470	1,565	15.0%

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[†]Courtesy of the Office of Extramural Finance and Information Analysis.

Table 14. Average Total Cost*† and Number of Research Project Grant Awards
Sorted by Division, Office, Center, and Mechanism
From FY2007 - FY2011‡

	FY :	2007	FY 2	2008	FY:	2009	FY :	2010	FY :	2011	Percent Change 2007 - 2011	
	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost
R01 Average C	Cost of Aw	ard										
NCI Overall	3,849	329	3,732	335	3,573	350	3,655	362	3,648	365	-5.22%	10.94%
DCB	2,050	294	1,923	298	1,792	308	1,783	313	1,748	317	-14.7%	7.8%
DCP	231	392	247	368	246	388	261	399	258	400	11.7%	2.0%
DCTD DCCPS	1,083 478	308 474	1,055 490	317 484	1,042 478	327 515	1,107 486	336 561	1,141 485	343 553	5.4% 1.5%	11.4% 16.7%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	7	1,751	17	917	15	977	18	911	16	901	128.6%	-48.5%
P01 Average C	P01 Average Cost of Award											
NCI Overall	172	1,901	158	1,932	151	2,002	140	2,004	129	2,010	-25.0%	5.73%
DCB	65	1,584	58	1,675	60	1,729	56	1,783	53	1,804	-18.5%	13.9%
DCP	13	2,047	11	1,916	9	1,931	7	1,737	8	1,814	-38.5%	-11.4%
DCTD	84	2,067	77	2,069	69	2,215	64	2,188	58	2,164	-31.0%	4.7%
DCCPS	9	2,367	11	2,306	12	2,174	12	2,161	10	2,298	11.1%	-2.9%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	1	2,442	1	2,397	1	2,220	1	2,576	0	638	-100.0%	-73.9%
R03 Average C	Cost of Aw	ard				•	•	•				
NCI Overall	284	76	256	77	239	77	181	78	127	76	-55.28%	0.0%
DCB	5	73	9	75	15	76	8	78	3	75	-40.0%	2.7%
DCP	122	77	107	78	91	78	56	78	38	75	-68.9%	-2.6%
DCTD	8	78	9	73	12	76	10	77 70	6	76	-25.0%	-2.6%
DCCPS OD (CRCHD,	149	76	131	75	119	77	107	79	80	77	-46.3%	1.3%
OCAM, CSSI, CCT, OHAM, etc.)	0	0	0	47	2	47	0	0	0	0	0.0%	0.0%
R21 Average C	Cost of Aw	<i>ı</i> ard										
NCI Overall	437	180	466	198	447	205	415	202	442	200	1.14%	11.11%
DCB	64	161	74	183	75	193	77	188	79	181	23.4%	12.4%
DCP	48	163	55	169	50	174	50	187	51	183	6.3%	12.3%
DCTD	250	194	248	214	236	218	198	218	207	220	-17.2%	13.4%
DCCPS	75	158	87	180	85	195	82	185	80	178	6.7%	12.7%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	0	160	2	230	1	204	8	217	25	205	100.0%	28.1%

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[†] In thousands.

[‡]Courtesy of the Office of Extramural Finance and Information Analysis.

Table 14. Average Total Cost*† and Number of Research Project Grant Awards
Sorted by Division, Office, Center, and Mechanism
From FY2007 - FY2011‡

	FY :	2007	FY :	2008	FY :	2009	FY :	2010	FY :	2011		Change - 2011
	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost
U01/U19 Avera	ge Cost o	of Award										
NCI Overall	145	1,010	125	906	110	1,035	131	1,091	130	1,062	-10.34%	5.15%
DCB	26	850	23	870	28	776	28	776	29	721	11.5%	-15.2%
DCP	15	469	9	402	7	366	35	741	35	671	133.3%	43.1%
DCTD	61	1,293	56	1,051	39	1,417	28	1,461	26	1,313	-57.4%	1.5%
DCCPS	43	886	32	564	32	678	23	1,598	23	1,752	-46.5%	97.8%
OD(CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	0	307	5	2,534	4	3,159	17	1,039	17	1,135	100.0%	269.7%
R13 Average Cost of Award												
NCI Overall	81	15	92	34	80	36	95	76	92	65	13.58%	333.33%
DCB	42	8	40	9	33	10	36	9	35	4	-16.7%	-50.0%
DCP	8	18	4	12	8	15	8	12	9	15	12.5%	-16.7%
DCTD	16	12	24	11	19	13	19	12	16	11	0.0%	-8.3%
DCCPS	10	29	11	30	14	24	17	20	17	14	70.0%	-51.7%
OD(CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	5	52	13	162	6	307	15	418	15	349	200.0%	571.2%
U10 Average C	Cost of Aw	vard										
NCI Overall	138	1,728	133	1,773	134	1,750	131	1,937	135	1,801	-2.17%	4.22%
DCP	72	1,250	72	1,275	73	1,254	71	1,330	77	1,160	6.9%	-7.2%
DCTD	66	2,246	61	2,360	61	2,344	60	2,655	58	2,653	-12.1%	18.1%
OD(CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	0	147	0	0	0	0	0	0	0	0	0.0%	-100.0%
P30 Average C	ost of Aw	<i>r</i> ard										
NCI Overall	63	4,229	64	4,217	65	4,337	66	4,446	66	4,168	4.76%	-1.44%
DCTD	0	5,215	0	0	0	0	0	0	0	0	0.0%	-100.0%
DCCPS	0	319	0	0	0	0	0	0	0	0	0.0%	-100.0%
OD(CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	63	4,141	64	4,217	65	4,337	66	4,446	66	4,168	4.8%	0.7%

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[†]In thousands

[‡]Courtesy of the Office of Extramural Finance and Information Analysis.

Table 14. Average Total Cost*† and Number of Research Project Grant Awards
Sorted by Division, Office, Center, and Mechanism
From FY2007 - FY2011‡

	FY 2007		FY 2	2008	FY 2	2009	FY 2	2010	FY 2	2011	Percent 2007	Change - 2011
	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost
P50 Average C	P50 Average Cost of Award											
NCI Overall	80	1,957	60	2,055	71	1,967	75	2,081	74	1,979	-7.5%	1.12%
DCP	0	0	0	0	0	0	0	400	0	400	0.0%	100.0%
DCTD	9	1,591	60	2,051	64	2,025	65	2,101	64	1,999	611.1%	25.6%
DCCPS	12	1,746	0	0	7	1,334	10	1,847	10	1,739	-16.7%	-0.4%
OD(CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	59	2,056	0	262	0	766	0	617	0	701	-100.0%	-65.9%
SBIR Average Cost of Award												
NCI Overall	231	356	274	314	219	367	180	411	123	587	-46.75%	64.89%
CRCHD	0	0	0	0	0	0	0	85	0	83	0.0%	100.0%
CSSI	1	250	0	0	0	0	0	0	0	0	-100.0%	-100.0%
DCB	33	284	23	268	0	0	0	0	0	0	-100.0%	-100.0%
DCP	14	341	16	318	0	0	0	0	0	0	-100.0%	-100.0%
DCTD	163	378	165	342	4	318	0	0	0	0	-100.0%	-100.0%
DCCPS	20	314	13	326	0	0	0	0	0	32	-100.0%	-89.8%
SBIRDC	0	0	57	251	215	368	180	411	123	586	100.0%	100.0%
STTR Average	Cost of A	ward		Y						r		
NCI Overall	47	242	38	297	42	277	27	431	21	562	-55.32%	132.23%
DCB	2	292	3	189	0	0	0	0	0	0	-100.0%	-100.0%
DCP	3	300	3	325	0	0	0	0	0	0	-100.0%	-100.0%
DCTD	41	238	27	297	1	138	0	0	0	0	-100.0%	-100.0%
DCCPS	1	107	2	301	0	0	0	0	0	0	-100.0%	-100.0%
SBIRDC	0	0	0	0	0	0	0	0	21	562	100.0%	100.0%
STTRDC	0	0	3	368	41	280	27	431	0	0	0.0%	0.0%
U54 Average C	ost of Aw	ard								1		
NCI Overall	42	1,778	44	1,802	56	1,939	93	1,453	101	1,523	140.48%	-14.34%
CRCHD	15	961	17	1,161	21	1,274	51	1,066	47	1,152	213.3%	19.9%
CSSI	8	3,635	8	3,683	16	3,311	18	2,776	21	2,468	162.5%	-32.1%
DCB	15	1,483	15	1,407	15	1,327	20	1,492	22	1,400	46.7%	-5.6%
DCCPS	4	2,236	4	2,242	4	2,238	4	230	11	1,551	175.0%	-30.6%

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[†] In thousands

[‡]Courtesy of the Office of Extramural Finance and Information Analysis.

Table 15. NCI Organ and Related Site-Specific Dollars for FY2007 - FY2011 - Annual Percent Change*

(This table reports funding for grants and contracts only; intramural projects are excluded.)

Anatomical Site	Counts and Relevant Dollars [†]	2007	2008	2009	2010	2011	Average Percent Change/Yr.
	Number of Grants	14	9	7	9	6	
Adrenal	Relevant Grant Dollars Total Count	1,795,342 14	490,757 9	443,049 7	908,434 9	557,086 6	
	Total Relevant Dollars	1,795,342	490,757	443,049	908,434	557,086	-4.01
	Number of Grants	16	13	17	14	16	
	Relevant Grant Dollars	1,605,089	1,717,104	2,585,470	1,996,111	2,740,690	
Anus	Number of Contracts	5	5 744 500	5	‡ ‡	3	
	Relevant Contract Dollars Total Count	794,336 21	744,588 18	778,300 22	÷ 14	446,435 19	
	Total Relevant Dollars	2,399,425	2,461,692	3,363,770	1,996,111	3,187,125	14.56
	Number of Grants	261	230	219	208	176	
	Relevant Grant Dollars	17,496,016	20,612,527	20,834,546	18,941,518	15,777,763	
Bladder	Number of Contracts Relevant Contract Dollars	18 580,571	17 417,443	16 340,792	3 25,113	1 176,266	
	Total Count	279	247	235	211	177	
	Total Relevant Dollars	18,076,587	21,029,970	21,175,338	18,966,631	15,954,029	-2.32
	Number of Grants	138	101	75	92	76	
Bone Marrow	Relevant Grant Dollars	23,646,795	15,453,422	16,586,714	13,124,422 92	17,343,897	
	Total Count Total Relevant Dollars	138 23.646.795	101 15,453,422	75 16,586,714	13,124,422	76 17,343,897	-4.01
	Number of Grants	131	110	84	98	90	
	Relevant Grant Dollars	20,571,396	16,585,539	16,835,159	18,014,359	14,539,162	
Bone, Cartilage	Number of Contracts	1	1	‡ *	‡ *	‡ *	
,	Relevant Contract Dollars Total Count	10,124 132	10,529 111	‡ 84	‡ 98	‡ 90	
	Total Relevant Dollars	20,581,520	16,596,068	16,835,159	18,014,359	14,539,162	-7.55
	Number of Grants	534	536	464	498	500	
	Relevant Grant Dollars	118,668,961	121,777,889	125,530,253	131,178,363	143,786,108	
Brain	Number of Contracts Relevant Contract Dollars	15 322,417	15 436,218	14 215,004	3 217,734	<i>3</i> 698,895	
	Total Count	522,417 549	430,210 551	215,004 478	217,734 501	503	
	Total Relevant Dollars	118,991,378	122,214,107	125,745,257	131,396,097	144,485,003	5.01
	Number of Grants	2,041	1,999	1,958	1,934	1,859	
	Relevant Grant Dollars	532,031,369	517,943,650	542,409,702	569,062,367	552,999,395	
Breast	Number of Contracts Relevant Contract Dollars	44 8,013,038	44 6,480,995	36 7,420,959	32 7,908,595	20 9,370,644	
	Total Count	2,085	2,043	1,994	1,966	1,879	
	Total Relevant Dollars	540,044,407	524,424,645	549,830,661	576,970,962	562,370,039	1.09
	Number of Grants	82	70	42	43	35	
Control Names	Relevant Grant Dollars	12,808,969	8,892,769	5,765,488	6,255,071	5,370,246	
Central Nervous System	Number of Contracts Relevant Contract Dollars	1 150,000	1 450,000	1 374,998	; ;	* ‡	
Gyotom	Total Count	83	71	43	43	35	
	Total Relevant Dollars	12,958,969	9,342,769	6,140,486	6,255,071	5,370,246	-14.42

^{*}Some categories are not mutually exclusive, resulting in overlap in reported funding; dollar totals, therefore, exceed 100 percent of the extramural budget.

[†]Relevant Dollars = portion of the funded amount relevant to a specific site. ‡Coding not required or requested.

Table 15. NCI Organ and Related Site-Specific Dollars for FY2007 - FY2011 - Annual Percent Change*

(This table reports funding for grants and contracts only; intramural projects are excluded.)

Anatomical Site	Counts and Relevant Dollars [†]	2007	2008	2009	2010	2011	Average Percent Change/Yr.
0	Number of Grants Relevant Grant Dollars Number of Contracts	343 68,615,877 23	321 57,532,246 23	298 51,605,675 23	298 61,579,940 5	295 60,341,462 4	
Cervix	Relevant Contract Dollars Total Count Total Relevant Dollars	6,467,605 366 75,083,482	5,783,915 344 63,316,161	7,479,618 321 59,085,293	4,759,619 303 66,339,559	4,729,585 299 65,071,047	-3.00
Childhood Leukemia	Number of Grants Relevant Grant Dollars Total Count	125 40,753,571 125	131 43,226,882 131	123 42,335,965 123	148 49,924,922 148	157 33,329,128 157	5,50
	Total Relevant Dollars	40,753,571	43,226,882	42,335,965	49,924,922	33,329,128	2.83
Colon, Rectum	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	1,037 241,436,522 44 8,736,401 1,081 250,172,923	1,011 242,315,525 46 8,206,006 1,057 250,521,531	963 237,991,020 38 7,934,699 1,001 245,925,719	984 245,295,756 16 6,412,331 1,000 251,708,087	951 242,486,775 11 4,299,256 962 246,786,031	-0.32
Connective Tissue	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	83 10,865,081 83 10,865,081	70 12,574,363 70 12,574,363	55 10,709,782 55 10,709,782	51 10,417,011 51 10,417,011	56 9,999,338 56 9,999,338	-1.46
Embryonic Tissue, Cells	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	20 3,170,012 20 3,170,012	9 1,779,062 9 1,779,062	6 694,792 6 694,792	10 1,477,847 10 1,477,847	8 1,325,565 8 1,325,565	-0.61
Esophagus	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	155 20,497,757 3 349,150 158 20,846,907	133 18,768,511 3 258,939 136 19,027,450	129 24,435,190 ‡ ‡ 129 24,435,190	100 25,599,073 ‡ 100 25,599,073	118 28,238,207 1 20,000 119 28,258,207	8.71
Eye	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	17 2,134,820 17 2,134,820	1,850,716 1,850,716 13	11 1,910,869 11 1,910,869	13 2,168,685 13 2,168,685	12 2,161,882 12 2,161,882	0.78
Gall Bladder	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	997,955 9 997,955	3 462,516 3 462,516	4 372,129 4 372,129	1 212,356 1 212,356	16 199,485 16 199,485	-30.55
Gastrointestinal Tract	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count	86 13,865,217 4 176,140 90	68 9,411,464 2 ‡	62 9,143,226 ‡ ‡	51 8,649,596 ‡ ‡	48 8,306,179 ‡ ‡	
	Total Relevant Dollars	14,041,357	9,411,464	9,143,226	8,649,596	8,306,179	-11.30

^{*}Some categories are not mutually exclusive, resulting in overlap in reported funding; dollar totals, therefore, exceed 100 percent of the extramural budget.

 $^{^{\}dagger}$ Relevant Dollars = portion of the funded amount relevant to a specific site. ‡ Coding not required or requested.

Table 15. NCI Organ and Related Site-Specific Dollars for FY2007 - FY2011 - Annual Percent Change*

(This table reports funding for grants and contracts only; intramural projects are excluded.)

Anatomical Site	Counts and Relevant Dollars [†]	2007	2008	2009	2010	2011	Average Percent Change/Yr.
	Number of Grants	32	15	9	12	19	
Genital System,	Relevant Grant Dollars Number of Contracts	1,885,968 5	1,408,356 5	578,518 5	1,255,368 5	1,708,702 1	
Female	Relevant Contract Dollars	735,936	651,232	666,439	336,493	187,496	
	Total Count	37	20	14	17	20	0.50
	Total Relevant Dollars	2,621,904	2,059,588	1,244,957	1,591,861	1,896,198	-3.50
	Number of Grants Relevant Grant Dollars	10 1,329,596	7 1,304,477	<i>6</i> 1,466,575	<i>6</i> 549,031	<i>5</i> 334,581	
Genital System,	Number of Contracts	6	5	5	5	‡	
Male	Relevant Contract Dollars Total Count	745,318 16	651,232 12	666,439 11	336,493 11	‡ 5	
	Total Relevant Dollars	2,074,914	1,955,709	2,133,014	885,524	334,581	-29.35
	Number of Grants	241	234	214	204	201	
	Relevant Grant Dollars	37,004,472	42,337,050	41,932,591	41,468,691	39,623,318	
Head and Neck	Number of Contracts Relevant Contract Dollars	4 2,272,727	4 2,252,606	<i>5</i> 1,433,714	7 1,897,174	<i>3</i> 1,337,385	
	Total Count	245	238	219	211	204	
	Total Relevant Dollars	39,277,199	44,589,656	43,366,305	43,365,865	40,960,703	1.31
	Number of Grants Relevant Grant Dollars	31 3,186,004	24 2,919,031	20 2,361,956	15 2,148,483	16 1,737,287	
Heart	Total Count	3,100,004 31	2,919,031 24	2,301,930 20	2,140,403 15	1,737,267 16	
	Total Relevant Dollars	3,186,004	2,919,031	2,361,956	2,148,483	1,737,287	-13.98
	Number of Grants	90	91	72	54	77	
	Relevant Grant Dollars Number of Contracts	15,324,741 ‡	15,616,622 ‡	13,631,008 ‡	9,846,229 ‡	8,994,562 ‡	
Hodgkins Lymphoma	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count Total Relevant Dollars	90 15,324,741	91 15,616,622	72 13,631,008	<i>54</i> 9,846,229	77 8,994,562	-11.81
	Number of Grants	110	15,010,022	13,031,006	9,040,229	6,994,302 87	-11.01
	Relevant Grant Dollars	20,905,539	20,543,363	18,551,830	<i>92</i> 17,444,041	20,205,869	
Kaposi Sarcoma	Number of Contracts	1	‡ ÷	‡ *	‡	‡	
.,	Relevant Contract Dollars Total Count	‡ 111	÷ 99	* 81	‡ 92	÷ 87	
	Total Relevant Dollars	20,905,539	20,543,363	18,551,830	17,444,041	20,205,869	-0.39
	Number of Grants	224	209	210	226	241	
	Relevant Grant Dollars Number of Contracts	23,713,721 3	26,064,122	26,856,193	26,734,935	29,194,089	
Kidney	Relevant Contract Dollars	3 74,757	2 ‡	1 47,891	2 274,436	2 390,889	
	Total Count	227	211	211	228	243	5.00
	Total Relevant Dollars	23,788,478	26,064,122	26,904,084	27,009,371	29,584,978	5.68
	Number of Grants Relevant Grant Dollars	7 333,234	4 94,951	<i>5</i> 387,226	3 99,159	4 203,215	
Larynx	Total Count	333,234 7	94,951 4	507,220 5	99,109 3	203,213 4	
	Total Relevant Dollars	333,234	94,951	387,226	99,159	203,215	66.71

^{*}Some categories are not mutually exclusive, resulting in overlap in reported funding; dollar totals, therefore, exceed 100 percent of the extramural budget.

[†]Relevant Dollars = portion of the funded amount relevant to a specific site.

[‡]Coding not required or requested.

Table 15. NCI Organ and Related Site-Specific Dollars for FY2007 - FY2011 - Annual Percent Change*

(This table reports funding for grants and contracts only; intramural projects are excluded.)

Anatomical Site	Counts and Relevant Dollars [†]	2007	2008	2009	2010	2011	Average Percent Change/Yr.
	Number of Grants Relevant Grant Dollars	800 190,978,673	735 187,378,267	703 192,236,365	680 210,799,140	683 199,610,401	
Leukemia	Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	3 55,441 803 191,034,114	3 159,480 738	2 228,944 705 192,465,309	3 1,495,139 683 212,294,279	1,098,646 687 200,709,047	1.41
			187,537,747				1.41
	Number of Grants Relevant Grant Dollars Number of Contracts	307 60,837,509 4	303 60,131,598 2	280 58,730,034 1	294 60,616,338 ‡	302 54,071,410 1	
Liver	Relevant Contract Dollars Total Count	160,124 311	46,630 305	124,807 281	‡ 294	299,353 303	
	Total Relevant Dollars	60,997,633	60,178,228	58,854,841	60,616,338	54,370,763	-2.71
	Number of Grants Relevant Grant Dollars Number of Contracts	1,010 205,648,922 37	966 211,422,479 42	961 210,440,490 35	965 243,602,747 23	968 260,155,893 16	
Lung	Relevant Contract Dollars Total Count	8,081,836 1,047	8,194,888 1,008	7,217,782 <i>996</i>	7,815,307 <i>988</i>	4,919,129 984	
	Total Relevant Dollars	213,730,758	219,617,367	217,658,272	251,418,054	265,075,022	5.70
Lymph Node	Number of Grants Relevant Grant Dollars Total Count	26 4,278,957 26	23 5,090,890 23	18 4,206,917 18	15 2,542,477 15	13 2,017,737 13	
	Total Relevant Dollars	4,278,957	5,090,890	4,206,917	2,542,477	2,017,737	-14.65
	Number of Grants Relevant Grant Dollars	8 868,599	9 1,008,473	9 972.288	4 472,471	5 788.609	
Lymphatic System	Total Relevant Dollars	8 868,599	1,008,473	972,288	472,471	5 788,609	7.01
	Number of Grants Relevant Grant Dollars Number of Contracts	502 88,841,117 2	506 91,542,259 2	454 86,581,615 2	457 85,429,532 4	435 96,537,993 1	
Melanoma	Relevant Contract Dollars Total Count Total Relevant Dollars	261,078 504 89,102,195	‡ 508 91,542,259	276,130 456 86,857,745	698,413 461 86,127,945	50,000 436 96,587,993	2.23
	Number of Grants	‡	19	18	15	16	
Mesothelioma	Relevant Grant Dollars Total Count Total Relevant Dollars	* * * *	5,258,514 19 5,258,514	4,954,819 18 4,954,819	5,530,460 15 5,530,460	3,457,493 16 3,457,493	-10.55
	Number of Grants		42	37	37	48	-10.00
Muscle	Relevant Grant Dollars Total Count	7,555,840 56	7,152,012 42	6,535,783 37	6,049,875 37	8,018,193 48	
	Total Relevant Dollars	7,555,840	7,152,012	6,535,783	6,049,875	8,018,193	2.78

continued

‡Coding not required or requested.

^{*}Some categories are not mutually exclusive, resulting in overlap in reported funding; dollar totals, therefore, exceed 100 percent of the extramural budget.

[†]Relevant Dollars = portion of the funded amount relevant to a specific site.

Table 15. NCI Organ and Related Site-Specific Dollars for FY2007 - FY2011 - Annual Percent Change*

(This table reports funding for grants and contracts only; intramural projects are excluded.)

Anatomical Site	Counts and Relevant Dollars [†]	2007	2008	2009	2010	2011	Average Percent Change/Yr.
Myeloma	Number of Grants Relevant Grant Dollars Number of Contracts	224 28,812,062 1	197 34,920,892 2	234 40,008,777 ‡	234 41,740,236 1	242 48,195,056 ‡	
MyGOTTA	Relevant Contract Dollars <i>Total Count</i> Total Relevant Dollars	‡ 225 28,812,062	28,000 199 34,948,892	‡ 234 40,008,777	199,860 235 41,940,096	‡ 242 48,195,056	13.88
Nervous System	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count	29 4,185,349 ‡ ‡	33 5,617,294 ‡ ‡	29 4,847,016 ‡ ‡ 29	30 5,271,048 ‡ ‡	28 6,787,090 1 8,250 29	
	Total Relevant Dollars	4,185,349	5,617,294	4,847,016	5,271,048	6,795,340	14.54
Neuroblastoma	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	87 16,114,373 87 16,114,373	95 16,372,549 95 16,372,549	100 17,189,208 100 17,189,208	98 17,861,575 98 17,861,575	98 20,974,714 98 20,974,714	6.98
	Number of Grants	589	570	523	455	472	0.90
Non-Hodgkins Lymphoma	Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count	103,225,943 ‡ ‡ 589	102,077,543 ‡ ‡	100,604,178 ‡ ‡	97,937,059 ‡ ‡ 455	101,566,115 1 1,500,000 473	
	Total Relevant Dollars	103,225,943	102,077,543	100,604,178	97,937,059	103,066,115	0.01
Nose, Nasal Passages	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	786,737 11 786,737	10 835,744 10 835,744	10 676,153 10	14 1,627,236 14 1,627,236	8 904,491 8	20.84
	Number of Grants	2,243	2,304	676,153 2,196	2,079	904,491 1,952	20.04
Not Site Specific§	Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count	578,625,792 213 186,310,560 2,456	595,117,368 214 357,711,859 2,518	604,058,911 186 432,722,194 2,382	608,746,346 162 191,360,124 2,241	573,631,342 166 192,657,199 2,118	4.50
	Total Relevant Dollars Number of Grants	764,936,352 ‡	952,829,227 43	1,036,781,105 49	800,106,470 52	766,288,541 49	1.58
Oral Cavity	Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	* * * * * *	5,505,263 1 1,188,000 44 6,693,263	8,783,998 ‡ ‡ 49 8,783,998	11,138,288 ‡ ‡ ‡ 52 11,138,288	8,209,050 ‡ ‡ 49 8,209,050	10.58
Ovary	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars	438 85,320,484 14 5,595,233	419 81,047,163 16 5,782,543	398 92,438,385 16 6,099,306	413 96,565,010 11 5,217,503	413 96,600,440 6 2,015,726	
	Total Count Total Relevant Dollars	452 90,915,717	435 86,829,706	414 98,537,691	424 101,782,513	419 98,616,166	2.29

^{*}Some categories are not mutually exclusive, resulting in overlap in reported funding; dollar totals, therefore, exceed 100 percent of the extramural budget.

[†]Relevant Dollars = portion of the funded amount relevant to a specific site.

^{*}Coding not required or requested.

[§] Not Site Specific = no specific site specified in application, applicable to many sites.

Table 15. NCI Organ and Related Site-Specific Dollars for FY2007 - FY2011 - Annual Percent Change*

(This table reports funding for grants and contracts only; intramural projects are excluded.)

Anatomical Site	Counts and Relevant Dollars [†]	2007	2008	2009	2010	2011	Average Percent Change/Yr.
	Number of Grants Relevant Grant Dollars	377 71,482,007	405 81,507,036	401 83,917,076	424 90,502,908	417 91,095,822	
Pancreas	Number of Contracts Relevant Contract Dollars	1 10,124	4 358,204	1 124,807	1 159,140	3 673,594	
	Total Count Total Relevant Dollars	<i>378</i> 71,492,131	409 81,865,240	402 84,041,883	425 90,662,048	420 91,769,416	6.57
De with with	Number of Grants Relevant Grant Dollars	3 195,111	3 167,518	4 103,991	2 ‡	1 ‡	
Parathyroid	Total Count Total Relevant Dollars	3 195,111	3 167,518	4 103,991	2 ‡	1 ‡	-26.03
	Number of Grants Relevant Grant Dollars	6 2,720,503	7 3,031,187	4 752,499	5 2,667,920	6 2,249,216	
Penis	Total Count Total Relevant Dollars	2,720,503	3,031,187	752,499	5 2,667,920	2,249,216	43.77
	Number of Grants	2,720,303	3,031,167	752,499 52	2,007,920	2,249,210	45.77
	Relevant Grant Dollars	2,833,144	2,785,503	4,449,521	1,521,576	1,692,375	
Pharynx	Number of Contracts Relevant Contract Dollars	1 1,162,260	1 ,188,000	; ;	‡ ‡	‡ ‡	
	Total Count Total Relevant Dollars	37 3,995,404	33 3,973,503	52 4,449,521	14 1,521,576	18 1,692,375	-10.79
	Number of Grants	9	6	7	7	7	
Pituitary	Relevant Grant Dollars Total Count	920,804 9	606,496 6	482,208 7	627,219 7	1,032,440 7	
	Total Relevant Dollars	920,804	606,496	482,208	627,219	1,032,440	10.01
	Number of Grants Relevant Grant Dollars	1,139	1,101	1,028	1,030	960	
Prostate	Number of Contracts	267,487,905 41	252,666,154 46	250,572,712 38	265,054,420 24	254,592,786 13	
riostate	Relevant Contract Dollars Total Count	9,212,924 1,180	9,220,125 1,147	8,857,832 1,066	8,108,959 1,054	5,670,388 <i>973</i>	
	Total Relevant Dollars	276,700,829	261,886,279	259,430,544	273,163,379	260,263,174	-1.43
Definite of the P. I	Number of Grants	64	49	30	24	23	
Reticuloendothelial System	Relevant Grant Dollars Total Count	12,745,312 <i>64</i>	8,704,661 49	7,424,753 30	4,220,047 24	4,207,337 23	
	Total Relevant Dollars	12,745,312	8,704,661	7,424,753	4,220,047	4,207,337	-22.47
Pospiratory	Number of Grants	400.761	449 224	<i>3</i>	400.001	5 422 241	
Respiratory System	Relevant Grant Dollars Total Count	400,761 4	448,324 5	484,204 3	400,921 3	433,241 5	
	Total Relevant Dollars	400,761	448,324	484,204	400,921	433,241	2.68
	Number of Grants Relevant Grant Dollars	24	25	2.502.106	20 2,599,952	14 2 201 465	
Retinoblastoma	Total Count	3,691,685 24	4,536,603 25	3,582,106 23	2,599,952 20	2,291,465 14	
	Total Relevant Dollars	3,691,685	4,536,603	3,582,106	2,599,952	2,291,465	-9.36

^{*}Some categories are not mutually exclusive, resulting in overlap in reported funding; dollar totals, therefore, exceed 100 percent of the extramural budget.

[†]Relevant Dollars = portion of the funded amount relevant to a specific site.

[‡]Coding not required or requested.

Table 15. NCI Organ and Related Site-Specific Dollars for FY2007 - FY2011 - Annual Percent Change*

(This table reports funding for grants and contracts only; intramural projects are excluded.)

Anatomical Site	Counts and Relevant Dollars [†]	2007	2008	2009	2010	2011	Average Percent Change/Yr.
Salivary Glands	Number of Grants Relevant Grant Dollars	4 166,982	4 216,951	4 219,489	5 281,931	2 122,931	
Canvary Charles	Total Count Total Relevant Dollars	4 166,982	4 216,951	4 219,489	5 281,931	2 122,931	0.79
	Number of Grants Relevant Grant Dollars Number of Contracts	301 56,840,776 ‡	274 48,382,761 ‡	243 44,850,024 1	227 43,190,271 ‡	206 39,781,606 1	
Skin	Relevant Contract Dollars <i>Total Count</i> Total Relevant Dollars	‡ 301 56,840,776	‡ 274 48,382,761	200,000 244 45,050,024	‡ 227 43,190,271	999,000 207 40,780,606	-7.87
Small Intestine	Number of Grants Relevant Grant Dollars Total Count	28 3,616,287 28	23 1,913,855 23	21 2,322,269 21	19 2,154,757 19	21 2,523,663 21	
	Total Relevant Dollars	3,616,287	1,913,855	2,322,269	2,154,757	2,523,663	-3.96
Spleen	Number of Grants Relevant Grant Dollars Total Count	7 553,101 7	5 579,727 5	4 190,652 4	3 243,170 3	1 41,226 1	
	Total Relevant Dollars	553,101	579,727	190,652	243,170	41,226	-29.45
Stomach	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars	82 10,528,229 2 20,391	74 8,736,659 2 21,086	64 11,212,686 ‡ †	65 10,776,732 ‡ ‡	58 9,227,080 ‡ †	
	Total Count Total Relevant Dollars	20,391 84 10,548,620	21,000 76 8,757,745	64 11,212,686	65 10,776,732	58 9,227,080	-1.80
Testis	Number of Grants Relevant Grant Dollars Number of Contracts	49 7,845,968 ‡	39 6,649,429 ‡	30 4,704,354 ‡	27 4,216,762 ‡	23 2,966,075 ‡	
	Relevant Contract Dollars Total Count Total Relevant Dollars	‡ 49 7,845,968	‡ 39 6,649,429	‡ 30 4,704,354	‡ 27 4,216,762	‡ 23 2,966,075	-21.13
Thymus	Number of Grants Relevant Grant Dollars Total Count	12 1,140,409 12	9 944,461 9	6 702,233 6	4 397,192 4	4 504,940 4	
	Total Relevant Dollars	1,140,409	944,461	702,233	397,192	504,940	-14.79
Thyroid	Number of Grants Relevant Grant Dollars Number of Contracts	47 7,167,262 1	50 9,785,919 2	47 10,773,542 ‡	52 10,900,704 ‡	51 10,394,218 ‡	
,	Relevant Contract Dollars Total Count Total Relevant Dollars	20,248 48 7,187,510	161,058 52 9,946,977		‡ 52 10,900,704	↓ 51 10,394,218	10.81
Trachea, Bronchus	Number of Grants Relevant Grant Dollars	3 256,970	3 283,631	3 332,875	2 112,364	4 927,176	
	Total Count Total Relevant Dollars	3 256,970	3 283,631	3 332,875	2 112,364	4 927,176	171.66

^{*}Some categories are not mutually exclusive, resulting in overlap in reported funding; dollar totals, therefore, exceed 100 percent of the extramural budget.

[†]Relevant Dollars = portion of the funded amount relevant to a specific site. ‡Coding not required or requested.

Table 15. NCI Organ and Related Site-Specific Dollars for FY2007 - FY2011 - Annual Percent Change*

(This table reports funding for grants and contracts only; intramural projects are excluded.)

Anatomical Site	Counts and Relevant Dollars [†]	2007	2008	2009	2010	2011	Average Percent Change/Yr.
	Number of Grants	112	109	107	80	90	
	Relevant Grant Dollars	16,188,704	14,240,551	14,708,946	12,006,415	13,617,358	
Uterus	Number of Contracts	2	2	Ŧ	Ŧ	Ŧ	
Oterus	Relevant Contract Dollars	37,500	‡	‡	‡	‡	
	Total Count	114	111	107	80	90	
	Total Relevant Dollars	16,226,204	14,240,551	14,708,946	12,006,415	13,617,358	-3.48
	Number of Grants	4	5	3	4	5	
Vacino	Relevant Grant Dollars	485,811	395,049	374,910	275,471	284,762	
Vagina	Total Count	4	5	3	4	5	
	Total Relevant Dollars	485,811	395,049	374,910	275,471	284,762	-11.73
	Number of Grants	130	96	65	55	48	
	Relevant Grant Dollars	24,320,429	16,401,823	13,022,343	12,429,452	11,108,479	
Vacaular	Number of Contracts	‡	‡	‡	‡	‡	
Vascular	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	130	96	65	<i>55</i>	48	
	Total Relevant Dollars	24,320,429	16,401,823	13,022,343	12,429,452	11,108,479	-17.09
	Number of Grants	17	17	16	15	17	
VACIONE TO SERVICE	Relevant Grant Dollars	3,686,340	3,748,439	4,249,920	3,792,626	3,166,418	
Wilms Tumor	Total Count	17	17	16	15	17	
	Total Relevant Dollars	3,686,340	3,748,439	4,249,920	3,792,626	3,166,418	-3.05

^{*}Some categories are not mutually exclusive, resulting in overlap in reported funding; dollar totals, therefore, exceed 100 percent of the extramural budget.

†Relevant Dollars = portion of the funded amount relevant to a specific site.

‡Coding not required or requested.

(This table reports funding for grants and contracts only; intramural projects are excluded.)

Special Interest Categories	Counts and Relevant Dollars [†]	2007	2008	2009	2010	2011	Average Percent Change/Yr.
Adoptive Cell	Number of Grants Relevant Grant Dollars Number of Contracts	266 78,652,209 1	264 74,709,142 ‡	250 65,455,904 ‡	249 71,169,780 ‡	226 68,415,543 1	
Immunotherapy	Relevant Contract Dollars Total Count Total Relevant Dollars	149,291 267 78,801,500	264 74,709,142	250 65,455,904	249 71,169,780	247,568 227 68,663,021	-3.78
Advanced	Number of Grants Relevant Grant Dollars Number of Contracts	36 8,330,740 8	26 4,715,021 6	16 3,032,054 7	15 3,285,087 1	13 2,770,889 ‡	
Manufacturing Technology	Relevant Contract Dollars Total Count Total Relevant Dollars	2,507,029 44 10,837,769	796,198 32 5,511,219	2,189,910 23 5,221,964	106,000 16 3,391,087	‡ 13 2,770,889	-43.62
	Number of Grants Relevant Grant Dollars Number of Contracts	1,587 162,147,038 34	1,511 152,249,919 39	1,311 135,080,359 26	1,066 113,349,368 7	854 99,438,832 5	
Aging	Relevant Contracts Total Count Total Relevant Dollars	4,441,352 1,621 166,588,390	5,277,985 1,550 157,527,904	4,221,489 1,337 139,301,848	2,424,616 1,073 115,773,984	631,073 859 100,069,905	-13.18
	Number of Grants Relevant Grant Dollars Number of Contracts	657 113,664,239 11	492 103,344,122 8	413 98,869,614 10	412 91,837,776 3	65 13,092,878	
AIDS	Relevant Contract Dollars Total Count Total Relevant Dollars	2,534,209 668 116,198,448	2,461,012 500 105,805,134	4,070,295 423 102,939,909	504,083 415 92,341,859	‡ 65 13,092,878	-27.48
Alternative	Number of Grants Relevant Grant Dollars Number of Contracts	339 74,353,346 6	369 97,318,620 4	371 85,029,188 3	373 89,420,040 2	347 83,106,708 ‡	
Medicine, Direct	Relevant Contract Dollars Total Count Total Relevant Dollars	763 345 74,354,109	791 373 97,319,411	610 374 85,029,798	1,149,412 375 90,569,452	‡ 347 83,106,708	1.76
Alternative Medicine,	Number of Grants Relevant Grant Dollars Total Count	76 20,093,511 76	57 13,189,399 57	48 8,017,376 48	44 8,714,472 44	47 8,363,143 47	
Indirect	Total Relevant Dollars	20,093,511	13,189,399	8,017,376	8,714,472	8,363,143	-28.22
Alzheimers Dementia	Number of Grants Relevant Grant Dollars Total Count	8 688,918 8	6 519,280 6	7 643,620 7	508,810 4	565,699 4	
	Total Relevant Dollars	688,918	519,280	643,620	508,810	565,699	-7.17
Arctic Research	Number of Grants Relevant Grant Dollars Total Count	8 708,426 8	7 965,121 7	5 593,726 5	3 684,462 3	3 692,817 3	
	Total Relevant Dollars	708,426	965,121	593,726	684,462	692,817	-5.37
Arthritis	Number of Grants Relevant Grant Dollars Total Count	9 675,986 9	4 558,858 4	6 269,326 6	4 400,562 4	5 396,477 5	
	Total Relevant Dollars	675,986	558,858	269,326	400,562	396,477	-24.18
Asbestos	Number of Grants Relevant Grant Dollars Total Count	16 2,167,075 16	3,033,759 14	2,598,119 10	11 3,428,084 11	12 2,591,109 12	
	Total Relevant Dollars	2,167,075	3,033,759	2,598,119	3,428,084	2,591,109	2.90

continued

^{*}Some categories are not mutually exclusive, resulting in an overlap in reported funding; dollar totals, therefore, exceed 100 percent of the extramural budget.

†Relevant Dollars = portion of the funded amount relevant to a specific SIC.

‡Coding not required or requested.

(This table reports funding for grants and contracts only; intramural projects are excluded.)

Special Interest Categories	Counts and Relevant Dollars†	2007	2008	2009	2010	2011	Average Percent Change/Yr.
Ataxia Telangiectasia	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	23 3,510,779 23 3,510,779	23 3,327,580 23 3,327,580	21 3,679,780 21 3,679,780	19 2,938,837 19 2,938,837	17 1,769,222 17 1,769,222	-15.24
Autoimmune Diseases	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	61 6,772,469 61 6,772,469	55 6,844,086 55 6,844,086	45 5,221,927 45 5,221,927	37 4,320,535 37 4,320,535	35 4,076,442 35 4,076,442	-14.13
Behavior Research	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	984 300,881,659 20 7,837,430 1,004 308,719,089	1,072 280,067,448 18 7,038,853 1,090 287,106,301	1,093 297,188,165 14 4,360,635 1,108 301,598,796	1,104 314,205,359 10 3,248,062 1,116 318,626,425	769 237,545,358 9 4,368,885 778 241,914,243	-5.36
Bioengineering	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	648 169,947,069 33 23,767,460 681 193,714,529	661 166,106,195 43 23,284,472 704 189,390,667	593 146,299,426 19 9,802,298 612 156,101,724	543 143,101,038 19 5,212,765 562 148,313,803	478 136,659,850 28 7,104,296 506 143,764,146	-7.98
Bioinformatics	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	625 146,352,339 31 44,985,173 656 191,337,512	647 153,069,578 35 61,976,197 682 215,045,775	609 162,286,911 21 23,191,871 630 185,478,782	613 175,538,540 16 18,412,975 629 193,951,515	620 195,579,757 20 20,328,761 640 215,908,518	2.69
Biological Carcinogenesis Non-Viral	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	56 10,156,057 1 11,790 57 10,167,847	61 10,028,377 1 11,788 62 10,040,165	68 13,031,273 ‡ 68 13,031,273	65 13,043,584 ‡ ‡ 65 13,043,584	68 14,509,921 ‡ ‡ 68 14,509,921	8.25
Biologics/Biological Response Modifiers	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	2,467 848,648,865 45 36,827,103 2,512 885,475,968	2,415 770,905,944 35 49,274,072 2,450 820,180,016	2,122 696,719,623 36 42,544,872 2,158 739,264,495	1,900 670,058,289 22 21,405,546 1,922 691,463,835	1,668 603,303,533 15 16,939,205 1,683 620,242,738	-9.03
Biomaterials Research	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	28,978,407 7 220,708 151 29,199,115	156 29,002,753 9 876,528 165 29,879,281	131 27,561,068 ‡ 131 27,561,068	141 21,212,069 4 1,548,783 145 22,760,852	114 17,519,246 ‡ ‡ 114 17,519,246	-12.56
Biomedical Computing	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	296 62,125,716 36 45,656,485 332 107,782,201	430 91,622,068 52 62,638,913 482 154,260,981	467 113,451,117 21 61,682,516 488 175,133,633	532 137,845,989 19 61,163,296 551 199,009,285	542 144,567,142 30 76,247,799 572 220,814,941	16.25

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‡Coding not required or requested.

(This table reports funding for grants and contracts only; intramural projects are excluded.)

Special Interest Categories	Counts and Relevant Dollars [†]	2007	2008	2009	2010	2011	Average Percent Change/Yr.
Birth Defects	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	83 12,986,117 83 12,986,117	75 12,667,124 75 12,667,124	61 11,547,343 61 11,547,343	64 12,310,466 64 12,310,466	56 10,773,700 56 10,773,700	-4.63
Bone Marrow Transplantation	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	149 57,685,687 ‡ ‡ 149 57,685,687	140 47,434,124 ‡ ‡ 140 47,434,124	146 52,111,916 1 49,496 147 52,161,412	140 54,507,621 ‡ ‡ 140 54,507,621	146 50,005,537 ‡ ‡ 146 50,005,537	-4.13
Breast Cancer Detection	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	528 106,217,059 25 3,226,170 553 109,443,229	525 108,220,945 28 2,767,443 553 110,988,388	508 104,769,617 22 2,928,506 530 107,698,123	498 99,759,605 13 3,632,816 511 103,392,421	458 91,023,962 15 6,478,783 473 97,502,745	-2.88
Breast Cancer Early Detection	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	251 55,363,825 5 677,184 256 56,041,009	240 53,893,623 6 470,851 246 54,364,474	219 45,876,009 1 420,996 220 46,297,005	225 47,143,457 3 1,506,703 228 48,650,160	196 48,915,492 4 2,561,486 200 51,476,978	-2.47
Breast Cancer Education	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	154 19,875,523 154 19,875,523	144 16,003,803 144 16,003,803	142 17,412,166 142 17,412,166	149 16,743,662 149 16,743,662	131 16,114,826 131 16,114,826	-5.96
Breast Cancer Epidemiology	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	200 57,628,754 4 775,166 204 58,403,920	191 54,730,727 3 308,692 194 55,039,419	182 54,666,482 1 51,500 183 54,717,982	189 64,674,588 5 336,493 194 65,011,081	195 67,767,559 1 1,620,669 196 69,388,228	3.97
Breast Cancer Genetics	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	427 96,343,475 3 1,110,467 430 97,453,942	429 97,895,528 3 1,064,606 432 98,960,134	429 104,276,046 8 2,655,595 437 106,931,641	453 116,708,177 5 2,418,766 458 119,126,943	482 116,790,479 6 2,277,691 488 119,068,170	4.79
Breast Cancer Prevention	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	252 33,900,951 ‡ ‡ 252 33,900,951	237 24,443,078 ‡ ‡ 237 24,443,078	223 23,625,542 ‡ ‡ 223 23,625,542	211 20,573,617 ‡ ‡ 211 20,573,617	193 19,425,993 2 161745 195 19,587,738	-15.44
Breast Cancer Rehabilitation	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	159 19,883,798 1 149,973 160 20,033,771	157 18,496,683 ‡ ‡ 157 18,496,683	156 22,053,106 ‡ 156 22,053,106	165 23,414,402 ‡ † 165 23,414,402	180 23,491,341 ‡ 180 23,491,341	3.49

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(This table reports funding for grants and contracts only; intramural projects are excluded.)

Special Interest Categories	Counts and Relevant Dollars†	2007	2008	2009	2010	2011	Average Percent Change/Yr.
Breast Cancer Screening	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	194 25,068,440 1 18,848 195 25,087,288	190 22,935,243 ‡ 190 22,935,243	182 21,132,490 ‡ ‡ 182 21,132,490	194 22,564,554 ‡ 194 22,564,554	178 24,098,034 1 1,599,992 179 25,698,026	0.58
Breast Cancer Treatment	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	712 157,072,191 18 3,175,991 730 160,248,182	715 159,717,667 17 2,845,506 732 162,563,173	676 175,287,152 20 2,908,754 696 178,195,906	699 191,699,483 11 1,962,093 710 193,661,576	671 182,244,051 3 461,244 674 182,705,295	3.13
Breast Cancer- Basic	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	855 157,238,472 8 685,736 863 157,924,208	807 152,092,109 8 559,354 815 152,651,463	773 161,805,933 9 1,532,199 782 163,338,132	781 168,864,512 9 1,977,194 790 170,841,706	758 168,911,481 2 648,203 760 169,559,684	1.68
Cancer Survivorship	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	593 188,415,629 27 4,021,835 620 192,437,464	604 189,504,238 26 3,743,947 630 193,248,185	596 197,965,376 22 2,901,978 618 200,867,354	233,784,991 7 2,202,035 634 235,987,026	669 244,829,411 11 10,974,854 680 255,804,265	6.87
Carcinogenesis, Environmental	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	1,591 478,853,048 34 18,994,043 1,625 497,847,091	1,478 416,898,310 34 16,619,490 1,512 433,517,800	1,407 388,760,406 26 10,219,303 1,433 398,979,709	1,316 395,790,431 19 7,165,859 1,335 402,956,290	1,237 384,795,833 9 3,411,768 1,246 388,207,601	-6.54
Cervical Cancer Education	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	38 6,476,819 38 6,476,819	48 6,078,672 48 6,078,672	42 5,288,307 42 5,288,307	49 6,669,506 49 6,669,506	6,289,116 44 6,289,116	-1.62
Chemoprevention	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	595 147,147,622 36 31,817,172 631 178,964,794	603 127,214,057 26 30,237,119 629 157,451,176	581 122,199,190 20 34,586,263 601 156,785,453	554 110,809,302 9 14,907,908 563 125,717,210	513 110,334,008 9 12,224,778 522 122,558,786	-10.33
Chemoprevention, Clinical	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	140 40,528,158 19 12,265,652 159 52,793,810	130 33,077,734 12 11,367,607 142 44,445,341	134 32,365,770 7 11,187,869 141 43,553,639	136 31,292,583 2 1,568,183 138 32,860,766	129 30,974,445 4 6,660,343 133 37,634,788	-9.71
Chemotherapy	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	1,338 497,798,503 37 24,643,133 1,375 522,441,636	1,350 474,245,547 31 23,279,025 1,381 497,524,572	1,318 491,407,371 24 18,985,236 1,342 510,392,607	1,265 486,445,892 23 16,237,585 1,288 502,683,477	1,268 487,783,247 23 15,509,777 1,291 503,293,024	-0.97

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(This table reports funding for grants and contracts only; intramural projects are excluded.)

Special Interest Categories	Counts and Relevant Dollars [†]	2007	2008	2009	2010	2011	Average Percent Change/Yr.
	Number of Grants Relevant Grant Dollars	226 62,633,467	208 55,722,419	173 41,893,936	180 35,485,301	146 30,619,348	
Child Health	Number of Contracts Relevant Contract Dollars Total Count	3 10,124 229	10,529 209	94,045 1 74	1 100,000 181	500,000 147	
	Total Relevant Dollars	62,643,591	55,732,948	41,987,981	35,585,301	31,119,348	-18.92
Childhood	Number of Grants Relevant Grant Dollars	500 159,209,507	504 164,775,607	477 163,353,861	495 166,272,586	517 165,281,278	
Cancers	Number of Contracts Relevant Contract Dollars Total Count	3,801,832 505	5 1,431,001 <i>509</i>	1,990,858 478	2,938,868 496	2,791,925 518	
	Total Relevant Dollars	163,011,339	166,206,608	165,344,719	169,211,454	168,073,203	0.75
Chronic	Number of Grants Relevant Grant Dollars	130 37,298,741	124 31,066,792	115 31,864,056	129 33,259,274	143 40,413,091	
Myeloproliferative Disorders	Total Count Total Relevant Dollars	130 37,298,741	124 31,066,792	115 31,864,056	129 33,259,274	143 40,413,091	2.04
	Number of Grants	193	180	177	158	157	
Clinical Trials,	Relevant Grant Dollars Number of Contracts	60,241,052 17	52,919,647 20	46,050,747 15	49,365,161 14	50,104,212 3	
Diagnosis	Relevant Contract Dollars Total Count	23,143,799 210	22,227,173 200	20,599,926 192	21,295,518 172	4,929,393 160	40.04
	Total Relevant Dollars Number of Grants	83,384,851 213	75,146,820 202	66,650,673 196	70,660,679 231	55,033,605 220	-10.04
Clinical Trials,	Relevant Grant Dollars Number of Contracts	55,628,143 5	57,804,488 5	55,185,455 2	64,532,028 3	69,256,696 4	
Other	Relevant Contract Dollars Total Count	27,588,310 218	35,442,454 207	1,800,000 198	2,199,778 234	5,627,105 224	
	Total Relevant Dollars	83,216,453	93,246,942	56,985,455	66,731,806	74,883,801	-6.51
	Number of Grants Relevant Grant Dollars	127 51,851,105	152 51,014,829	160 52,476,013	162 56,851,445	227 142,302,439	
Clinical Trials, Prevention	Number of Contracts Relevant Contract Dollars	19 18,950,376	14 17,487,767	10 17,750,174	4 10,044,105	6 11,401,878	
	Total Count Total Relevant Dollars	70,801,481	166 68,502,596	70,226,187	166 66,895,550	233 153,704,317	30.97
	Number of Grants	707	709	657	636	523	
Clinical Trials,	Relevant Grant Dollars Number of Contracts	426,525,232 16	394,416,421 16	381,371,267 16	383,892,811 17	321,816,935 20	
Therapy	Relevant Contract Dollars Total Count	24,919,354 723	20,555,120 725	45,809,933 <i>673</i>	43,398,794 653	57,748,533 543	4.07
	Total Relevant Dollars Number of Grants	451,444,586 558	414,971,541 572	427,181,200 601	427,291,605 679	379,565,468 769	-4.27
Combined	Relevant Grant Dollars Number of Contracts	336,759,452 1	329,900,253 1	330,893,890	366,302,744 4	388,561,125 7	
Treatment Modalities	Relevant Contract Dollars Total Count	2,404,801 <i>559</i>	1,141,539 <i>573</i>	1,990,858 602	3,372,144 683	6,442,620 776	
	Total Relevant Dollars	339,164,253	331,041,792	332,884,748	369,674,888	395,003,745	3.73
	Number of Grants Relevant Grant Dollars	176 25,250,379	177 27,408,881	172 27,223,170	173 27,186,831	177 29,938,700	
Cost Effectiveness	Number of Contracts Relevant Contract Dollars	6 149,213	5 791	3 610	2 186,230	1 248,461	
	Total Count Total Relevant Dollars	1 82 25,399,592	182 27,409,672	175 27,223,780	175 27,373,061	178 30,187,161	4.37

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(This table reports funding for grants and contracts only; intramural projects are excluded.)

Special Interest Categories	Counts and Relevant Dollars†	2007	2008	2009	2010	2011	Average Percent Change/Yr.
Diabetes	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	64 7,129,217 64 7,129,217	59 7,044,678 59 7,044,678	53 6,202,451 53 6,202,451	47 3,530,526 47 3,530,526	36 4,851,425 36 4,851,425	-13.26
Diagnosis	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	1,918 575,537,825 78 37,162,748 1,996 612,700,573	1,985 573,452,204 94 48,739,504 2,079 622,191,708	1,911 559,042,065 71 36,236,631 1,982 595,278,696	1,855 553,036,713 66 38,373,345 1,921 591,410,058	1,779 559,531,772 51 24,273,760 1,830 583,805,532	-1.23
Diethylstilbestrol	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	3 399,512 5 1,471,870 8 1,871,382	3 405,296 5 1,302,461 8 1,707,757	; ; 5 1,332,877 5 1,332,877	2 210,443 5 1,345,965 7 1,556,408	330,257 330,257 3330,257	-25.53
Dioxin	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	13 1,284,000 13 1,284,000	1,364,134 1,364,134 1,364,134	10 1,268,488 10 1,268,488	1,736,256 12 1,736,256	13 869,725 13 869,725	-6.16
DNA Repair	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	716 157,601,803 ; ; 716 157,601,803	699 135,428,622 ‡ 699 135,428,622	633 122,923,808 ‡ # 633 122,923,808	600 128,813,944 2 399,599 602 129,213,543	555 122,952,777 ‡ ‡ 555 122,952,777	-6.63
Drug Development	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	1,941 528,991,781 100 59,479,332 2,041 588,471,113	2,077 526,752,390 86 89,847,891 2,163 616,600,281	2,087 538,758,282 75 51,239,667 2,162 589,997,949	2,091 550,899,818 82 50,932,059 2,173 601,831,877	2,095 582,044,480 84 44,439,383 2,179 626,483,863	1.53
Drug Discovery	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	308 74,279,785 23 9,753,535 331 84,033,320	366 79,667,568 18 9,345,219 384 89,012,787	364 81,268,839 11 13,478,230 375 94,747,069	377 74,170,074 18 11,779,829 395 85,949,903	380 71,551,561 11 2,805,286 391 74,356,847	-3.02
Drug Resistance	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	627 117,103,635 ‡ ‡ 627 117,103,635	646 109,833,907 ‡ 646 109,833,907	631 111,827,085 1 37,181 632 111,864,266	634 117,323,805 2 395,550 636 117,719,355	638 126,166,864 2 388,667 640 126,555,531	1.92
Drugs – Natural Products	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	630 143,442,656 13 1,026,873 643 144,469,529	647 134,532,430 5 240,346 652 134,772,776	634 150,196,945 4 593,175 638 150,790,120	640 143,114,167 4 1,375,565 644 144,489,732	603 140,027,475 5 1,298,440 608 141,325,915	-0.78

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(This table reports funding for grants and contracts only; intramural projects are excluded.)

Special Interest Categories	Counts and Relevant Dollars†	2007	2008	2009	2010	2011	Average Percent Change/Yr.
	Number of Grants Relevant Grant Dollars	949 265,030,226	936 240.604.537	869 222,168,970	839 227,060,938	799 231,169,872	
Early Detection	Number of Contracts Relevant Contract Dollars	23,894,581	23,057,128	20 21,156,276	17 21,353,066	9,463,743	
2010011011	Total Count Total Relevant Dollars	980 288,924,807	976 263,661,665	889 243,325,246	856 248,414,004	809 240,633,615	-4.76
	Number of Grants Relevant Grant Dollars	174 48,830,097	135 38,991,088	156 52,087,249	199 59,933,366	241 88,645,132	
Effectiveness Research	Number of Contracts Relevant Contract Dollars	435,033	216,123	252.597	560,081	303,094	
Hesealch	Total Count Total Relevant Dollars	179 49,265,130	139 39,207,211	157 52,339,846	201 60,493,447	243 88,948,226	14.99
	Number of Grants	880	846	787	716	669	
Endocrinology	Relevant Grant Dollars Number of Contracts	172,460,886 8	152,810,901 8	160,349,292 6	144,586,939 5	134,691,456 2	
Lindonniology	Relevant Contract Dollars Total Count	1,710,706 888	1,442,461 854	2,042,874 793	1,345,965 721	365,780 <i>671</i>	
	Total Relevant Dollars	174,171,592	154,253,362	162,392,166	145,932,904	135,057,236	-6.66
F	Number of Grants Relevant Grant Dollars	128 39,387,827	37,250,439	109 34,684,820	30,844,556	105 33,474,01 <u>6</u>	
Energy Balance	Number of Contracts Relevant Contract Dollars	1,047,129	5 1,916,049	2 1,575,000	4,885	‡ ‡	
	Total Count Total Relevant Dollars	132 40,434,956	122 39,166,488	111 36,259,820	105 30,849,441	105 33,474,016	-5.07
	Number of Grants Relevant Grant Dollars	584 191,467,862	581 187,522,766	560 186,146,991	544 207,004,532	513 196,371,213	
EpidBiochemical	Number of Contracts	13	10	11	9	10	
·	Relevant Contract Dollars Total Count	12,716,700 597	13,132,622 591	22,350,084 571	22,230,209 553	27,302,955 523	0.40
	Total Relevant Dollars Number of Grants	204,184,562 154	200,655,388	208,497,075 203	229,234,741 238	223,674,168 248	2.16
	Relevant Grant Dollars	30,658,644	35,362,320	48,391,387	58,955,769	58,456,327	
Epidemiology	Number of Contracts Relevant Contract Dollars	3,123,091	40,155,271	6,923,651	7,967,822	6,370,296	
	Total Count Total Relevant Dollars	168 33,781,735	196 75,517,591	214 55,315,038	250 66,923,591	257 64,826,623	8.24
	Number of Grants Relevant Grant Dollars	<i>571</i> 177,174,581	534 165,826,605	518 157,183,612	487 169,765,154	442 158,195,340	
Epidemiology, Environmental	Number of Contracts Relevant Contract Dollars	17,552,030	16,439,893	24.581.051	166,766,764 16 24,953,396	100,100,040 10 22,833,401	
Environmental	Total Count Total Relevant Dollars	17,332,660 598 194,726,611	558	539	503	452 181,028,741	-1.87
	Number of Grants	642	182,266,498 699	181,764,663 722	194,718,550 771	859	-1.07
	Relevant Grant Dollars Number of Contracts	121,281,851 1	115,349,385 2	139,887,622 4	161,834,223 3	182,952,932 ‡	
Epigenetics	Relevant Contract Dollars Total Count	144,400 <i>643</i>	302,567 701	653,292 726	549,598 774	‡ 859	
	Total Relevant Dollars	121,426,251	115,651,952	140,540,914	162,383,821	182,952,932	9.71
Gene Mapping,	Number of Grants Relevant Grant Dollars	655 138,302,632	554 119,648,785	493 153,658,315	436 158,894,763	402 149,903,735	
Human	Total Count Total Relevant Dollars	655 138,302,632	554 119,648,785	493 153,658,315	436 158,894,763	402 149,903,735	1.04
	.c.a. Holotan Bollaro	100,002,002	110,040,700	100,000,010	100,001,700	. 10,000,700	1197

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(This table reports funding for grants and contracts only; intramural projects are excluded.)

Special Interest Categories	Counts and Relevant Dollars [†]	2007	2008	2009	2010	2011	Average Percent Change/Yr.
Gene Mapping, Non-Human	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	358 57,173,146 358 57,173,146	327 49,897,071 327 49,897,071	274 40,329,713 274 40,329,713	243 37,746,569 243 37,746,569	215 35,807,176 215 35,807,176	-12.57
Gene Transfer, Clinical	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	81 16,880,605 81 16,880,605	58 9,063,499 58 9,063,499	37 11,261,635 37 11,261,635	28 8,086,568 28 8,086,568	33 8,242,594 33 8,242,594	-26.02
Genetic Testing Research, Human	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	470 175,117,006 4 1,210,690 474 176,327,696	460 153,581,370 4 1,064,606 464 154,645,976	380 128,833,823 3 1,308,355 383 130,142,178	335 115,367,220 3 1,325,744 338 116,692,964	286 97,622,451 4 1,531,022 290 99,153,473	-14.85
Genomics	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	360 93,564,965 6 248,376 366 93,813,341	603 160,617,624 7 37,387,078 610 198,004,702	758 233,634,493 11 2,893,716 769 236,528,209	837 276,653,749 9 2,573,478 846 279,227,227	936 312,504,344 10 3,992,902 946 316,497,246	24.39
Health Literacy	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	54 9,318,204 3 494,973 57 9,813,177	74 14,713,919 6 462,228 80 15,176,147	78 19,259,445 2 2,242,507 80 21,501,952	93 21,151,000 1 2,225,682 94 23,376,682	104 23,322,845 1 2,034,678 105 25,357,523	20.31
Health Promotion	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	575 216,311,569 30 17,599,722 605 233,911,291	567 188,789,768 31 17,490,115 598 206,279,883	550 189,856,649 29 12,155,514 579 202,012,163	535 156,169,759 12 8,239,835 547 164,409,594	492 158,653,454 5 4,853,740 497 163,507,194	-9.73
Health Care Delivery	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	177 46,244,456 15 5,067,214 192 51,311,670	233 58,703,422 19 4,471,971 252 63,175,393	260 79,491,611 7 4,206,677 267 83,698,288	323 99,249,496 9 4,637,640 332 103,887,136	361 111,213,954 10 6,239,884 371 117,453,838	18.95
Helicobacter	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	39 7,219,894 1 11,790 40 7,231,684	39 5,876,269 1 11,788 40 5,888,057	39 8,224,164 ‡ 39 8,224,164	34 8,078,008 ‡ ‡ 34 8,078,008	33 8,081,826 ‡ ‡ 33 8,081,826	0.96
Hematology	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	1,729 479,959,002 11 1,466,168 1,740 481,425,170	1,646 468,003,334 10 1,465,173 1,656 469,468,507	1,531 451,773,304 6 906,834 1,537 452,680,138	1,472 466,847,932 6 1,967,879 1,478 468,815,811	465 122,611,326 ‡ ‡ 465 122,611,326	-19.17

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†Relevant Dollars = portion of the funded amount relevant to a specific SIC.

‡Coding not required or requested.

(This table reports funding for grants and contracts only; intramural projects are excluded.)

Special Interest Categories	Counts and Relevant Dollars [†]	2007	2008	2009	2010	2011	Average Percent Change/Yr.
Hematopoietic Stem Cell	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars	496 117,664,534 5 1,345,185	486 114,552,753 5 1,177,713	467 114,121,151 5 727,386	396 113,380,226 1 999,936	465 122,611,326 ‡ ‡	
Research	Total Relevant Dollars	1,545,163 501 119,009,719	491 115,730,466	472 114,848,537	397 114,380,162	465 122,611,326	0.80
Hormone Replacement Therapy	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	61 10,834,905 61 10,834,905	49 6,714,658 49 6,714,658	7,098,888 41 7,098,888	33 3,175,346 33 3,175,346	31 3,987,675 31 3,987,675	-38.48
Hospice	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	72 13,724,054 ‡ † 72 13,724,054	57 9,075,982 4 612,259 61 9,688,241	45 8,363,251 ‡ ‡ 45 8,363,251	45 9,344,380 1 999,998 46 10,344,378	33 8,276,000 ‡ ‡ 33 8,276,000	-14.59
Human Genome	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	* * * * * * * * *	219 72,721,075 1 149,975 220 72,871,050	408 157,617,076 3 2,392,888 411 160,009,964	533 224,387,803 2 2,260,666 535 226,648,469	631 262,277,096 2 1,398,722 633 263,675,818	59.19
latrogenesis	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	245 50,173,643 5 1,471,870 250 51,645,513	288 55,716,691 6 2,202,346 294 57,919,037	275 65,399,334 7 2,532,672 282 67,932,006	257 61,577,955 5 1,345,965 262 62,923,920	247 62,271,326 3 487,983 250 62,759,309	4.34
Imaging	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	1,058 299,804,703 30 19,391,655 1,088 319,196,358	1,100 300,082,605 40 32,833,674 1,140 332,916,279	1,047 289,428,387 27 18,714,802 1,074 308,143,189	1,045 298,744,722 32 21,851,672 1,077 320,596,394	1,012 309,142,019 20 7,316,896 1,032 316,458,915	-0.33
Immunization	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	* * * * * * * * *	477 116,732,773 1 14,808,841 478 131,541,614	420 109,830,817 2 1,370,729 422 111,201,546	442 116,267,543 ‡ 442 116,267,543	449 122,814,703 4 3,429,651 453 126,244,354	-0.78
Inflammation	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	* * * * * * * * *	328 59,043,221 1 7,404,421 329 66,447,642	365 66,040,358 1 98,991 366 66,139,349	418 81,746,863 ‡ 418 81,746,863	467 99,553,973 ‡ 467 99,553,973	14.97
Information Dissemination	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	945 275,833,072 76 75,698,744 1,021 351,531,816	902 246,350,342 72 74,153,319 974 320,503,661	853 247,182,186 57 72,776,903 910 319,959,089	861 231,787,714 38 72,642,039 899 304,429,753	835 237,305,178 36 70,246,091 871 307,551,269	-3.48

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[†]Relevant Dollars = portion of the funded amount relevant to a specific SIC. ‡Coding not required or requested.

(This table reports funding for grants and contracts only; intramural projects are excluded.)

Special Interest Categories	Counts and Relevant Dollars†	2007	2008	2009	2010	2011	Average Percent Change/Yr.
Metastasis	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	1,546 345,942,774 6 868,175 1,552 346,810,949	1,585 346,736,699 8 1,033,247 1,593 347,769,946	1,574 365,861,233 8 1,183,914 1,582 367,045,147	1,527 361,870,802 7 1,325,290 1,534 363,196,092	1,534 381,229,457 6 1,024,332 1,540 382,253,789	2.43
Mind/Body Research	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	103 15,650,555 103 15,650,555	83 13,979,085 83 13,979,085	82 14,158,379 82 14,158,379	75 17,883,028 75 17,883,028	83 16,149,064 83 16,149,064	0.11
Molecular Disease	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	4,845 1,577,174,333 24 8,406,934 4,869 1,585,581,267	4,996 1,563,937,623 23 7,309,485 5,019 1,571,247,108	5,003 1,615,324,573 35 12,253,807 5,038 1,627,578,380	4,962 1,670,263,492 31 9,144,621 4,993 1,679,408,113	4,879 1,660,747,605 35 14,337,338 4,914 1,675,084,943	1.34
Molecular Imaging	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	333 105,359,905 4 1,013,254 337 106,373,159	523 147,326,896 9 1,650,977 532 148,977,873	617 174,956,716 11 2,239,610 628 177,196,326	650 164,707,342 15 4,042,324 665 168,749,666	701 181,500,075 15 5,602,005 716 187,102,080	12.60
Molecular Targeted Prevention	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	159 34,942,948 ‡ ‡ 159 34,942,948	219 39,335,671 1 74,930 220 39,410,601	237 46,986,672 ‡ ‡ 237 46,986,672	252 39,235,184 1 74,750 253 39,309,934	248 47,765,297 1 248,461 249 48,013,758	7.52
Molecular Targeted Therapy	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	1,149 312,853,050 13 3,032,933 1,162 315,885,983	1,405 393,453,935 19 2,742,385 1,424 396,196,320	1,483 404,674,238 9 2,305,444 1,492 406,979,682	1,515 407,096,513 21 6,175,491 1,536 413,272,004	1,577 442,319,529 18 7,588,080 1,595 449,907,609	8.33
Nanotechnology	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	492 116,707,923 14 910,600 506 117,618,523	496 114,866,489 22 38,850,232 518 153,716,721	430 113,651,594 10 3,523,067 440 117,174,661	461 122,072,696 20 7,338,362 481 129,411,058	444 119,336,493 11 5,161,598 455 124,498,091	-0.51
Neurofibromatosis	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	30 4,151,165 30 4,151,165	27 4,166,356 27 4,166,356	26 6,209,557 26 6,209,557	34 7,560,557 34 7,560,557	15 2,915,817 15 2,915,817	-2.57
Nursing Research	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	86 17,454,501 86 17,454,501	71 14,422,508 71 14,422,508	58 12,056,800 58 12,056,800	54 13,918,717 54 13,918,717	49 11,599,142 49 11,599,142	-10.98

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(This table reports funding for grants and contracts only; intramural projects are excluded.)

Special Interest Categories	Counts and Relevant Dollars [†]	2007	2008	2009	2010	2011	Average Percent Change/Yr.
Nutrition-Fiber	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	36 9,144,679 ‡ ‡ 36 9,144,679	29 7,461,435 ‡ ‡ 29 7,461,435	21 6,750,851 ‡ ‡ 21 6,750,851	2,058,728 2,058,728 19 2,058,728	3,019,322 ‡ ‡ 19 3,019,322	-53.58
Nutrition	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	914 230,745,569 19 4,126,230 933 234,871,799	887 208,303,563 19 4,410,022 906 212,713,585	866 202,932,362 16 13,115,073 882 216,047,435	830 198,165,748 14 13,792,873 844 211,958,621	779 201,597,394 5 9,069,226 784 210,666,620	-2.85
Nutrition Monitoring	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	76 22,183,358 4 596,492 80 22,779,850	52 12,732,118 4 898,128 56 13,630,246	46 14,363,776 3 800,214 49 15,163,990	45 11,311,406 ‡ 45 11,311,406	42 15,194,549 ‡ 42 15,194,549	-14.19
Obesity	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	236 54,166,986 6 447,594 242 54,614,580	235 49,154,604 7 899,253 242 50,053,857	232 52,150,701 5 801,220 237 52,951,921	251 47,992,367 ‡ ‡ 251 47,992,367	251 58,308,346 3 689394 254 59,006,740	2.24
Occupational Cancer	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	66 8,696,174 5 2,524,418 71 11,220,592	9,326,436 6 1,695,741 70 11,022,177	51 8,119,594 3 850,154 54 8,969,748	57 10,901,093 2 224,000 59 11,125,093	49 8,727,377 ‡ ‡ 49 8,727,377	-6.72
Oncogenes	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	2,477 621,281,231 5 1,438,471 2,482 622,719,702	2,354 552,856,295 4 1,347,905 2,358 554,204,200	2,194 518,552,721 6 2,229,506 2,200 520,782,227	2,031 515,190,558 3 2,074,867 2,034 517,265,425	1,934 498,144,267 5 1,072,456 1,939 499,216,723	-5.74
Organ Transplant Research	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	203 74,100,547 ‡ ‡ 203 74,100,547	199 64,935,205 ‡ 199 64,935,205	192 65,966,217 1 49,496 193 66,015,713	182 66,404,117 ‡ ‡ 182 66,404,117	194 67,155,158 ‡ 194 67,155,158	-2.69
Osteoporosis	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	7 1,291,894 7 1,291,894	1,596,851 8 1,596,851	9 913,593 9 913,593	8 411,172 8 411,172	6 317,668 6 317,668	-50.16
Pain	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	189 19,956,772 ‡ ‡ 189 19,956,772	170 16,642,839 2 230,355 172 16,873,194	161 16,576,535 ‡ 161 16,576,535	147 16,468,439 2 1,299,610 149 17,768,049	152 16,300,996 ‡ 152 16,300,996	-5.40

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(This table reports funding for grants and contracts only; intramural projects are excluded.)

Special Interest Categories	Counts and Relevant Dollars†	2007	2008	2009	2010	2011	Average Percent Change/Yr.
Palliative Care	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	211 31,002,487 2 247,473 213 31,249,960	186 24,209,640 5 612,259 191 24,821,899	167 22,111,289 ‡ † 167 22,111,289	161 20,897,707 2 2,198,445 163 23,096,152	153 21,247,383 1 52,655 154 21,300,038	-10.42
PAP Testing	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	123 16,109,246 ‡ ‡ 123 16,109,246	117 13,323,361 ‡ 117 13,323,361	105 10,352,147 ‡ ‡ † 105 10,352,147	10,627,523 1 45,000 107 10,672,523	105 11,695,680 ‡ ‡ † 105 11,695,680	-9.26
Pediatric Research	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	763 233,892,539 6 3,811,957 769 237,704,496	685 208,184,370 6 1,471,436 691 209,655,806	685 212,351,643 3 2,134,899 688 214,486,542	685 212,337,590 7 4,384,833 692 216,722,423	581 146,844,741 2 3,291,925 583 150,136,666	-10.20
Personlized Health Care	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	589 225,012,995 13 31,772,058 602 256,785,053	652 214,006,481 15 33,822,151 667 247,828,632	632 199,252,033 17 35,742,085 649 234,994,118	630 183,230,229 21 37,543,010 651 220,773,239	638 180,445,101 17 32,351,821 655 212,796,922	-4.78
Pesticides	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	25 1,414,843 2 1,528,886 27 2,943,729	21 1,508,700 2 845,205 23 2,353,905	14 909,530 2 701,197 16 1,610,727	12 531,371 2 224,000 14 755,371	13 471,294 ‡ † 13 471,294	-55.51
Pharmacogenetics	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	268 62,777,011 149,518 269 62,926,529	319 74,057,323 3 1,039,064 322 75,096,387	310 70,646,463 2 150,000 312 70,796,463	312 53,813,379 ‡ ‡ 312 53,813,379	276 52,795,552 1 193,637 277 52,989,189	-5.74
Prevention	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	1,273 390,136,455 51 42,187,416 1,324 432,323,871	1,293 356,228,797 43 41,680,021 1,336 397,908,818	1,294 346,953,036 36 46,984,156 1,330 393,937,192	1,246 324,621,692 20 28,993,208 1,266 353,614,900	1,220 332,988,470 23 30,211,780 1,243 363,200,250	-4.59
Proteomics	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	441 83,307,623 17 1,967,090 458 85,274,713	542 99,199,104 23 39,204,878 565 138,403,982	543 98,691,096 14 4,666,075 557 103,357,171	564 105,713,144 13 3,710,715 577 109,423,859	648 128,504,517 12 2,364,169 660 130,868,686	7.41

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(This table reports funding for grants and contracts only; intramural projects are excluded.)

Special Interest Categories	Counts and Relevant Dollars [†]	2007	2008	2009	2010	2011	Average Percent Change/Yr.
Radiation, Electromagnetic	Number of Grants Relevant Grant Dollars Total Count	7 1,246,146 7	7 821,382 7	5 235,460 5	5 794,902 5	5 274,880 5	
Fields	Total Relevant Dollars	1,246,146	821,382	235,460	794,902	274,880	-73.90
Radiation, Ionizing	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars	219 36,870,333 5 1,290,859	192 31,992,559 6 940,864	143 24,747,402 1 200,000	137 24,942,689 ‡ ‡	118 22,587,580 ‡ ‡	
	Total Count Total Relevant Dollars	224 38,161,192	198 32,933,423	144 24,947,402	137 24,942,689	118 22,587,580	-14.34
Radiation,	Number of Grants Relevant Grant Dollars Number of Contracts	176 45,615,274 4	231 50,150,240 5	236 60,711,962 3	284 67,228,830 2	288 83,355,570 6	
lonizing Diagnosis	Relevant Contract Dollars Total Count Total Relevant Dollars	1,203,666 180 46,818,940	270,167 236 50,420,407	465,803 239 61,177,765	1,127,414 286 68,356,244	3,682,723 294 86,038,293	15.27
Radiation,	Number of Grants Relevant Grant Dollars Number of Contracts	696 216,965,316 6	680 207,665,565 4	635 199,422,427 4	605 197,773,842 3	594 215,668,304 6	
lonizing Radiotherapy	Relevant Contract Dollars Total Count Total Relevant Dollars	985,654 702 217,950,970	47,500 684 207,713,065	545,157 639 199,967,584	226,116 608 197,999,958	852,523 600 216,520,827	-0.11
Radiation, Low-Level Ionizing	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	31 6,781,869 ‡ ‡ 31 6,781,869	23 6,004,368 ‡ ‡ 23	20 6,500,454 1 200,000 21	16 3,564,004 ‡ †	15 2,684,415 ‡ 15	-28.81
Radiation, Magnetic Resonance Imaging	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	327 78,242,316 3 366,699 330 78,609,015	6,004,368 360 80,540,821 3 217,673 363 80,758,494	6,700,454 324 75,059,941 3 416,415 327 75,476,356	3,564,004 309 71,053,694 2 625,760 311 71,679,454	2,684,415 311 72,516,747 3 810,966 314 73,327,713	-1.83
Radiation, Mammography	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	223 28,018,078 2 442 225 28,018,520	205 28,042,754 2 452 207 28,043,206	203 31,642,663 1 464 204 31,643,127	211 26,824,376 1 999,985 212 27,824,361	186 30,249,026 2 1,845,486 188 32,094,512	3.27
Radiation, Non-Ionizing	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	259 38,486,311 ‡ 259 38,486,311	219 32,101,143 ‡ ‡ 219 32,101,143	27,357,488 ‡ ‡ 177 27,357,488	167 26,918,563 3 476,414 170 27,394,977	160 26,910,915 1 999,000 161 27,909,915	-8.80
Radiation, Non-lonizing Diagnosis	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	443 116,159,136 3 308,514 446 116,467,650	514 132,398,533 4 446,969 518 132,845,502	502 136,372,426 3 416,415 505 136,788,841	471 125,702,669 9 1,675,452 480 127,378,121	467 131,948,820 5 1,260,269 472 133,209,089	3.10

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[†]Relevant Dollars = portion of the funded amount relevant to a specific SIC. ‡Coding not required or requested.

(This table reports funding for grants and contracts only; intramural projects are excluded.)

Special Interest Categories	Counts and Relevant Dollars [†]	2007	2008	2009	2010	2011	Average Percent Change/Yr.
Radiation, Non-Ionizing Radiotherapy	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	117 21,061,866 1 191,815 118 21,253,681	152 31,373,416 1 181,796 153 31,555,212	161 41,460,636 1 199,735 162 41,660,371	195 40,077,552 3 599,386 198 40,676,938	190 48,439,155 ‡ 190 48,439,155	18.39
Radiation, Ultraviolet	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	224 31,886,944 ‡ ‡ 224 31,886,944	189 27,465,174 ‡ ‡ 189 27,465,174	152 23,732,686 ‡ ‡ 152 23,732,686	149 23,686,597 3 476,414 152 24,163,011	144 24,555,465 1 1 145 25,554,465	-6.07
Radon	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	9 1,928,547 9 1,928,547	6 2,177,728 6 2,177,728	5 1,976,301 5 1,976,301	2 48,624 2 48,624	326,441 3 326,441	-847.96
Rare Diseases	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	220 37,126,604 ‡ ‡ 220 37,126,604	183 30,770,735 ‡ ‡ 183 30,770,735	138 26,634,147 ‡ ‡ 138 26,634,147	29,192,350 ‡ ‡ 140 29,192,350	119 23,592,946 ‡ † 119 23,592,946	-11.65
Rehabilitation	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	232 36,209,824 16 2,094,384 248 38,304,208	215 33,557,701 16 1,508,881 231 35,066,582	221 37,960,259 14 1,131,599 235 39,091,858	221 38,584,600 2 76,452 223 38,661,052	230 40,748,671 1 52,655 231 40,801,326	1.37
Rural Populations	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	112 36,914,134 13 10,687,353 125 47,601,487	106 35,317,988 13 11,397,326 119 46,715,314	95 38,996,059 12 9,846,502 107 48,842,561	103 35,157,309 12 10,416,108 115 45,573,417	103 34,658,560 10 8,535,867 113 43,194,427	-2.48
Sexually Transmitted Diseases	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	232 43,581,416 1 3,893,007 233 47,474,423	215 35,502,090 1 3,621,135 216 39,123,225	192 31,951,321 1 3,701,779 193 35,653,100	183 30,488,788 2 4,439,576 185 34,928,364	185 29,789,110 1 3,836,717 186 33,625,827	-9.22
Sleep Disorders	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	67 7,121,771 67 7,121,771	65 7,576,158 65 7,576,158	54 7,775,308 54 7,775,308	70 9,183,149 70 9,183,149	64 7,810,486 64 7,810,486	2.24
Small Molecules	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	439 77,439,195 6 784,713 445 78,223,908	429 77,887,805 4 843,000 433 78,730,805	386 73,465,245 1 30,860 387 73,496,105	407 70,693,138 10 2,203,593 417 72,896,731	416 81,708,151 9 3,726,105 425 85,434,256	2.47

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(This table reports funding for grants and contracts only; intramural projects are excluded.)

Special Interest Categories	Counts and Relevant Dollars [†]	2007	2008	2009	2010	2011	Average Percent Change/Yr.
Smokeless Tobacco	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	24 3,306,451 2 1,761,000 26 5,067,451	24 3,957,700 1,800,000 25 5,757,700	26 5,933,701 ‡ ‡ 26 5,933,701	34 6,896,702 1 453,965 35 7,350,667	19 4,743,669 1 385,000 20 5,128,669	1.00
Smoking, Passive	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	34 5,124,660 ‡ ‡ 35 5,124,660	32 4,887,736 4,887,736	30 3,425,541 ‡ 30 3,425,541	24 3,459,579 1 453,965 25 3,913,544	15 2,250,884 1 385,000 16 2,635,884	-16.93
Structural Biology	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	1,750 358,120,437 18 2,971,719 1,768 361,092,156	1,610 310,422,424 16 39,571,941 1,626 349,994,365	1,456 280,014,980 17 2,434,109 1,473 282,449,089	1,337 269,191,027 11 1,512,388 1,348 270,703,415	1,242 258,099,045 15 1,522,607 1,257 259,621,652	-8.88
Surgery	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	409 67,021,084 ‡ ‡ 409 67,021,084	390 66,059,380 ‡ 390 66,059,380	352 63,498,562 5 252 63,498,562	327 72,591,577 2 1,200,000 329 73,791,577	333 85,655,815 2 373,417 335 86,029,232	6.26
Taxol	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	304 69,172,683 ‡ 304 69,172,683	290 62,261,243 ‡ ‡ 290 62,261,243	284 68,741,615 ‡ 284 68,741,615	305 73,441,347 1 50,000 306 73,491,347	285 70,198,681 ‡ ‡ 285 70,198,681	0.08
Telehealth	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	428 85,583,070 34 28,625,864 462 114,208,934	399 74,370,113 39 24,501,587 438 98,871,700	364 76,214,970 26 15,922,057 390 92,137,027	351 83,738,070 10 12,502,513 361 96,240,583	311 76,191,259 11 11,912,660 322 88,103,919	-6.75
Therapy	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	3,695 1,273,381,182 122 80,366,537 3,817 1,353,747,719	3,842 1,256,647,167 112 68,675,001 3,954 1,325,322,168	3,736 1,253,530,990 104 100,995,788 3,840 1,354,526,778	3,668 1,289,919,675 102 97,314,391 3,770 1,387,234,066	3,626 1,295,238,778 94 93,641,732 3,720 1,388,880,510	0.62
Tobacco	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	494 110,296,415 6 3,240,062 500 113,536,477	465 107,012,253 5 2,762,640 470 109,774,893	493 106,446,317 7 804,235 500 107,250,552	470 121,389,946 8 2,479,840 478 123,869,786	449 127,614,366 4 1,419,652 453 129,034,018	2.95

continued

^{*}Some categories are not mutually exclusive, resulting in an overlap in reported funding; dollar totals, therefore, exceed 100 percent of the extramural budget.

†Relevant Dollars = portion of the funded amount relevant to a specific SIC.

‡Coding not required or requested.

(This table reports funding for grants and contracts only; intramural projects are excluded.)

Special Interest Categories	Counts and Relevant Dollars†	2007	2008	2009	2010	2011	Average Percent Change/Yr.
Tobacco Use Behavior	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	221 57,580,022	219 61,173,821 ‡ 219 61,173,821	250 65,696,233 2 144,041 252 65,840,274	250 81,176,603 4 1,868,571 254 83,045,174	239 83,456,895 2 1,320,000 241 84,776,895	8.94
Tropical Diseases	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	48 8,793,217 ‡ ‡ 48 8,793,217	36 8,218,552 ‡ ‡ 36 8,218,552	31 7,697,801 ‡ ‡ 31 7,697,801	29 6,535,704 ‡ ‡ 29 6,535,704	25 5,619,635 25 5,619,635 5,619,635	-11.39
Tumor Markers	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	1,134 319,367,043 25 5,365,228 1,159 324,732,271	996 252,452,493 29 4,923,691 1,025 257,376,184	846 218,547,902 19 6,788,354 865 225,336,256	731 189,955,095 12 4,365,645 743 194,320,740	626 161,691,676 4 2,569,530 630 164,531,206	-17.92
Underserved Populations	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	562 184,506,681 41 18,594,280 603 203,100,961	568 173,480,427 38 15,803,363 606 189,283,790	563 193,637,731 34 14,072,123 597 207,709,854	607 210,560,355 21 12,245,405 628 222,805,760	595 210,385,470 16 10,306,244 611 220,691,714	1.85
Vaccine Development	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	173 27,285,816 1 74,646 174 27,360,462	171 25,020,169 ‡ ‡ 171 25,020,169	168 27,688,541 2 1,370,729 170 29,059,270	163 21,218,754 ‡ 163 21,218,754	159 21,105,678 1 199,988 160 21,305,666	-8.00
Vaccine Production	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	2,813,459 ‡ ‡ 9 2,813,459	1,733,938 ‡ ‡ 8 1,733,938	1,679,991 ‡ ‡ 4 1,679,991	1,046,919 ‡ ‡ 8 1,046,919	661,049 1 1,499,001 7 2,160,050	-4.90
Vaccine Research	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	208 36,637,670 2 132,329 210 36,769,999	211 34,486,715 2 14,808,841 213 49,295,556	201 37,047,110 1 30,860 202 37,077,970	201 33,377,072 1 23,100 202 33,400,172	195 34,117,779 2 1,502,003 197 34,619,782	-3.73
Vaccine Testing	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	156 39,939,724 1 3,893,007 157 43,832,731	151 34,603,697 1 3,621,135 152 38,224,832	138 29,771,312 1 3,701,779 139 33,473,091	130 21,759,604 1 4,394,576 131 26,154,180	111 18,745,944 1 3,836,717 112 22,582,661	-17.63

continued

^{*}Some categories are not mutually exclusive, resulting in an overlap in reported funding; dollar totals, therefore, exceed 100 percent of the extramural budget.

†Relevant Dollars = portion of the funded amount relevant to a specific SIC.

‡Coding not required or requested.

(This table reports funding for grants and contracts only; intramural projects are excluded.)

Special Interest Categories	Counts and Relevant Dollars [†]	2007	2008	2009	2010	2011	Average Percent Change/Yr.
Virus – Cancer Research	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	652 172,868,916 4 4,042,298 656 176,911,214	613 158,577,860 3 18,429,976 616 177,007,836	558 151,074,096 3 5,230,139 561 156,304,235	541 153,628,908 3 4,549,461 544 158,178,369	505 142,438,045 1 3,836,717 506 146,274,762	-4.88
Virus – Epstein-Barr	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	116 21,411,991 ‡ † 116 21,411,991	115 26,897,323 ‡ ‡ 115 26,897,323	110 26,563,416 ‡ † 110 26,563,416	24,362,117 ‡ ‡ 110 24,362,117	104 24,499,924 ‡ ‡ 104 24,499,924	2.67
Virus – Genital Herpes	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	7 496,778 7 496,778	6 540,230 6 540,230	4 477,647 4 477,647	379,575 4 379,575	372,188 4 372,188	-8.21
Virus – Hepatitis B	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	51 11,410,102 51 11,410,102	50 11,387,036 50 11,387,036	54 12,166,996 54 12,166,996	51 11,337,066 51 11,337,066	50 6,370,613 50 6,370,613	-11.23
Virus – Hepatitis C	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	41 6,769,322 ‡ ‡ 41 6,769,322	38 5,322,764 ‡ ‡ 38 5,322,764	35 6,405,143 ‡ ‡ 35 6,405,143	34 5,719,779 ; ; 34 5,719,779	31 4,600,379 ‡ ‡ 31 4,600,379	-10.46
Virus – Herpes	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	225 51,242,661 225 51,242,661	228 56,793,367 228 56,793,367	208 54,527,236 ‡ ‡ 208 54,527,236	206 47,274,246 ‡ ‡ 206 47,274,246	190 48,127,519 ‡ † 190 48,127,519	-1.98
Virus – HHV8	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	100 21,779,525 ‡ ‡ 100 21,779,525	94 23,036,760 ‡ ‡ 94 23,036,760	81 19,737,355 ‡ ‡ 81 19,737,355	87 18,532,843 ‡ 87 18,532,843	78 17,725,584 ‡ ‡ 78 17,725,584	-5.53
Virus – HTLV-I	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	31 8,125,525 ‡ ‡ 31 8,125,525	27 6,797,477 ‡ ‡ 27 6,797,477	23 7,313,840 ‡ ‡ 23 7,313,840	22 6,183,612 ‡ ‡ 22 6,183,612	24 6,171,762 ‡ ‡ 24 6,171,762	-7.74
Virus – HTLV-II	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	5 286,731 5 286,731	4 409,579 4 409,579	1 135,552 1 135,552	* * * * * *	2,000 2,000 2,000	-99.30

continued

^{*}Some categories are not mutually exclusive, resulting in an overlap in reported funding; dollar totals, therefore, exceed 100 percent of the extramural budget.

†Relevant Dollars = portion of the funded amount relevant to a specific SIC.

‡Coding not required or requested.

(This table reports funding for grants and contracts only; intramural projects are excluded.)

Special Interest Categories	Counts and Relevant Dollars [†]	2007	2008	2009	2010	2011	Average Percent Change/Yr.
Virus – Papilloma	Number of Grants Relevant Grant Dollars Number of Contracts	191 50,026,145 1	178 43,565,517 1	166 39,602,459 3	169 46,214,177 1	168 43,559,761 1	
viido i apiiloiila	Relevant Contract Dollars Total Count Total Relevant Dollars	3,893,007 192 53,919,152	3,621,135 179 47,186,652	5,230,139 169 44,832,598	4,394,576 170 50,608,753	3,836,717 169 47,396,478	-3.61
	Number of Grants Relevant Grant Dollars Number of Contracts	238 62,029,169 1	221 54,680,936	206 49,970,034 3	207 55,528,827 2	200 52,541,742 1	
Virus – Papova	Relevant Contract Dollars Total Count Total Relevant Dollars	3,893,007 239 65,922,176	3,621,135 222 58,302,071	5,230,139 209 55,200,173	4,544,576 209 60,073,403	3,836,717 201 56,378,459	-4.18
Virus – SV40	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	46 8,818,318 46 8,818,318	40 7,172,313 40 7,172,313	36 5,967,645 36 5,967,645	29 5,171,617 29 5,171,617	25 5,163,432 25 5,163,432	-14.67
Vitamin A	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	109 19,640,820 1 306,833 110 19,947,653	102 16,421,451 1 178,904 103 16,600,355	89 11,622,987 1 300,000 90 11,922,987	66 8,863,103 1 391,285 67 9,254,388	55 9,150,008 1 99,917 56 9,249,925	-22.07
Vitamin C	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	31 2,781,603 31 2,781,603	26 2,020,753 26 2,020,753	24 2,234,318 24 2,234,318	21 1,843,823 21 1,843,823	15 1,106,973 15 1,106,973	-22.31
Vitamin D	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	* * * * * * * * *	* * * * * * * * * *	32 9,218,013 1 200,000 33 9,418,013	45 11,837,723 ‡ ‡ 45 11,837,723	70 20,457,495 ; ; 70 20,457,495	49.25
Vitamins, Other	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	104 22,228,099 104 22,228,099	103 20,299,917 103 20,299,917	72 15,499,403 72 15,499,403	55 12,310,882 55 12,310,882	10,076,781 44 10,076,781	-21.13

^{*}Some categories are not mutually exclusive, resulting in an overlap in reported funding; dollar totals, therefore, exceed 100 percent of the extramural budget.

†Relevant Dollars = portion of the funded amount relevant to a specific SIC.

‡Coding not required or requested.

Table 17. NCI Funding of Foreign Research Grants in FY2011

(This table reports extramural grants only; intramural grants and contracts are excluded.)

Country/Cancer Site				Mecha	anism				
AUSTRALIA	F31	R01	R03	R21	R37	U01	U10	U24	Totals
Grants # Funding \$		6 683,390	1 52,380		5 230,201			1 1,510,087	13 2,476,058
Colon, Rectum Hodgkins Lymphoma Leukocytes Liver Lung Melanoma Myeloma Neuroblastoma		26,049 260,491 184,669	52,380		39,134 115,101 36,832			1,510,087	1,722,268 39,134 115,101 26,049 260,491 184,669 36,832 52,380
Non-Hodgkins Lymphoma BELGIUM	F31	R01	R03	R21	39,134 R37	U01	U10	U24	39,134 Totals
Grants #	131	nui	103	nz i	no <i>i</i>	001	18	024	18
Funding \$							255,770		255,770
Bone Marrow Brain Breast Cervix Childhood Leukemia Colon, Rectum Esophagus Kidney Leukemia Lung Muscle Myeloma Neuroblastoma Non-Hodgkins Lymphoma Ovary Prostate Urinary System Uterus							4,650 6,976 97,658 2,325 25,577 18,601 2,325 6,976 25,577 11,626 2,325 9,301 6,976 2,325 13,951 11,626 2,325 4,650		4,650 6,976 97,658 2,325 25,577 18,601 2,325 6,976 25,577 11,626 2,325 9,301 6,976 2,325 13,951 11,626 2,325 4,650
CANADA	F31	R01	R03	R21	R37	U01	U10	U24	Totals
Grants # Funding \$		28 4,034,458	94,644	4 430,489	4 334,064	3 1,000,380	18 594,199	3 2,816,241	64 9,304,475
Bladder Bone Marrow Breast Cervix Colon, Rectum Connective Tissue Gall Bladder Hodgkins Lymphoma Kidney Leukemia Liver Lung		54,139 192,346 938,287 942,515 51,225 1,192,495	47,322	107,723	167,032 167,032		426,425 3,518 1,883 1,883 7,532 1,883 16,947	848,869	54,139 192,346 1,639,467 3,518 850,752 47,322 1,883 1,883 7,532 944,398 51,225 1,376,474
Melanoma		122,465			. ,		-,		122,465

Table 17. NCI Funding of Foreign Research Grants in FY2011

(This table reports extramural grants only; intramural grants and contracts are excluded.)

Country/Cancer Site				Mech	anism				
CANADA (continued)	F31	R01	R03	R21	R37	U01	U10	U24	Totals
Muscle Myeloma Non-Hodgkins Lymphoma Not Site Specific Ovary Pancreas Prostate Skin Urinary System Childhood Leukemia Leukemia		59,605 122,465 51,225 248,086 59,605	23,661 23,661	103,078 219,688		736,347 264,033	37,661 1,883 11,298 15,954 59,800 5,649	1,967,372	59,605 37,661 25,544 2,964,221 279,987 51,225 527,574 59,605 5,649
FRANCE	F31	R01	R03	R21	R37	U01	U10	U24	Totals
Grants # Funding \$						5 3,820,750			5 3,820,750
Bladder Kidney Lung Not Site Specific* Ovary						124,963 1,235,811 1,876,817 583,159			124,963 1,235,811 1,876,817 583,159
INDIA	F31	R01	R03	R21	R37	U01	U10	U24	Totals
Grants # Funding \$		2 391,342							2 391,342
Breast Cervix		195,671 195,671							195,671 195,671
IRELAND	F31	R01	R03	R21	R37	U01	U10	U24	Totals
Grants # Funding \$		2 187,983							2 187,983
Neuroblastoma		187,983							187,983
ISRAEL	F31	R01	R03	R21	R37	U01	U10	U24	Totals
Grants # Funding \$		11 933,588			3 455,927				14 1,389,515
Breast Colon, Rectum Lung Myeloma Not Site Specific* Ovary Prostate		63,235 84,354 61,375 61,375 476,124 102,771 84,354			230,202 56,431 169,294				293,437 140,785 230,669 61,375 476,124 102,771 84,354
KOREA, REPUBLIC OF	F31	R01	R03	R21	R37	U01	U10	U24	Totals
Grants # Funding \$		1 170,273							1 170,273
		170,273							170,273

^{*}Not Site Specific denotes research NOT on a particular type of cancer/cancer site (e.g., basic research examining a role of a protein in cellular DNA damage in a bacteria/worm/fruit fly/non-cancer cell system).

Source: Research Analysis and Evaluation Branch.

Table 17. NCI Funding of Foreign Research Grants in FY2011

(This table reports extramural grants only; intramural grants and contracts are excluded.)

Country/Cancer Site				Mech	anism				
NETHERLANDS	F31	R01	R03	R21	R37	U01	U10	U24	Totals
Grants # Funding \$		2 217,378							2 217,378
Colon, Rectum		217,378							217,378
SPAIN	F31	R01	R03	R21	R37	U01	U10	U24	Totals
Grants # Funding \$		4 149,495							4 149,495
Melanoma Pancreas		27,667 121,828							27,667 121,828
SWITZERLAND	F31	R01	R03	R21	R37	U01	U10	U24	Totals
Grants # Funding \$		5 355,057							5 355,057
Non-Hodgkins Lymphoma Nose, Nasal Passages Not Site Specific* Pharynx		88,481 44,240 178,096 44,240							88,481 44,240 178,096 44,240
UNITED KINGDOM	F31	R01	R03	R21	R37	U01	U10	U24	Totals
Grants # Funding \$	1 41,800	8 1,297,640	1 49,327			2 614,408		3 229,602	15 2,232,777
Brain Breast Colon, Rectum Lung Melanoma Myeloma Prostate Thyroid	41,800	403,962 97,820 459,288 97,820 238,750	49,327			307,204 307,204		229,602	403,962 398,331 97,820 459,288 97,820 238,750 307,204 229,602
Total Grants	1	69	6	4	12	10	36	7	145
Total \$ Per Grant type	41,800	8,420,604	196,351	430,489	1,020,192	5,435,538	849,969	4,555,930	20,950,873

^{*}Not Site Specific denotes research NOT on a particular type of cancer/cancer site (e.g., basic research examining a role of a protein in cellular DNA damage in a bacteria/worm/fruit fly/non-cancer cell system). Source: Research Analysis and Evaluation Branch.

Table 18. Foreign Components of U.S. Domestic Research Grants in FY2011

(This table reports extramural grants only; intramural grants and contracts are excluded.)

Country									F	undir	ng Me	chanis	sm								Sub
	D43	F32	K01	K07	K25	P01	P50	R01	R03	R13	R21	R24	R25	R33	R37	R44	T15	U01	U19	U24 U	54 tota
Africa (not- specified)																		1			1
Argentina																		1		1	2
Australia			1			1		13	1									4		3	23
Austria								4												1	5
Bangladesh								2													2
Barbados								2													2
Belgium																				1	1
Brazil								3									1	3		1	8
Cameroon	1																	1			2
Canada						1	1	23	2	5	3				1	1		9		4	50
Chile										1											1
China								15	1	1					1				1	2	21
Colombia		1				1														1	3
Costa Rica																		1			1
Czech Republic								3												1	4
Denmark							1	6			1									1	9
Dominican Republic								1													1
Egypt								3					1							1	5
Finland								4	1											1	6
France								8	1											1	10
Germany					1			12		1		1					1	2		2	20
Greece								1													1
Haiti								1													1
Honduras				1																	1
Hungary																				2	2
India							1	2										1		1	5
Iran																				1	1
Ireland								2												1	3
Israel								11	1						1		1			2	16
Italy								7	1	3	1				1					2	15
Japan								5		1								1		1	8
Kenya	1							3										2			6
Kuwait																				1	1
Latvia								1													1
Malawi																		1			1
Malaysia																				1	1
Mexico								2												1	3
Moldova															1						1
Morocco								1													1
Netherlands								9							1			4		1 1	
New Zealand								3			1									2	6
Nigeria	1							1										1			3
continued	-																				J

continued

Table 18. Foreign Components of U.S. Domestic Research Grants in FY2011

(This table reports extramural grants only; intramural grants and contracts are excluded.)

Country									F	undin	g Med	hanis	m									Sub-
Country	D43	F32	K01	K07	K25	P01	P50	R01	R03	R13	R21	R24	R25	R33	R37	R44	T15	U01	U19	U24	U54	total
Norway								1									1					2
Pakistan																				1		1
Panama																				1		1
Peru																					2	2
Philippines								1			1											2
Poland								1												1		2
Portugal																				1		1
Russia								2												2		4
Rwanda	1																					1
Saudi Arabia																				1		1
Senegal								2														2
Singapore				1				2												1		4
Slovenia																				1		1
South Africa	1							1										1		2		5
South Korea								2												1		3
Spain								6		1								1		2		10
Sweden								9		1				1						2		13
Switzerland						1												1		2		4
Taiwan								1												1		2
Tanzania	1																					1
Thailand																		1				1
Turkey						1		1												1		3
Uganda	2							1	1									2				6
United Kingdom						1		29	1	1	1			1			2	5		1	1	43
Uruguay																				1		1
Venezuela																				1		1
Vietnam								1														1
Zambia	1							1														2
Zimbabwe																		1				1
Totals	D43 9	F32 1	K01	K07	K25 1	P01 6	P50 3	R01 209	R03	R13	R21 8	R24 1	R25 1	R33	R37 6	R44 1	T15	U01 44	U19 1	U24 60	U54 4	391*

^{*}Because many grants have multiple foreign contributors, the total count (391) is greater than the total number of grants (245).

Appendix A: Activities of the National Cancer Advisory Board

Originally established as the National Advisory Cancer Council in 1937, the NCAB consists of 18 members who are appointed by the President and 12 nonvoting ex officio members. The NCAB advises, assists, consults with, and makes recommendations to the Secretary, HHS, and to the NCI Director with respect to the activities carried out by and through the Institute and on policies pertaining to these activities. It is authorized to recommend support for grants and cooperative agreements following technical and scientific peer review. The Director of the DEA serves as Executive Secretary of the NCAB. In fulfilling its role as the locus for second-level review of all peer reviewed applications, the Board reviewed a total of 12,920 applications in 2011 requesting \$3,606,059,525 in direct costs with appropriated funds.

The Board heard presentations, discussed, and provided advice on a variety of topics and NCI activities in FY2011, such as:

- NCI Director's Report
- President's Cancer Panel Report
- Legislative Update
- Ad Hoc Working Group to Create a Strategic Scientific Vision for the National Cancer Program and Review Progress of the National al Cancer Institute Report
- Operational Efficiency Working Group (OEWG) Demo
- Center for Cancer Research: Update on Prostate Cancer Imaging
- Status Report: Division of Cancer Epidemiology and Genetics
- Status Report: Implementation of the Institute of Medicine Clinical Trials Report Recommendations, Pharmacodynamics and Therapeutics Functional Working Group, and Center for Cancer Research
- NCI Biennial Report: Inclusion of Women and Minorities in Clinical Research

- Conflict of Interest: Facilitation of Industry Interactions
- Annual Delegations of Authority
- Bypass Budget Overview
- Update: 12th Report on Carcinogenesis
- NCAB Subcommittee Reports: Facilitation of Industry Interactions, Clinical Investigations, and Global Cancer Research
- New Regulation on Managing Financial Conflict of Interest of NIH-Supported Grantees
- Provocative Questions: Status and Future Plans
- Overview: NCI's Small Business Innovation Research (SBIR) Program and Center for Cancer Genomics
- NCI Intramural Clinical Research Program: Utilization of the Clinical Center
- Developing a Report Card for the Clinical Trial Activation Timelines: Initial Implementation of the OEWG Report Recommendations
- NCAB Ad Hoc Working Group Report

As part of its mandate for oversight of NCI activities, the NCAB receives regular updates from the NCI Director, the NCI Office of Legislation and Congressional Activities, and the President's Cancer Panel.

Another major role of the Board is to monitor the overall advisory and oversight activities of the NCI as a whole. In that regard, it annually reviews the site visit outcomes of intramural review and the extramural RFA and RFP concepts acted on by the BSA. The NCAB also participates in the framing of the annual NCI Bypass Budget and considers the impact of actualized priorities as expressed by the allocation of the annual operating budget.

The full text of recent NCAB meeting summaries is available on the NCI website at http://deainfo.nci.nih.gov/advisory/ncab/ncabmeetings.htm.

Appendix B: Activities of the Board of Scientific Advisors

The BSA provides scientific advice on a wide variety of matters concerning scientific program policy, progress, and future direction of NCI's extramural research programs, and concept review of extramural program initiatives.

In addition to approving a number of extramural program initiatives (see below), the BSA also heard presentations on the following in FY2011:

- Report of the NCI Director
- NCI/Congressional Relations
- Perspectives on the BSA
- BSA RFA Annual Concept Report
- Drug Scarcity Problem
- Status Report: Implementation of the Institute of Medicine (IOM) Clinical Trials Report Recommendations
- Overview: NCI Center for Global Health
- Cancer Bioinformatics Grid (caBIG®) Working Group Report
- Implementation Plan: cancer Bioinformatics Grid (caBIG®)
- Status Report: caBIG® Oversight *Ad Hoc* Subcommittee
- Update: The Chernobyl Tissue Bank

RFA/Cooperative Agreements Approved

Office of the Director

- Cancer Target Discovery and Development Network Centers
- Research Answers to NCI's Provocative Questions

- SBIR Phase II Bridge Awards to Accelerate the Development of Cancer Therapeutics Imaging Technologies, Interventional Devices, Diagnostics, and Prognostics Toward Commercialization
- Innovative Molecular Analysis Technologies Program
- Commercial Application and Use of Emerging Molecular Analysis Technologies
- Clinical Proteomic Technologies for Cancer
- Comprehensive Partnership to Reduce Cancer Health Disparities

Division of Cancer Biology

NCI Tumor Microenvironment Network

Division of Cancer Control and Population Sciences

 HMO Cancer Research Network Research Resources

Division of Cancer Prevention

 Alliance of Glycobiologists for Detection of Cancer: A Trans-NIH Program

Division of Cancer Treatment and Diagnosis

- National Specimen Banks to Support NCI Clinical Trial Networks
- Data Resource for Blood and Marrow Transplants
- Pediatric Phase I/Pilot Consortium
- NCI Clinical Trials Network

Appendix C: List of Chartered Committees

President's Cancer Panel

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Jennifer A. Pietenpol, Ph.D	Vanderbilt University Medical Center
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Sanjiv S. Gambhir, M.D., Ph.D	Stanford University

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	he University of Texas M.D. Anderson Cancer Center
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	Cancer Center
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9 , ,	Princeton University
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Vice-Chair

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	Purdue University
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Bamarese Wheatley, Dr.Ed., M.P.H	BPW Consulting Services
Douglas Yee, M.D.	The University of Minnesota

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Chair

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	Columbia University Mailman School of Public Health
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Phyllis A. Gimotty, Ph.D	The University of Pennsylvania
,	
	Friend for Life Cancer Support Network
	The University of Texas Health Science Center
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	State University of New York at Buffalo
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2 /	The Cancer Institute of New Jersey
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^{*}Subcommittee H was inactivated on April 1, 2011.

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Indiana University School of Medicine
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University of California, Los Angeles
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Scientific Review Officer

Initial Review Group Subcommittees



Cancer Centers



Institutional Training and Education

Initial Review Group Subcommittees (continued)



Transition to Independence

Special Emphasis Panels



Program Project Review Panel Meeting I

Special Emphasis Panels (continued)



SPORE in Breast, Prostate, and Thyroid Cancers



SPORE in Lymphoma, Leukemia, Brain, Esophageal, and Gastrointestinal Cancers

Appendix D: NCI Initial Review Group Consultants

1. Consultants Serving as Temporary Members on IRG Subcommittees in FY2011

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A		
A	guiar, Ricardo C., M.D., Ph.D The University of Texas Health Science Center, San Anton	nio
	kman, Steven A., M.D	
	berg, Anthony J., Ph.D., M.P.HMedical University of South Carol	
	li-Osman, Francis, D.Sc	
	mbinder, Richard F., M.D., Ph.D	
	renberg, Douglas A., M.DUniversity of Michigan, Ann Arl	-
A	rteaga, Carlos L., M.D	ity
A	agenlicht, Leonard H., Ph.D	ork
В		
R	uiley, Howard H., M.DUniversity of Wisconsin, Madis	on
	andera, Elisa V., M.D., Ph.DUniversity of Medicine and Dentistry of New Jers	
D.	Robert Wood Johnson Medical Scho	
B	ingia, Naveen, Ph.D	
	ennett, Anton M., Ph.D	
	ergan, Raymond C., M.D	
	ergen, Andrew W., Ph.D	
	erger, Franklin G., Ph.D The University of South Carolina, Colum	
Bi	ondi, Andrea, M.D	cca
Bi	shop, Maria C., M.DThe University of Arizo	na
Bj	ornsti, Mary-Ann, Ph.DUniversity of Alabama at Birmingh	am
	ackstock, Arthur W., M.D	
	oise, Lawrence H., Ph.D Emory Univers	
	olwell, Brian, M.D	
	ost, James E., Ph.D The University of Pittsbur	0
	radbury, Michelle S., M.D., Ph.D Memorial Sloan-Kettering Institute for Cancer Resear	
	ard, Laurent, M.D., Ph.DSouthern Illinois University School of Medic	
	uchsbaum, Donald J., Ph.D	
Bı	usch, Theresa M., Ph.D	ter
C		
С	arlson, Cathy S., D.V.M., Ph.DThe University of Minnesota, Twin Cit	ies
	arroll, William L., M.D	
	arson, William E., M.D	
С	hang, Shine, Ph.D	ter
С	hao, Chun, Ph.D	ate
~	hen, Moon Shao-Chuang., Ph.D., M.P.H	

Aŗ	pendix D-1: Consultants Serving as Temporary Members on IRG Subcommittees in FY2011
	Cody, Vivian, Ph.D. Hauptman-Woodward Medical Research Institute Cooney, Kathleen A., M.D. University of Michigan, Ann Arbor Craft, Alan W., M.D. Royal Victoria Infirmary Cullen, Bryan R., Ph.D. Duke University
D	
	DeClerck, Yves A., M.D
E	
	El-Deiry, Wafik S., M.D., Ph.D The Pennsylvania State University, Hershey Medical Center Elmer, Patricia J., Ph.D
F	
	Figlin, Robert A., M.D
G	
	Graf, Norbert, M.D
Н	
	Hande, Kenneth R., M.D
J	
v	Jacobsen, Paul B., Ph.D. University of South Florida Jones, Richard J., M.D. The Johns Hopkins University Jove, Richard, Ph.D. Beckman Research Institute of City of Hope
K	Keller, Charles, M.D

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	LaFlamme, Susan, Ph.D. Laird, Beverly L., Ph.D. Lampson, Lois A., Ph.D. Lattime, Edmund C., Ph.D. Le Beau, Michelle M., Ph.D. Le Beau, Michelle M., D.V.M., Ph.D. Lenkinski, Robert E., Ph.D. University of Texas Southwestern Medical Center at Dallas Li, Jian J., M.D., Ph.D. Le University of Pittsburgh Purdue University, West Lafayette Lokshin, Anna E., Ph.D. The University of Pittsburgh
1	Mahabee-Gittens, E. Melinda, M.D
	Mandal, Diptasri M., Ph.DLouisiana State University Health Sciences Center, New Orleans Manning, Henry C., Ph.D
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	Maskarinec, Gertraud, M.D., Ph.D., M.P.H
	Mukhtar, Hasan, Ph.D
	Olch an Andrew Dh.D. The University of Newth Coroline at Chanel Hill
	Olshan, Andrew, Ph.D
	Pearson, Andrew D., Ph.D. Royal Marsden Hospital Penichet, Manuel L., M.D., Ph.D. University of California, Los Angeles Pieper, Russell O., Ph.D. University of California, San Francisco

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		The University of Vermont & State Agricultural College
	Kilicoli, Wiercedes, Til.D.	The Oniversity of Vermont & State Agricultural Conege
S		
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	Santana, Victor M., M.D	St. Jude Children's Research Hospital
		The University of Pennsylvania
	Shen, Zhiyuan, M.D., Ph.D	University of Medicine and Dentistry of New Jersey- Robert Wood Johnson Medical School
	· · · · · · · · · · · · · · · · · · ·	
		The University of Pittsburgh
	· · · · · · · · · · · · · · · · · · ·	
		Dana-Farber Cancer Institute
	Sugden, William M., Ph.D	University of Wisconsin, Madison
T		
	Tan, Ming T., Ph.D	
	Tannous, Bakhos A., Ph.D.	
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	Tsodikov, Alexander, Ph.D	University of Michigan, Ann Arbor
V		
	Van Etten, Richard A., M.D., Ph.D	Tufts Medical Center
W		
	Waller, Edmund K., M.D., Ph.D	Emory University
		Beckman Research Institute of City of Hope
	· ·	
		The University of New Mexico Health Sciences Center
	·	Case Western Reserve University
	·	National Institute on Aging
	·	
	TODOCHAR, Clayle L., III.D	vorunwesterii Omversity

_	Appendix D-1: Consultants Serving as Temporary Members on IRG Subcommittees in FY2011	
X		
	Xiong, Wen-Cheng, M.D., Ph.D	
Y		
	Yang, Yu-Chung, Ph.D	
Total number of Reviewers: 129		

2. Consultants Serving as *Ad Hoc* Committee Members on IRG Site Visit Teams in FY2011

A		
A		
	Albana Anthony I Dh D M DU	
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	, ,	
		The Johns Hopkins University
	Andrykowski, Michael A., Ph.D	
	Arteaga, Carlos L., M.D	Vanderbilt University
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В		
D		
	Railoy Howard H MD	University of Wisconsin, Madison
		· · · · · · · · · · · · · · · · · · ·
		Rush University Medical Center
	Beckwith, Barbara J., M.A	
	Belk, Bonnie F., M.P.A., M.A	Private Practice
	Benovic, Jeffrey L., Ph.D.	
	- · · · · · · · · · · · · · · · · · · ·	The University of New Mexico
		The University of Vermont & State Agricultural College
		e University of Texas Southwestern Medical Center, Dallas
		St. Jude Children's Research Hospital
	Bruchez, Marcel P., Ph.D	
	Buchsbaum, Donald J., Ph.D	
		,
C		
	Carbone, Michele, M.D., Ph.D.	University of Hawaii Cancer Center
		The Johns Hopkins University
	,	
	Clurman, Bruce E., M.D, Ph.D	Fred Hutchinson Cancer Research Center
		Hauptman-Woodward Medical Research Institute
		University of Michigan, Ann Arbor
		D 1 II :

D

E	Davis, Jerry K., D.V.M., Ph.D. Davisson, Vincent J., Ph.D. DeClerck, Yves A., M.D. DiGiovanni, John, Ph.D. DiMaio, Daniel C., M.D., Ph.D. DiPaola, Robert S., M.D. University of Southern California University of Texas, Austin Medicine and Dentistry of New Jersey- Robert Wood Johnson Medical School Djeu, Julie Y., Ph.D. H. Lee Moffitt Cancer Center & Research Institute Dowlati, Afshin, M.D. Case Western Reserve University Duli, Anne M., M.P.A. Case Western Reserve University
	Eckhardt, Sue G., M.D
F	Ferrara, James L., M.D
u	Gapstur, Susan M., Ph.D., M.P.H. Gasson, Judith C., M.D., Ph.D. Gerlach, Robert W., M.A. Gerson, Stanton L., M.D. Gewirtz, David A., Ph.D. Gilbs, Richard A., Ph.D. Gillies, Robert J., Ph.D. Graves, Barbara J., Ph.D. Gruber, Stephen B., M.D., Ph.D., M.P.H. Merican Cancer Society, Inc. University of California, Los Angeles Case Western Reserve University Virginia Commonwealth University Gibts, Case Western Reserve University Virginia Commonwealth University Gibts, Richard A., Ph.D. Purdue University, West Lafayette Graves, Barbara J., Ph.D. City of Hope National Medical Center Gruber, Stephen B., M.D., Ph.D., M.P.H. University of Michigan, Ann Arbor Grufferman, Seymour, M.D. The University of New Mexico

H

	Hackett, Lauren E., M.P.A	New York University
	Haffty, Bruce G., M.D.	University of Medicine and Dentistry of New Jersey-
		Robert Wood Johnson Medical School
		Fred Hutchinson Cancer Research Center
		University of Connecticut School of Medicine & Dentistry
		Yale University
		The University of Texas M.D. Anderson Cancer Center
	· · · · · · · · · · · · · · · · · · ·	Baylor College of Medicine
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	=	The University of Texas Health Science Center, Houston
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	Iglehart James D. M.D.	
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J		
	Jacobs Lisa K. M.D.	The Johns Hopkins University
	Jones, Judy A., M.A.	Cutaneous Lymphoma Foundation
		The Johns Hopkins University
	Jove, Richard, Ph.D.	Beckman Research Institute of City of Hope
K		
	Kane, Madeleine A., M.D., Ph.D	University of Colorado, Denver
	Kaufman, Howard L., M.D	
		Jefferson Medical College
		State University of New York at Oneonta
	·	Emory University
		University of Utah
	Kipps, Thomas J., M.D., Ph.D	

	Kong, Ah-Ng T., Ph.D.	
L		
	Lannin, Donald R., M.D. Le, Chap T., Ph.D. Le Beau, Michelle M., Ph.D. LeBien, Tucker W., Ph.D. Lee, Terry D., Ph.D. Lenkinski, Robert E., Ph.D. Li, King C., M.D., M.B.A. Lichtor, Terence R., M.D., Ph.D. Lin, Weili, Ph.D. Lowe, Val J., M.D. Lu, Karen H., M.D.	The Ohio State University Yale University University of Minnesota, Twin Cities The University of Chicago University of Minnesota, Twin Cities Beckman Research Institute of City of Hope The University of Texas Southwestern Medical Center Methodist Hospital Research Institute Rush University Medical Center Rush University Medical Center The University of North Carolina at Chapel Hill Mayo Clinic The University of Texas M.D. Anderson Cancer Center Yale University
M	Malkas, Linda H., Ph.D. Marshall, James R., Ph.D. Matei, Daniela E., M.D. Mayne, Susan T., Ph.D. McCarthy, James B., Ph.D. McConkey, David J., Ph.D. McCormick, Frank P., Ph.D. McWeeney, Shannon K., Ph.D. Mehta, Minesh P., M.D. Mermelstein, Robin J., Ph.D. Mesecar, Andrew D., Ph.D. Meyn, Raymond E., Ph.D. Miller, Kathy D., M.D. Mitchell, Beverly S., M.D. Moley, Jeffrey F., M.D. Moore, Anna, Ph.D. Mori, Motomi, Ph.D. Mukherji, Bijay, M.D.	
N		St. Jude Children's Research Hospital University of California, Irvine

Ochs, Michael F., Ph.D.	The Johns Hopkins University
Pasick, Rena J., Dr.P.H. Patterson, Ruth E., Ph.D. Perez, Raymond P., M.D. Perez-Soler, Roman, M.D. Pieper, Russell O., Ph.D. Plate, Janet, M.D., Ph.D.	The University of Texas Southwestern Medical CenterUniversity of California, San FranciscoUniversity of California, San DiegoUniversity of Kansas Medical Center
Quaranta, Vito, M.D.	Vanderbilt University
Rader, Janet S., M.D. Ratliff, Timothy L., Ph.D. Reid, Mary E., Ph.D. Remick, Scot C., M.D. Ritz, Jerome, M.D. Roberson, Paula K., Ph.D. Rosenblatt, Joseph D., M.D.	
Santana, Victor M., M.D. Sarkaria, Jann N., M.D. Schiller, Joan H., M.D. Schuchter, Lynn M., M.D. Schwartz, Ann G., Ph.D., M.P.H. Seewaldt, Victoria L., M.D. Seither, Richard L., Ph.D. Serody, Jonathan S., M.D. Shimizu, Yoji, Ph.D. Showe, Louise C., Ph.D. Shull, James D., Ph.D. Shyr, Yu, Ph.D. Siegfried, Jill M., Ph.D. Slovin, Susan F., M.D, Ph.D.	
	Pakes, Steven P., D.V.M., Ph.D. Pasick, Rena J., Dr.P.H. Patterson, Ruth E., Ph.D. Perez, Raymond P., M.D. Perez-Soler, Roman, M.D. Pieper, Russell O., Ph.D. Plate, Janet, M.D., Ph.D. Porter, Peggy L., M.D. Quaranta, Vito, M.D. Rademaker, Alfred W., Ph.D. Rader, Janet S., M.D. Ratliff, Timothy L., Ph.D. Remick, Scot C., M.D. Ritz, Jerome, M.D. Roberson, Paula K., Ph.D. Rosenblatt, Joseph D., M.D. Ryan, James C., M.D. Sarkaria, Jann N., M.D. Sarkaria, Jann N., M.D. Schuchter, Lynn M., M.D. Schwartz, Ann G., Ph.D., M.P.H. Seewaldt, Victoria L., M.D. Seither, Richard L., Ph.D. Serody, Jonathan S., M.D. Shimizu, Yoji, Ph.D. Showe, Louise C., Ph.D. Shyr, Yu, Ph.D. Siegfried, Jill M., Ph.D. Slovin, Susan F., M.D, Ph.D.

	Smith, David I., Ph.D.	Mayo Clinic
	Speicher, David W., Ph.D.	
	Stadler, Walter M., M.D	The University of Chicago
	Stahl, Douglas C., Ph.D.	City of Hope National Medical Center
	Stauffacher, Cynthia V., Ph.D	Purdue University, West Lafayette
	Sukumar, Saraswati, Ph.D.	The Johns Hopkins University
T		
	Tew Kenneth D. Ph.D.	Medical University of South Carolina
	· · · · · · · · · · · · · · · · · · ·	Medical University of South Carolina
		The Johns Hopkins University
		Gordon Research Conferences
	Tycko, Denjannii, W.D, Th.D.	Gordon Research Conferences
V		
	Vail, David M., D.V.M	University of Wisconsin, Madison
	Van Breemen, Richard B., Ph.D.	University of Illinois at Chicago
	Van Etten, Richard A., M.D., Ph.D.	Tufts Medical Center
	Vannier, Michael W., M.D.	The University of Chicago
W		
	Waller Edmund K M D Ph D	Emory University
	<i>C</i> , ,	
		University of Wisconsin, Madison
		University of Iowa
		Georgetown University
		University of Virginia, Charlottesville
	• •	
	·	Alameda County Medical Center
		Baylor College of Medicine
		University of Michigan, Ann Arbor
	, , , , , , , , , , , , , , , , , , , ,	People Living With Cancer
		University of Wisconsin, Madison
	Wiley, Patti, M.B.A.	On the Wings of Angels
	Willett, Christopher G., M.D.	Duke University
	Wilson-Sanders, Susan E., D.V.M	The University of Arizona
Y		
	Vee Douglas M.D.	The University of Minnesota
		Beckman Research Institute of City of Hope
	1011, 1011, 111.0., 111.0	
To	tal number of Reviewers: 213	

3. Consultants Serving on Special Emphasis Panels (SEPs) in FY2011

A

1-11	D 1 0 11 0 12 1
	Vanderbilt University
	University of Virginia
	The University of Texas, Austin
	University of South Carolina, Columbia
Adams-Campbell, Lucile L., Ph.D	Georgetown University
Agarwal, Rajesh, Ph.D.	University of Colorado, Denver
Aguilar-Cordova, Estuardo, Ph.D	
Agus, David B., M.D.	The University of Southern California
Ahmed, Farid E., Ph.D.	GEM Tox Consultants & Labs, Inc.
Ahsan, Habibul, M.D.	
Ain, Kenneth B., M.D.	University of Kentucky
Ajani, Jaffer A., M.D.	The University of Texas M.D. Anderson Cancer Center
Akala, Emmanuel O., Ph.D	The University of Utah
Akman, Steven A., M.D.	
Al'Absi, Mustafa N., Ph.D.	The University of Minnesota, Twin Cities
Albertson, Donna G., Ph.D	
Albright, Lisa C., Ph.D.	The University of Utah
Alexandrow, Mark G., Ph.D	H. Lee Moffitt Cancer Center & Research Institute
Alfred, Lawrence, Ph.D	
Ali, M.D. Meser, Ph.D	Henry Ford Health System
Ali-Osman, Francis, D.Sc	
Alter, Orly, Ph.D.	The University of Utah
Altomare, Deborah A., Ph.D	University of Central Florida
Anandasabapathy, Sharmila, M.D	Mount Sinai School of Medicine
Anant, Shrikant, Ph.D.	The University of Kansas Medical Center
Andersen, Barbara L., Ph.D	
Anderson, Garth R., Ph.D	
Anderson, James K., M.D	The University of Minnesota, Twin Cities
Anderson, Michael E., Ph.D	
Anderson, Richard A., Ph.D	
Anderson, Roger T., Ph.D	
Andrisani, Ourania M., Ph.D	Indiana University-Purdue University Indianapolis
Aplin, Andrew E., Ph.D	Thomas Jefferson University
Arceci, Robert J., M.D., Ph.D	The Johns Hopkins University
Archer, Kellie J., Ph.D.	Virginia Commonwealth University
	Texas A&M International University
Argenbright, Keith E., M.DThe	University of Texas Southwestern Medical School, Dallas
	The University of Chicago
Arnold, Connie L., Ph.D	Louisiana State University, Shreveport

Ashendel, Curtis L., Ph.D.	Purdue University, West Lafayette
Ashikaga, Takamaru, Ph.D	The University of Vermont
Ashing-Giwa, Kimlin T., Ph.D	
Ashktorab, Hassan, Ph.D	Howard University
Asmann, Yan W., Ph.D.	Mayo Clinic
	On-Q-Ity
	The University of Pennsylvania
Atasoy, Ulus, M.D.	University of Missouri, Columbia
	University of Wisconsin, Madison
	Princeton University
Ayala, Gustavo, M.DT	he University of Texas Health Science Center, Houston
•	•
Bachmann, Andre S., Ph.D	

B

The University of Arizona
University of Massachusetts Medical School, Worcester
Providence Portland Medical Center
University of Wisconsin, Madison
MarkPap India, LLC
The University of Tennessee, Knoxville
Veterans Medical Research Foundation
.The University of Texas M.D. Anderson Cancer Center
Indiana University
University of North Carolina at Charlotte
Bioproximity, LLC
Kansas City VA Medical Center
.The University of Texas M.D. Anderson Cancer Center
Indiana University-Purdue University Indianapolis
Translational Genomics Research Institute
New York University School of Medicine
The University of Pennsylvania
University of Wisconsin, Madison

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	Palmetto Health, Richland
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	Albert Einstein College of Medicine of Yeshiva University
	The State University of New York, Albany
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	Baylor College of Medicine
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,	Translational Genomics Research Institute
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	Fred Hutchinson Cancer Research Center
9 ,	
9 /	University of South Carolina, Columbia
9 7	University of California, San Francisco
9 ,	University of the Sciences, Philadelphia
,	
Bigatti, Silvia M., Ph.D	Indiana University-Purdue University Indianapolis
Bishayee, Anupam, Ph.D	
Blackstock, Arthur W., M.D	
Blezek, Daniel, Ph.D	
Bloom, Joan R., Ph.D.	University of California, Berkeley
Bocan, Thomas M., Ph.D	Pfizer, Inc.
Bock, Beth C., Ph.D.	Miriam Hospital
Bock, Cathryn H., Ph.D., M.P.H	Wayne State University
Bogdanov, Alexei A., D.Sc., Ph.D	University of Massachusetts Medical School, Worcester
Bogen, Steven A., M.D., Ph.D	
· · · · · · · · · · · · · · · · · · ·	Wesleyan University

Boothman, David A., Ph.D	The University of Texas Southwestern Medical Center, Dallas
Bosenberg, Marcus W., M.D., Ph.I	D
Boucher, Yves, Ph.D	
Bowers, William J., Ph.D	
Boyd, Jeffrey, Ph.D	Fox Chase Cancer Center
Boyd, Norman F., Sc.D., M.D	Ontario Cancer Institute
Boysen, Gunnar, Ph.D	
Brace, Christopher L., Ph.D	University of Wisconsin, Madison
Braithwaite, Dejana K., Ph.D	University of California, San Francisco
Bram, Richard J., M.D., Ph.D	Mayo Clinic
Brat, Daniel J., M.D., Ph.D	Emory University
	University of Colorado, Denver
Brem, Steven, M.D.	H. Lee Moffitt Cancer Center & Research Institute
Brent, Roger, Ph.D.	Fred Hutchinson Cancer Research Center
Brewer, Molly A., D.V.M., M.D	University of Connecticut Health Center
Bridges, John F.P., Ph.D	The Johns Hopkins University
	The University of Texas, Austin
Broaddus, William C., M.D., Ph.D	Virginia Commonwealth University
Broccoli, Dominique, Ph.D	
Brockbank, Kelvin G.M., Ph.D	
Brockhausen, Inka, Ph.D	Queen's University
Broderson, Hal S., M.D., M.B.A	
, 0 ,	
Broeders, Mireille, Ph.D	Radboud University Nijmegen Medical Center
Brosh, Robert M., Ph.D	National Institute on Aging
	University of Alabama, Birmingham
Brown, Kathlynn C., Ph.D	The University of Texas Southwestern Medical Center, Dallas
Bruce, Richard H., Ph.D	Xerox Corporation
Bu, Zimei, Ph.D.	City College of New York
, ,	The University of Iowa
Buchsbaum, Donald J., Ph.D	University of Alabama at Birmingham
Bunn, Janice Y., Ph.D	The University of Vermont & State Agricultural College
Buolamwini, John K., Ph.D	University of Tennessee Health Science Center
	Acoustic Medical Systems, LLC
	Albert Einstein College of Medicine of Yeshiva University
	University of California, Irvine
Burt, Randall W., M.D	The University of Utah
· · · · · · · · · · · · · · · · · · ·	Georgetown University
	Memorial Sloan-Kettering Institute for Cancer Research
Byrd, John C., M.D., Ph.D	

C

Coffroy Michael S. Ph.D.	
The state of the s	Fox Chase Cancer Center
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	Noblis, Inc.
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	Methodist Hospital Research Institute
<i>S</i> , <i>S</i>	The University of Texas M.D. Anderson Cancer Center
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	H. Lee Moffitt Cancer Center & Research Institute
	University of California, Davis
· · · · · · · · · · · · · · · · · · ·	Rutgers, The State University of New Jersey
Chenevert, Thomas L., Ph.D	University of Michigan at Ann Arbor

Cheng Iona Ph D MPH	University of Hawaii
	H. Lee Moffitt Cancer Center & Research Institute
<u> </u>	
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	Boston College
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<i>C, C</i>	•
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	Brown University
* * * * * * * * * * * * * * * * * * * *	University of Connecticut School of Medicine & Dentistry
	The Johns Hopkins University . The Pennsylvania State University, Hershey Medical Center
3,	Duke University
The state of the s	Children's Research Institute
• •	The University of Minnesota, Austin
	Tufts University, Boston
The state of the s	The University of Texas M.D. Anderson Cancer Center
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	The University of Maine, Orono
	Memorial Sloan-Kettering Institute for Cancer Research
	The University of Texas M.D. Anderson Cancer Center
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· · · · · · · · · · · · · · · · · · ·	Virginia Commonwealth University
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	Wayne State University
Coups, Elliot J., Ph.D	University of Medicine and Dentistry of New Jersey-
	Robert Wood Johnson Medical School
	The University of Southern California
	Los Angeles Biomedical Research Institute/
	Harbor University of California, Los Angeles Medical Center
	The State University of New York at Stony Brook
	University of Massachusetts Medical School, Worcester
, ,	
Cronan, Thereasa A., Ph.D	

Crott, Jimmy W., Ph.D.	
Crum, Lawrence A., Ph.D	University of Washington
Csiszar, Katalin, Ph.D.	University of Hawaii at Manoa
Cui, Hengmi, Ph.D.	
Cullen, Kevin J., M.D.	
Cunningham, John M., M.D	The University of Chicago
Curbow, Barbara A., Ph.D	
Curley, Steven A., M.D.	The University of Texas M.D. Anderson Cancer Center
Czerniak, Bogdan A., M.D., Ph.D	
	Health Science Center, Houston

D

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	Albert Einstein College of Medicine of Yeshiva University
	Wake Forest University Health Sciences
	Northern California Institute for Research and Education
	The Ohio State University
,	Tulane University
3 /	The University of New Mexico
	St. Jude Children's Research Hospital
	The University of Pittsburgh
• •	The University of Pittsburgh
9 ,	Memorial Sloan-Kettering Institute for Cancer Research
	Florida International University
DeCoster, Mark A., Ph.D Loui	isiana State University Health Science Center, New Orleans
Deeg, H. Joachim, M.D	Fred Hutchinson Cancer Research Center
Delehanty, James B., Ph.D	U.S. Naval Research Laboratory
Del Valle, Juan R., Ph.D	
Dembo, Micah, Ph.D.	Boston University
Demetriou, Michael, M.D., Ph.D	
Demirci, Utkan, Ph.D	Brigham and Women's Hospital
Denis, Gerald V., Ph.D.	Boston University Medical Campus
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Dent, Sharon R., Ph.D.	The University of Texas M.D. Anderson Cancer Center
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Desai, Pankaj B., Ph.D	The University of Cincinnati
Deutsch, Walter A., Ph.D.	Louisiana State University Pennington
	Biomedical Research Center
De Vere White, Ralph W., M.D	
Diamond, Alan, Ph.D.	
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	Rice University
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	Henry Ford Health System
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	The Johns Hopkins University
	Emory University
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	Oak Ridge National Laboratory
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Dooley, William C., M.D	
Dorai, Haimanti, Ph.D	
	University of California, San Diego
Doyle, Terrence W., Ph.D	Vion Pharmaceuticals, Inc.
Drabkin, Harry A., M.D	Medical University of South Carolina
Dragnev, Konstantin H., M.D	Dartmouth-Hitchcock Medical Center
Drake, Richard R., Ph.D	Medical University of South Carolina
Drees, Beth E., Ph.D	The University of Utah
Dritschilo, Anatoly, M.D	
Dubbs, Robert M., M.B.A	Obermayer Rebmann Maxwell & Hippel LLP
Dubeau, Louis, M.D., Ph.D	The University of Southern California
Dubinett, Steven M., M.D	VA Greater Los Angeles Healthcare System
Ducatman, Barbara S., M.D	
Dudley, Donald J., M.D	The University of Texas Health Science Center, San Antonio
Duffy, David C., Ph.D	Twin Lights Bioscience, Inc.
Dupont, Pierre E., Ph.D	
=	New York University School of Medicine
•	The University of Arizona
	2 1 1 colors, Emiconi
Eckert, Kristin A., Ph.D	The Pennsylvania State University, Hershey Medical Center
Eckert, Richard L., Ph.D	
Eder, Joseph P., M.D	
Edgerton, Mary E., M.D., Ph.D	
Edwards, D. Scott, Ph.D	
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Einstein, Andrew, M.D., Ph.D	
Elber, Ron, Ph.D.	
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	Hershey Medical Center
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E

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Eliason, James F., Ph.D.	
Elkin, Elena B., Ph.D.	Memorial Sloan-Kettering Institute for Cancer Research
Elmer, Patricia J., Ph.D.	National College of Naturopathic Medicine
Elson, Paul J., Sc.D.	
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Emelianov, Stanislav Y., Ph.D	The University of Texas, Austin
Emerson, Jane, M.D., Ph.D.	The University of Southern California
	Fox Chase Cancer Center
	Oregon Health and Science University
Erdei, Esther, Ph.D.	. The University of New Mexico Health Sciences Center
Erdman, Susan E., D.V.M., M.P.H	Massachusetts Institute of Technology
Erdmann, Christine A., Ph.D., M.P.H.	
Evans, Lyndon V., R.N.	
	The University of Kentucky
Evers, Kerry, Ph.D.	Pro-Change Behavior Systems, Inc.

F

	M 1 Cl W 1 L C C D 1
	Memorial Sloan-Kettering Institute for Cancer Research
	University of Wisconsin, Madison
, , ,	
Farag, Sherif S., M.D., Ph.D	Indiana University-Purdue University Indianapolis
9 ,	Kaiser Foundation Health Clinic Research Unit
Feinleib, Manning, M.D., Ph.D	The Johns Hopkins Bloomberg School of Public Health
Felsburg, Peter J., D.V.M., Ph.D	The University of Pennsylvania
Fennessy, Fiona, M.D., Ph.D	Brigham and Women's Hospital
Fernander, Anita F., Ph.D	The University of Kentucky
Fernandez-Esquer, Maria E., Ph.D	The University of Texas Health Science Center, Houston
Fero, Matthew L., M.D	Fred Hutchinson Cancer Research Center
Ferrando, Adolfo A., M.D., Ph.D	
Ferrone, Soldano, M.D., Ph.D	The University of Pittsburgh
Fields, Alan P., Ph.D.	
Figueiredo, Jane C., Ph.D	The University of Southern California
Fine, Jason, Sc.D.	University of Wisconsin, Madison
Fisher, Susan G., Ph.D.	
Fishman, David A., M.D	
Flemington, Erik K., Ph.D.	Tulane University
Flores, Sonia C., Ph.D.	
Fobair, Patricia A., M.P.H	Stanford University
Foldvari, Marianna, Ph.D	
Fong, Lawrence, M.D.	University of California, San Francisco
	Self-Employed
	Loyola University, Chicago

Forrest, Laird, Ph.D.	
The state of the s	Yale University
Foster, David A., Ph.D.	City University of New York
Fox, Bernard A., Ph.D.	Ubivac, LLC
Francino, Maria P., Ph.D	Lawrence Berkeley National Laboratory
Franck, Richard W., Ph.D	
Frank, David A., M.D., Ph.D	
Franklin, Wilbur A., M.D	University of Colorado, Denver
, ,	Duke University
	St. Jude Children's Research Hospital
Freeman, James W., Ph.D	The University of Texas Health Science Center,
	San Antonio
,	
	The University of New Mexico
·	
Friedberg, Jonathan W., M.D	
, ,	University of Wisconsin, Madison
	University of South Carolina, Columbia
, , , , , , , , , , , , , , , , , , , ,	Duke University
,	City College of New York
, , , ,	The University of Pennsylvania
	The University of Texas M.D. Anderson Cancer Center
	St. Jude Children's Research Hospital
· · · · · · · · · · · · · · · · · · ·	Beth Israel Deaconess Medical Center
9,	
* '	Baylor College of Medicine
9 ,	The University of Utah
Furth, Priscilla A., M.D.	Georgetown University
Gabeau Darlene M.D. Ph.D.	
	Fred Hutchinson Cancer Research Center
	Emory University
	The University of Texas M.D. Anderson Cancer Center
	Vanderbilt University
	Princeton University

G

Garg, Kavita, M.D.	University of Colorado, Denver
<i>G</i> , ,	
	University of Illinois at Urbana-Champaign
	Beth Israel Deaconess Medical Center
Gatsonis, Constantine A., Ph.D	Brown University
Gau, Vincent J., Ph.D.	Genefluidics, Inc.
Gaudet, Mia M., Ph.D	
Gavai, Ashvinikumar, Ph.D	Bristol-Myers Squibb Pharmaceutical Research
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Gerson, Lauren B., M.D	Stanford University
	The Ohio State University
Ghosh, Debashis, Ph.D	
Giaccia, Amato J., Ph.D.	Stanford University
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	University of California, Irvine
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Coodwin James S. M.D.	
	Albert Einstein College of Medicine of Yeshiva University
Gottesfeid, Joel W., Ph.D	Scripps Research Institute

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Grundfest, Warren S., M.D	
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	Abbott Laboratories
	Albert Einstein College of Medicine of Yeshiva University
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Gupte, Pradeep M., M.D	Rockland Technimed, Ltd.
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Holl, Mark R., Ph.D.	

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Houlette, Judy K	Friend for Life Cancer Support Network
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Hrkach, Jeff, Ph.D.	
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Rogers, Rick, Ph.D.	Harvard School of Public Health
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Rosenberg, Jonathan E., M.D., Ph.D.	
	University of Massachusetts Medical School, Worcester
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	The University of New Mexico
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Russo, Jose, M.D	Fox Chase Cancer Center
Ruth, Thomas J., Ph.D.	
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Sabbadini, Roger A., Ph.D.	LPath Therapeutics, Inc.
Saenger, Yvonne M., M.D.	
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	Wayne State University
	The University of Minnesota, Twin Cities
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	Georgia Southern University
	H. Lee Moffitt Cancer Center & Research Institute
Schellhase, Kenneth G., M.D., M.P.H.	Medical College of Wisconsin
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_	Baylor College of Medicine
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Schneider, Erika, Ph.D	
Schootman, Mario, Ph.D.	
Schwartz, Anna L., Ph.D.	Arizona State University
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Segre, Daniel, Ph.D	Boston University
Senore, Carlo, M.D.	
	Oakland University
Shalloway, David I., Ph.D	

Shannon Jackilen Ph.D. M.P.H.	Oregon Health and Science University
	The Pennsylvania State University, Hershey Medical Center
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-	The University of North Texas Health Science Center
	University of Nebraska Medical Center
	McMaster University
	Texas A&M University System
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	Thomas Jefferson University
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	Virginia Commonwealth University
Smythe, William R., M.D	Texas A&M University Health Science Center
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Solomon, William B., M.D	The State University of New York, Downstate Medical Center
	H. Lee Moffitt Cancer Center & Research Institute
	The University of Minnesota, Twin Cities
·	Public Health Research Institute
1 /	H. Lee Moffitt Cancer Center & Research Institute
	A.NUniversity of Colorado, Denver
	The University of Texas Health Science Center, San Antonio
	.DAMC Cancer Research Center
	Oregon Health and Science University
	Baylor College of Medicine
	The University of Pennsylvania
	Virginia Commonwealth University
	Scott and White Memorial Hospital
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	The University of Pennsylvania
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	University of Michigan, Ann Arbor
	Oklahoma Medical Research Foundation
	Los Alamos National Laboratory
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	Wayne State University
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Taron, Christopher, Ph.D	
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Thomas-Tikhonenko, Andrei, Ph.D	
Thompson, Cheryl L., Ph.D.	
Thompson, E. Aubrey, Ph.D	
Thompson, Katherine H., Ph.D., Pharm.D.	University of British Columbia
Threadgill, David W., Ph.D	North Carolina State University
Ting, Angela H., Ph.D.	
Tinmouth, Jill, M.D., Ph.D	
Tockman, Melvyn S., M.D., Ph.D	
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	Dendritic Nanotechnologies, Inc.
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Towner, Rheal A., Ph.D	Oklahoma Medical Research Foundation
Trede, Nikolaus S., M.D., Ph.D	
Triche, Timothy J., M.D., Ph.D	
Tricot, Guido J., M.D., Ph.D.	
Triozzi, Pierre L., M.D.	
Troyer, Dean A., M.D.	Eastern Virginia Medical School
Tsaprailis, George, Ph.D.	The University of Arizona
Tsien, Roger Y., Ph.D.	University of California, San Diego
Tsodikov, Alexander, Ph.D	University of Michigan, Ann Arbor
Tsourkas, Andrew, Ph.D.	The University of Pennsylvania
Tunnell, James W., Ph.D.	The University of Texas, Austin

	Turchi, John J., Ph.D	Indiana University-Purdue University Indianapolis
	Turk, Benjamin E., Ph.D	Yale University
	Turkheimer, Eric N., Ph.D	University of Virginia, Charlottesville
	Turkson, James K., Ph.D	
	Turner, Timothy, Ph.D	
	Tuschl, Thomas, Ph.D.	New York Academy of Sciences
	Tyler, Douglas S., M.D.	Duke University
	Tyler, Jessica K., Ph.D.	The University of Texas Health Science Center, Houston
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		Children's Hospital, Los Angeles
		University of Kansas Medical Center
		University of Wisconsin, Madison
	Uno, Hajime, Ph.D	
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		The University of Minnesota, Twin Cities
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		The University of Pittsburgh
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	Northshore University Healthsystem
	Self-Employed
	Klein Buendel, Inc.
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	University of California, San Francisco
	University of Kansas Medical Center
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·	The University of Utah
Wargovich, Michael, Ph.D.	Medical University of South Carolina
Warrick, Cynthia A., Ph.D.	Elizabeth City State University
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Watkins, Simon C., Ph.D.	The University of Pittsburgh
	Mentors of Challenged Adults, Inc.
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Weinberg, David S., M.D.	Fox Chase Cancer Center
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Weiss, Heidi L, Ph.D.	The University of Texas Medical Branch at Galveston
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	The University of Texas Medical Branch at Galveston
Widom, Jonathan, Ph.D	
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, , , ,	Robert Wood Johnson Medical School
Wiener, Erik C., Ph.D.	The University of Pittsburgh
	On the Wings of Angels
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	Duke University
	The Louisiana State University Health Science Center
	Beckman Research Institute of City of Hope
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	The University of New Mexico Health Sciences Center
	Michigan State University
	ne University of Texas Southwestern Medical Center, Dallas
	Memorial Sloan-Kettering Institute for Cancer Research
Woloschak, Gayle E., Ph.D	
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	The University of Vermont & State Agricultural College
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	Mount Sinai Hospital-Samuel Lunenfeld Research Institute
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	Worsham, Maria J., Ph.D. Wright, Kenneth L., Ph.D. Wright, Michael E., Ph.D. Wroblewski, Dariusz, Ph.D. Wu, Anna M., Ph.D. Wu, Lily, M.D., Ph.D. Wu, Mingming, Ph.D.	
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	Xia, Yu, Ph.D. Xiao, Hua, M.D., Ph.D. Xie, Jingwu, Ph.D. Xing, Lianping, M.D., Ph.D. Xu, Xiangxi M., Ph.D. Xu, Yan, Ph.D.	Georgia Institute of Technology Boston University Michigan State University Indiana University-Purdue University Indianapolis University of Rochester University of Miami School of Medicine Indiana University-Purdue University Indianapolis University of California, San Diego
Y		
	Yang, Chung S., Ph.D. Yang, Guoliang, Ph.D. Yang, Jianguo, Ph.D. Yang, Lily, M.D., Ph.D. Yang, Wancai, M.D. Yang, Wei T., M.B.B.S. Yang, Xiao-Feng, M.D., Ph.D. Yang, Yu-Chung, Ph.D. Yankeelov, Thomas E., Ph.D. Yannelli, John R., Ph.D. Yarmush, Martin L., M.D., Ph.D. Yeatman, Timothy J., M.D. Yeger, Herman, Ph.D. Yi, Qing, M.D., Ph.D. Yost, David A., Ph.D. You, Lingchong, Ph.D. Younes, Anas, M.D. Young, Jeanne P. Yuan, Jian-Min, M.D., Ph.D.	

Z

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Zutter, Mary M., M.D	Vanderbilt University

Total Number of Reviewers: 1,600

Appendix E: NCI Grant Mechanisms and Descriptions

Below is a brief description of NIH funding mechanisms. Additional information on grants, contracts, and extramural policy notices may be found by viewing the NCI DEA Web page on Grants Guidelines and Descriptions at http://deainfo.nci.nih.gov/flash/awards.htm.

C Series: Research Construction Programs

C06 Research Facilities Construction Grants

To provide matching Federal funds, up to 75 percent, for construction or major remodeling to create new research facilities, which in addition to basic research laboratories may include, under certain circumstances, animal facilities and/or limited clinical facilities where they are an integral part of an overall research effort.

D Series: Training Projects

D43 International Training Grants in Epidemiology

To improve and expand epidemiologic research and the utilization of epidemiology in clinical trials and prevention research in foreign countries through support of training programs for foreign health professionals, technicians, and other health care workers.

F Series: Fellowship Programs

F31 | Predoctoral Individual National Research Service Award (NRSA)

To provide predoctoral individuals with supervised research training in specified health and health-related areas leading toward a research degree (e.g., Ph.D.).

F31 | Predoctoral Fellowship—Minority Students

A fellowship award that provides predoctoral minority students with supervised research training in specified health and health-related areas leading toward a research degree (e.g., Ph.D.).

F31 National Research Service Award for Individual Postdoctoral Fellows

To provide postdoctoral research training to individuals to broaden their scientific background and extend their potential for research in specified health-related areas.

F32 National Research Service Award for Individual Postdoctoral Fellows

To provide postdoctoral research training to individuals to broaden their scientific background and extend their potential for research in specified health-related areas.

F33 National Research Service Award for Senior Fellows

To provide opportunities for experienced scientists to make major changes in the direction of research careers, broaden scientific backgrounds, acquire new research capabilities, enlarge command of an allied research field, or take time from regular professional responsibilities to increase capabilities to engage in health-related research.

K Series: Career Development Programs

K01 The Howard Temin Award (no longer supported through use of the K01 by the NCI; see the K99/R00 Award)

A previously used NCI-specific variant of the NIH Mentored Research Scientist Development Award that was designed to provide research scientists with an additional period of sponsored research experience as a way to gain expertise in a research area new to the applicant or in an area that would demonstrably enhance the applicant's scientific career.

K01 Mentored Career Development Award for Underrepresented Minorities

To support scientists committed to research who are in need of both advanced research training and additional experience.

K05 Established Investigator Award in Cancer Prevention, Control, Behavioral, and Population Research

To support scientists qualified to pursue independent research that would extend the research program of the sponsoring institution, or to direct an essential part of this program.

K07 | Cancer Prevention, Control, Behavioral, and Population Sciences Career Development Award

To support the postdoctoral career development of investigators who are committed to academic research careers in cancer prevention, control, behavioral, epidemiological, and/ or the population sciences. It supports up to 5 years of combined didactic and supervised (i.e., mentored) research experiences to acquire the methodological and theoretical research skills needed to become an independent scientist. The very broad nature of the prevention, control, and population sciences makes it applicable to those individuals doctorally trained in the basic sciences, medicine, behavioral sciences, and/or public health. The K07 award has been expanded from a scope limited to "preventive oncology" to include the entire spectrum of fields that are of vital importance to cancer prevention and control such as nutrition, epidemiology, and behavioral sciences.

K08 Mentored Clinical Scientists Development Award

To provide the opportunity for promising medical scientists with demonstrated aptitude to develop into independent investigators, or for faculty members to pursue research in categorical areas applicable to the awarding unit, and to aid in filling the academic faculty gap in specific shortage areas within U.S. health professions institutions.

K08 | Mentored Clinical Scientists Development Award—Minorities in Clinical Oncology

A specialized type of Mentored Clinical Scientist Developmental Award (K08) that supports the development of outstanding clinical research scientists, with this type being reserved for qualified individuals from underrepresented minority groups. Both types of K08 awards support periods of specialized study for clinically trained professionals who are committed to careers in research and who have the potential to develop into independent investigators. The K08 awards for Minorities in Clinical Oncology are distinct and important because they provide opportunities for promising medical scientists with demonstrated aptitudes who belong to underrepresented minority groups to develop into independent investigators, or for faculty members who belong to underrepresented minority groups to pursue research aspects of categorical areas applicable to the awarding unit(s), and aid in filling the academic faculty gaps in these shortage areas within U.S. health professions institutions.

K12 Institutional Clinical Oncology Research Career Development Award

To support a newly trained clinician appointed by an institution for development of independent research skills and experience in a fundamental science within the framework of an interdisciplinary research and development program.

K22 The NCI Transition Career Development Award for Underrepresented Minorities

To provide support to outstanding newly trained basic or clinical investigators to develop their independent research skills through a two-phase program: an initial period involving an intramural appointment at the NIH and a final period of support at an extramural institution. The award is intended to facilitate the establishment of a record of independent research by the investigator to sustain or promote a successful research career.

K22 The NCI Scholars Program

To provide an opportunity for outstanding new investigators to begin their independent research careers, first within the special environment of the NCI and then at an institution of their choice. Specifically, this Program provides the necessary resources to initiate an independent research program of 3 to 4 years at the NCI, followed by an extramural funding mechanism (K22) to support their research program for 2 years at the extramural institution to which they are recruited.

K23 Mentored Patient-Oriented Research Career Development Award

To provide support for the career development of investigators who have made a commitment to focus their research endeavors on patient-oriented research. This mechanism provides support for a 3-year minimum up to a 5-year period of supervised study and research for clinically trained professionals who have the potential to develop into productive clinical investigators.

K23 Mentored Patient-Oriented Research Career Development Award for Underrepresented Minorities

To support the career development of investigators who have made a commitment to focus their research on patient-oriented research. This mechanism provides support for a period of supervised study and research for clinically trained professionals who have the potential to develop into productive clinical investigators in patient-oriented research.

K24 Mid-Career Investigator Award in Patient-Oriented Research

To provide support for clinicians to allow them protected time to devote to patient-oriented research and to act as mentors for beginning clinical investigators. The target candidates are outstanding clinical scientists engaged in patient-oriented research who are within 15 years of their specialty training, who can demonstrate the need for a period of intensive research focus as a means of enhancing their clinical research careers, and who are committed to mentoring the next generation of clinical investigators in patient-oriented research.

K25 Mentored Quantitative Research Career Development Award

This award allows an independent scientist in a highly technical field of research to identify an appropriate mentor with extensive experience in cancer research and to receive the necessary training and career development required to become involved in multidisciplinary cancer research.

K99/ R00

NIH Pathway to Independence (PI) Award

The Pathway to Independence Award, which is part of the NIH Roadmap Initiative but is known as the Howard Temin Award within the NCI, will provide up to 5 years of support consisting of two phases. The initial phase will provide 1 to 2 years of mentored support for highly promising postdoctoral research scientists. This phase will be followed by up to 3 years of independent support contingent on securing an independent research position. Award recipients will be expected to compete successfully for independent R01 support from the NIH during the career transition award period. The PI Award is limited to postdoctoral trainees within 5 years of completion of their training who propose research relevant to the mission of one or more of the participating NIH Institutes and Centers.

P Series: Research Program Projects and Centers

P01 | Research Program Projects

To support multidisciplinary or multifaceted research programs that have a focused theme. Each component project should be directly related to and contribute to the common theme.

P20 Exploratory Grants

To support planning for new programs, expansion or modification of existing resources, and feasibility studies to explore various approaches to the development of interdisciplinary programs that offer potential solutions to problems of special significance to the mission of the NIH. These exploratory studies may lead to specialized or comprehensive centers.

P30 | Center Core Grants

To support shared use of resources and facilities for categorical research by investigators from different disciplines who provide a multidisciplinary approach to a joint research effort, or by investigators from the same discipline who focus on a common research problem. The core grant is integrated with the Center's component projects or Program Projects, though funded independently from them. By providing more accessible resources, this support is expected to assure greater productivity than that provided through the separate projects and Program Projects.

P50 | Specialized Center Grants

To support any part of the full range of research and development from very basic to clinical; may involve ancillary supportive activities such as protracted patient care necessary to the primary research or R&D effort. This spectrum of activities comprises a multidisciplinary attack on a specific disease or biomedical problem area. These grants differ from Program Project grants in that they are usually developed in response to an announcement of the programmatic needs of an Institute or Division, and subsequently receive continuous attention from its staff. Centers also may serve as regional or national resources for special research purposes.

R Series: Research Projects

R01 Research Project

Grants are awarded to institutions to allow a Principal Investigator to pursue a scientific focus or objective in his or her area of interest and competence. Institutional sponsorship assures the NIH that the institution will provide facilities necessary to conduct the research and will be accountable for the grant funds. Applications are accepted for health-related research and development in all areas within the scope of the NIH's mission.

R03 Small Research Grants

Small grants provide research support, specifically limited in time and amount, for activities such as pilot projects, testing of new techniques, or feasibility studies of innovative, high-risk research, which would provide a basis for more extended research.

R13 Conferences

The NIH provides funding for conferences to coordinate, exchange, and disseminate information related to its program interests. Generally, such awards are limited to participation with other organizations in supporting conferences rather than provision of sole support. Costs eligible for support include salaries, consultant services, equipment rental, travel, supplies, conference services, and publications. Prospective applicants are encouraged to inquire in advance concerning possible interest on the part of an awarding Institute/Center (IC), and to obtain more information on application procedures and costs.

R15 The NIH Academic Research Enhancement Awards (AREA)

To enhance the research environment of educational institutions that have not been traditional recipients of NIH research funds, this award provides limited funds to those institutions' faculty members to develop new research projects or expand ongoing research activities in health sciences and to encourage students to participate in the research activity. As funds are anticipated to continue to be available each year, the NIH is now inviting applications for AREA grants through a standing, ongoing Program Announcement.

R21 Exploratory/Developmental Grants

To encourage the development of new research activities in categorical program areas. (Support generally is restricted in the level of support and duration.)

R24 | Resource-Related Research Projects

To support research projects that will enhance the capability of resources to serve biomedical research.

R25E | Cancer Education Grant Program (CEGP)

A flexible, curriculum-driven program aimed at developing and sustaining innovative educational approaches that ultimately will have an impact on reducing cancer incidence, mortality, and morbidity, as well as on improving the quality of life of cancer patients. The CEGP accepts investigator-initiated grant applications that pursue a wide spectrum of objectives ranging from short courses; to the development of new curricula in academic institutions; to national forums and seminar series; to hands-on workshop experiences for the continuing education of health care professionals, biomedical researchers, and the lay community; to structured short-term research experiences designed to motivate high school, college, medical, dental, and other health professional students to pursue careers in cancer research. Education grants can focus on education activities before, during, and after the completion of a doctoral-level degree, as long as they address a need that is not fulfilled adequately by any other grant mechanism available at the NIH, and are dedicated to areas of particular concern to the National Cancer Program.

R25T | Cancer Education and Career Development Program

To support the development and implementation of curriculum-dependent, team-oriented programs to train predoctoral and postdoctoral candidates in cancer research team settings that are highly interdisciplinary and collaborative. This specialized program is not only particularly applicable to the behavioral, prevention, control, nutrition, and population sciences but also should be considered by other areas of research (e.g., imaging, pathology) that will require sustained leadership, dedicated faculty time, specialized curriculum development and implementation, interdisciplinary research environments, and more than one mentor per program participant to achieve their education and research career development objectives.

R33 Exploratory/Developmental Grants, Phase II

To provide a second phase for support of innovative exploratory and developmental research activities initiated under the R21 mechanism. Although only R21 awardees are generally eligible to apply for R33 support, specific program initiatives may establish eligibility criteria under which applications could be accepted from applicants who demonstrate program competency equivalent to that expected under R33.

R37 | Method to Extend Research in Time (MERIT) Award

To provide long-term grant support to investigators whose research competence and productivity are distinctly superior and who are highly likely to continue to perform in an outstanding manner. Investigators may not apply for a MERIT Award. Program staff and/or members of the cognizant National Advisory Council/Board will identify candidates for the MERIT Award during the course of review of competing research grant applications prepared and submitted in accordance with regular Public Health Service (PHS) requirements.

Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Programs

The NIH welcomes grant applications from small businesses in any biomedical or behavioral research area as described in the solicitations below. Support under the SBIR program is normally provided for 6 months/\$100,000 for Phase I, and 2 years/\$500,000 for Phase II. However, applicants may propose longer periods of time and greater amounts of funds necessary for completion of the project.

R41	STTR Grants, Phase I To support cooperative research and development (R&D) projects between small business concerns and research institutions, limited in time and amount; to establish the technical merit and feasibility of ideas that have potential for commercialization.
R42	STTR Grants, Phase II To support in-depth development of cooperative R&D projects between small business concerns and research institutions, limited in time and amount, whose feasibility has been established in Phase I and that have potential for commercial products or services.
R43	SBIR Grants, Phase I To support projects, limited in time and amount, to establish the technical merit and feasibility of R&D ideas that may ultimately lead to commercial products or services.
R44	SBIR Grants, Phase II To support in-depth development of R&D ideas whose feasibility has been established in Phase I and that are likely to result in commercial products or services.
R55	James A. Shannon Director's Award To provide a limited award to investigators to further develop, test, and refine research techniques; perform secondary analysis of available data sets; test the feasibility of innovative and creative approaches; and conduct other discrete projects that can demonstrate their research capabilities and lend additional weight to their already meritorious applications.
R56	High-Priority, Short-Term Project Award Begun in FY2005, this grant provides funds for 1- or 2-year high-priority new or competing renewal R01 applications that fall just outside the limits of funding of the participating NIH Institutes and Centers (ICs); recipients of R56 awards will be selected by IC staff from R01 applications that fall at or near the payline margins.

S Series: Research-Related Programs SC1 Research Enhancement Award Individual investigator-initiated research projects aimed at developing researchers at minority-serving institutions (MSIs) to a stage where they can transition successfully to other extramural support (R01 or equivalent). SC2 **Pilot Research Project** Individual investigator-initiated pilot research projects for faculty at minority-serving institutions (MSIs) to generate preliminary data for a more ambitious research project. **S06** Minority Biomedical Research Support (MBRS) To strengthen the biomedical research and research training capability of ethnic minority institutions, and thus establish a more favorable milieu for increasing the involvement of minority faculty and students in biomedical research. **S07 Biomedical Research Support Grants (NCRR BRSG)** As an example of this funding mechanism, the NIH issued a Request for Applications (RFA) in FY2004 to provide short-term interim support for institutional activities that will strengthen oversight of human subjects research at institutions that receive significant NIH support for clinical research. Although there is considerable flexibility in the types of activities that could be supported under the Biomedical Research Support Grant (BRSG) Program, that RFA emphasized the importance of efforts to enhance the protection of research subjects by means that would be sustained by the recipient institution after the award period ends. Awardees also are required to collaborate with other institutions conducting human subjects research and are not currently funded under this Program, and to share educational resources, computer technologies, best practices, etc. Although all NIH components supporting clinical research (including the NCI) are providing support for this Program, it is administered by the National Center for Research Resources (NCRR). **S10** Biomedical Research Support Shared Instrumentation Grants (NCRR SIG) The National Center for Research Resources (NCRR) initiated its competitive Shared Instrumentation Grant (SIG) Program in FY1982. The SIG Program provides support for expensive state-of-the-art instruments utilized in both basic and clinical research. This Program is designed to meet the special problems of acquisition and updating of expensive shared-use instruments that are not generally available through other NIH funding mechanisms, such as the regular research project, program project, or center grant programs. Applications for funds to design or to advance the design of new instruments are not accepted. The objective of this Program is to make available to institutions with a high concentration of NIH-supported biomedical investigators expensive research instruments that can only be justified on a shared-use basis and for which meritorious research projects are described. S21 Research and Institutional Resources Health Disparities Endowment Grants—Capacity Building To strengthen the research and training infrastructure of the institution, while addressing current and emerging needs in minority health and other health disparities research.

T Series: Training Programs				
T15	Continuing Education Training Grants To assist professional schools and other public and nonprofit institutions in the establishment, expansion, or improvement of programs of continuing professional education, especially for programs of extensive continuation, extension, or refresher education dealing with new developments in the science and technology of the profession.			
T32	NIH National Research Service Award—Institutional Research Training Grants To enable institutions to make National Research Service Awards to individuals selected by them for predoctoral and postdoctoral research training in specified shortage areas.			
U Seri	es: Cooperative Agreements			
U01	Research Projects—Cooperative Agreements To support a discrete, specified, circumscribed project to be performed by the named investigators in an area representing their specific interests and competencies.			
U10	Cooperative Clinical Research—Cooperative Agreements To support clinical evaluation of various methods of therapy and/or prevention in specific disease areas. These represent cooperative programs between participating institutions and Principal Investigators, and are usually conducted under established protocols.			
U13	Conference—Cooperative Agreements To coordinate, exchange, and disseminate information related to its program interests, an NIH Institute or Center can use this type of award to provide funding and direction for appropriate scientific conferences. These cooperative agreements allow the NCI to partner with one or more outside organizations to support international, national, or regional meetings, conferences, and workshops that are of value in promoting the goals of the National Cancer Program.			
U19	Research Program—Cooperative Agreements To support a research program of multiple projects directed toward a specific major objective, basic theme, or program goal, requiring a broadly based, multidisciplinary, and often long-term approach.			
U24	Resource-Related Research Projects—Cooperative Agreements To support research projects contributing to improvement of the capability of resources to serve biomedical research.			

U54 | Specialized Center—Cooperative Agreements

To support any part of the full range of research and development from very basic to clinical; may involve ancillary supportive activities such as protracted patient care necessary to the primary research or R&D effort. The spectrum of activities comprises a multidisciplinary attack on a specific disease entity or biomedical problem area. These differ from program projects in that they are usually developed in response to an announcement of the programmatic needs of an Institute or Division and subsequently receive continual attention from its staff. Centers also may serve as regional or national resources for special research purposes, with assistance from staff of the funding component in identifying appropriate priority needs.

U56 Exploratory Grants—Cooperative Agreements

To support planning for new programs, expansion or modification of existing resources, and feasibility studies to explore various approaches to the development of interdisciplinary programs that offer potential solutions to problems of special significance to the mission of the NIH. These exploratory studies may lead to specialized or comprehensive centers. Substantial Federal programmatic staff involvement is intended to assist investigators during performance of the research activities, as defined in the terms and conditions of award.

Appendix F: Glossary of Acronyms

AA	Annual Assessment	CSR	Center for Scientific Review
ADAMHA	Alcohol, Drug Abuse, and Mental Health Administration	CSSI	Center for Strategic Scientific Initiatives
AHRQ	Agency for Healthcare Research and Quality	CTAC	Clinical Trials and Translational Research Advisory Committee
AIDS	Acquired Immune Deficiency Syndrome	CTDD	Cancer Target Discovery and Development
AISB	Applied Information Systems Branch	DCB	Division of Cancer Biology
ARA	Awaiting Receipt of Application	DCCPS	Division of Cancer Control and
AREA	Academic Research Enhancement Award	DCEG	Population Sciences Division of Cancer Epidemiology and
ATO	Authorization To Operate		Genetics
BRSG	Biomedical Research Support Grant	DCLG	Director's Consumer Liaison Group
BSA	Board of Scientific Advisors	DCP	Division of Cancer Prevention
BSC	Board of Scientific Counselors	DCTD	Division of Cancer Treatment and Diagnosis
C&A	Certification and Accreditation	DEA	Division of Extramural Activities
caBIG® CBIIT	Cancer Bioinformatics Grid NCI Center for Biomedical	DHHS	U.S. Department of Health and Human Services (now HHS)
	Informatics and Information Technology	DOC	Division/Office/Center
CCCT	Coordinating Center for Clinical	ELSI	Ethical Legal and Social Implications
	Trials	EPMC	Extramural Program Management Committee
CCR	Center for Cancer Research	eRA	Electronic Research Administration
CCSG	Cancer Center Support Grant	ESA	Extramural Support Assistant
CCSS	Childhood Cancer Survival Study	EUREKA	Exceptional, Unconventional
CCT CD	Center for Cancer Training Career Development	LOTILITY	Research Enabling Knowledge Acceleration
CDC	Centers for Disease Control and	FACA	Federal Advisory Committee Act
	Prevention	FDA	Food and Drug Administration
CEGP	Cancer Education Grant Program	FFRDC	Federally Funded Research and
CIDR	Center for Inherited Disease Research		Development Center
CIT	Center for Information Technology	FIC	Fogarty International Center
CMO	Committee Management Office	FIRCA-BSS	Fogarty International Research Collaboration—Behavioral and Social
CoC	Council of Councils		Sciences
CPTC	Clinical Proteomic Technologies for Cancer Initiative	FIRCA-BB	Fogarty International Research Collaboration—Basic Biomedical
CRCHD	Center to Reduce Cancer Health Disparities	FLARE	Fiscal Linked Analysis of Research Emphasis
CRECD	Clinical Research Education and Career Development	FOA	Funding Opportunity Announcements
CSO	Common Scientific Outline	FOIA	Freedom of Information Act

FY	Fiscal Year	NK	Natural Killer (cells)
GSS	General Support System	NRSA	National Research Service Award
HHS	Department of Health and Human	OBF	Office of Budget and Finance
	Services (replaces DHHS)	OBSSR	Office of Behavioral and Social
IC	Institute/Center		Sciences Research
ICMIC	<i>In Vivo</i> Cellular and Molecular Imaging Center	OCAM	Office of Complementary and Alternative Medicine
ICRP	International Cancer Research	OCC	Office of Cancer Centers
ID a A	Portfolio	OD	Office of the Director
IDeA	Institutional Development Award	OEA	Office of Extramural Applications
IMPAC	Information for Management, Planning, Analysis, and Coordination	OEFIA	Office of Extramural Finance and Information Analysis
IOM	Institute of Medicine	OER	Office of Extramural Research
IRG	Initial Review Group	OEWG	Operational Efficiency Working Group
IRM IT	Information Resources Management Information Technology	OFACP	Office of Federal Advisory Committee Policy
LOI	Letters of Intent	OHAM	Office of HIV and AIDS
LRP	Loan Repayment Program		Malignancies
MBRS	Minority Biomedical Research Support	OPERA	Office of Policy for Extramural Research Administration
MDR	Multidrug Resistance	ORRPC	Office of Referral, Review, and
MERIT	Method to Extend Research in Time	00114	Program Coordination
MSI	Minority-Serving Institution	OSHA	Occupational Safety and Health Administration
NCAB	National Cancer Advisory Board	PA	Program Announcement
NCCAM	National Center for Complementary	PAR	Reviewed Program Announcement
	and Alternative Medicine	PCP	President's Cancer Panel
NCI	National Cancer Institute	PCRB	Program Coordination and Referral
NCRR	National Center for Research Resources	PEPFAR	Branch President's Emergency Plan for AIDS
NCTN	National Clinical Trials Network	1 =11701	Relief
NDPA	NIH Director Pioneer Award	PHS	Public Health Service (HHS)
NFAC	NCI Frederick Advisory Committee	PI	Principal Investigator
NFRP	NCI Funded Research Portfolio	PIV	Personal Identity Verification
NIAID	National Institute of Allergy and Infectious Diseases	PIN	Personal Identification Number
NIDID		POA&M	Plan of Actions and Milestones
NIBIB	National Institute of Biomedical Imaging and Bioengineering	PRESTO	Program Review and Extramural Staff Training Office
NICHD	Eunice Kennedy Shriver National Institute of Child Health and Human Development	PROSPR	Population-Based Research Optimizing Screening through Personalized Regimens
NIDDK	National Institute of Diabetes and Digestive and Kidney Diseases	PRS	Peer Review Scoring
NIEHS	National Institute of Environmental Health Sciences	RAEB	Research Analysis and Evaluation Branch
NIH	National Institutes of Health	R&D	Research and Development

Appendix F: Glossary of Acronyms

RePORT	Research Portfolio Online Reporting Tools	SIG	Shared Instrumentation Grant; also Special Interest Group
RFA	Request for Applications	SITE	Organ Site Codes
RFP	Request for Proposals	SPECS	Strategic Partnering to Evaluate
RIO	Research Integrity Officer		Cancer Signatures
RM	Road Map	SPL	Scientific Program Leadership
RO	Referral Officer	SPORE	Specialized Program of Research Excellence
RPRB	Research Programs Review Branch	SPRS	Secure Payee Reimbursement System
RTRB	Resources and Training Review Branch	SREA	Scientific Review and Evaluation Activities
RUG	Review Users Group	SRLB	Special Review and Logistics Branch
SACGHS	Secretary's Advisory Committee on Genetics, Health, and Society	SRO	Scientific Review Officer (formerly Scientific Review Administrator)
SBIR	Small Business Innovation Research	SSL	Secure Sockets Layer
SBIRDC	SBIR Development Center		•
SEER	Surveillance, Epidemiology, and End Results	STTR	Small Business Technology Transfer Research
CED		T&E	Training and Education
SEP SGE	Special Emphasis Panel Special Government Employee	TEAG	Trans-NCI Extramural Awareness Group
SIC	Special Interest Category	TMEN	Tumor Microenvironment Network



Appendix G: Cancer Information Sources on the Internet

NCI Website

The National Cancer Institute maintains a number of websites containing information about the Institute and its programs. All NCI websites, including those designed to provide cancer-related information to the general public and physicians, can be reached from the NCI home page at http://www.cancer.gov/.

DEA Websites

The following websites are maintained by the DEA to provide detailed information to researchers and the public about NCI funding opportunities and the Advisory Boards and groups supported by the DEA.

http://deainfo.nci.nih.gov/index.htm

DEA home page links to the individual DEA Web pages listed below; mission of the Division; and contact information for DEA staff.

Advisory Boards and Groups

http://deainfo.nci.nih.gov/advisory/boards.htm Links to the home page of each NCI Advisory Board, Committee, etc.

http://deainfo.nci.nih.gov/advisory/pcp/pcp.htm President's Cancer Panel Charter; meeting agendas, meeting minutes, and annual reports.

http://deainfo.nci.nih.gov/advisory/ncab/ncab.htm National Cancer Advisory Board (NCAB) Charter; members of subcommittees, meeting agendas.

http://deainfo.nci.nih.gov/advisory/ncab/ncabmeetings.htm

NCAB meeting summaries.

http://deainfo.nci.nih.gov/advisory/bsa/bsa.htm Board of Scientific Advisors (BSA) Charter; members of subcommittees, meeting agendas.

http://deainfo.nci.nih.gov/advisory/bsa/bsameetings.htm

BSA meeting summaries.

http://deainfo.nci.nih.gov/advisory/fac/fac.htm NCI Frederick Advisory Committee Charter;

minutes, members, and meeting agendas.

http://deainfo.nci.nih.gov/advisory/bsc/bs/bs.htm

Board of Scientific Counselors Charter; members of subcommittees.

http://deainfo.nci.nih.gov/advisory/ctac/ctac.htm

Clinical Trials and Translational Research Advisory Committee Charter; members, minutes, and agendas.

http://deainfo.nci.nih.gov/advisory/dclg/dclg.htm

NCI Director's Consumer Liaison Group Charter; meeting schedules, agendas, minutes, and meeting summaries.

http://deainfo.nci.nih.gov/advisory/bsa/bsa_program/pogprogramfo.pdf

Program Review Groups reports.

http://deainfo.nci.nih.gov/advisory/irg/irg.htm

Initial Review Group Charter; subcommittee members.

http://deainfo.nci.nih.gov/advisory/sep/sep.htm

Special Emphasis Panel Charter; rosters of recent meetings.

Extramural Funding Opportunities/Policies

http://deainfo.nci.nih.gov/funding.htm

Comprehensive information about extramural funding for cancer research; lists of active PAs and RFAs; recently cleared concepts; grant policies and guidelines; and downloadable application forms.

http://deais.nci.nih.gov/Public/RFA-PA.jsp?nt=P

Active PAs, with links to detailed descriptions.

http://deais.nci.nih.gov/Public/RFA-PA.jsp

Active RFAs, with links to detailed descriptions.

http://deainfo.nci.nih.gov/grantspolicies/index.htm

Links to full-text NCI and NIH policies related to grants and grant review (e.g., Guidelines on the Inclusion of Women and Minorities as Subjects in Clinical Research and Instructions to Reviewers for Evaluating Research Involving Human Subjects in Grant and Cooperative Agreement Applications).

http://deainfo.nci.nih.gov/flash/awards.htm

Grant Guidelines and Descriptions (descriptions of NCI funding mechanisms, with links to PAs, RFAs, guidelines, and supplemental materials).

http://fundedresearch.cancer.gov

NCI Funded Research Portfolio—A searchable database for information about research grant and contract awards made by the NCI. It includes awards for the current and past 5 fiscal years for both intramural and extramural projects. The website provides the ability to search the database in various ways, including a text search of the project abstract, and a search of the Special Interest Category (SIC), and anatomic site codes assigned to the project.

http://grants.nih.gov/grants/new_investigators/index.htm

New and Early Stage Investigator Policies.

http://www.cancer.gov/researchandfunding/training

The Center for Cancer Training (CCT).

http://report.nih.gov/index.aspx

Research Portfolio Online Reporting Tools (RePORT): reports, data, and analyses of NIH research activities.

Other NIH Websites

http://www.nih.gov

http://grants.nih.gov/grants/ElectronicReceipt/http://grants.nih.gov/grants/policy/policy.htmhttp://grants.nih.gov/grants/guide/index.htmlhttp://grants.nih.gov/training/extramural.htm

An electronic version of this document can be viewed and downloaded from the Internet at http://deainfo.nci.nih.gov/



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