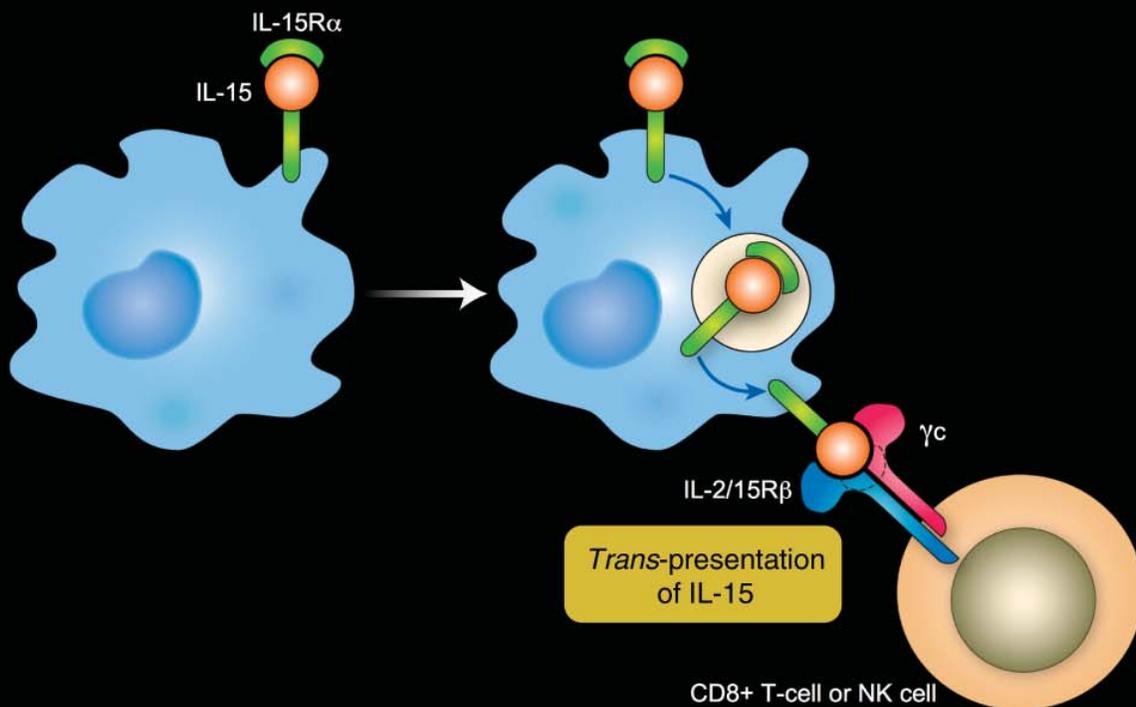


IL-15 structure



Interleukin-15 in the Life and Death of Lymphocytes: A Target for Cancer Therapy and Vaccine Design

Insights gained in fundamental research have led to the development of immunological approaches for the prevention of infectious diseases and neoplasia, and for the treatment of patients with malignancy. Cytokines, including interleukin-2 (IL-2) and interleukin-15 (IL-15), play pivotal roles in controlling the proliferation and differentiation of the diverse cells of the immune system. IL-15 is a 14-15 kDa cytokine of the 4-alpha helix bundle family of cytokines (cover image). Interleukin-15 interacts with a heterotrimeric receptor that includes the private IL-15R alpha subunit, the IL-2/IL-15R beta subunit shared with IL-2, and the common gamma chain (γ c) shared with IL-2 and other cytokines. Because of this sharing of cytokine receptors, IL-2 and IL-15 share roles in the maintenance and activation of natural killer (NK) and CD8⁺ regulatory T-cells. However, they also have contrasting roles in adaptive immune responses. The unique role of IL-2 is in the elimination of self-reactive T cells to prevent autoimmunity. IL-15 in contrast prolongs the survival of memory CD8⁺ T-cell responses to invading pathogens. IL-2 is a secreted cytokine that acts on its heterotrimeric receptor expressed on activated T cells. In contrast, IL-15 functions as a membrane-bound cytokine that acts in the context of cell-cell contact at an immunological synapse. Monocytes or dendritic cells activated with interferons, Toll-like receptors, or through ligation of CD40⁺ induce the coordinate expression of IL-15 and IL-15R alpha. The IL-15, linked to IL-15R alpha receptors expressed by monocyte or dendritic cells, recycles through endosomal vesicles leading to the persistence of membrane-bound IL-15R alpha and its associated IL-15 on the activated monocyte. IL-15R alpha presents IL-15 *in trans* to target NK and CD8⁺ memory T cells (cover image).

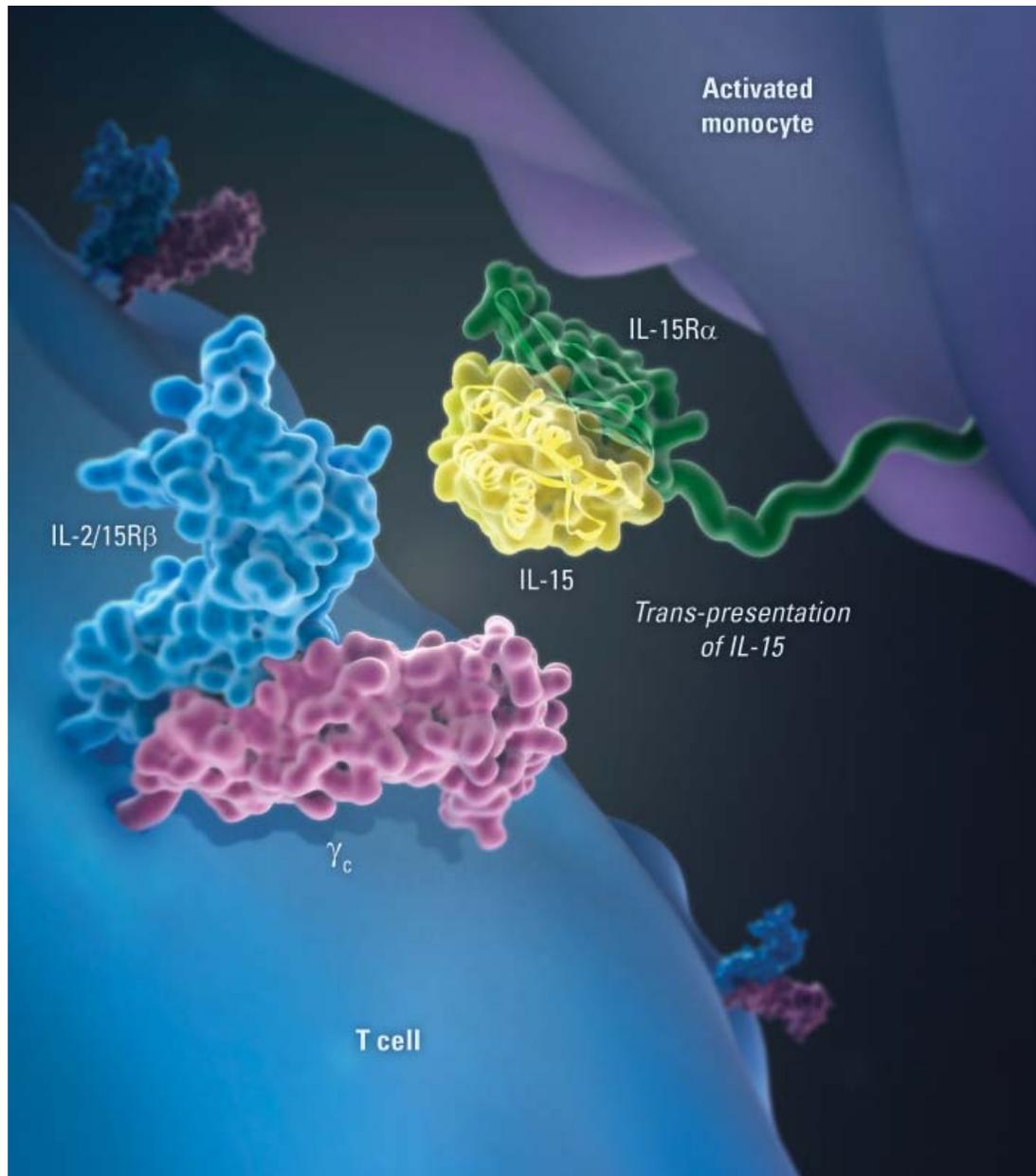
IL-2 has been approved for use by the U.S. Food and Drug Administration in the treatment of patients with metastatic renal cell cancer or metastatic malignant melanoma. However, IL-2 is not optimal because its administration is associated with the capillary leak syndrome, and its action is limited by its role in activation-induced cell death (AICD) and in the maintenance and fitness of CD4⁺, CD25⁺ regulatory T cells that are negative checkpoints on the immune system. IL-15 is not involved in these checkpoints but rather in the generation and maintenance of NK, NK T cells, and memory CD8⁺ T cells. In light of these functional differences between the two cytokines in the life and death of lymphocytes, IL-15 may be superior to IL-2 in the therapy of cancer and as a component of molecular vaccines. In particular, IL-15 prolonged the survival of mice bearing syngeneic tumors in four models.

In light of the valuable immunological actions of IL-15 and its efficacy in preclinical models of neoplasia, the Waldmann Laboratory and the Biopharmaceutical Development Program (BDP) of the NCI, NIH, collaborated in the production of recombinant human IL-15. A phase I study of intravenous recombinant human IL-15 is being initiated for use in adults with refractory metastatic malignant melanoma and metastatic renal cell cancer, malignancies where IL-2 has been shown to be of value.

Cover Images: The structure of IL-15; A model of IL-15 receptor alpha chain (IL-15R α) presentation of IL-15 *in trans* to neighboring NK and CD8⁺ T cells.

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A model of interaction of interleukin-15 with the subunits of its receptors. In contrast to other cytokines, IL-15 is not a secreted molecule but is a membrane-associated cytokine that acts as part of an immunological synapse. IL-15R α on the surface of monocytes or dendritic cells presents IL-15 *in trans* to target T cells that express IL-2/15R β and γ_c alone, thereby allowing signaling through these complexes.

Images and narrative are courtesy of Thomas A. Waldmann, M.D., Metabolism Branch, Center for Cancer Research, National Cancer Institute, NIH.

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Foreword

Everything we do at the National Cancer Institute (NCI) begins and ends with our focus on the cancer patient. That singular focus encompasses all of our work in basic, translational, and clinical science from finding better treatments for cancer, reaching out to deliver those treatments to people where they live, to enhancing our efforts in cancer prevention. The NCI is dedicated to the understanding, diagnosis, treatment, and prevention of cancer for all people.

The backbone of America's cancer research enterprise is the peer review process. The Division of Extramural Activities (DEA) is the NCI's Division responsible for managing our peer review activities. The DEA is crucial to ensuring excellence in the review process, by providing the highest quality and most effective scientific peer review of applications and oversight of NCI extramural research. Without question, peer review is the first vital step that enables the NCI to invest in the outstanding scientists who devote their careers to the study of cancer.

In addition to conducting peer review, the DEA plays a critical role in all aspects of the grant funding process, from assisting in the development of Funding Opportunity Announcements, receipt and referral of applications, administering advisory board activities for concept approval and second-level review, to coding and tracking of research after awards are made.



This investment, based on rigorous peer review standards, powers and empowers the engine of cancer research. Our Nation's investment is paying dividends in the number of lives saved, in the greater quality of life for cancer patients, and in cancers prevented.

I congratulate the many dedicated staff of the DEA who contributed to the activities described in this annual report and offer my gratitude for the important role that they play in coordination of the NCI extramural research enterprise.

John E. Niederhuber, M.D.
Director
National Cancer Institute

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 the systematic surveillance of that research after funding. The Division solicits advice from individuals or committees of experts on the technical and scientific merit of grants, cooperative agreements, and contracts. The peer review process is 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 the: (1) National Cancer Advisory Board (NCAB), whose members are appointed by the President and whose responsibilities include conducting the second-level review of grants and cooperative agreements as well as advising the Director, NCI, on policy for the conduct of the National Cancer Program; and (2) the Board of Scientific Advisors (BSA) in its oversight of the extramural program and the approval of NCI-initiated scientific concepts.

As a Division, we: evaluate the content of all ex-tramural research funded by the NCI and annually track the NCI research portfolio of more than 7,000 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

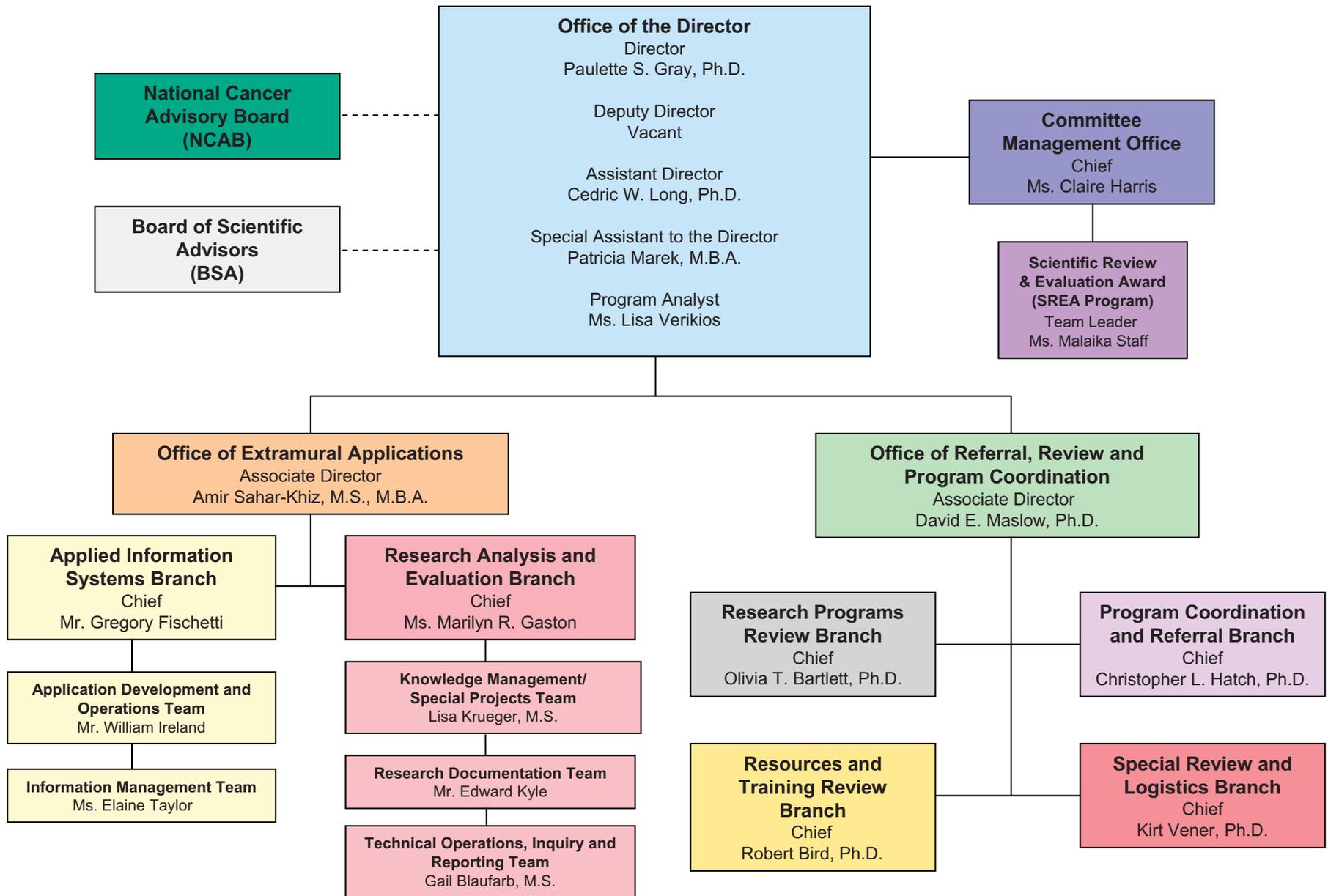
dissemination of the NCI's research portfolio. The DEA monitors budgetary limitations for grant applications; participates in establishing policies to expedite funding; and initiates and implements changes to applications, guidelines, and award processes. The Division also: coordinates, for NCI, the 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 (AERIO) 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 and information presented cover Fiscal Year (FY) 2008 (1 October 2007–30 September 2008) 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 1,600 researchers, clinicians and advocates who have given unselfishly of their time in FY2008 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 NCI and the scientific community with expert scientific review of the merits of extramural research, procedures, and policies to help the Institute achieve its goal. An important part of DEA's mission is to manage and coordinate the second level of grants review with 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 serves as an NIH service center for the National Center for Complementary and Alternative Medicine and a DHHS chartered advisory committee. The CMO provides policy guidance and assistance to ensure that the NCI and client Institutes 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 applications and contract proposals. The **Office of Referral, Review, and Program Coordination** (ORRPC) with four branches was established for: (1) development and issuance of NCI program initiatives; (2) coordination of grant referral; and (3) the management of NCI review activities. Review activities include the organization and management of peer review for all RFAs, research and development RFPs, and Program Announcements with Special Receipt (PARs). The program coordination responsibilities of

the DEA, in cooperation with NCI extramural program divisions and offices, extend to the development of all new extramural program guidelines and funding opportunities.

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 all the way 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 elevating the DEA Funded Research Portfolio Web Site to become the NCI Funded Research Portfolio (NFRP) Web Site (<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, the Institutional Development Awards (IDeAs), and the Research Enhancement Awards Program (REAP).

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 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 FY2008, 43 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 award decisions 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 OD works 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. Thus, 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 FY2008, two cases of alleged research misconduct involving NCI funding were opened and under investigation by the Office of Research Integrity, DHHS, and referred to the Director, DEA. Six pending cases from previous years were closed, and four of the cases were found to involve research misconduct.* Other cases from FY2008 and prior years are open, pending resolution.

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

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 (FOAs), which comprise both Requests for Applications (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 FOAs. PCRB staff members disseminate various operating policies and procedures pertaining to extramural funding programs. To maintain consistency and completeness, under PCRB coordination, all new and reissued NCI FOAs, Notices, and various associated guidelines are reviewed, adjusted/edited as needed, and cleared through the DEA before being forwarded to the 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. Thus, 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 NCI-issued RFAs in FY2008, and **Table 2** lists RFAs issued by other NIH institutes or centers that the NCI has joined as a participating partner. **Tables 3a** and **3b** show the variety of PAs issued by the NCI in FY2008, and **Table 4** lists PAs issued by other NIH institutes or centers that the NCI has joined as a participating partner.

In early 2006, the NIH began the process of transitioning to the electronic (instead of paper-

based) submission of grant applications through Grants.gov (<http://www.grants.gov>), which is the online grant application submission portal of the Federal Government. The DEA has played a lead role in helping the NCI and its customers transition to the electronic submission of all types of grant applications. PCRB staff members have been heavily involved in conversions and reissuances of NCI FOAs so that the applications would be submitted electronically to the NIH through use of the SF424 application package and Grants.gov. Greater than 80 percent of NIH grant applications are now submitted electronically in this way. As a representative on the NIH SF424 Application eSubmission IC Liaisons Group, the Chief of PCRB provides relevant information and timely updates to all NCI extramural staff members on activities and results related to the transition from paper to electronic grant applications, and also served as a direct source of guidance on this topic for individual program directors and their applicants. The Referral Officers (ROs) have transitioned from paper-based to electronic referrals of applications as each grant mechanism has transitioned from the former to the latter mode of submission. The ROs and Branch Chief collaborated with NCI information technology staff members and their contractors to successfully develop and deploy an improved Awaiting Receipt of Application (ARA) management system (permission for special application receipts) and a new electronic management system for Assignment Change Requests (for handling application changes and transfer requests between the NCI and other NIH institutes and centers), both of which contribute to an improved efficiency of service for the NCI's grant applicants and awardees. In addition to PCRB's referral responsibilities, Scientific Review Officer (SRO) staff in the branch also managed the review of 376 student loan program contract proposals in FY2008.

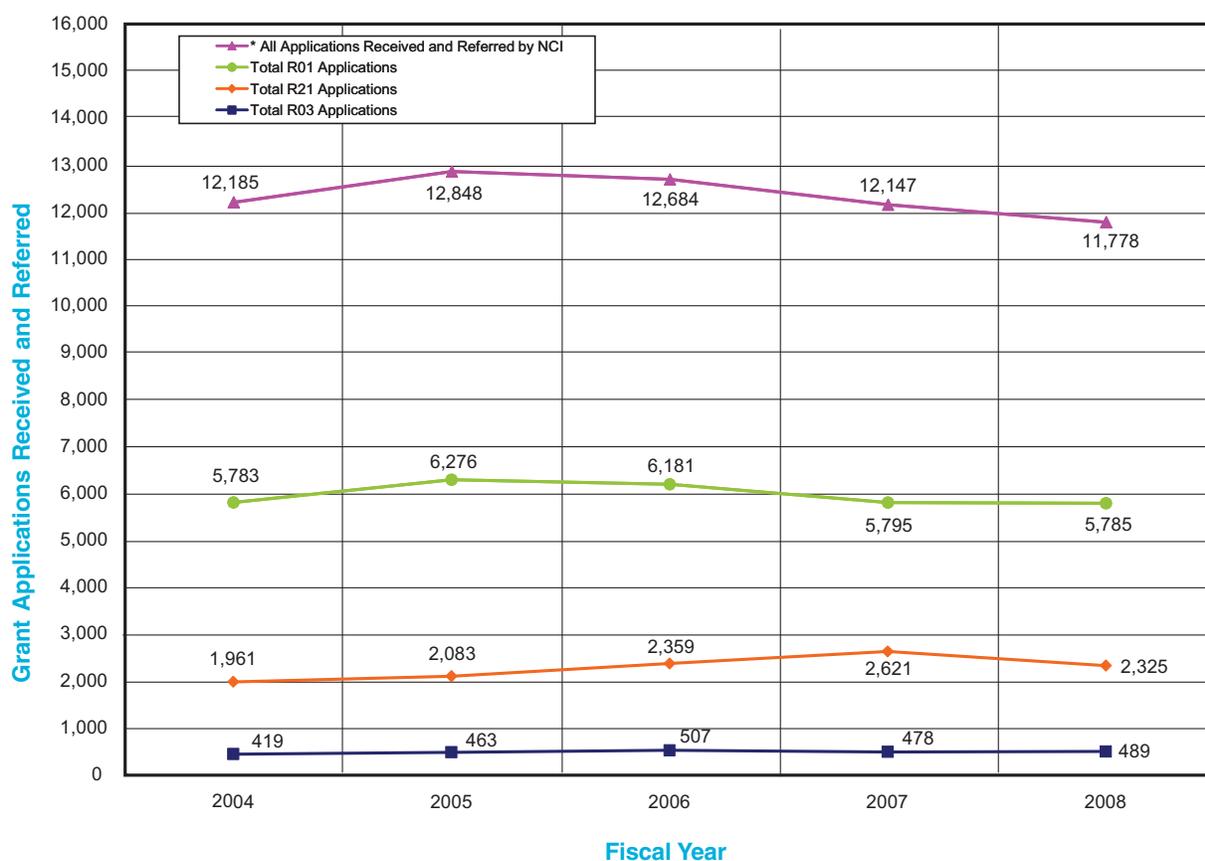
Grant Referral: A First Point of Contact for NCI Grant Applicants and Applications

In FY2008, the NCI received 11,778 grant applications for referral (see [Table 5](#)). These included applications for 50 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), Phased Innovation Project (R21/R33), Small Business Technology Transfer (STTR) Grant (R41/R42), Small Business Innovation Research (SBIR) Grant (R43/R44), and

U-series (Cooperative Agreements) mechanisms. Since 2004, there has been a decrease in all applications of 3.3 percent, while increases in R01, R21, and R03 applications have been 0.03 percent, 18.5 percent, and 16.7 percent, respectively (see [Figure 1](#)).

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. Within the NCI, DEA's [Program Coordination and Referral Branch](#) is responsible for receipt, referral, and assignment of applications, as well as for program

**Figure 1. Receipt and Referral of NCI Applications*
FY 2004 - 2008**



*Includes NCI Primary and Secondary applications received and referred.

(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), DEA PCRB 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 institutes and centers (and even other DHHS research funding agencies, such as the Agency for Healthcare Research and Quality [AHRQ] and the Centers for Disease Control and Prevention [CDC]).

The PCRB distributes all of the applications that are to be directly reviewed by peer review groups. These applications include those for P01 Program Projects, P30 Cancer Centers, P20 Planning Grants, P50 Specialized Centers, R13 Conference Grants, R03 Small Grants, certain R21/R33 Phased Innovation Grants, T32 and R25 Training Grants, K-series Career Development Grants, certain R01 Research Project Grants, and U-series Cooperative Agreement applications.

The PCRB is often the first point of contact for applicants. It is the receipt point for the recipient of Letters of Intent (LOIs) from potential applicants for multiproject Program Grants (P01) and

Conference Grants (R13). Also, it is the information and coordinating center for the submission of applications for the Academic Research Enhancement Award (AREA, R15) grants for research at institutions and organizations that have little or no current NIH grant award support; applicants contact PCRB 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 funding opportunity announcements to which they are being submitted.

The ROs serve as primary NCI contact persons for members of the extramural scientific community in need of information on a broad range of subjects, including application information (e.g., opportunities, mechanisms, policies, processes, procedures), new initiatives announced as RFAs or PAs (i.e., FOAs), and the review process. In addition, the ROs assist members of the extramural community in navigating NIH and NCI Web pages to obtain current information, forms, and guidelines.

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 grant applications and contract proposals for research. 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 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 of review of grant applications assigned to the NCI is performed by either an NIH 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 of research grant and cooperative agreement applications. The second level of review 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 investigator-initiated Research Project (R01) grants and fellowships. It is less widely known, however, that grant applications representing 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 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 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 six active NCI IRG specialized review subcommittees; for example, Subcommittee A reviews Cancer Centers, Subcommittee H reviews Clinical Cooperative Groups, and Subcommittee I reviews career development applications. (The membership of NCI chartered subcommittees may be found in [Appendix C \(pp. 84-105\)](#) and at the following Internet address: <http://deainfo.nci.nih.gov/advisory/irg.htm>.) IRG members are appointed for varying terms of service, which may be up to 4 years. DEA SEPs may be formed to review grant applications received in response to RFAs or Program Announcements with Special Receipt (PARs), other specialized applications, or R&D contract proposals received in response to an RFP. Members of such panels are selected on a one-time, as-needed basis to review specific grant applications, cooperative agreement applications, or contract proposals. Additional information about NCI SEPs can be accessed at the Internet address <http://deainfo.nci.nih.gov/advisory/sep.htm>.

Both the SEPs and the 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 Scientific Review Officers (SRO) manage the scientific review of applications and 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 a February, June, and September NCAB meeting, respectively.

Enhancing Peer Review

In June 2007, the NIH initiated an effort to formally review the NIH extramural funding system to address the many challenges that the increasing breadth, complexity, and interdisciplinary nature of modern research has created. NCI staff and grantees participated in NIH external and internal working groups identifying the challenges and making recommendations regarding enhancements to the review system. A final report with recommendations was released in March 2008, and the NIH Peer Review Oversight Committee (PROC) reviewed and initiated implementation of some of the recommendations.

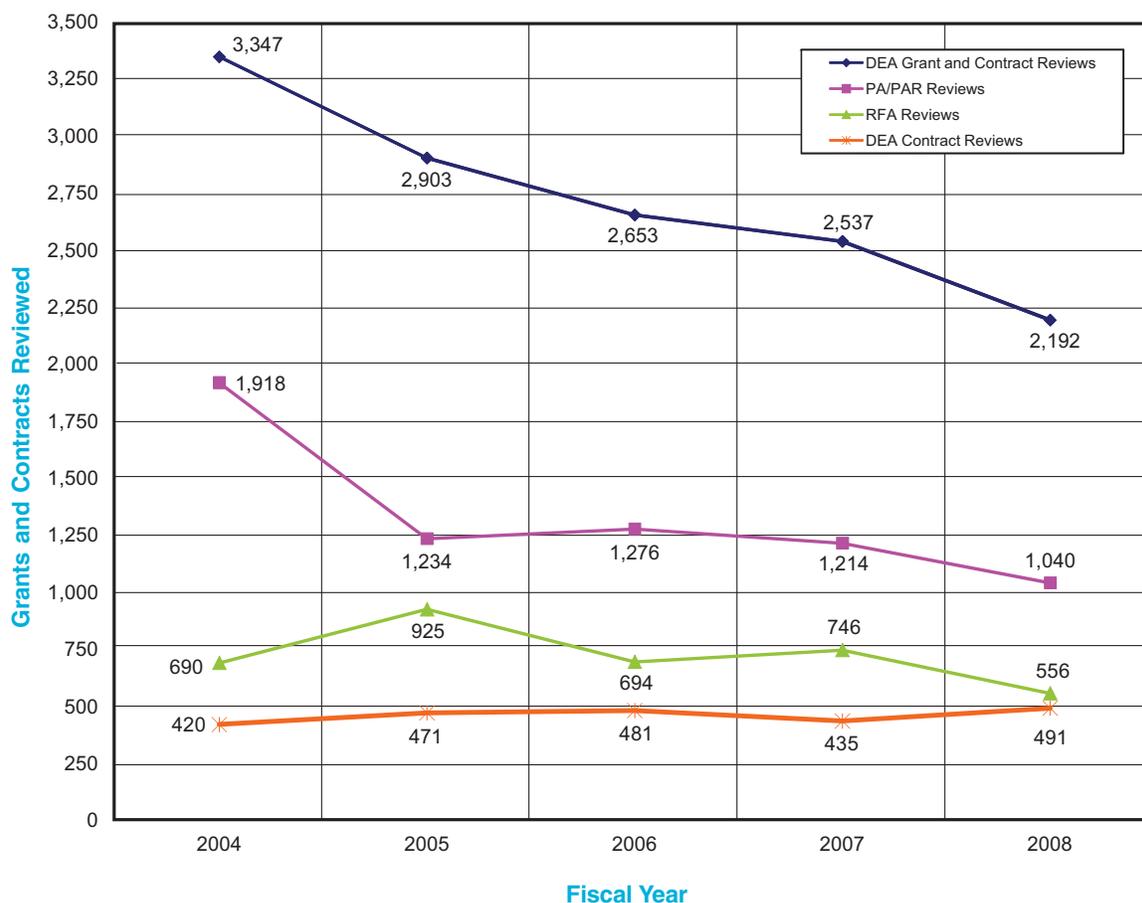
The final set of recommendations addressed the following priority areas: (1) engage the best reviewers; (2) improve the quality and transparency of review; (3) ensure balanced and fair reviews across scientific fields and career stages, and reduce administrative burden; and (4) provide continuous review of the peer review process. To engage the best reviewers, additional flexibility has been provided to reviewers regarding their tour of duty and submission dates for their own applications. In addition, NCI and CSR have conducted pilots using “virtual” Internet reviews as an alternative to in-person review meetings. To improve the quality and transparency of review, criteria-based scoring will begin in May 2009. Both the criterion scores and the overall priority/impact scores will be made using a nine-point rating scale. Reviewer critiques will be done using standard templates that emphasize identification of strengths and weaknesses. Streamlined applications will receive scores on each criterion, in addition to reviewer critiques, to help applicants assess whether to resubmit.

Plans for 2010 include shorter R01 applications restructured to align with review criteria. To ensure balanced and fair reviews, the NIH now allows only one resubmission (amendment) to enhance initial success rates and decrease administrative burden. Early Stage Investigators self identify in the eCommons, and their applications are clustered together for review in CSR review meetings. Finally, the NIH has constituted a new evaluation group to evaluate pilots and new policies to ensure that the NIH continues to provide high-quality peer review.

Review Workload

In FY2008, the DEA organized, managed, and reported the review of a total of 1,701 grant and cooperative agreement applications assigned to the NCI (see [Table 6](#)) and 491 contract proposals (see [Table 12](#)). There were 355 fewer grant applications and contract proposals (combined) reviewed in FY2008 compared with FY2007 (see [Figure 2](#)). [Table 7](#) provides a summary of the applications reviewed by NCI IRG subcommittees and Special Emphasis Panels (SEPs). Nineteen meetings of the NCI IRG subcommittees and 84 SEPs were convened to review and evaluate grant applications and contract proposals of various types. In addition, there were 17 site visits and 56 other review associated meetings, such as teleconferences, applicant interviews, and fact-finding review panel workgroups. Approximately 1,634 peer reviewers and expert consultants served on the parent IRG subcommittees, SEPs, and workgroups in FY2008 (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.

Figure 2. DEA Review Workload*
FY 2004 - 2008



*Withdrawn applications are not included.

Peer Review Functions

The **Office of Referral, Review, and Program Coordination** (ORRPC) is responsible for the coordination and management of the review of grants, cooperative agreements, and contracts for the Institute, and it oversees three review branches and a referral branch. The review branches are responsible for organizing, managing, and reporting the scientific peer review of applications for a wide variety of grant mechanisms and topics. Reviews are conducted by one of the six 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 multiproject and career development grant applications (see [Table 6](#)). The RPRB has primary responsibility for review of unsolicited applications for program project grants (P01s) and for Specialized Programs of Research Excellence (SPOREs, P50s) in various organ sites. These applications are all reviewed by SEPs; the three subcommittees (Subcommittees C, D, and E) of the NCI IRG that previously were responsible for final scoring of program project grant applications have not met because of the ongoing pilot of single-tier review of P01 applications (explained in more detail below). The RTRB manages the six active subcommittees of the NCI IRG (see [Appendix C](#)). Specifically, the RTRB has primary responsibility for review

of applications for cancer centers, cancer training and career development, and cancer clinical trials, as well as for managing the corresponding six 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 specific RFAs and PARs, and R&D contract proposals submitted in response to Requests for Proposals (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 (R13) grants.

SROs in these review units prepare the summary statements of the evaluations and recommendations for each review committee meeting and distribute these reports to program officials, the NIH data management system, and NCI's Records Management Center. Each principal investigator for an application also receives the summary statement as do the NCAB members for second-level review.

Many of the reviews conducted by the RTRB, including the Cancer Center Support Grants (P30) and Cooperative Clinical Trials Grants (U10), involve a two-tier review process. Normally, the first tier of the review involves either a site visit to the applicant's institution, an applicant interview in the Washington, DC, area, or a teleconference 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. Two of the six active NCI subcommittees of the NCI IRG serve as the "parent committees" for final scoring of applications after expert panel reviews: Subcommittee A is the "parent committee" for Cancer Center Support Grant (P30)

applications and Subcommittee H is the "parent committee" for review of Cooperative Clinical Trials (primarily U10) 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

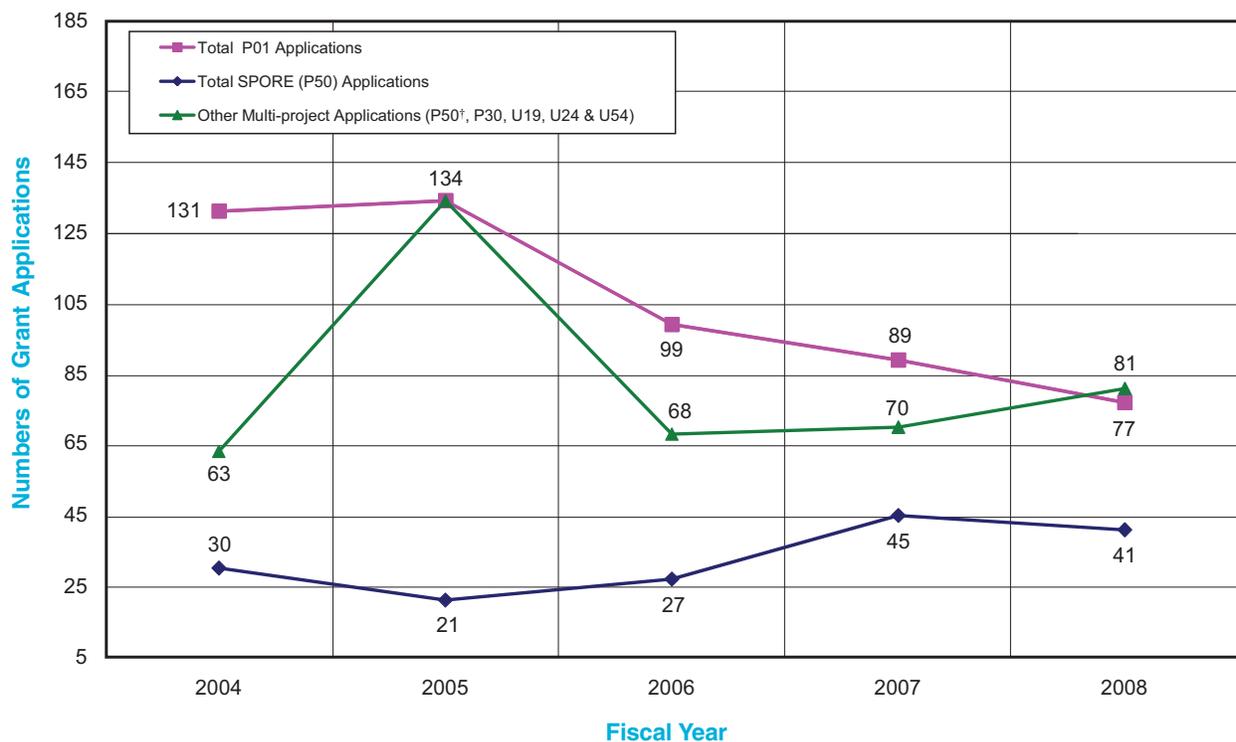
Program Project Applications (P01)

A significant proportion of the effort of the RPRB during FY2008 was associated with the review of unsolicited P01 applications. The SROs in the RPRB organized and managed the review of 77 new, recompeting, amended, and supplemental P01 applications (see [Table 8](#)), a lower P01 workload than the NCI has seen in any of the past 4 years, as shown in [Figure 3](#). Approximately 48 percent of the applications were amended. The 77 applications requested more than \$171 million in total costs for the first year (see [Table 9](#)).

During 2008, the RPRB continued the pilot that was begun in 2006 of review of P01 applications in groups of up to 10 applications by a one-tier, "paper only" review process. All review panels are constituted as SEPs, with reviewers recruited based on the expertise needed for the applications being reviewed. The SEP reviewers evaluate and score projects, cores, and integration, then they assign the overall priority score to each application. The applications are grouped based on science, typically in four to six SEPs, addressing: Molecular Biology; Cellular and Tissue Biology; Prevention, Epidemiology, and Control; Discovery and Development; and Clinical Studies.

A formal evaluation of the P01 review process was undertaken in the spring of 2008. The evaluation included analysis of P01 review outcomes, numbers of reviewers required for P01 review, reviewer feedback about this new P01 review, and review costs for 10 fiscal years (1998 – 2008). The analysis clearly showed that the new review format made very efficient use of reviewers, reviewers' time and effort, and NCI review

**Figure 3. P01, SPORE, and Other Multi-Project Research Applications Reviewed*
FY 2004 - 2008**



*Withdrawn applications are not included.

†Non-SPORE applications.

and program staff effort without compromising the quality of the review. Based on this evaluation, the NCI Executive Committee concurred with continuation of the SEP review process for P01s.

Specialized Centers of Research Excellence (P50)

During 2008, the RPRB also had responsibility for the peer review of applications received for the NCI Special Programs of Research Excellence (SPORE). These large, complex multidisciplinary P50 research center applications focus on translational research directly applicable to human disease in various organ sites. During 2008, the RPRB organized and managed six SEPs for the review of a total of 41 SPORE applications, continuing the high SPORE review workload seen during 2007 (see [Figure 3](#)). These 41 applications addressed all organ sites, with the following

distribution of applications: Brain (2); Breast (3); GI (4); GU (1); Gyn (4); HN (3); Leukemia (1); Lymphoma (4); Lung (9); Myeloma (1); Pancreas (2); Prostate (5); Ovarian (1); and Skin (1). Overall, 16 (39%) of the 41 applications were for new SPOREs, and 25 (61%) of the 41 applications were renewal applications. The applications requested a total of more than \$72 million in direct costs for the first year of support.

Also following the trend seen in 2007, the SPORE review workload for each review round continues to be very diverse. Fifteen applications addressing nine organ sites were reviewed for the February 2008 NCAB meeting, Seventeen applications addressing 10 organ sites were reviewed for the June 2008 NCAB meeting, and nine applications addressing four organ sites were reviewed for the September 2008 NCAB meeting.

The increase in the number of applications, the number of organ sites, and the number of amended applications results in increased complexity for the RPRB Scientific Review Officers (SROs) who manage the SPORE reviews. Due to the complexity of the review, the special review criteria and the large number of reviewers required for the diverse research proposed, the SROs who organize the SPORE reviews routinely conduct orientation conference calls with all of the reviewers before the applications are sent to the reviewers to explain the special features of the SPORE program and the special review criteria.

To facilitate uniform scoring calibration across all of the SPORE review panels, and to recalibrate the scores, a new Scoring Guide was implemented in 2008. The SPORE Scoring Guide is modeled on the NCI P01 Scoring Guide that has been used in P01 reviews for almost 10 years. The SPORE Scoring Guide includes a column containing Program Characteristics that reflect the weighted SPORE review criteria and a column with score ranges corresponding to each set of Program Characteristics. Reviewers in all of the SPORE review meetings during 2008 used this table to assign the overall priority score. Evaluation of the scoring outcomes by NCI SPORE review and program staff suggests that reviewers are using the Scoring Guide appropriately and that it is having the desired effects.

Implementation of New Technology for Instantaneous Electronic Scoring To Facilitate Review of P01 Program Project and P50 SPORE Applications

The P50 SPORE and P01 Program Project applications are long and complex, and discussion of one application during the review meeting can take more than 3 hours. Each reviewer has his or her own vote sheet at the end of the discussion, but may not fully remember the range of scores for the various components or have a good appreciation for the “big picture” when it comes to discussing the application as a whole and assigning the final priority score for the application. In addition, the pilot of single-tier review of P01

applications eliminated the P01 “parent committee” meeting in which the committee members used the means and range of scores from the first-tier individual review panels to guide the final overall priority score. Beginning with the October 2006 P01 and SPORE review meetings for the February 2007 NCAB meeting, the RPRB piloted use of a new technology for facilitating review of large, multicomponent applications by providing exactly this type of summary information about each application.

An SRLB SRO first identified a simple and inexpensive technology, the “Interwrite™ Learning PRS” student response system, which was originally designed for test-taking by elementary and middle school students. The system involves a wireless radio frequency receiver connected to a laptop computer and individual hand-held radio frequency transmitters (“clickers”) that are about the size of a television remote control for each reviewer. The SRLB SRO and the lead SRO for SPORE review in the RPRB worked together with a DEA contractor to adapt the system for review of multicomponent grant applications. This activity involved developing new software that would interface with the original PRS software to: download application information from the NIH IMPAC II database; add new range and format checks to the “answers” sent by the reviewers; tally the reviewers’ responses appropriately for grant review; and save the information in a spreadsheet.

Each component of the application that must be scored becomes a “question” in the PRS system. The system can accommodate both numeric and adjectival scores. Reviewers use the numeric and letter buttons on the hand-held “clickers” to transmit their individual scores for each component of an application after the discussion of the component is complete during the review meeting. The mean and range for each component of the application is displayed on a large poster in the front of the review room in real time as the review proceeds. At the conclusion of the discussion of the individual components of the

application, the poster displays the “group averages” for each component of the application. This provides additional information for the discussion of the overall score for the application as a whole.

Reviewer feedback indicated that the devices are easy to use and facilitate the discussion of the overall application. The reviewers’ paper voting sheets are the “gold standard” for the final scores, but the spreadsheets downloaded from the system greatly facilitate data entry and calculation of the “official” scores for each component of the applications after the review meeting. Analysis of the data from the PRS system and the official paper vote sheets showed that the data from the PRS system were accurate to 0.1, although we stress to the reviewers that the data are “approximate,” because teleconference reviewers do not have clickers, and some reviewers may miss the window of opportunity for transmitting a score for a particular component of an application. The pilot of the PRS system was so successful that the RPRB adopted the system for routine use in all P01 and SP0RE review meetings.

Resources and Training Review Branch

The RTRB, which administers six NCI IRG subcommittees (A, F, G, H, I, and J), has the responsibility for review of applications for multidisciplinary cancer centers, cooperative clinical trials groups, institutional training and education, and career development awards. Staff members from this branch also participate in the reviews of other funding mechanisms within the DEA.

The reviews conducted by the RTRB subcommittees are of two types: (1) the complex, multidisciplinary applications, such as cancer center support grants (P30s), and multi-institutional clinical trial cooperative group—statistical center cooperative agreements (U10s) applications; and (2) individual component training and career development awards. The review formats for the multicomponent applications generally involve a two-step initial review. The first step of the review for Cancer Centers has involved a site visit to the applicant institution. Each group of experts

serves as a fact-finding body to clarify any issues or information related to the application through discussion with the applicants. This first committee prepares a draft report that is presented, together with the full application, for discussion, evaluation, and final scoring by the appropriate parent subcommittee (NCI IRG Subcommittee A for cancer centers and Subcommittee H for clinical trials). Second, the U10 applications for support of the operational aspects of the clinical trial cooperative groups are reviewed by applicant interview at the parent subcommittee meeting, which eliminates a separate trip for reviewers and, thus, reduces the reviewer burden. Scoring by a parent subcommittee provides for a more uniform evaluation of applications than scoring by individual review teams. The individual component applications are reviewed in a chartered subcommittee.

NCI Cancer Centers

During 2008, the Cancer Center Support Grant (CCSG) Guidelines were revised as a collaborative effort between DEA and the Cancer Centers Branch. In this Guidelines revision, effective with the January 25, 2009, application receipt date, modification was made to incorporate the guidelines clarifications issued since the last version, update application dates, and clarify required federal citations. Also, standardization of text on clinical trials with that found in National Cooperative Group and SP0RE Guidelines, and a more detailed table of contents and increased margins and spacing for better document readability have been added.

With the evolving changes in review of CCSG P30 applications, RTRB review staff members have continued a proactive practice of preparing, in collaboration with program staff members in the Cancer Centers Branch, clarification documents for those portions of the Guidelines that are unclear to reviewers. This includes preparation of clarifications for the review of Comprehensiveness Stage II as well as implementing these changes in peer review. RTRB review staff members also have continued to update and utilize

modifications of the review process to reduce the burden on peer reviewers, such as use of poster sessions for shared resource presentations, limited time for program presentations and better organization of the time spent on site, staff selection of protocols for review, and simplified review of budgets. To assist reviewers and applicants, a summary of modifications and the new guidelines have been placed on the Cancer Centers Branch Web Site, which also provides direct access to the DEA prepared documents to assist reviewers in the transition to these new Guidelines and, as they are developed, informational sheets (guidelines clarifications).

A new aspect of the Guidelines that became effective in 2006 was the option for Cancer Centers to have a limited site visit with full review at the Subcommittee A (i.e., parent committee) meeting based on the application alone when requesting no more than a 10 percent increase in funding and no major changes in structure, designation, or leadership. The limited site visit focuses on the administrative, regulatory, and financial aspects of the application and center, including institutional commitment, administration, and clinical trials oversight, which includes the clinical trials office, protocol review and monitoring, and data and safety monitoring. One Cancer Center elected and was eligible for this option; the limited site visit with full review at the parent committee meeting was held during the summer of 2008.

During FY2008, Subcommittee A reviewed 14 CCSG P30 applications (see [Table 7](#)), including one using the limited site visit format; in addition, one CCSG P30 application was reviewed by the Special Emphasis Panel (SEP).

Training and Career Development

The number of individual career development applications reviewed by the RTRB seen in previous years decreased again in FY2008 (see [Figure 4](#)). From 2003 to 2006, the number of DEA-reviewed career development applications increased by 43 percent (411 to 588); in 2008,

the number reviewed was 405, a decrease of 31 percent from the high point. Similarly, the number of institutional training grant applications, which had increased from 167 to 185 between 2003 and 2006 (11 percent), was 148 in 2008, a decrease of 20 percent.

Clinical Cooperative Groups

The SRO for Subcommittee H (Clinical Cooperative Groups) manages the review of the NCI Clinical Trials Cooperative Group Program and works closely with the Clinical Investigations Branch staff of the NCI Clinical Trials Evaluation Program (CTEP). A major revised draft of the NCI Clinical Trials Cooperative Group Program Guidelines has been approved by NCI leadership and the NIH Office of the Director.

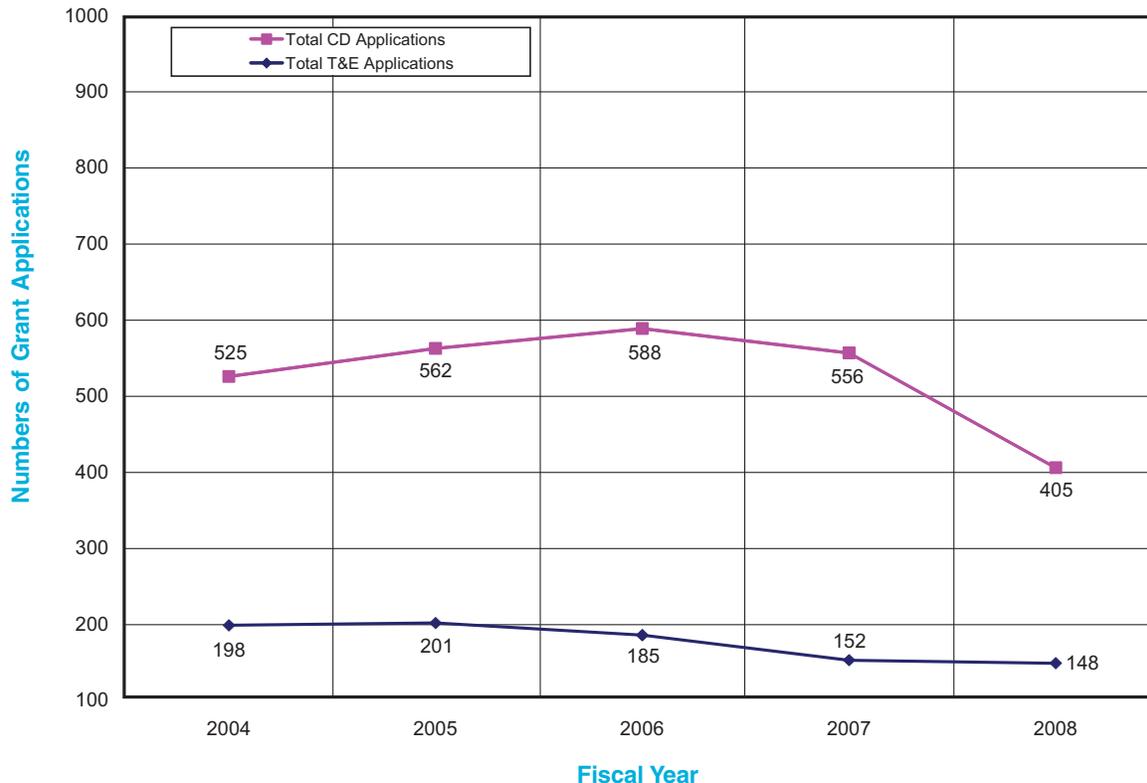
Steps have been taken to make some minor improvements in the Subcommittee H review process. A dialogue with Program Staff is underway to further streamline the review process for cooperative group applications.

During FY2008, three Clinical Cooperative Group applications were fully reviewed, two domestic and one international. Subcommittee H membership was updated in FY2008 with the appointment of five new members.

Other RTRB Activities

To assist reviewers in preparing for their participation in peer review, Reviewer Guides were 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 subcommittee review several types of applications. The Reviewer Guides contain general information on peer review and NIH rules on use of human subjects, as well as specific instructions for each of the mechanisms to be reviewed by that subcommittee. These mechanism-specific

**Figure 4. Numbers of Career Development (CD) and Training and Education (T&E) Applications Reviewed*
FY 2004 - 2008**



CD Grant Mechanisms: F32, F33, K01, K05, K07, K08, K22, K23, K24, K25, K99; T&E Grant Mechanisms: R25, T15, T32, K12.
*Withdrawn applications are not included.

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 and clinical cooperative group applications that are evaluated by Subcommittees A and H.

Special Review and Logistics Branch

The SRLB organizes and manages peer review primarily for grant applications submitted in response to specific NCI RFAs and 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 FY2008, the DEA reviewed 1,701 applications received in response to 40 RFAs and 34 PAs/PARs.

Following approval of RFA concepts by the NCI Executive Committee and BSA, program staff prepare RFA initiatives 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 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, 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 FY2008. [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 contract awards to support activities targeted

to highly specific institute goals. A total of 491 contract proposals submitted in response to RFPs were reviewed by the SRLB and the PCRb during FY2008 are shown in [Table 12](#).

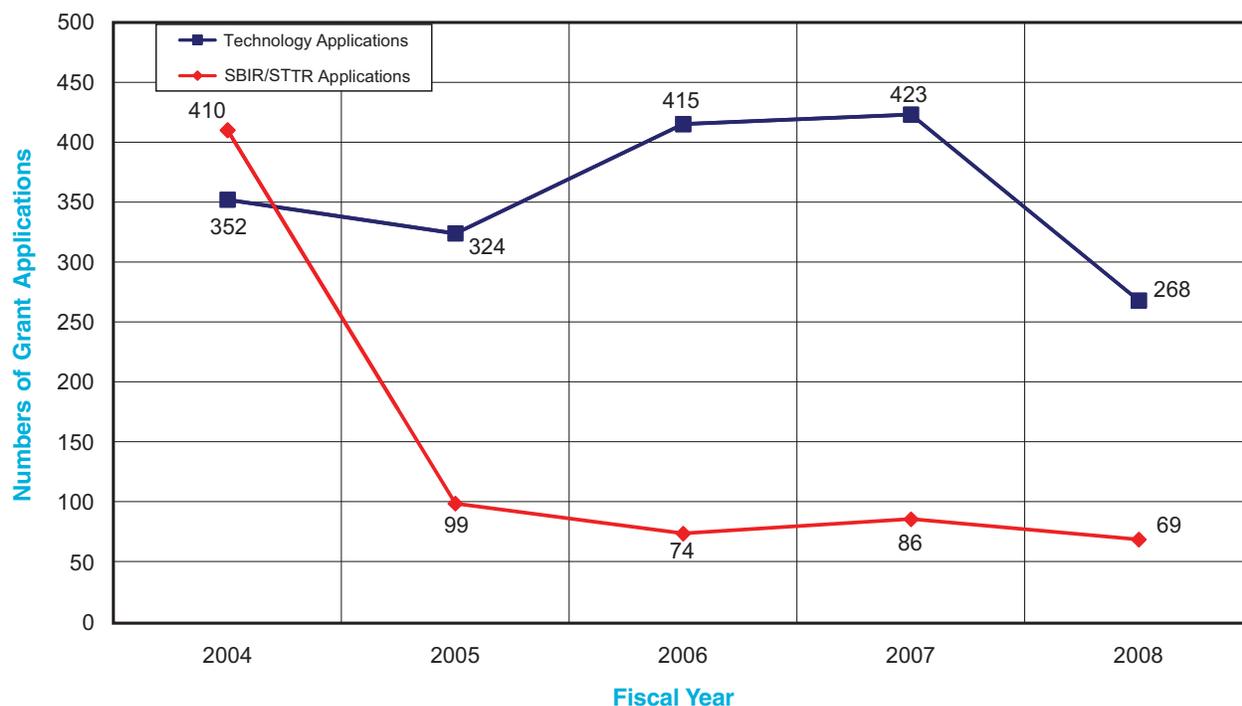
Technology Research Applications

The NCI R21/R33 phased innovation awards are targeted to the support of innovative exploratory/developmental studies. This grant mechanism allows the rapid transition, if the stated milestones are met, from proof-of-principle research studies to the more extensive developmental studies. This grant mechanism is well suited for technology development, and the number of RFA grant submissions for technology initiatives has greatly expanded in the past 5 years. In FY2008, 240 technology applications for exploratory/developmental grants (R21), exploratory/developmental phase II grants (R33), and phased innovation grants (R21/R33) were reviewed under seven RFAs. In addition, 23 cooperative

agreement (U54) applications were submitted and reviewed for the “Network for Translational Research (NTR): Optical Imaging in Multimodal Platforms” RFA. This represented a decline in applications received in FY2008, compared to FY2007 (see [Figure 5](#)).

The Small Business Innovation Research (SBIR) program supports Phase I feasibility applications (R43), Phase II applications (R44), and Fast-Track applications (R43/R44). RFA initiatives reviewed by SRLB staff included: Innovative Technologies for the Molecular Analysis of Cancer; Applications of Emerging Technologies for Cancer Research; Innovations in Cancer Sample Preparation; and Circulating Cells in Cancer Detection ([Table 10](#)). These initiatives also were matched with announcements for Small Business Technology Transfer (STTR) using the Phase I R41 and Phase II R42 grant mechanisms. The total number of applications (69) received and reviewed in

**Figure 5. Technology Initiatives Applications Reviewed*
FY 2004 - 2008**



*Withdrawn applications are not included.

2008 (86) represents a modest decrease from the number submitted in 2007.

Multicomponent Research Applications

Figure 3 describes the historic and current workload for multicomponent grant applications. In addition to the SPORES and Cancer Centers, there were five initiatives that were comprised of multicomponent applications: Comprehensive Minority Institution Cancer Center Partnership (RFA-CA-08-001); Network for Translational Research (NTR): Optical Imaging in Multimodal Platforms (RFA-CA-08-002); Centers of Excellence in Cancer Communication Research II (CECCR II) (RFA-CA-08-004); and *In Vivo* Cellular and Molecular Imaging Centers (ICMICS) (PAR-06-406).

Small Grant Programs

Several small grant program initiatives are stimulating increased interest in the applicant community. These include the small grant (R03) PARs programs in cancer prevention (PAR-06-313/PAR-08-055); cancer epidemiology (PAR-06-294); and behavior research in cancer control (PAR-06-458) in support of many new investigators and pilot studies. In FY2007, there

were 392 applications submitted in response to the three initiatives (*DEA Annual Report 2007*). In FY2008, those same initiatives attracted 332 applications, a slight decrease. An additional 157 R03 applications were submitted under other Program Announcements in FY2008 and reviewed in CSR.

Research and Development Contract Proposals

The DEA SRLB and PCRB reviewed 491 R&D contract proposals (including 376 Loan Repayment Program applications) received in response to 23 RFPs. Of those 23 RFPs, 20 were part of the Omnibus Solicitation for Small Business Innovation Research (SBIR) published each fall (Phase I topics and Phase II topics) (**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 the Applied Information Systems Branch (AISB) to develop a series of Web-based documents to be used for contract peer review.

NCI Grant and RFA Funding

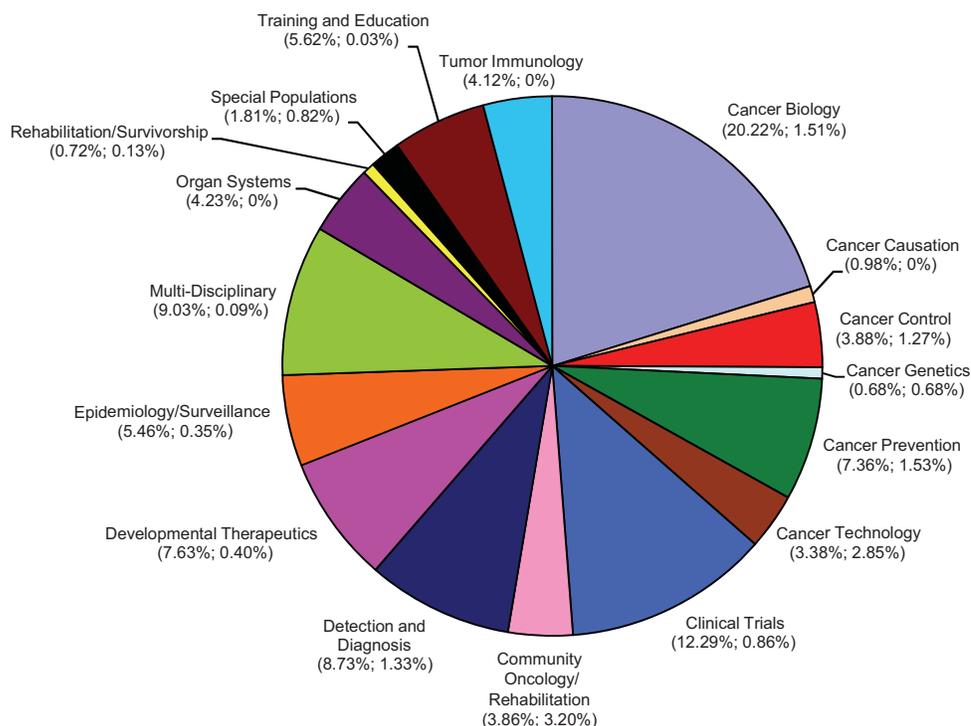
The Board of Scientific Advisors (BSA) is responsible for advising the NCI Director on the extramural program and the future direction and funding of each Division's extramural research. As such, it provides concept review for NCI-sponsored RFAs. **Figures 6 and 7** show total NCI Grant and RFA funding according to scientific concept area in FY2007 and FY2008. **Figure 8** shows RFA concepts that the BSA approved in FY2007 and FY2008 according to the sponsoring NCI Division, Office, and Center.

Table 13 presents a summary for FY2008 of total funding of NCI grant awards by mechanism. 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 awarded in FY2005 through FY2008 according to the extramural division and office.

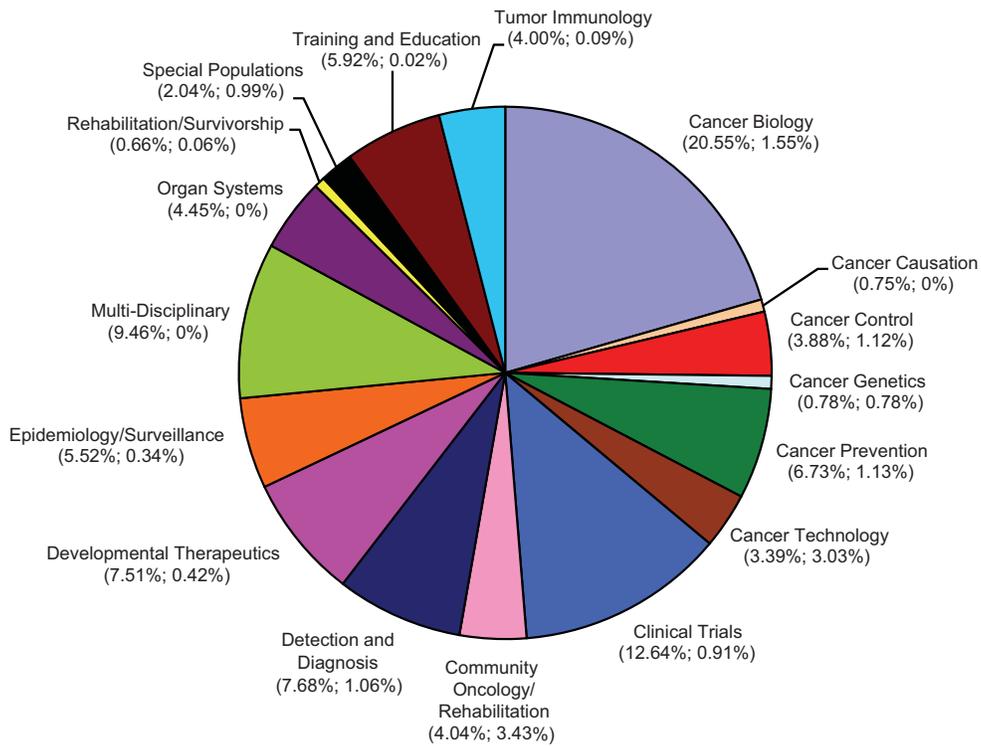
Trends in grant funding according to scientific discipline and organ site are provided in **Tables 15 and 16**. **Table 17** reports NCI's funding of foreign research grants in FY2008, and **Table 18** reports foreign components of U.S. domestic research grants in FY2008. **Note:** Some grant awards made during a fiscal year may have been for grant applications reviewed in a prior fiscal year.

Figure 6. NCI Grant and RFA Funding Percentages by Concepts Area FY2007



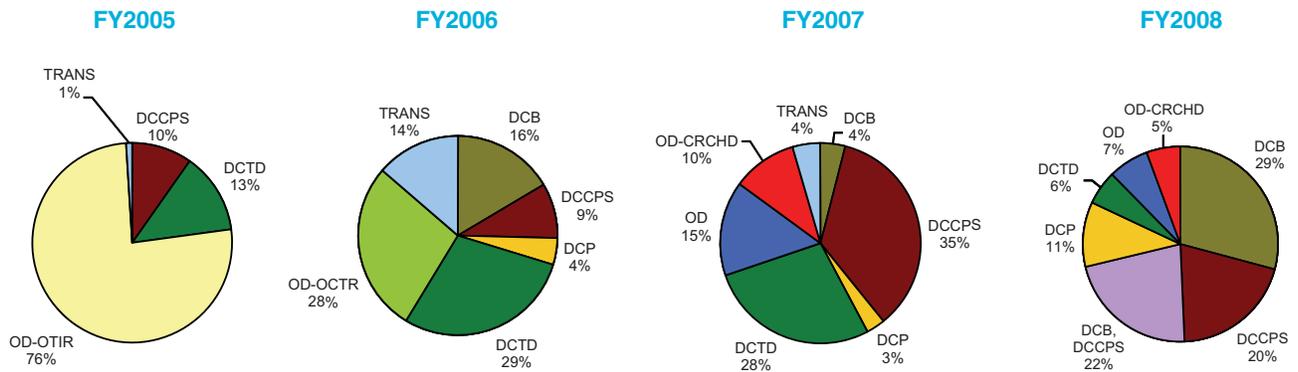
Percents represent Total Funding and RFA Funding for the Concept Area as a percentage of Total NCI Grants. Concept Area (% of Total Funding to Total NCI Grants; % of RFA Funding to Total NCI Grants)

Figure 7. NCI Grant and RFA Funding Percentages by Concepts Area FY2008



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



Legend:

| | |
|------------|---|
| DCB | Division of Cancer Biology |
| DCCPS | Division of Cancer Control and Population Sciences |
| DCB, DCCPS | Divisions of Cancer Prevention and Cancer Control and Population Sciences |
| DCCPS | Division of Cancer Prevention |
| DCTD | Division of Cancer Treatment and Diagnosis |
| OD | Office of Director |
| OD-OCTR | Office of Director - Office of Centers, Training, and Resources |
| OD-OTIR | Office of Director - Office of Technology and Industrial Relations |
| OD-CRCHD | Office of Director - Center to Reduce Cancer Health Disparities |
| TRANS | NCI (DCCPS), Trans-NIH |

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 **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 them 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 contract-supported ticketing services and hotel contracts. As a Service Center, the CMO also provides SREA services to the National Center for Complementary and Alternative Medicine (NCCAM) for their SEP meetings.

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 176 peer review associated meetings. 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 FY2008, more than 1,634 consultants were reimbursed flat-rate payments and honoraria for serving on more than 176 peer review meetings (**Appendix D**). Teleconference meeting costs and airline tickets were paid expeditiously throughout the year, and SREA staff ensured the timely review and approval of 111 hotel contracts and 98 hotel invoices. There were 3,610 instances of honoraria and flat rate payment to NCI peer review consultants and 296 NCCAM peer review consultants' payments. In addition, the SREA staff processed an additional 210 reviewer reimbursements from FY2006 and FY2007.

From October 2005 through May 2008, the staff has been ensuring that reviewers register and, when appropriate, renew their Central Contractor Registry (CCR) registration prior to participating in NCI peer review meetings. This is done by sending out e-mail alerts to reviewers prior to and after each and every meeting. Thus, the majority of reviewers who attended meetings were registered in the CCR. The SROs have expressed their gratitude to the members of the SREA team for tracking the reviewers and ensuring that they would be reimbursed in a timely manner. The total number of NCI peer reviewers who have registered since 2005 is 2,240.

The SREA program was subjected to a major change on May 22, 2008, when the General Services Administration (GSA) directed the NIH to discontinue use of the U.S. Treasury Central Contractor Registration (CCR) for electronic disbursement of reviewers' honoraria and reimbursements for expenses incurred during their participation in NIH peer review meetings. This directive had a major impact on the NCI SREA program and staff. NCI peer review consultants who were not registered with CCR or whose registration had expired were issued checks from a government contractor, World Travel Services (WTS), Inc. There were 1,117 instances of honoraria and flat-rate payments where WTS checks were issued to NCI peer review consultants. These reimbursement checks were sent to the residential mailing address on file in the consultant's electronic Receipt of Applications (eRA) Commons Account.

The SREA and review staffs worked diligently to ensure residential addresses were current in eRA Commons prior to the meeting date. A Residential Address Report was developed by the SREA staff, and consultants were contacted by e-mail or phone to obtain the necessary information. These efforts were crucial, because non-current or missing residential addresses were the primary

reason why consultants did not receive their reimbursement checks in a timely manner.

Due to these proactive efforts by the SREA staff, only 17 of the 3,610 instances of honoraria and flat-rate payment to NCI peer review consultants were not paid in FY2008.

Additional improvements were made to the CMO and SREA programs in FY2008, such as the development of a monthly training program for new and current NIH Division of Extramural Activities Support (DEAS) staff. These training sessions are conducted by the CMO staff and encompass all facets of the peer review process, as it relates to the committee management office and SREA, i.e., the importance of Federal Advisory Committee Act [FACA], an overview of NCI advisory committees, pre- and post-committee management meeting activities for NCI peer review meetings, peer review meeting logistics, and the components of the NIH reimbursement process.

The SREA staff use their extensive knowledge of the NIH SREA program to provide guidance and ongoing assistance to NCI review staff and peer review consultants. Specifically, SREA staff address questions or concerns regarding meeting logistics and the NIH reimbursement process.

The SREA staff also collaborates with the NCI DEA ORRPC Associate Director, Branch Chiefs, CMO, and Scientific Review Officers on the development of NCI SREA policies and procedures. On an ongoing basis, current SREA activities are monitored and evaluated, and changes and improvements are initiated when warranted. An NCI Committee Management Procedures for Peer Review Meetings training book was created, which contains detailed guidelines, policies, and procedures for all aspects of SREA activities. This training book is given to all NCI SROs and the Extramural Support Assistants (ESAs) as a reference guide to important CMO and SREA policies and procedures that are imperative to the peer review process.

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 10 chartered Federal advisory committees (see [Appendix C](#)). The activities and membership 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 grants and cooperative agreements, 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 to the BSA. (See [Appendixes A and B](#) for highlights of the activities of these Boards in FY2008 and [Appendix C](#) for a list of 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 Depart-

ment of Health and Human Services (DHHS) 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 Food and Drug Administration (FDA).

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 reviews concepts for new research opportunities and solicitations, to ensure that a concept is meritorious and consistent with the Institute's mission.

The NCI and BSA believe it is important to interact with and receive feedback from the clinical, population science, and laboratory research communities that are affected by NCI policies. To this end, the NCI has established BSA-sponsored "NCI Listens" sessions at national association meetings (see [Appendix B](#)). BSA and NCI staff members invite conference participants to join them for these sessions. A brief presentation

NCI Advisory Boards



Members of the NCAB



Members of the BSA

is given by NCI staff emphasizing the status of grant funding, the Bypass Budget, and the status of several new initiatives. The brief presentation is followed by an open question-and-answer period. The NCI is committed to providing a written response to the scientific society hosting the meeting concerning issues raised during the session. The BSA hopes that conference participants will take advantage of this opportunity to present any ideas or concerns that they might have.

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

Advisory Committee to the Director (ACD), NCI. The ACD advises and makes recommendations to the Director, NCI, for the oversight and integration of various planning and working groups serving the broad programmatic and institutional objectives of the Institute. The Committee serves as the official channel through which the findings and recommendations emerging from these groups are submitted to the NCI. The Committee may consider the reports of the various working groups as informational, advisory, or as recommendations, and provides the NCI with assistance in identifying opportunities to be pursued within the areas of cancer research that cut across the intramural and extramural NCI programs.

The Committee consists of the Director, NCI, as Chair, and chairpersons of the NCAB, PCP, BSCs

(Basic Sciences, and Clinical Sciences and Epidemiology), BSA, and DCLG. Nonvoting *ex officio* members include NCI Deputy Directors and the Director, DEA, NCI.

Director's Consumer Liaison Group (DCLG). The DCLG advises and makes recommendations to the Director, NCI, from the perspective and viewpoint of cancer consumer advocates on a wide variety of issues, programs, and research priorities. The Group serves as a channel for consumer advocates to voice their views and concerns. The DCLG may assemble *ad hoc* working groups; convene conferences, workshops, and/or other activities; and seek advice from special consultants. The members are consumer advocates who are involved in cancer advocacy and experience, representing the patient and survivor constituency they communicate with on a regular basis.

Clinical Trials and Translational Research Advisory Committee (CTAC). The CTAC advises and makes recommendations to the Director, NCI, NCI Deputy Directors, and the Director of each NCI Division on the NCI-supported 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. This responsibility encompasses oversight of all trials, both extramural and intramural. The Committee provides broad scientific and programmatic advice on the investment of taxpayer dollars in clinical trials and supportive science.

NCI Initial Review Group (IRG). The IRG, composed of six active subcommittees, reviews grant and cooperative agreement applications for centers, clinical cooperative groups, research projects, and research training activities in the areas of cancer cause, diagnosis, treatment, and prevention. The three subcommittees responsible for reviewing program project committees have not met since 2006, when they were replaced with Special Emphasis Panels. Members may be appointed as standing committee members with

NCI Advisory Boards (continued)



New Members of the NCAB

BSA Retirees



Retiring BSA member, Dr. William Hait, with
Drs. Niederhuber (L) and Young (R)



Retiring BSA member, Dr. Anton-Culver, with
Drs. Niederhuber (L) and Young (R)

overlapping terms of up to 4 years, or as “temporary” members with all 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 Director, NCI, and the Director, DEA, regarding research grant and cooperative agreement applications, contract proposals, and concept reviews relating to basic and clinical sciences, and applied research and development programs of special relevance to the NCI. Membership of an 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 **Committee Management Office** (CMO) coordinates the general administration of NCI's chartered Federal advisory committees and serves as a Service Center to both the DHHS Secretary's Advisory Committee on Genetics, Health, and Society, which is administered through the Office of the Director, NIH, and to the NIH Center for Complementary and Alternative Medicine (NCCAM). The CMO provides advice related to the provisions of the Federal Advisory Committee Act (FACA) and other Federal, DHHS, and NIH regulations for NCI staff who manage advisory committees and ensures that NCI and NIH staff comply with Federal advisory committee policy. Additionally, the Office of the Director (OD), DEA, and the CMO provide guidance and information to staff and external groups on specific NIH policies related to the operation of working groups and *ad hoc* consultants operating under the direction of some of NCI's chartered Federal advisory committees. NCI working groups provide scientific expertise through chartered committees to the NCI Director and Division Directors on a range of matters related to the National Cancer Program. The Office works closely with the other DEA offices to coordinate activities with NCI advisory committees; implements policies and procedures designed to avoid conflicts in the nomination and selection of board members; implements policies and procedures to ensure compliance with DHHS and NIH regulations governing the operation of chartered advisory bodies; advises on issues related to conflicts of interest, selection, and recruitment of viable committee members, and management of committee records; provides logistical support for NCAB and BSA meetings; and facilitates reimbursement of committee member expenses.

Some highlights of FY2008 CMO activities include:

- The NIH Office of Federal Advisory Committee Policy (OFACP) revised its Pol-

icy Announcement for Waiver Requests for Advisory Committee Member Appointments to also include meeting attendees serving as Temporary Members on Initial Review Groups (IRG) and individuals serving as members of Special Emphasis Panels (SEP). The inclusion of these meeting attendees impacted SROs when recruiting individuals for service on peer review meetings. The CMO provided guidance to SROs by developing guidelines, procedures, and a hyperlinked Excel document with sample formal waivers and QVR Reports that was distributed to Review staff as well as program specialists. Several DEA brown bag meetings also were held to discuss these new guidelines.

- As a service center for the Office of the Director, NIH, and the NCCAM, NIH, the NCI CMO continued to provide exceptional service to these client-Institutes on the management of their Federal advisory committees and NCCAM's SREA program. In particular, guidance included revising the NCCAM Board of Scientific Counselors (BSC) Charter, preparation of the first NCCAM BSC nomination slate, and vetting of new members' OGE-450 Confidential Financial Disclosure forms.
- 2008 FACA amendments were introduced to the House of Representatives. The CMO analyzed the potential changes to FACA and possible impact on NCI/Client advisory committees. Expert advice was provided to the NCI DEA Director. One of the FACA changes called for transparency of advisory committees. The CMO met with the DEA Director and AISB staff to discuss including new Web site links to the DEA Advisory Boards Web Site for the various Boards. Web site links are now included directing the public to the NIH Videocast Web Site so they can view NCAB and BSA meetings, including PowerPoint presentations.

With these changes to the public Web site, the NCI has increased advisory committee transparency.

Other activities included:

- Participated in numerous meetings throughout the year providing expert advice on working groups, FACA, and Special Government Employee (SGE) rules and regulations.
- Provided guidance to members of the Director's Consumer Liaison Group (DCLG) Advocacy Working Group regarding ethics and conflicts of interests relating to SGEs.
- Responded to requests from senior NCI and client staff on various non-FACA meetings and working group concerns.
- Provided guidance to the Clinical Trials and Translational Research Advisory Committee (CTAC) staff on the inclusion of translational research as an additional function of the committee and made revisions to the Charter.
- Provided guidance to the new DCLG Executive Secretary on the 2009 nomination slate process and requirements, and the roles and responsibilities of Designated Federal Officials (DFO) as well as various other committee management activities associated with this Committee.
- Provided guidance to NCI staff in the Office of Latin American Cancer Program Development, Office of the Director, NCI, on the potential establishment of a new subcommittee of the NCAB.
- Participated in a Technical Review of logistical contractors for service provided to support NCAB and BSA meetings.
- Provided extensive training to SROs, CMO staff, and Division of Extramural Administrative Support (DEAS) staff throughout the year on various committee management

activities, the Committee Management IMPAC II Module, and SREA activities. Training included how to properly code meeting attendees in the CM Module, several brown bag meetings on advisory committee female/minority and other statistical data, hotel contracts and Blanket Purchase Agreements, DEAS staff orientation, pre- and post-peer review meeting activities, the new Secure Payee Reimbursement System (SPRS) peer review reimbursement system, etc.

- Arranged for a White House visit with the U.S. President and NCAB members. This required extensive coordination with White House staff, NCAB members, the NCI Director, the NCI DEA Director, and logistics (e.g., transportation and security services) personnel.
- Developed and implemented a standard training plan for DEAS staff on committee management and SREA activities. With this plan in place, DEAS staff now has regularly scheduled training on committee management and SREA activities throughout the year.
- Developed an NCI Committee Management Procedures for Peer Review Meetings training book for the NCI review and DEAS staff. The book contains documents and information on: pre-meeting and post-meeting procedures; meeting logistics; and reviewer reimbursements.
- Provided training at the August DCLG Meeting on "Lobbying and Political Activities" pertaining to Special Government Employees.

The CMO is critical to the continued success of all NCI FACA activities, including Boards, Advisory Committees, working groups, review panels, etc.

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 consistent budget-linked scientific information across all of its scientific programs to analyze the Institute's 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://fundedresearch.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 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, DHHS, Congress, and the public. A critical characteristic of these data is comparability from one fiscal year to the next. Trends in funding between FY2004 and FY2008 for selected organ sites and SIC Codes are presented in **Tables 15** and **16**. RAEB staff act 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.

FY2008 Highlights

- Provided information to numerous requesters.
- Led the NCI-wide effort to elevate the NCI Funded Research Portfolio (NFRP) Web Site (<http://fundedresearch.cancer.gov>) to higher visibility, including all NCI-funded intramural and extramural research.
- Indexed and coded nearly 9,000 funded and unfunded applications.
- Initiated scientific indexing of multiproject grants by subproject.
- Continued coordination with the NCI Office of Budget and Finance (OBF) to update and align budget reporting categories.
- Served as the NCI lead group for the NIH Research, Conditions, and Disease Categorization (RCDC) Initiative.
- 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 and Inclusion Committee.
- Coordinated development of the biennial congressionally mandated report on Inclusion of Women and Minorities in Clinical Research that was approved by the NCAB and submitted to the NIH.
- In collaboration with AISB, upgraded the Program Coding Module to allow program staff to enter percents for multi-project grants. Initiated data quality comparison checks with RAEB multi-project clinical trials coding.
- Under the direction of the NCI Clinical Trials Working Group, a pilot study for disease coding of Translational Research grants was initiated.
- Tracked extramural research by foreign research institutions and extramural NCI research grants with a foreign research component.
 - In FY2008, the NCI allocated \$24.5 million to support 82 grants received by foreign research institutes. These foreign grants are listed by country, mechanism, and total funding support in **Table 17**.
 - In FY2008, the NCI supported 231 U.S. Domestic grants with 372 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.

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 servers and Web sites; designs, develops, and maintains Division-specific software applications; provides oversight of hardware and connectivity; and serves as a liaison with the NIH Center for Information Technology (CIT) and NCI central computer servicing units. 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 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 FY2008, the following specific AISB accomplishments are highlighted:

System Administration and Desktop Support

- Piloted evaluations of Microsoft Office SharePoint Services and Acronis Enterprise backup and recovery software to better meet DEA's growing needs for a secure data file management solution and reliable server system recovery.
- Teamed with external DEA organizations to collectively improve computer operations for NCI users through participation in a focus group to assist in critiquing educational materials generated by NCI Computer Services.

- Brought the new Rimage 8100N duplicator online for production of CDs and DVDs. The DEA now uses two CD/DVD duplicators.
- Participated in the NCI FDCC prototype configurations.
- Developed and configured an encrypted thumb drive solution to enable sensitive grant information to travel with Scientific Review Officers (SROs).
- Developed a disk drive imaging process that reduced the configuration of both laptops and desktop systems from several days to several hours.
- Purchased, configured, and deployed 26 desktop computers to replace degraded performing and/or failed equipment.
- Upgraded and customized the DEA Trouble Tracker system with TrackIt 7.0 software.
- Prepared server documentation and network schematics for the FLARE application certification and accreditation (C&A) study.
- Documented all network printer configurations and secured IP addresses from the CIT Dynamic Host Configuration Protocol (DHCP) bank to prevent service interruptions.
- Configured Linux and Mac workstations for developing and testing encryption methodologies for the Reviewer CD (RevCD) application.

Major DEA Internet/Intranet Development

- Continued development of the NCI RCDC (Research Condition and Disease Categorization) Web Site, including recent RCDC Fingerprint and Validity Test Results.
- Expanded the NCI Advisory Boards and Groups Web Site with its own online library of NCAB, BSA, and CTAC meeting minutes, videocasts, and presentations.
- Restructured and updated the SRO/DEAS Resources Web page for content and presentation.

Application Development Projects

- Redesigned the NCI Funded Research Portfolio application to include new features and interface improvements under the direction of the NCI Director. Completed tasks were deployed to production before the deadline.
- Commenced requirements analysis, design, and initial deployment to the existing RFA/PA Reports application (renamed FOA Reports [Funding Opportunity Announcement]).
- Enhanced the Extramural Scientist Administrator Training Tracking System (ESATTS) application with a new training history report and personal training module.
- Enhanced the NCAB Early Concurrence (EC) application to include new reports and implementation of the “known conflicts” option for NCAB members.
- Redesigned the DEA Staff Listing operation to retrieve data from the new TrackIt 7.0/SQL Server database installation.
- Modified the Formula Coding application to incorporate the new requirements from NCI CTEP staff.
- Developed and tested new CD/DVD encryption methodology for the Reviewer CD application.
- Implemented automatic media selection (CD or DVD) for burning based on data requirements for specific jobs.

Development and Support of Software Applications for the Research Analysis and Evaluation Branch’s (RAEB) Scientific Coding and Analysis

Fiscal Linked Analysis of Research Emphasis (FLARE) Application

- Enhanced and upgraded major modules of the application that included:
 - Capability of coding at the subproject level;
 - Data views, query fields, report parameters, new code types, batch scripts, etc.;
 - IRDB download process; and

- Subproject data validation and integration process.

Reporting/Data Dissemination

Contributed technical guidance for the dissemination of FLARE data for:

- Office of AIDS Research (OAR) - AIDS reporting (4 quarters).
- AIDS Future Year Special Interest Category Funding Estimates.
- NCI Funded Research Portfolio.
- Human Nutrition Research Information Management (HNRIM) system.
- Minority Health and Health Disparities Coding report.
- P30 Ratio reporting.

I2E Program Coding (I2E PC)

- Developed and deployed new release.
- Organized rollout of new system and held formal Program Coding training for 45 NCI staff in eight training sessions.

Subproject Coding

- Implemented migration to production for FLARE and I2E PC applications.
- Developed Clinical Trials coding process.
- Trained DCTD clinical program staff on coding at the subproject level using the I2E Program Coding (PC) system.

AISB Staff Involvement

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

- NCI Office of Information Systems and Computer Services.
- NCI Institute Information Systems Advisory Group.
- NCI Change Management Group.
- NCI Research, Condition, and Disease Categorization (RCDC)—Power Users Group.

- NCI Science Management Workspace (formerly Institute Information Systems Advisory Group).
- NCI Science Management Workspace—Business Information Systems Special Interest Group.
- NCI Science Management Workspace—Help Desk Special Interest Group.
- NIH eRA Technical Coordinators Group.
- NIH Electronic Council Book and Query View Reporting Steering Committee.
- NIH CIT Architecture Review Board.

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 Executive 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 Institute-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 NCI Research Integrity Office.
- Coordinates, develops, and implements extramural policy.

| | |
|-------------------------------------|--|
| Paulette Gray, Ph.D. | Director |
| Vacant | Deputy Director |
| Cedric Long, Ph.D. | Assistant Director |
| Patricia Marek, M.B.A. | Special Assistant to the Director |
| Lisa Verikios | Program Analyst |
| Barbara Hider | Secretary |
| Judi Ziegler* | Secretary |
| Justin Rhoderick* | Management and Program Assistant |

*Joined in 2008.

Committee Management Office, OD

- Coordinates functionally related Federal advisory committee activities across the Institute and its client-Institutes. The office manages NCI advisory committees, a DHHS committee, and three National Center for Complementary and Alternative Medicine (NCCAM) committees 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, DHHS, and NIH; provides logistical support for NCAB and BSA meetings, subcommittees, and work groups; and facilitates NCAB and BSA committee-related travel.
- Provides administrative support for the peer review system by: compensating consultants for their services on NCI IRG subcommittees and SEPs and NCCAM 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 Coleman* | Committee Management Specialist |
| Natasha Copeland | Committee Management Specialist |
| Kimberley Hetkowski† | Committee Management Specialist |
| Hing Lee | Committee Management Specialist |
| Alonda Lord | Committee Management Specialist |
| Ricardo Rawle‡ | Committee Management Specialist |
| Linda Southworth | Committee Management Specialist |
| Malaika Staff | Committee Management Specialist |

*On detail to ORRPC.

†Left in 2008.

‡Joined in 2008.

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.

David Maslow, Ph.D. Associate Director
Catherine Battistone Program Analyst
Linda Brown Program Specialist
Linda Coleman‡ Committee Management Specialist

‡On detail from CMO.

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 PAs) 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 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
Jeffrey DeClue, Ph.D. Scientific Review Officer
Sherwood Githens, Ph.D. Scientific Review Officer
Irina Gordienko, Ph.D. Scientific Review Officer
C. Michael Kerwin, Ph.D., M.P.H. Scientific Review Officer
Gerald Lovinger, Ph.D. Scientific Review Officer
Rhonda Moore, 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
Viatcheslav Soldatenkov* Scientific Review Officer
Adriana Stoica* 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 2008.

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 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 Institutes and Centers.
- 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-electronically refers amended and 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 Institutes and Centers 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 Institutes and Centers.
- 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 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
Kimberly Morris Program Support Assistant
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 and other DEA Branches.

Olivia Bartlett, Ph.D. Chief
Virginia Wray, Ph.D. Deputy Chief
Shakeel Ahmad, Ph.D..... Scientific Review Officer
Monica Green..... 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
Michael Small, Ph.D. Scientific Review Officer
Shamala Srinivas, Ph.D. Scientific Review Officer
Peter Wirth, Ph.D. Scientific Review Officer

Resources and Training Review Branch

- Plans, coordinates, and manages the scientific merit review of cancer center, clinical cooperative group, 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, 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**
Sonya Roberson, Ph.D. **Scientific Review Officer**
Denise M. Santeufemio **Program Specialist**

Office of Extramural Applications

- Coordinates activities of the RAEB and AISB.
- Provides budget-linked research portfolio data and coordinates the information management of extramural NCI-supported research.

Amir Sahar-Khiz, M.S., M.B.A. **Associate Director**
Tanyan Bailey* **Program Analyst**

*Left in 2008.

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 **Branch Chief**
Edward Kyle **Deputy Branch Chief**

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 Institute 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
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 in-depth 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.

Gail Blaufarb, M.S. Lead Biologist/Team Leader
Stacy Harper-Avilla, M.S.* Biologist
Clarissa Douglas..... Program Specialist

*Left in 2008.

Knowledge Management/Special Projects

- Represents the NCI on the NIH Research, Conditions and Disease Categorization (RCDC) Initiative. This Initiative is a requirement of the 2006 NIH Reauthorization Bill and has the goal of developing an advanced Knowledge Management technology to enhance and standardize disease coding at the NIH.
- Serves as the NCI Lead and Point of Contact for the RCDC Initiative.
- Represents the NCI on several RCDC Working Groups.

- Chairs the NCI RCDC Steering Committee, which has been charged by the NCI Executive Committee with facilitating the incorporation of RCDC-related activities and requirements into NCI business processes.
- Chairs the Business Information Systems Special Interest Group, which is a standing subcommittee of the Science Management Workspace.
- Collaborates with staff in DEA Review Branches to assist in finding qualified scientists to serve as reviewers for high-profile RFA reviews, as well as reviews of applications that cover broad areas of research and require a broad spectrum of expertise.
- Represents the DEA as its communications coordinator in the Office of Communications and Education Steering Committee.

Lisa Krueger, M.S. Lead Biologist/Team Leader

Beth Buschling Biologist

William Clark, M.S. Biologist

Michele Vos, M.S. Biologist

Applied Information Systems Branch

- Fulfills the information technology (IT) requirements of the Division; coordinates information resources management (IRM) activities with other relevant NCI and NIH units; and provides 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 Information Systems and Computer Services (ISCS) 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 ISCS.
- 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 microcomputer equipment maintenance and supplies.
- Formulates office automation policy, system development, and 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.

William Ireland Team Leader
Deborah Buranich Information Technology Specialist
Charles Conley* Information Technology Specialist
Richard Florence Information Technology Specialist
Roderick James Information Technology Specialist
Teresa Park Information Technology Specialist

*Left in 2008.

Information Management Team

- Designs and maintains the Division’s Intranet and Internet sites and pages, and identifies documents to be placed on the NCI Web Site 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**
Lorrie Smith..... **Information Technology Specialist**
Joshua Rhoderick* **Information Technology Specialist**

*Joined in 2008.

Table 1a. Requests for Applications (RFAs) Published by the NCI in FY2008
Sorted by Date of Publication

| Date of Publication | RFA | Mechanism | Title | Division and Office |
|---------------------|----------|-----------|---|---------------------|
| 10/12/2007 | CA08-002 | U54 | Network for Translational Research (NTR): Optical Imaging in Multimodal Platforms | DCTD |
| 10/18/2007 | CA08-502 | U24 | Limited Competition: Cooperative Family Registry for Epidemiologic Studies in Colon Cancer (C-CFR) | DCCPS |
| 11/9/2007 | CA08-004 | P50 | Centers of Excellence in Cancer Communication Research II (CECCR II) | DCCPS |
| 11/19/2007 | CA08-501 | U01 | Limited Competition: AIDS and Cancer Specimen Resource (ACSR) | DCTD (OHAM)* |
| 12/27/2007 | CA08-504 | U01 | Limited Competition: Adult Brain Tumor Clinical Trials Consortium | DCTD |
| 1/9/2008 | CA08-006 | R21 | Innovative Technologies for Molecular Analysis of Cancer | OTIR |
| 1/9/2008 | CA08-007 | R21 | Application of Emerging Technologies for Cancer Research | OTIR |
| | CA08-008 | R33 | | |
| 1/9/2008 | CA08-009 | R21 | Innovative Technology Solutions to Cancer Sample Preparation | OTIR |
| | CA08-010 | R33 | | |
| 1/9/2008 | CA08-011 | R43, R44 | Innovative and Applied Molecular Analysis Technologies for Cancer (SBIR/STTR) | OTIR (SBIRDC)† |
| | CA08-012 | R41, R42 | | |
| 1/9/2008 | CA08-013 | R43, R44 | Innovative Technology Solutions to Cancer Sample Preparation (SBIR/STTR)) | OTIR |
| | CA08-014 | R41, R42 | | OTIR |
| 1/11/2008 | CA08-001 | U54 | Comprehensive Minority Institution Cancer Center Partnership (MICCP) | CRCHD |
| 2/21/2008 | CA08-017 | R01 | Comparative Systems Genetics of Cancer | DCB |
| 2/22/2008 | CA08-019 | R01 | Tumor Stem Cells in Cancer Biology, Prevention, and Therapy | DCB |
| 3/26/2008 | CA08-020 | P01 | | DCB |
| 4/29/2008 | CA08-015 | U10 | Community Clinical Oncology Program | DCP |
| 4/29/2008 | CA08-016 | U10 | Minority-Based Community Clinical Oncology Program | DCP |
| 5/14/2008 | CA08-021 | R44 | SBIR Phase II Bridge Awards to Accelerate the Development of New Cancer Therapies and Cancer Imaging Technologies Toward Commercialization (SBIR) | SBIRDC |
| 6/6/2008 | CA08-026 | U01 | Pediatric Brain Tumor Consortium | DCTD |
| 6/18/2008 | CA08-022 | R01 | Improving Effectiveness of Smoking Cessation Interventions and Programs in Low Income Adult Populations | DCCPS |
| | CA08-023 | R21 | | |
| 7/3/2008 | CA08-024 | R01 | Measures and Determinants of Smokeless Tobacco Use, Prevention, and Cessation | DCCPS |
| | CA08-025 | R21 | | DCCPS |
| 8/18/2008 | CA08-018 | U01 | Integration of Mouse Models into Human Cancer Research | DCB |
| 9/30/2008 | CA09-003 | R01 | Replication and Fine-Mapping Studies for the Genes Environment and Health Initiative (GEI) | DCCPS |

*Moved to OHAM.

†Moved to SBIRDC.

Table 1b. Requests for Applications (RFAs) Published by the NCI in FY2008*Sorted by Division, Office, and Center*

| Division and Office | RFA | Mechanism | Title | Date of Publication |
|---------------------|----------|-----------|---|---------------------|
| CRCHD | CA08-001 | U54 | Comprehensive Minority Institution Cancer Center Partnership (MICCP) | 1/11/2008 |
| DCB | CA08-017 | R01 | Comparative Systems Genetics of Cancer | 2/21/2008 |
| DCB | CA08-019 | R01 | Tumor Stem Cells in Cancer Biology, Prevention, and Therapy | 2/22/2008 |
| | CA08-020 | P01 | | 3/26/2008 |
| DCB | CA08-018 | U01 | Integration of Mouse Models into Human Cancer Research | 8/18/2008 |
| DCCPS | CA08-502 | U24 | Limited Competition: Cooperative Family Registry for Epidemiologic Studies in Colon Cancer (C-CFR) | 10/18/2007 |
| DCCPS | CA08-004 | P50 | Centers of Excellence in Cancer Communication Research II (CECCR II) | 11/9/2007 |
| DCCPS | CA08-022 | R01 | Improving Effectiveness of Smoking Cessation Interventions and Programs in Low Income Adult Populations | 6/18/2008 |
| | CA08-023 | R21 | | |
| DCCPS | CA08-024 | R01 | Measures and Determinants of Smokeless Tobacco Use, Prevention, and Cessation | 7/3/2008 |
| | CA08-025 | R21 | | |
| DCCPS | CA09-003 | R01 | Replication and Fine-Mapping Studies for the Genes Environment and Health Initiative (GEI) | 9/30/2008 |
| DCP | CA08-015 | U10 | Community Clinical Oncology Program | 4/29/2008 |
| DCP | CA08-016 | U10 | Minority-Based Community Clinical Oncology Program | 4/29/2008 |
| DCTD | CA08-002 | U54 | Network for Translational Research (NTR): Optical Imaging in Multimodal Platforms | 10/12/2007 |
| DCTD (OHAM)* | CA08-501 | U01 | Limited Competition: AIDS and Cancer Specimen Resource (ACSR) | 11/19/2007 |
| DCTD | CA08-504 | U01 | Limited Competition: Adult Brain Tumor Clinical Trials Consortium | 12/27/2007 |
| DCTD | CA08-026 | U01 | Pediatric Brain Tumor Consortium | 6/6/2008 |
| OTIR | CA08-006 | R21 | Innovative Technologies for Molecular Analysis of Cancer (R21) | 1/9/2008 |
| OTIR | CA08-007 | R21 | Application of Emerging Technologies for Cancer Research | 1/9/2008 |
| | CA08-008 | R33 | | |
| OTIR | CA08-009 | R21 | Innovative Technology Solutions to Cancer Sample Preparation | 1/9/2008 |
| | CA08-010 | R33 | | |
| OTIR (SBIRDC)† | CA08-011 | R43, R44 | Innovative and Applied Molecular Analysis Technologies for Cancer (SBIR/STTR) | 1/9/2008 |
| | CA08-012 | R41, R42 | | |
| OTIR (SBIRDC)† | CA08-013 | R43, R44 | Innovative Technology Solutions to Cancer Sample Preparation (SBIR/STTR) | 1/9/2008 |
| | CA08-014 | R41, R42 | | |
| SBIRDC | CA08-021 | R44 | SBIR Phase II Bridge Awards to Accelerate the Development of New Cancer Therapies and Cancer Imaging Technologies Toward Commercialization (SBIR) | 5/14/2008 |

*Moved to OHAM.

†Moved to SBIRDC.

Table 2. NCI Participation in Trans-NIH Requests for Applications (RFAs) in FY2008
Sorted by Date of Publication

| Date of Publication | RFA | Mechanism | Title | NCI Division, Office, and Center | Issuing NIH-IC |
|---------------------|----------------------|------------|--|----------------------------------|----------------|
| 11/15/2007 | RM08-003 | P41 | Pilot-Scale Libraries (PSL) for High-Throughput Screening | DCTD* | NIH/RM§ |
| 11/21/2007 | RM08-001 | U54 | Construction of a Reference Sequence Data Set for the Human Microbiome Project | DCB DCCPS* | NIH/RM§ |
| 12/4/2007 | RM08-012 | UH2, UH3 | Human Microbiome Demonstration Projects (UH2/UH3) | DCB DCP* | NIH/RM§ |
| 12/27/2007 | RM08-002 | U54 | Institutional Clinical and Translational Science Award | OCTR (CCT)† | NIH/RM§ |
| 1/1/2008 | TW08-004 | D43 | Revision Awards to Support AIDS-related Malignancies Research Training to Currently Funded AIDS International Training and Research Program Awards | DCTD (OHAM)‡ | FIC |
| 2/8/2008 | OD08-001 | U54 | Rare Diseases Clinical Research Consortia (RDCRC) for the Rare Diseases Clinical Research Network | DCB | NIH/OD |
| 3/26/2008 | AI08-008 | U01 | Multicenter AIDS Cohort Study (MACS), Limited Competition | DCTD | NIAID |
| 6/13/2008 | RM08-019 | P50 | Centers for Innovation in Membrane Protein Production for Structure Determination | DCB* | NIH/RM§ |
| 6/27/2008 | AT08-003 AT08-004 | R01 R21 | Mechanisms of Immune Modulation | DCP | NCCAM |
| 7/14/2008 | GM09-012 | R01 | Research on Causal Factors and Interventions that Promote and Support the Careers of Women in Biomedical and Behavioral Science and Engineering | DCCPS | NIGMS |
| 7/15/2008 | RM08-021 | U54 | Renewal of the National Technology Centers for Networks and Pathways Program | DCTD DCP* | NIH/RM§ |
| 7/16/2008 | DK08-003 | U34 | Implementation Planning Grants for Educational, Behavioral, or Social Studies for Translation of Genetic Factors in Common Diseases | * | NIDDK |
| 7/16/2008 | DK08-004 | R21 | Translation of Common Disease Genetics into Clinical Applications | * | NIDDK |
| 7/16/2008 | RM08-017 | R01 | Epigenomics of Human Health and Disease | DCB DCCPS* | NIH/RM§ |
| 8/15/2008 | GM09-008 | R01 | Exceptional, Unconventional Research Enabling Knowledge Acceleration (EUREKA) | DCB | NIGMS |
| 8/20/2008 | NR09-002 | P30 | Centers of Excellence in Symptom Management Research or Centers of Excellence in Health Promotion/Disease Prevention | DCP | NINR |
| 9/9/2008 | HL08-013 | U01 | Translating Basic Behavioral and Social Science Discoveries into Interventions to Reduce Obesity: Centers for Behavioral Intervention Development | DCCPS | NHLBI |
| 9/9/2008 | RM08-029 | R01 | Roadmap Transformative R01 Program | * | NIH/RM§ |
| 9/18/2008 | RM08-030 | R01 | Studies of the Ethical, Legal, and Social Implications (ELSI) of Human Microbiome Research | DCB DCCPS | NIH/RM§ |
| 9/26/2008 | RM08-022 | U54 | Patient-Reported Outcomes Measurement Information System™ (PROMIS) Network Center | DCCPS | NIH/RM§ |
| | RM08-023 | U01 | Patient-Reported Outcomes Measurement Information System™ (PROMIS) Research Sites | | |
| | RM08-024 | U54 | Patient-Reported Outcomes Measurement Information System™ (PROMIS) Technology Center | | |
| | RM08-025 | U54 | Patient-Reported Outcomes Measurement Information System™ (PROMIS) Statistical Center | | |

*All NCI Divisions, Offices and Centers may participate.

†Moved to CCT.

‡Moved to OHAM.

§Road Map.

Table 3a. Program Announcements (PAs) Published by the NCI in FY2008*Sorted by Date of Publication*

| Date of Publication | PA | Mechanism | Title | Division and Office |
|---------------------|-----------|-----------|---|---------------------|
| 10/30/2007 | PAR08-020 | P50 | Specialized Programs of Research Excellence (SPOREs) in Human Cancer for the Year 2008 and 2009 | OCTR (DCTD)* |
| 11/19/2007 | PAR08-025 | R21 | Quick-Trials for Novel Cancer Therapies and Prevention: Exploratory Grants | DCTD |
| 11/26/2007 | PA08-030 | R01 | Exfoliated Cells, Bioactive Food Components, and Cancer | DCP |
| | PA08-031 | R21 | | DCCPS |
| 11/26/2007 | PA08-032 | R01 | Molecular Approaches to Diet and Pancreatic Cancer Prevention | DCP |
| 12/17/2007 | PAR08-047 | K22 | NCI Transition Career Development Award to Promote Diversity | CRCHD |
| 12/17/2007 | PAR08-055 | R03 | Cancer Prevention Research Small Grant Program | DCP |
| 1/10/2008 | PA08-063 | R01 | Decision Making in Cancer: Single-Event Decisions | DCCPS |
| | PA08-064 | R21 | | |
| 1/10/2008 | PA08-077 | R21 | Research on the Economics of Diet, Activity and Energy Balance | DCCPS |
| | PA08-078 | R01 | | |
| 2/1/2008 | PA08-083 | R01 | The Effect of Racial and Ethnic Discrimination/Bias on Health Care Delivery | DCCPS |
| | PA08-084 | R21 | | |
| | PA08-085 | R03 | | |
| 3/28/2008 | PAR08-120 | R25 | Cancer Education Grants Program | OCTR (CCT)† |
| 4/2/2008 | PA08-131 | R01 | Enhancing Tumoricidal Activity of Natural Killer (NK) Cells by Dietary Components for Cancer Prevention | DCP |
| | PA08-132 | R21 | | |
| 4/4/2008 | PA08-133 | R21 | Correlative Studies with Specimens from Multi-Site Trials | DCTD |
| | PA08-134 | R01 | | |
| 4/10/2008 | PA08-140 | R01 | <i>In Utero</i> Exposure to Bioactive Food Components and Mammary Cancer Risk | DCP |
| | PA08-041 | R21 | | |
| 4/11/2008 | PA08-143 | R01 | Mitochondria in Cancer Epidemiology, Detection, Diagnosis and Prognosis | DCCPS DCP |
| | PA08-144 | R21 | | |
| 4/15/2008 | PAR08-147 | R21 | Quick-Trials for Imaging and Image-Guided Interventions: Exploratory Grants | DCTD |
| 4/22/2008 | PA08-156 | R01 | Biomarkers of Infection-Associated Cancers | DCP |
| | PA08-157 | R21 | | |
| 5/2/2008 | PA08-165 | R21 | Stem Cells and Cancer | DCB DCP DCTD |
| 7/3/2008 | PA08-192 | R01 | Geographic and Contextual Influences on Energy Balance-Related Health Behaviors | DCCPS |
| | PA08-193 | R21 | | |

continued

*Moved to DCTD.

†Moved to CCT.

Table 3a. Program Announcements (PAs) Published by the NCI in FY2008*Sorted by Date of Publication*

| Date of Publication | PA | Mechanism | Title | Division and Office |
|---------------------|-----------|-----------|--|---------------------|
| 7/18/2008 | PA08-208 | R21 | Pilot Studies in Pancreatic Cancer | DCCPS DCB |
| | PA08-209 | R03 | | |
| 7/18/2008 | PA08-210 | R01 | Diet-Induced Changes in Inflammation as Determinants of Colon Cancer | DCP |
| | PA08-211 | R21 | | |
| 7/30/2008 | PA08-220 | R01 | Investigational Nutrigenetic Studies for Cancer Prevention | DCP |
| | PA08-221 | R21 | | |
| 8/1/2008 | PAR08-225 | U01 | Quantitative Imaging for Evaluation of Responses to Cancer Therapies | DCTD |
| 8/14/2008 | PAR08-237 | R03 | Small Grants Program for Cancer Epidemiology | DCCPS |
| 8/14/2008 | PA08-239 | R01 | Impact of Health Communication Strategies on Dietary Behaviors | DCCPS |
| | PA08-240 | R21 | | |
| 8/19/2008 | PA08-243 | R01 | Etiology, Prevention, and Treatment of Hepatocellular Carcinoma | DCB DCP DCTD |
| | PA08-244 | R21 | | |
| | PAR08-245 | P01 | | |
| 9/23/2008 | PA08-267 | R21 | Exploratory Studies in Cancer Detection, Diagnosis, and Prognosis | DCTD DCP |

Table 3b. Program Announcements (PAs) Published by the NCI in FY2008*Sorted by Division, Office, and Center*

| Division and Office | PA | Mechanism | Title | Date of Publication |
|---------------------|-----------|-----------|---|---------------------|
| CRCHD | PAR08-047 | K22 | NCI Transition Career Development Award to Promote Diversity | 12/17/2007 |
| DCB DCP DCTD | PA08-165 | R21 | Stem Cells and Cancer | 5/2/2008 |
| | PA08-243 | R01 | Etiology, Prevention, and Treatment of Hepatocellular Carcinoma | 8/19/2008 |
| | PA08-244 | R21 | | |
| PAR08-245 | P01 | | | |
| DCCPS | PA08-063 | R01 | Decision Making in Cancer: Single-Event Decisions | 1/10/2008 |
| | PA08-064 | R21 | | |
| DCCPS | PA08-077 | R21 | Research on the Economics of Diet, Activity and Energy Balance | 1/10/2008 |
| | PA08-078 | R01 | | |
| DCCPS | PA08-083 | R01 | The Effect of Racial and Ethnic Discrimination/Bias on Health Care Delivery | 2/1/2008 |
| | PA08-084 | R21 | | |
| | PA08-085 | R03 | | |
| DCCPS DCP | PA08-143 | R01 | Mitochondria in Cancer Epidemiology, Detection, Diagnosis and Prognosis | 4/11/2008 |
| | PA08-144 | R21 | | |

continued

Table 3b. Program Announcements (PAs) Published by the NCI in FY2008*Sorted by Division, Office, and Center*

| Division and Office | PA | Mechanism | Title | Date of Publication |
|---------------------|-----------|-----------|---|---------------------|
| DCCPS | PA08-192 | R01 | Geographic and Contextual Influences on Energy Balance-Related Health Behaviors | 7/3/2008 |
| | PA08-193 | R21 | | |
| DCCPS DCB | PA08-208 | R21 | Pilot Studies in Pancreatic Cancer | 7/18/2008 |
| | PA08-209 | R03 | | |
| DCCPS | PA08-239 | R01 | Impact of Health Communication Strategies on Dietary Behaviors | 8/14/2008 |
| | PA08-240 | R21 | | |
| DCCPS | PAR08-237 | R03 | Small Grants Program for Cancer Epidemiology | 8/14/2008 |
| DCP DCCPS | PA08-030 | R01 | Exfoliated Cells, Bioactive Food Components, and Cancer | 11/26/2007 |
| | PA08-031 | R21 | | |
| DCP | PA08-032 | R01 | Molecular Approaches to Diet and Pancreatic Cancer Prevention | 11/26/2007 |
| DCP | PAR08-055 | R03 | Cancer Prevention Research Small Grant Program | 12/17/2007 |
| DCP | PA08-131 | R01 | Enhancing Tumoricidal Activity of Natural Killer (NK) Cells by Dietary Components for Cancer Prevention | 4/2/2008 |
| | PA08-132 | R21 | | |
| DCP | PA08-140 | R01 | <i>In Utero</i> Exposure to Bioactive Food Components and Mammary Cancer Risk | 4/10/2008 |
| | PA08-041 | R21 | | |
| DCP | PA08-156 | R01 | Biomarkers of Infection-Associated Cancers | 4/22/2008 |
| | PA08-157 | R21 | | |
| DCP | PA08-210 | R01 | Diet-Induced Changes in Inflammation as Determinants of Colon Cancer | 7/18/2008 |
| | PA08-211 | R21 | | |
| DCP | PA08-220 | R01 | Investigational Nutrigenetic Studies for Cancer Prevention | 7/30/2008 |
| | PA08-221 | R21 | | |
| DCTD | PAR08-025 | R21 | Quick-Trials for Novel Cancer Therapies and Prevention: Exploratory Grants | 11/19/2007 |
| DCTD | PA08-133 | R21 | Correlative Studies with Specimens from Multi-Site Trials | 4/4/2008 |
| | PA08-134 | R01 | | |
| DCTD | PAR08-147 | R21 | Quick-Trials for Imaging and Image-Guided Interventions: Exploratory Grants | 4/15/2008 |
| DCTD | PAR08-225 | U01 | Quantitative Imaging for Evaluation of Responses to Cancer Therapies | 8/1/2008 |
| DCTD DCP | PA08-267 | R21 | Exploratory Studies in Cancer Detection, Diagnosis, and Prognosis | 9/23/2008 |
| OCTR (CCT)* | PAR08-120 | R25 | Cancer Education Grants Program | 3/28/2008 |
| OCTR (DCTD)† | PAR08-020 | P50 | Specialized Programs of Research Excellence (SPOREs) in Human Cancer for the Year 2008 and 2009 | 10/30/2007 |

*Moved to CCT.

†Moved to DCTD.

Table 4. NCI Participation in Trans-NIH Program Announcements (PAs) in FY2008
Sorted by Date of Publication

| Date of Publication | PA | Mechanism | Title | NCI Division, Office, and Center | Issuing NIH-IC |
|---------------------|-----------|-----------|--|----------------------------------|----------------|
| 10/17/2007 | PAR08-010 | R01 | Continued Development and Maintenance of Software | DCB | NCRR |
| 10/22/2007 | PA08-012 | R01 | ELSI Regular Research Program | DCCPS | NHGRI |
| | PA08-013 | R03 | | | |
| 10/30/2007 | PAS08-019 | R01 | Anemia of Inflammation and of Chronic Diseases | DCTD | NIDDK |
| 10/23/2007 | PA08-015 | R01 | Angiogenesis in the Nervous System in Health and Disease | DCP | NINDS |
| | PA08-016 | R21 | | | |
| 11/5/2007 | PAR08-023 | R01 | Predictive Multiscale Models of the Physiome in Health and Disease | DCB | NIBIB |
| 11/9/2007 | PAR08-024 | R21 | Assay Development for High Throughput Molecular Screening | DCTD | NIH (road-map) |
| 11/16/2007 | PAR08-026 | SC1 | Support of Competitive Research (SCORE) Research Advancement Award | CRCHD | NIGMS |
| 11/16/2007 | PAR08-027 | SC2 | Support of Competitive Research (SCORE) Pilot Project Award | CRCHD | NIGMS |
| 11/30/2007 | PAR08-034 | X01 | Solicitation of Assays for High Throughput Screening (HTS) in the Molecular Libraries Probe Production Centers Network (MLPCN) (X01) | DCTD | NIH (road-map) |
| | PAR08-035 | R03 | | | |
| 12/5/2007 | PA08-037 | R01 | Thyroid in Aging | DCP | NIA |
| | PA08-038 | R21 | | | |
| | PA08-039 | R03 | | | |
| 12/13/2007 | PAR08-045 | R01 | Outcomes, Cost-Effectiveness and the Decision Making Process to Use Complementary and Alternative Medicine | DCCPS | NCCAM |
| 12/13/2007 | PAR08-046 | P50 | NIDA Research "Center of Excellence" Grant Program | DCCPS | NIDA |
| 12/17/2007 | PAS08-048 | R01 | Understanding and Preventing Brain Tumor Dispersal | DCTD | NINDS |
| | PAS08-049 | R21 | | | |
| 12/18/2007 | PA08-052 | R01 | Nanoscience and Nanotechnology in Biology and Medicine | OTIR (SBIRDC)* | NIDCR |
| | PA08-053 | R21 | | | |
| 1/8/2008 | PAR08-065 | R01 | NIH Revision Awards for Studying Interactions Among Social, Behavioral, and Genetic Factors in Health | DCCPS | NIH OBSSR |
| | PAR08-066 | R21 | | | |
| 1/16/2008 | PAR08-075 | R01 | Community Participation Research Targeting the Medically Underserved | DCCPS | NIH OBSSR |
| | PAR08-076 | R21 | | | |
| 1/16/2008 | PA08-074 | R01 | Community Participation in Research | DCCPS | NIH OBSSR |
| 1/25/2008 | PA08-050 | R43, R44 | PHS 2008-02 Omnibus Solicitation of the NIH, CDC, and FDA for Small Business Innovation Research Grant Applications (Parent SBIR) | OTIR (SBIRDC)* | NIH |
| 1/25/2008 | PA08-051 | R41, R42 | PHS 2008-02 Omnibus Solicitation of the NIH for Small Business Technology Transfer Grant Applications (Parent STTR) | OTIR (SBIRDC)* | NIH |
| 3/4/2008 | PA08-097 | R01 | Functional Links between the Immune System, Brain Function and Behavior | DCCPS | NIMH |
| | PA08-098 | R21 | | | |
| 3/7/2008 | PAR08-105 | R21 | Optimizing Technologies for the Preservation of Fertility | DCCPS | NICHD |
| 3/28/2008 | PA08-121 | R01 | Symptom Interactions in Cancer and Immune Disorders | DCP | NINR |
| | PA08-122 | R21 | | | |

continued

*Moved to SBIRDC.

Table 4. NCI Participation in Trans-NIH Program Announcements (PAs) in FY2008
Sorted by Date of Publication

| Date of Publication | PA | Mechanism | Title | NCI Division, Office, and Center | Issuing NIH-IC |
|---------------------|-----------|-----------|---|----------------------------------|----------------|
| 4/3/2008 | PAR08-135 | R21 | Exploratory/Developmental Grant for Complementary and Alternative Medicine (CAM) Studies of Humans | DCTD | NCCAM |
| 4/9/2008 | PAR08-138 | R01 | Genetic Screens to Enhance Zebrafish Research | DCB | NICHHD |
| 4/9/2008 | PAR08-139 | R01 | Enhancing Zebrafish Research with Research Tools and Techniques | DCB | NIDDK |
| 4/16/2008 | PA08-149 | R13, U13 | NIH Support for Conferences and Scientific Meetings (Parent R13/U13) | † | NIH |
| 4/18/2008 | PA08-151 | K24 | Midcareer Investigator Award in Patient-Oriented Research | OCTR (CCT)‡ | NIH |
| 4/18/2008 | PA08-152 | K07 | Academic Career Award | OCTR (CCT)‡ | NIH |
| 4/25/2008 | PA08-161 | R01 | Transdisciplinary Research on Fatigue and Fatigability in Aging | DCP | NIA |
| | PA08-162 | R21 | | | |
| 6/12/2008 | PAR08-175 | D43 | Millennium Promise Awards: Non-communicable Chronic Diseases Research Training Program (NCoD) | OD | FIC |
| 6/24/2008 | PAR08-183 | R21 | Exploratory Collaborations with National Centers for Biomedical Computing | DCB | NIGMS |
| 6/24/2008 | PAR08-184 | R01 | Collaborations with National Centers for Biomedical Computing | DCB | NIGMS |
| 6/26/2008 | PA08-185 | R21 | Exploratory/Developmental Grant for Complementary and Alternative Medicine (CAM) Studies using Cells, Tissues, and Animal Models of Disease | DCP | NCCAM |
| 7/2/2008 | PA08-190 | § | Research Supplements to Promote Diversity in Health-Related Research | ** | NIH |
| 7/2/2008 | PA08-191 | § | Research Supplements to Promote Re-Entry into Biomedical and Behavioral Research Careers | ** | NIH |
| 7/22/2008 | PAR08-212 | R01 | Methodology and Measurement in the Behavioral and Social Sciences | DCCPS | NIH OBSSR |
| | PAR08-213 | R21 | | | |
| | PAR08-214 | R03 | | | |
| 7/31/2008 | PAR08-223 | R03 | Fogarty International Research Collaboration – Behavioral and Social Sciences (FIRCA-BSS) Research Award | DCCPS | FIC |
| 8/1/2008 | PAR08-224 | R21 | Using Systems Science Methodologies to Protect and Improve Population Health | DCCPS | NIH OBSSR |
| 8/1/2008 | PA08-226 | T32 | Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grants | OCTR (CCT)‡ | NIH |
| 8/15/2008 | PA08-241 | R01 | Reducing Risk Behaviors by Promoting Positive Youth Development | DCCPS | NICHHD |
| | PA08-242 | R03 | | | |
| 8/25/2008 | PA08-251 | R01 | Metals in Medicine | DCP | NIGMS |

† All NCI Divisions, Offices, and Centers may participate.

‡ Moved to CCT.

§ PA08-190 Mechanisms include: DP1, DP2,P01, P20, P30, P40, P41, P50, P51, P60, PL1, R00, R01, R03, R10, R15, R18, R21, R22, R24, R25, R37, R41, R42, R43, R44, RL1, SC1, SC2, SC3, U01, U10, U19, U41, U42, U54, UL1. PA08-191 Mechanisms include: DP1, DP2, P01, P20, P30, P40, P41, P50, P51, P60, PL1, R01, R10, R18, R22, R24, R25, R37, R41, R42, R43, R44, RL1, U01, U10, U19, U41, U42, U54, UL1.

**All divisions, offices, and centers.

Table 5. Applications Received for Referral by the NCI/DEA in FY2008*
Sorted by Mechanism

| Mechanism | Activity Code | Totals by Activity | Applications by Board | | | Total Costs Requested First Year |
|--|---------------|--------------------|-----------------------|-------|-------|----------------------------------|
| | | | Feb | June | Sept | |
| International Training Grants in Epidemiology (FIC) | D43 | 15 | 15 | 0 | 0 | \$6,977,409 |
| Predocutorial Individual National Research Service Award | F31 | 95 | 24 | 44 | 27 | \$0 |
| Postdoctoral Individual National Research Service Award | F32 | 445 | 126 | 174 | 145 | \$0 |
| National Research Service Award for Senior Fellows | F33 | 8 | 2 | 3 | 3 | \$0 |
| Research Scientist Development Award - Research and Training | K01 | 35 | 11 | 15 | 9 | \$4,287,767 |
| Research Scientist Award | K05 | 13 | 5 | 5 | 3 | \$1,893,432 |
| Academic/Teacher Award | K07 | 85 | 28 | 34 | 23 | \$10,955,806 |
| Clinical Investigator Award | K08 | 104 | 34 | 33 | 37 | \$13,854,671 |
| Physician Scientist Award (Program) | K12 | 10 | 9 | 1 | 0 | \$8,162,332 |
| Career Transition Award | K22 | 78 | 30 | 19 | 29 | \$11,125,020 |
| Mentored Patient-Oriented Research Development Award | K23 | 46 | 16 | 12 | 18 | \$6,359,574 |
| Midcareer Investigator Award in Patient-Oriented Research | K24 | 7 | 2 | 5 | 0 | \$1,161,675 |
| Mentored Quantitative Research Career Development | K25 | 12 | 8 | 2 | 2 | \$1,535,341 |
| Career Transition Award | K99 | 138 | 40 | 57 | 41 | \$14,027,145 |
| Research Program Projects | P01 | 97 | 25 | 48 | 24 | \$196,089,340 |
| Exploratory Grants | P20 | 19 | 0 | 0 | 19 | \$7,541,712 |
| Center Core Grants | P30 | 41 | 11 | 23 | 7 | \$90,102,850 |
| Biotechnology Resource Grant Program | P41 | 2 | 1 | 1 | 0 | \$2,639,822 |
| Specialized Center | P50 | 76 | 26 | 22 | 28 | \$166,046,853 |
| Research Project | R01 | 5,785 | 1,801 | 2,023 | 1,961 | \$2,548,767,038 |
| Small Research Grants | R03 | 489 | 119 | 201 | 169 | \$36,386,304 |
| Conferences | R13 | 107 | 43 | 33 | 31 | \$4,078,915 |
| Academic Research Enhancement Awards (AREA) | R15 | 151 | 50 | 47 | 54 | \$29,453,461 |
| Exploratory/Developmental Grants | R21 | 2,325 | 685 | 933 | 707 | \$523,981,865 |
| Resource-Related Research Projects | R24 | 73 | 68 | 5 | 0 | \$38,130,282 |
| Education Projects | R25 | 87 | 22 | 38 | 27 | \$30,574,003 |

continued

*Source: IMPACII. Includes NCI Primary and Secondary assigned applications and withdrawn applications.

Table 5. Applications Received for Referral by the NCI/DEA in FY2008*
Sorted by Mechanism

| Mechanism | Activity Code | Totals by Activity | Applications by Board | | | Total Costs Requested First Year |
|--|---------------|--------------------|-----------------------|--------------|--------------|----------------------------------|
| | | | Feb | June | Sept | |
| Exploratory/Developmental Grants Phase II | R33 | 57 | 17 | 24 | 16 | \$25,710,316 |
| Method to Extend Research in Time (MERIT) Award | R37 | 6 | 2 | 3 | 1 | \$2,686,437 |
| Small Business Technology Transfer (STTR) Grants - Phase I | R41 | 173 | 54 | 71 | 48 | \$26,366,376 |
| Small Business Technology Transfer (STTR) Grants - Phase II | R42 | 38 | 14 | 13 | 11 | \$17,958,826 |
| Small Business Innovation Research Grants (SBIR) - Phase I | R43 | 647 | 212 | 225 | 210 | \$101,558,385 |
| Small Business Innovation Research Grants (SBIR) - Phase II | R44 | 160 | 48 | 62 | 50 | \$67,902,424 |
| High Priority, Short Term Project Award | R56 | 43 | 15 | 27 | 1 | \$0 |
| Research and Institutional Resources Health Disparities Endowment Grants-Capacity Building | S21 | 1 | 0 | 0 | 1 | \$14,343,750 |
| Research Enhancement Award | SC1 | 46 | 21 | 17 | 8 | \$12,481,752 |
| Pilot Research Project | SC2 | 30 | 11 | 14 | 5 | \$3,508,213 |
| Institutional National Research Service Award | T32 | 70 | 30 | 28 | 12 | \$21,467,859 |
| Research Project (Cooperative Agreements) | U01 | 90 | 55 | 33 | 2 | \$53,910,121 |
| Cooperative Clinical Research (Cooperative Agreements) | U10 | 22 | 19 | 1 | 2 | \$71,433,982 |
| Conference (Cooperative Agreement) | U13 | 1 | 0 | 1 | 0 | \$30,000 |
| Research Program (Cooperative Agreement) | U19 | 1 | 1 | 0 | 0 | \$1,463,711 |
| Resource-Related Research Project (Cooperative Agreements) | U24 | 8 | 2 | 0 | 6 | \$11,981,856 |
| Specialized Center (Cooperative Agreements) | U54 | 42 | 0 | 0 | 42 | \$61,657,765 |
| Overall Totals | | 11,778 | 3,702 | 4,297 | 3,779 | \$4,248,594,390 |

*Source: IMPACII. Includes NCI Primary and Secondary assigned applications and withdrawn applications.

Table 6. Grant and Cooperative Agreement Applications Reviewed by the NCI/DEA in FY2008

Sorted by Mechanism

| Mechanism | Activity Code | Totals by Activity | Applications by Board | | | Total Costs Requested First Year |
|---|---------------|--------------------|-----------------------|-----|------|----------------------------------|
| | | | Feb | Jun | Sept | |
| Postdoctoral Individual National Research Service Award | F32 | 5 | 0 | 5 | 0 | \$0 |
| National Research Service Award for Senior Fellows | F33 | 2 | 0 | 2 | 0 | \$0 |
| Research Scientist Development Award - Research and Training | K01 | 31 | 10 | 13 | 8 | \$4,287,767 |
| Research Scientist Award | K05 | 12 | 4 | 5 | 3 | \$1,732,782 |
| Academic/Teacher Award | K07 | 79 | 26 | 31 | 22 | \$10,955,806 |
| Clinical Investigator Award | K08 | 73 | 26 | 21 | 26 | \$9,787,630 |
| Physician Scientist Award (Program) | K12 | 9 | 9 | 0 | 0 | \$6,383,948 |
| Career Transition Award | K22 | 58 | 21 | 14 | 23 | \$11,125,020 |
| Mentored Patient-Oriented Research Development Award | K23 | 34 | 14 | 6 | 14 | \$5,025,573 |
| Midcareer Investigator Award in Patient-Oriented Research | K24 | 5 | 1 | 4 | 0 | \$1,161,675 |
| Mentored Quantitative Research Career Development | K25 | 8 | 4 | 2 | 2 | \$1,535,341 |
| Career Transition Award | K99 | 98 | 28 | 42 | 28 | \$11,031,564 |
| Research Program Projects | P01 | 77 | 22 | 33 | 22 | \$183,766,806 |
| Exploratory Grants | P20 | 16 | 0 | 0 | 16 | \$7,541,712 |
| Center Core Grants | P30 | 30 | 4 | 20 | 6 | \$77,373,034 |
| Specialized Center | P50 | 67 | 25 | 22 | 20 | \$158,243,629 |
| Research Project | R01 | 119 | 7 | 25 | 87 | \$70,017,494 |
| Small Research Grants | R03 | 332 | 87 | 114 | 131 | \$26,626,425 |
| Conferences | R13 | 64 | 23 | 19 | 22 | \$2,624,574 |
| Exploratory/Developmental Grants | R21 | 201 | 34 | 116 | 51 | \$52,304,508 |
| Education Projects | R25 | 74 | 19 | 30 | 25 | \$27,427,234 |
| Exploratory/Developmental Grants Phase II | R33 | 44 | 15 | 20 | 9 | \$23,496,824 |
| Small Business Technology Transfer (STTR) Grants - Phase I | R41 | 15 | 4 | 7 | 4 | \$2,146,263 |
| * Small Business Technology Transfer (STTR) Grants - Phase II | R42 | 4 | 2 | 1 | 1 | \$2,134,258 |
| Small Business Innovation Research Grants (SBIR) - Phase I | R43 | 39 | 17 | 16 | 6 | \$5,262,554 |
| Small Business Innovation Research Grants (SBIR) - Phase II | R44 | 11 | 6 | 4 | 1 | \$5,294,878 |
| Institutional National Research Service Award | T32 | 65 | 27 | 27 | 11 | \$20,843,248 |

*Source: IMPACII. Includes NCI Primary and Secondary assigned applications and withdrawn applications.

Table 6. Grant and Cooperative Agreement Applications Reviewed by the NCI/DEA in FY2008

Sorted by Mechanism

| Mechanism | Activity Code | Totals by Activity | Applications by Board | | | Total Costs Requested First Year |
|--|---------------|--------------------|-----------------------|------------|------------|----------------------------------|
| | | | Feb | Jun | Sept | |
| Research Project (Cooperative Agreements) | U01 | 55 | 50 | 4 | 1 | \$20,058,965 |
| Cooperative Clinical Research (Cooperative Agreements) | U10 | 22 | 19 | 1 | 2 | \$71,433,982 |
| Conference (Cooperative Agreement) | U13 | 1 | 0 | 1 | 0 | \$30,000 |
| Research Program (Cooperative Agreement) | U19 | 1 | 1 | 0 | 0 | \$1,463,711 |
| Resource-Related Research Project (Cooperative Agreements) | U24 | 8 | 2 | 0 | 6 | \$11,981,856 |
| Specialized Center (Cooperative Agreements) | U54 | 42 | 0 | 0 | 42 | \$61,657,765 |
| Totals | | 1,701 | 507 | 605 | 589 | \$894,756,826 |

Table 7. Applications Reviewed by NCI IRG Subcommittees and Special Emphasis Panels (SEPs) in FY2008*

| NCI IRG Subcommittee | Types of Applications Reviewed | Number of Applications | Total Costs Requested First Year |
|--|---|------------------------|----------------------------------|
| A - Cancer Centers | P30 | 14 | \$68,369,678 |
| F - Manpower & Training | K99, T32 | 162 | \$31,692,182 |
| G - Education | K01, K05, K12, K22, K24, R25 | 104 | \$34,420,174 |
| H - Clinical Groups | U10 | 5 | \$56,561,353 |
| I - Career Development | F32, F33, K01, K08, K22, K25 | 159 | \$23,700,917 |
| J - Population and Patient-Oriented Training | K01, K07, K23 | 114 | \$15,755,172 |
| Total - NCI IRG Subcommittees | | 558 | \$230,499,476 |
| Total SEPs | K01, K07, K22, K23, K24, P01, P20, P30, P50, R01, R03, R13, R21, R25, R33, R41, R42, R43, R44, U01, U10, U13, U19, U24, U54 | 1,143 | \$665,394,928 |
| Total | | 1,701 | \$895,894,404 |

*Source: IMPACII. Application count includes Secondary assignments. There were 154 withdrawn applications that have been subtracted from the total count.

Table 8. Summary of Investigator-Initiated P01 Applications Reviewed, Sorted by NCAB Meeting, in FY2008

| Type of Application | Applications by Board | | | FY2008 Total |
|---------------------|-----------------------|-----------|----------------|--------------|
| | February 2008 | June 2008 | September 2008 | |
| New | 5 | 6 | 5 | 16 |
| Resubmitted New | 8 | 9 | 5 | 22 |
| Renewal | 5 | 12 | 7 | 24 |
| Resubmitted Renewal | 4 | 6 | 5 | 15 |
| Total | 22 | 33 | 22 | 77 |

There were no Revision (Supplement)/Resubmitted Revisions received or reviewed in FY2008.

Table 9. Summary of Investigator-Initiated P01 Applications Reviewed, Sorted by NCI Program Division, in FY2008

| Program Division | Number of Applications | First Year Requested Total Costs | Total Costs for Requested Period |
|--|------------------------|----------------------------------|----------------------------------|
| Division of Cancer Biology (DCB) | 31 | \$61,621,085 | \$321,571,817 |
| Division of Cancer Control and Population Sciences (DCCPS) | 6 | \$14,343,975 | \$68,276,801 |
| Division of Cancer Prevention (DCP) | 3 | \$7,021,073 | \$36,441,197 |
| Division of Cancer Treatment and Diagnosis (DCTD) | 37 | \$88,455,458 | \$465,667,862 |
| Total | 77 | \$171,441,591 | \$891,957,677 |

Table 10. Requests for Applications (RFAs) Reviewed by the NCI/DEA in FY2008*

| Title of Initiative | RFA Number | Activity Codes | Applications by NCAB Round | | | | Total Costs Requested First Year |
|--|------------|----------------|----------------------------|-----|------|-----------|----------------------------------|
| | | | Totals | Feb | June | Sept | |
| Exfoliated Cells and Circulating DNA in Cancer Detection and Diagnosis | CA07-027 | R43 | 4 | 4 | 0 | 0 | \$474,430 |
| | | R44 | 1 | 1 | 0 | 0 | \$542,735 |
| | CA07-028 | R41 | 1 | 1 | 0 | 0 | \$99,972 |
| Innovative Technologies for Molecular Analysis of Cancer | CA07-033 | R21 | 80 | 15 | 31 | 34 | \$21,340,060 |
| | CA08-006 | | | | | | |
| | CA07-034 | R33 | 8 | 3 | 5 | 0 | \$3,454,515 |
| | CA07-039 | R43 | 12 | 6 | 6 | 0 | \$1,433,082 |
| | CA07-039 | R44 | 5 | 2 | 3 | 0 | \$1,649,545 |
| | CA07-040 | | | | | | |
| | CA07-040 | R41 | 5 | 3 | 2 | 0 | \$968,671 |
| CA07-040 | R42 | 1 | 1 | 0 | 0 | \$749,803 | |

continued

*Source: IMPACII. Includes NCI Primary and Secondary assigned applications. There were 65 withdrawn applications that have been subtracted from the total count.

Table 10. Requests for Applications (RFAs) Reviewed by the NCI/DEA in FY2008*

| Title of Initiative | RFA Number | Activity Codes | Applications by NCAB Round | | | | Total Costs Requested First Year | | | | | |
|---|------------------------------------|----------------|----------------------------|-----|------|------|----------------------------------|-----|----|---|----|--------------|
| | | | Totals | Feb | June | Sept | | | | | | |
| Application of Emerging Technologies for Cancer Research | CA07-035 | R21 | 63 | 14 | 40 | 9 | \$18,450,144 | | | | | |
| | CA08-007 | | | | | | | | | | | |
| | CA07-036 | R33 | | | | | | | | | | |
| | CA08-008 | | | | | | | | | | | |
| | CA07-041 | R43 | | | | | | | | | | |
| | | R44 | | | | | | | | | | |
| | CA07-042 | R41 | | | | | | | | | | |
| | | R42 | | | | | | | | | | |
| Innovations In Cancer Sample Preparation | CA07-037 | R21 | 18 | 5 | 13 | 0 | \$3,821,594 | | | | | |
| | CA07-037 | R33 | 4 | 0 | 4 | 0 | \$2,397,606 | | | | | |
| | CA07-038 | | | | | | | | | | | |
| | CA07-043 | R43 | | | | | | | | | | |
| | | R44 | | | | | | | | | | |
| | CA07-044 | R41 | | | | | | | | | | |
| | | R42 | | | | | | | | | | |
| | Biology of Breast Pre-Malignancies | CA07-047 | | | | | | R01 | 23 | 0 | 23 | 0 |
| Community Clinical Oncology Program | CA07-048 | U10 | | | | | | 14 | 14 | 0 | 0 | \$13,239,781 |
| Minority-Based Community Clinical Oncology Program | CA07-049 | U10 | 3 | 3 | 0 | 0 | \$1,632,848 | | | | | |
| NCI Limited Competition Supplements for Pilot Projects for Community Networks Program to Reduce Cancer Health Disparities | CA07-501 | U01 | 43 | 43 | 0 | 0 | \$3,336,812 | | | | | |
| A Data Resource for Analyzing Blood and Marrow Transplants (Limited Competition) | CA07-506 | U24 | 1 | 1 | 0 | 0 | \$3,099,999 | | | | | |
| Comprehensive Minority Institution Cancer Center Partnership | CA08-001 | U54 | 19 | 0 | 0 | 19 | \$26,838,020 | | | | | |
| Network for Translational Research: Optical Imaging in Multimodal Platforms | CA08-002 | U54 | 23 | 0 | 0 | 23 | \$34,819,745 | | | | | |
| Multidisciplinary Fellowships in Cancer Nanotechnology Research | CA08-003 | F32 | 5 | 0 | 5 | 0 | \$0 | | | | | |
| | | F33 | 2 | 0 | 2 | 0 | \$0 | | | | | |

continued

*Source: IMPACII. Includes NCI Primary and Secondary assigned applications. There were 65 withdrawn applications that have been subtracted from the total count.

Table 10. Requests for Applications (RFAs) Reviewed by the NCI/DEA in FY2008*

| Title of Initiative | RFA Number | Activity Codes | Applications by NCAB Round | | | | Total Costs Requested First Year |
|--|------------|----------------|----------------------------|------------|------------|------------|----------------------------------|
| | | | Totals | Feb | June | Sept | |
| Centers of Excellence in Cancer Communication Research II (CECCR II) | CA08-004 | P20 | 2 | 0 | 0 | 2 | \$4,530,827 |
| | | P50 | 11 | 0 | 0 | 11 | \$25,533,651 |
| Advanced Genomic Data Analysis and Visualization Methods for the Cancer Genome Atlas (TCGA) Data | CA08-005 | R21 | 32 | 0 | 32 | 0 | \$7,081,597 |
| Innovative Technology Solutions to Cancer Sample Preparation | CA08-009 | R21 | 8 | 0 | 0 | 8 | \$1,611,113 |
| | CA08-010 | R33 | 3 | 0 | 0 | 3 | \$1,438,191 |
| | CA08-013 | R43 | 1 | 0 | 0 | 1 | \$177,777 |
| Innovative and Applied Molecular Analysis Technologies for Cancer | CA08-011 | R43 | 5 | 0 | 0 | 5 | \$781,954 |
| | | R44 | 1 | 0 | 0 | 1 | \$603,103 |
| | CA08-012 | R41 | 4 | 0 | 0 | 4 | \$538,870 |
| | | R42 | 1 | 0 | 0 | 1 | \$99,559 |
| Comparative Systems Genetics of Cancer | CA08-017 | R01 | 28 | 0 | 0 | 28 | \$15,096,596 |
| Tumor Stem Cells in Cancer Biology, Prevention, and Therapy | CA08-019 | R01 | 57 | 0 | 0 | 57 | \$31,286,009 |
| Limited Competition: AIDS Cancer Specimen Resource | CA08-501 | U01 | 4 | 0 | 4 | 0 | \$4,286,303 |
| Limited Competition: Cooperative Human Tissue Network | CA08-503 | U01 | 6 | 6 | 0 | 0 | \$7,526,578 |
| Limited Competition: Adult Brain Tumor Clinical Trials Consortium | CA08-504 | U01 | 1 | 0 | 0 | 1 | \$4,289,398 |
| Totals | | | 556 | 145 | 198 | 213 | \$277,478,106 |

*Source: IMPACII. Includes NCI Primary and Secondary assigned applications. There were 65 withdrawn applications that have been subtracted from the total count.

Table 11. Program Announcements (PAs) Reviewed by the NCI/DEA in FY2008*

| Title of Initiative | PA/PAR Number | Activity Codes | Applications by NCAB Round | | | | Total Costs Requested First Year |
|---|---------------|----------------|----------------------------|-----|------|------|----------------------------------|
| | | | Totals | Feb | June | Sept | |
| Midcareer Investigator Award in Patient-Oriented Research | PA04-107 | K24 | 5 | 1 | 4 | 0 | \$1,161,675 |
| Etiology, Prevention, and Treatment of Hepatocellular Carcinoma | PA05-138 | P01 | 3 | 0 | 3 | 0 | \$6,556,732 |
| Mentored Patient-Oriented Research Career Development Award | PA05-143 | K23 | 29 | 11 | 5 | 13 | \$4,230,385 |

continued

*Source: IMPACII. Includes NCI Primary and Secondary assigned applications. There were 81 withdrawn applications that have been subtracted from the total count.

Table 11. Program Announcements (PAs) Reviewed by the NCI/DEA in FY2008*

| Title of Initiative | PA/PAR Number | Activity Codes | Applications by NCAB Round | | | | Total Costs Requested First Year |
|---|---------------|----------------|----------------------------|-----|------|------|----------------------------------|
| | | | Totals | Feb | June | Sept | |
| Mentored Research Scientist Development Award | PA06-001 | K01 | 1 | 0 | 0 | 1 | \$113,400 |
| NIH Support for Conferences and Scientific Meetings | PA06-041 | R13 | 64 | 23 | 19 | 22 | \$2,624,574 |
| | | U13 | 1 | 0 | 1 | 0 | \$30,000 |
| Mentored Quantitative Research Development Award | PA06-087 | K25 | 8 | 4 | 2 | 2 | \$1,535,341 |
| NIH Pathway to Independence (PI) Award | PA06-133 | K99 | 98 | 28 | 42 | 28 | \$1,497,416 |
| | PA07-297 | | | | | | |
| Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grants | PA06-468 | T32 | 42 | 14 | 19 | 9 | \$12,214,165 |
| Mentored Clinical Scientist Research Career Development Award | PA06-512 | K08 | 66 | 23 | 19 | 24 | \$8,730,584 |
| Research Project Grant (Parent R01) | PA07-070 | R01 | 7 | 3 | 2 | 2 | \$11,176,832 |
| Pathophysiology of Bisphosphonates-associated Osteonecrosis of the Jaw | PA07-132 | R01 | 1 | 1 | 0 | 0 | \$487,219 |
| Studies of Energy Balance and Cancer in Humans | PA07-176 | R01 | 1 | 1 | 0 | 0 | \$648,584 |
| NCI Transition Career Development Award to Promote Diversity | PAR05-011 | K22 | 20 | 8 | 2 | 10 | \$3,895,925 |
| | PAR08-047 | | | | | | |
| Established Investigator Award in Cancer Prevention and Control | PAR05-145 | K05 | 12 | 4 | 5 | 3 | \$1,732,782 |
| NCI Mentored Career Development Award to Promote Diversity | PAR06-220 | K01 | 30 | 10 | 13 | 7 | \$4,174,367 |
| NCI Mentored Clinical Scientist Award to Promote Diversity | PAR06-221 | K08 | 3 | 2 | 0 | 1 | \$521,415 |
| Mentored Patient-Oriented Research Award to Promote Diversity | PAR06-222 | K23 | 4 | 2 | 1 | 1 | \$657,488 |
| Small Grants Program for Cancer Epidemiology | PAR06-294 | R03 | 87 | 26 | 36 | 25 | \$6,672,943 |
| Cancer Prevention Research Small Grant Program | PAR06-313 | R03 | 169 | 47 | 48 | 74 | \$13,952,047 |
| | PAR08-055 | | | | | | |
| Cancer Prevention, Control, Behavioral, and Population Sciences Career Development Award | PAR06-381 | K07 | 81 | 27 | 32 | 22 | \$10,955,806 |
| | | K08 | 1 | 0 | 1 | 0 | \$131,610 |
| <i>In Vivo</i> Cellular and Molecular Imaging Centers (ICMICs) | PAR06-406 | P50 | 10 | 10 | 0 | 0 | \$19,997,712 |
| Paul Calabresi Career Development Award for Clinical Oncology | PAR06-449 | K12 | 9 | 9 | 0 | 0 | \$6,383,948 |

continued

*Source: IMPACII. Includes NCI Primary and Secondary assigned applications. There were 81 withdrawn applications that have been subtracted from the total count.

Table 11. Program Announcements (PAs) Reviewed by the NCI/DEA in FY2008*

| Title of Initiative | PA/PAR Number | Activity Codes | Applications by NCAB Round | | | | Total Costs Requested First Year |
|--|------------------------|----------------|----------------------------|------------|------------|------------|----------------------------------|
| | | | Totals | Feb | June | Sept | |
| The NCI Transition Career Development Award | PAR06-455 | K22 | 38 | 13 | 12 | 13 | \$7,229,095 |
| Small Grants for Behavioral Research in Cancer Control | PAR06-458 | R03 | 76 | 14 | 30 | 32 | \$6,001,435 |
| Specialized Programs of Research Excellence (SPOREs) in Human Cancer for the Years 2007, 2008, and 2009 | PAR06-505 PAR08-020 | P50 | 41 | 15 | 17 | 9 | \$111,629,200 |
| National Cancer Institute (NCI) Cancer Education and Career Development Program | PAR06-511 | R25 | 26 | 10 | 9 | 7 | \$11,066,777 |
| Cancer Education Grants Program | PAR06-540 | R25 | 48 | 9 | 21 | 18 | \$16,360,457 |
| Feasibility Studies for Collaborative Interaction for Minority Institution/Cancer Center Partnership | PAR07-230 | P20 | 14 | 0 | 0 | 14 | \$3,010,885 |
| Avon-NCI "Progress for Patients" (PFP) Awards for Early Phase Clinical Interventions and Biomarkers in Breast Cancer (Limited Competitive Supplements [Revisions] for SPORE Grants) | PAR07-244 | P30 | 15 | 0 | 15 | 0 | \$4,198,639 |
| Avon-NCI "Progress for Patients" (PFP) Awards for Early Phase Clinical Interventions and Biomarkers in Breast Cancer (Limited Competitive Supplements [Revisions] for Center Support Grants) | PAR07-245 | P50 | 5 | 0 | 5 | 0 | \$1,083,066 |
| Totals | | | 1,015 | 315 | 363 | 337 | \$280,662,504 |

*Source: IMPACII. Includes NCI Primary and Secondary assigned applications. There were 81 withdrawn applications that have been subtracted from the total count.

Table 12. Requests for Proposals (RFPs) Reviewed by the NCI/DEA in FY2008*

| Announcement/Topic Number | Announcement Title | Workload Round | No. of Proposals |
|---------------------------|--|----------------|------------------|
| N01CO82401-92 | Operations and Technical Support at NCI-Frederick | Feb-08 | 1 |
| Topic 221 (Phase II) | Oral Bioavailability Enhancement of Drug Candidates Using Innovative Experiments | Feb-08 | 1 |
| Topic 229 (Phase I) | Development of Molecular Pharmacodynamic Assays for Targeted Therapies | Jun-08 | 11 |
| Topic 236 (Phase I) | Antibody Array for Cancer Detection | Jun-08 | 12 |
| Topic 241 (Phase I) | Multifunctional Therapeutics Based on Nano Technology | Jun-08 | 13 |

continued

*NCI reviewed a total of 491 proposals. The proposals were in response to SBIR Contract Solicitations - Phase I (96) and Fast Track Phase I/II (14), Phase II (4), RFP (1), and Loan Repayment (376).

Table 12. Requests for Proposals (RFPs) Reviewed by NCI/DEA in FY2008*

| Announcement/ Topic Number | Announcement Title | Workload Round | No. of Proposals |
|--|---|-------------------|---------------------|
| Topic 242 (Phase I: 7) (Phase I & I: 1) | Biosensors for Early Cancer Detection and Risk Assessment | Jun-08 | 9 |
| Topic 243 (Phase I) | Novel and Improved Methods to Measure Cancer Epigenetic Biomarkers | Jun-08 | 3 |
| Topic 244 (Phase I) | High Throughput Assays for Isolation and Characterization of Cancer Stem Cells | Jun-08 | 2 |
| Topic 245 (Phase I) | Assay Systems for Drug Efficacy in Cancer Stem Cells | Jun-08 | 2 |
| Topic 246 (Phase I) | Integrating Patient-Reported Outcomes in Hospice and Palliative Care Practices | Jun-08 | 5 |
| Topic 247 (Phase I) | Portable E-Technology Diet and Physical Activity Tools for Consumers | Jun-08 | 10 |
| Topic 248 (Phase I) | Patient-Centered Coordinated Cancer Care System | Jun-08 | 4 |
| Topic 249 (Phase I: 3) (Phase I & II: 2) | System to Analyze and Support Biomarker Research and Development Strategies | Jun-08 | 7 |
| Topic 250 (Phase I) | Biopsy Instruments and Devices that Preserve Molecular Profiles in Tumors | Jun-08 | 3 |
| Topic 251 (Phase I: 7) (Phase I & II: 3) | Development of Anticancer Agents | Jun-08 | 13 |
| Topic 252 (Phase I) | Nanotechnology Imaging and Sensing Platforms for Improved Diagnosis of Cancer | Jun-08 | 10 |
| Topic 253 (Phase I) | Advances in Protein Expression of Post-Translationally Modified Cancer Related Proteins | Jun-08 | 1 |
| Topic 254 (Phase I: 3) (Phase I & II: 1) | Development of Clinical Quantitative Multiplex High-Throughput Mass Spectrometric Immunoassay for Detecting Low Abundance Cancer Related Proteins/Peptides in Bodily Fluids | Jun-08 | 5 |
| Topic 225 (Phase II) | Home Centered Coordinated Cancer Care System | Jun-08 | 1 |
| Topic 226 (Phase II) | A Clinical Decision Support Tool of Promote Evidence-Based Screening and Interaction in Tobacco Users | Jun-08 | 1 |
| Topic 196 (Phase II) | Antibody Array for Cancer Detection: Amplified Proteomics | Sep-08 | 1 |
| PAR07 - 440 | Loan Repayment | Sep-08 | 81 |
| PAR07 - 442 | Loan Repayment | Sep-08 | 295 |
| Total | | | 491 |

*NCI reviewed a total of 491 proposals. The proposals were in response to SBIR Contract Solicitations - Phase I (96) and Fast Track Phase I/II (14), Phase II (4), RFP (1), and Loan Repayment (376).

Table 13. Summary of NCI Grant Awards by Mechanism in FY2008*

| Mechanism | Award Count | In Thousands | | % of NCI Total Grants | | Competing Requested | Competing Awarded | Success Rate |
|--|--------------|------------------|------------|-----------------------|--------------|---------------------|-------------------|--------------|
| | | Dollars | Avg. Cost | Number | Dollars | | | |
| Research Project Grants (RPG) | | | | | | | | |
| R01 - Traditional Research Grants | 3,732 | 1,250,345 | 335 | 53.2% | 39.8% | 3,665 | 771 | 21.0% |
| P01 - Program Project Grants | 158 | 305,250 | 1,932 | 2.3% | 9.7% | 73 | 23 | 31.5% |
| R03 - Small Grants | 256 | 19,597 | 77 | 3.7% | 0.6% | 326 | 103 | 31.6% |
| R21- Exploratory/ Developmental Grants | 466 | 92,120 | 198 | 6.6% | 2.9% | 1,576 | 231 | 14.7% |
| R33 - Phased Innovation Grant (Phase 2) | 36 | 13,770 | 383 | 0.5% | 0.4% | 13 | 0 | 0.0% |
| R56 - Bridge Award | 2 | 302 | 151 | 0.0% | 0.0% | 2 | 1 | 50.0% |
| Pathway to Independence R00 | 2 | 496 | 248 | 0.0% | 0.0% | – | – | – |
| R37 - MERIT Award | 70 | 36,287 | 518 | 1.0% | 1.2% | 19 | 19 | 100.0% |
| NIH Director Pioneer Award (NDPA) | 2 | 1,651 | 826 | 0.0% | 0.1% | – | – | – |
| R15 - Academic Research Enhancement Awards (AREA) | 22 | 4,725 | 215 | 0.3% | 0.2% | 88 | 22 | 25.0% |
| Request for Applications - RFA (R01, R21, R03, R33, P01) | 169 | 61,058 | 361 | 2.4% | 1.9% | 396 | 64 | 16.2% |
| RFA - Cooperative Agreements (U01, U19) | 125 | 113,196 | 906 | 1.8% | 3.6% | 35 | 26 | 74.3% |
| Cooperative Agreements - not RFA | 28 | 25,238 | 901 | 0.4% | 0.8% | 6 | 6 | 100.0% |
| Total Pool | 5,068 | 1,924,035 | 380 | 72.3% | 61.2% | 6,199 | 1,266 | 20.4% |
| Small Business Innovative Research (U43, U44, R43, R44) - SBIR | 274 | 86,168 | 314 | 3.9% | 2.7% | 569 | 212 | 37.3% |
| Small Business Technology Transfer Research (R41, R42) - STTR | 38 | 11,271 | 297 | 0.5% | 0.4% | 143 | 25 | 17.5% |
| Program Evaluation (tap) | – | 68,382 | – | 0.0% | 2.2% | – | – | – |
| Total, RPG | 5,380 | 2,089,856 | 388 | 76.7% | 66.4% | 6,911 | 1,503 | 21.7% |
| Centers | | | | | | | | |
| P20, P30, U41 - Core | 86 | 14,969 | 174 | 1.2% | 0.5% | 21 | 7 | 33.3% |
| Basic Core Grants | 7 | 19,834 | – | 0.0% | 0.6% | – | – | – |
| Clinical Core Grants | 18 | 52,729 | – | 0.0% | 1.7% | 8 | 6 | 75.0% |
| Comprehensive Core Grants | 39 | 181,712 | – | 0.0% | 5.8% | 8 | 5 | 62.5% |
| Center for AIDS Researches | – | 5,226 | – | 0.0% | 0.2% | – | – | – |

continued

*Courtesy of the Extramural Financial Data Branch, NCI.

Table 13. Summary of NCI Grant Awards by Mechanism in FY2008*

| Mechanism | Award Count | In Thousands | | % of NCI Total Grants | | Competing Requested | Competing Awarded | Success Rate |
|---|-------------|----------------|--------------|-----------------------|--------------|---------------------|-------------------|--------------|
| | | Dollars | Avg. Cost | Number | Dollars | | | |
| P50 - Spore Grants | 60 | 123,293 | 2,055 | 0.9% | 3.9% | 44 | 19 | 43.2% |
| U54 - Specialized Center (Cooperative Agreements) | 44 | 79,271 | 1,802 | 0.6% | 2.5% | 10 | 6 | 60.0% |
| Subtotal, Centers | 254 | 477,034 | 2,511 | 2.7% | 15.2% | 91 | 43 | 47.3% |
| Other Research (A) | | | | | | | | |
| U13 - Conference (Cooperative Agreement) | 1 | 9 | 9 | 0.0% | 0.0% | 1 | 1 | 100.0% |
| D43, R13 - Conference Grants | 92 | 3,099 | 34 | 1.3% | 0.1% | 59 | 58 | 98.3% |
| T15 - Training Conference Grants | 7 | 722 | 103 | 0.1% | 0.0% | – | – | – |
| R24, U24 - Research Resource Grant | 48 | 52,814 | 1,100 | 0.7% | 1.7% | 8 | 8 | 100.0% |
| SC1 - Research Enhancement Award | 2 | 695 | 348 | 0.0% | 0.0% | 1 | 1 | 100.0% |
| Pilot Research Project | 2 | 190 | 95 | 0.0% | 0.0% | 2 | 2 | 100.0% |
| U10 Clinical Cooperative Group | 61 | 143,975 | 2,360 | 0.9% | 4.6% | 4 | 4 | 100.0% |
| S06 - Minority Biomedical Research Support | – | 1,360 | – | 0.0% | 0.0% | – | – | – |
| U56 - Exploratory Grants - Coop. Agreement | 6 | 5,293 | 882 | 0.1% | 0.2% | – | – | – |
| Subtotal, Other Research (A) | 219 | 208,157 | 950 | 3.1% | 6.6% | 75 | 73 | 97.3% |
| Other Research (B) | | | | | | | | |
| R25 - Cancer Education | 82 | 30,089 | 367 | 1.2% | 1.0% | 61 | 16 | 26.2% |
| K08 - Mentored Clinical Scientist | 95 | 12,715 | 134 | 1.4% | 0.4% | 65 | 21 | 32.3% |
| K07 - Preventive Oncology Award | 104 | 13,775 | 132 | 1.5% | 0.4% | 77 | 27 | 35.1% |
| K12, K14 - Mentored Career Award | 16 | 9,572 | 598 | 0.2% | 0.3% | 8 | 4 | 50.0% |
| K01 - Temin Award | 102 | 14,631 | 143 | 1.5% | 0.5% | 27 | 9 | 33.3% |
| K22 - Clinical Research Track | 47 | 7,284 | 155 | 0.7% | 0.2% | 55 | 13 | 23.6% |
| K23 - Mentored Patient-Oriented Research Career Development Award | 48 | 6,453 | 134 | 0.7% | 0.2% | 33 | 8 | 24.2% |
| K24 - Mid-Career Investigator in Patient-Oriented Research Award | 20 | 3,251 | 163 | 0.3% | 0.1% | 6 | 5 | 83.3% |

continued

*Courtesy of the Extramural Financial Data Branch, NCI.

Table 13. Summary of NCI Grant Awards by Mechanism in FY2008*

| Mechanism | Award Count | In Thousands | | % of NCI Total Grants | | Competing Requested | Competing Awarded | Success Rate |
|---|--------------|------------------|------------|-----------------------|---------------|---------------------|-------------------|--------------|
| | | Dollars | Avg. Cost | Number | Dollars | | | |
| K25 - Mentored Quantitative Research Career Development Award | 21 | 2,881 | 137 | 0.3% | 0.1% | 12 | 5 | 41.7% |
| K05 - Established Investigator in Cancer Prevention & Control | 20 | 2,813 | 141 | 0.3% | 0.1% | 11 | 6 | 54.5% |
| K99 - Pathway to Independence | 52 | 6,153 | 118 | 0.7% | 0.2% | 103 | 34 | 33.0% |
| Subtotal, Other Research (B) | 607 | 79,528 | 151 | 7.5% | 2.5% | 397 | 132 | 33.2% |
| Total, Other Research (A & B) | 826 | 317,774 | 385 | 11.8% | 10.1% | 533 | 221 | 41.5% |
| Ruth Kirschstein National Research Service Awards (NRSA) | | | | | | | | |
| T32, T34, T35, T36 - NRSA Institutional Award | 180 | 59,880 | 333 | 2.6% | 1.9% | 65 | 37 | 56.9% |
| F31, F32, F33, F34 - NRSA Fellowship | 233 | 10,020 | 43 | 3.3% | 0.3% | 317 | 88 | 27.8% |
| Total, NRSA | 413 | 69,900 | 169 | 5.9% | 2.2% | 382 | 125 | 32.7% |
| Cancer Control | | | | | | | | |
| Cancer Prevention and Control | 201 | 190,442 | 947 | 2.9% | 6.1% | 68 | 45 | 66.2% |
| Total, Cancer Control | 201 | 190,442 | 947 | 2.9% | 6.1% | 68 | 45 | 66.2% |
| Total NCI Grants | 7,074 | 3,145,006 | 449 | 100.0% | 100.0% | 7,985 | 1,937 | 24.3% |

*Courtesy of the Extramural Financial Data Branch, NCI.

Table 14. Average Total Cost* and Number of Research Project Grant Awards Sorted by Division, Office, Center, and Mechanism From FY2004 - FY2008

| | FY 2004 | | FY 2005 | | FY 2006 | | FY 2007 | | FY 2008 | | Percent Change 2004 - 2008 | |
|--|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|----------------------------|-----------|
| | No. | Avg. Cost | No. | Avg. Cost |
| R01 Average Cost of Award Data | | | | | | | | | | | | |
| NCI Overall | 3,780 | \$338 | 3,848 | \$341 | 3,909 | \$331 | 3,849 | \$329 | 3,732 | \$335 | -1.3% | -0.9% |
| DCB | 2,139 | \$305 | 2,132 | \$306 | 2,132 | \$300 | 2,050 | \$294 | 1,923 | \$298 | -10.1% | -2.3% |
| DCP | 169 | \$412 | 203 | \$418 | 225 | \$394 | 231 | \$392 | 247 | \$368 | 46.2% | -10.7% |
| DCTD | 1,027 | \$314 | 1,057 | \$319 | 1,087 | \$312 | 1,083 | \$308 | 1,055 | \$317 | 2.7% | 1.0% |
| DCCPS | 441 | \$501 | 453 | \$502 | 459 | \$464 | 478 | \$474 | 490 | \$484 | 11.1% | -3.4% |
| OD (CRCHD, OCAM, CSSI, OCTR, OHAM, etc.) | 4 | N.A. | 3 | N.A. | 6 | \$2,148 | 7 | \$1,751 | 17 | \$917 | 325.0% | N.A. |

continued

*In thousands.

Table 14. Average Total Cost* and Number of Research Project Grant Awards Sorted by Division, Office, Center, and Mechanism From FY2004 - FY2008

| | FY 2004 | | FY 2005 | | FY 2006 | | FY 2007 | | FY 2008 | | Percent Change 2004 - 2008 | |
|---|---------|--------------|---------|--------------|---------|--------------|---------|--------------|---------|--------------|-------------------------------|--------------|
| | No. | Avg. Cost | No. | Avg. Cost |
| P01 Average Cost of Award Data | | | | | | | | | | | | |
| NCI Overall | 177 | \$1,946 | 176 | \$1,924 | 173 | \$1,963 | 172 | \$1,901 | 158 | \$1,932 | -10.7% | -0.7% |
| DCB | 66 | \$1,702 | 67 | \$1,717 | 70 | \$1,677 | 65 | \$1,584 | 58 | \$1,675 | -12.1% | -1.6% |
| DCP | 13 | \$2,065 | 15 | \$2,047 | 12 | \$2,133 | 13 | \$2,047 | 11 | \$1,916 | -15.4% | -7.2% |
| DCTD | 86 | \$2,040 | 84 | \$2,027 | 82 | \$2,148 | 84 | \$2,067 | 77 | \$2,069 | -10.5% | 1.4% |
| DCCPS | 12 | \$2,375 | 9 | \$2,358 | 8 | \$2,270 | 9 | \$2,367 | 11 | \$2,306 | -8.3% | -2.9% |
| OD(CRCHD, OCAM, OCTR, OHAM, etc.) | | N.A. | 1 | \$1,426 | 1 | \$2,349 | 1 | \$2,442 | 1 | \$2,397 | N.A. | N.A. |
| R03 Average Cost of Award Data | | | | | | | | | | | | |
| NCI Overall | 240 | \$75 | 223 | \$76 | 218 | \$76 | 284 | \$76 | 256 | \$77 | 6.7% | 2.7% |
| DCB | 7 | \$76 | 5 | \$70 | 3 | \$78 | 5 | \$73 | 9 | \$75 | 28.6% | -1.3% |
| DCP | 137 | \$74 | 85 | \$76 | 96 | \$76 | 122 | \$77 | 107 | \$78 | -21.9% | 5.4% |
| DCTD | 5 | \$80 | 5 | \$82 | 3 | \$95 | 8 | \$78 | 9 | \$73 | 80.0% | -8.8% |
| DCCPS | 91 | \$76 | 128 | \$76 | 116 | \$75 | 149 | \$76 | 131 | \$75 | 44.0% | -1.3% |
| OD (CRCHD, OCAM, OCTR, etc.) | | N.A. | | N.A. | 0 | N.A. | 0 | N.A. | 0 | N.A. | N.A. | N.A. |
| R21 Average Cost of Award Data | | | | | | | | | | | | |
| NCI Overall | 425 | \$183 | 430 | \$178 | 405 | \$174 | 437 | \$180 | 466 | \$198 | 9.6% | 8.2% |
| DCB | 70 | \$157 | 75 | \$150 | 59 | \$145 | 64 | \$161 | 74 | \$183 | 5.7% | 16.6% |
| DCP | 76 | \$151 | 42 | \$176 | 47 | \$166 | 48 | \$163 | 55 | \$169 | -27.6% | 11.9% |
| DCTD | 241 | \$202 | 240 | \$193 | 228 | \$191 | 250 | \$194 | 248 | \$214 | 2.9% | 5.9% |
| DCCPS | 37 | \$177 | 72 | \$153 | 70 | \$150 | 75 | \$158 | 87 | \$180 | 135.1% | 1.7% |
| OD (CRCHD, OCAM, OCTR, OHAM, etc.) | 1 | \$277 | 1 | \$455 | 1 | \$239 | 0 | N.A. | 2 | \$230 | 100.0% | N.A. |
| U01/U19 Average Cost of Award Data | | | | | | | | | | | | |
| NCI Overall | 174 | \$942 | 164 | \$969 | 146 | \$1,040 | 145 | \$1,010 | 125 | \$906 | -28.2% | -3.8% |
| DCB | 27 | \$748 | 27 | \$782 | 26 | \$840 | 26 | \$850 | 23 | \$870 | -14.8% | 16.3% |
| DCP | 9 | \$907 | 10 | \$831 | 9 | \$696 | 15 | \$469 | 9 | \$402 | 0.0% | -55.7% |
| DCTD | 103 | \$952 | 85 | \$1,076 | 65 | \$1,251 | 61 | \$1,293 | 56 | \$1,051 | -45.6% | 10.4% |
| DCCPS | 35 | \$1,060 | 42 | \$902 | 45 | \$921 | 43 | \$886 | 32 | \$564 | -8.6% | -46.8% |
| OD (CRCHD, OCAM, OCTR, OHAM, etc.) | | N.A. | | N.A. | 1 | \$951 | 0 | N.A. | 5 | \$2,534 | N.A. | N.A. |

continued

*In thousands.

Table 14. Average Total Cost* and Number of Research Project Grant Awards Sorted by Division, Office, Center, and Mechanism From FY2004 - FY2008

| | FY 2004 | | FY 2005 | | FY 2006 | | FY 2007 | | FY 2008 | | Percent Change 2004 - 2008 | |
|---|---------|--------------|---------|--------------|---------|--------------|---------|--------------|---------|--------------|-------------------------------|--------------|
| | No. | Avg. Cost | No. | Avg. Cost |
| R13 Average Cost of Award Data | | | | | | | | | | | | |
| NCI Overall | 112 | \$19 | 99 | \$23 | 85 | \$16 | 81 | \$15 | 92 | \$34 | -17.9% | 78.9% |
| DCB | 56 | \$9 | 55 | \$9 | 43 | \$8 | 42 | \$8 | 40 | \$9 | -28.6% | 0.0% |
| DCP | 13 | \$13 | 13 | \$14 | 10 | \$11 | 8 | \$18 | 4 | \$12 | -69.2% | -7.7% |
| DCTD | 22 | \$20 | 13 | \$33 | 14 | \$7 | 16 | \$12 | 24 | \$11 | 9.1% | -45.0% |
| DCCPS | 15 | \$26 | 10 | \$63 | 13 | \$42 | 10 | \$29 | 11 | \$30 | -26.7% | 15.4% |
| OD (CRCHD, OCAM, OCTR, OHAM, etc.) | 6 | \$110 | 8 | \$64 | 5 | \$57 | 5 | \$52 | 13 | \$162 | 116.7% | 47.3% |
| U10 Average Cost of Award Data – Includes Cancer Control | | | | | | | | | | | | |
| NCI Overall | 139 | \$1,785 | 136 | \$1,732 | 123 | \$1,912 | 138 | \$1,728 | 133 | \$1,083 | -4.3% | -39.3% |
| DCB | | N.A. | N.A. | N.A. |
| DCP | 74 | \$1,258 | 73 | \$1,269 | 60 | \$1,485 | 72 | \$1,250 | 72 | \$1,275 | -2.7% | 1.4% |
| DCTD | 65 | \$2,373 | 63 | \$2,266 | 63 | \$2,316 | 66 | \$2,246 | 61 | \$2,360 | -6.2% | -0.5% |
| DCCPS | | N.A. | N.A. | N.A. |
| OD (CRCHD, OCAM, OCTR, OHAM, etc.) | | N.A. | N.A. | N.A. |
| P30 Average Cost of Award Data – Includes Cancer Control | | | | | | | | | | | | |
| NCI Overall | 63 | \$3,798 | 63 | \$3,945 | 63 | \$4,098 | 63 | \$4,229 | 64 | \$4,217 | 1.6% | 11.0% |
| DCB | | N.A. | N.A. | N.A. |
| DCP | 2 | \$960 | 2 | \$818 | 2 | \$823 | | N.A. | | N.A. | 100.0% | 100.0% |
| DCTD | | N.A. | N.A. | N.A. |
| DCCPS | | N.A. | N.A. | N.A. |
| OD (CRCHD, OCAM, OCTR, OHAM, etc.) | 61 | \$3,834 | 61 | \$3,982 | 61 | \$4,134 | 63 | \$4,141 | 64 | \$4,217 | 4.9% | 10.0% |
| P50 Average Cost of Award Data – Includes Cancer Control | | | | | | | | | | | | |
| NCI Overall | 83 | \$2,204 | 76 | \$2,197 | 75 | \$2,138 | 80 | \$1,957 | 60 | \$2,055 | -27.7% | -6.8% |
| DCB | 6 | \$2,189 | | N.A. | | N.A. | | N.A. | | N.A. | 100.0% | 100.0% |
| DCP | | N.A. | N.A. | N.A. |
| DCTD | 7 | \$2,249 | 7 | \$1,984 | 8 | \$1,974 | 9 | \$1,591 | 60 | \$2,051 | 757.1% | -8.8% |
| DCCPS | 12 | \$1,830 | 12 | \$1,868 | 12 | \$1,830 | 12 | \$1,746 | | N.A. | 100.0% | 100.0% |
| OD (CRCHD, OCAM, OCTR, OHAM, etc.) | 58 | \$2,278 | 57 | \$2,292 | 55 | \$2,229 | 59 | \$2,056 | | N.A. | 100.0% | 100.0% |

continued

*In thousands.

Table 14. Average Total Cost* and Number of Research Project Grant Awards Sorted by Division, Office, Center, and Mechanism From FY2004 - FY2008

| | FY 2004 | | FY 2005 | | FY 2006 | | FY 2007 | | FY 2008 | | Percent Change 2004 - 2008 | |
|---|---------|--------------|---------|--------------|---------|--------------|---------|--------------|---------|--------------|-------------------------------|--------------|
| | No. | Avg. Cost | No. | Avg. Cost |
| SBIR Average Cost of Award Data | | | | | | | | | | | | |
| NCI Overall | 344 | \$257 | 231 | \$375 | 224 | \$379 | 231 | \$356 | 274 | \$314 | -20.3% | 22.2% |
| CSSI | | \$0 | | \$0 | 1 | \$248 | 1 | \$250 | | \$0 | | |
| DCB | 36 | \$224 | 28 | \$343 | 26 | \$347 | 33 | \$284 | 23 | \$268 | -36.1% | 19.6% |
| DCCPS | 42 | \$259 | 20 | \$327 | 22 | \$361 | 20 | \$314 | 13 | \$326 | -69.0% | 25.9% |
| DCP | 13 | \$204 | 12 | \$170 | 22 | \$231 | 14 | \$341 | 16 | \$318 | 23.1% | 55.9% |
| DCTD | 253 | \$265 | 171 | \$400 | 153 | \$409 | 163 | \$378 | 165 | \$342 | -34.8% | 29.1% |
| SBIRDC | | \$0 | | \$0 | | \$0 | | \$0 | 57 | \$251 | 100.0% | 100.0% |
| STTR Average Cost of Award Data | | | | | | | | | | | | |
| NCI Overall | 53 | \$208 | 34 | \$329 | 39 | \$286 | 47 | \$242 | 38 | \$297 | -28.3% | 42.8% |
| DCB | 6 | \$184 | 2 | \$577 | 2 | \$490 | 2 | \$292 | 3 | \$189 | -50.0% | 2.7% |
| DCCPS | 1 | \$86 | 1 | \$753 | 1 | \$119 | 1 | \$107 | 2 | \$301 | 100.0% | 250.0% |
| DCP | | \$0 | | \$0 | 3 | \$453 | 3 | \$300 | 3 | \$325 | 100.0% | 100.0% |
| DCTD | 46 | \$214 | 31 | \$300 | 33 | \$264 | 41 | \$238 | 27 | \$297 | -41.3% | 38.8% |
| SBIRDC | | \$0 | | \$0 | | \$0 | | \$0 | 3 | \$368 | 100.0% | 100.0% |
| SBIR/STTR Average Cost of Award Data | | | | | | | | | | | | |
| NCI Overall | 397 | \$251 | 265 | \$369 | 263 | \$365 | 278 | \$337 | 312 | \$312 | -21.4% | 24.3% |
| CSSI | | \$0 | | \$0 | 1 | \$248 | 1 | \$250 | 0 | \$0 | | |
| DCB | 42 | \$218 | 30 | \$359 | 28 | \$357 | 35 | \$284 | 26 | \$259 | -38.1% | 18.8% |
| DCCPS | 43 | \$255 | 21 | \$348 | 23 | \$350 | 21 | \$304 | 15 | \$323 | -65.1% | 26.7% |
| DCP | 13 | \$204 | 12 | \$170 | 25 | \$257 | 17 | \$334 | 19 | \$319 | 46.2% | 56.4% |
| DCTD | 299 | \$257 | 202 | \$385 | 186 | \$383 | 204 | \$350 | 192 | \$335 | 35.8% | 30.4% |
| SBIRDC | | \$0 | | \$0 | | \$0 | | \$0 | 60 | \$257 | 100.0% | 100.0% |
| U54 Average Cost of Award Data | | | | | | | | | | | | |
| NCI Overall | 0 | \$1,000 | 17 | \$2,956 | 27 | \$2,222 | 42 | \$1,778 | 44 | \$1,802 | 100.0% | 80.2% |
| CRCHD | | \$0 | | \$0 | | \$0 | 15 | \$961 | 17 | \$1,161 | 100.0% | 100.0% |
| CSSI | | \$0 | 7 | \$3,748 | 8 | \$3,655 | 8 | \$3,635 | 8 | \$3,683 | 100.0% | 100.0% |
| DCB | 0 | \$1,000 | 6 | \$2,435 | 15 | \$1,426 | 15 | \$1,483 | 15 | \$1,407 | 100.0% | 40.7% |
| DCCPS | | \$0 | 4 | \$2,352 | 4 | \$2,339 | 4 | \$2,236 | 4 | \$2,242 | 100.0% | 100.0% |

*In thousands.

Table 15. NCI Organ and Related Site-Specific Dollars for FY2004 - FY2008 – Annual Percent Change*

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

| ANATOMICAL SITE | 2004 | 2005 | 2006 | 2007 | 2008 | Average Dollar Change/yr. | Average Percent Change/yr. |
|-------------------------|-------------|-------------|-------------|-------------|-------------|---------------------------|----------------------------|
| Adrenal | 2,593,630 | 2,717,779 | 2,022,497 | 1,713,386 | 490,757 | -525,718 | -26.86% |
| Anus | 6,178,964 | 6,313,360 | 1,903,513 | 2,118,674 | 2,148,120 | -1,007,711 | -13.75% |
| Bladder | 29,192,500 | 25,392,413 | 19,803,683 | 17,371,697 | 20,366,778 | -2,206,431 | -7.52% |
| Bone Marrow | 16,859,731 | 17,969,897 | 22,465,093 | 22,451,131 | 14,699,518 | -540,053 | -0.75% |
| Bone, Cartilage | 21,436,315 | 20,296,744 | 21,063,492 | 19,387,491 | 15,746,190 | -1,422,531 | -7.07% |
| Brain | 105,526,751 | 101,434,991 | 105,060,878 | 115,250,618 | 117,942,993 | 3,104,061 | 2.93% |
| Breast | 514,406,565 | 510,552,531 | 527,807,370 | 521,633,567 | 506,731,944 | -1,918,655 | -0.35% |
| Buccal Cavity | 6,480,376 | 5,494,543 | 8,081,757 | 9,150,490 | 6,596,431 | 29,014 | 4.30% |
| Central Nervous System | 20,699,745 | 17,192,652 | 14,061,106 | 12,427,536 | 9,058,038 | -2,910,427 | -18.47% |
| Cervix | 72,682,867 | 75,787,307 | 73,228,337 | 72,958,209 | 61,219,296 | -2,865,893 | -3.89% |
| Childhood Leukemia | 48,088,942 | 45,113,301 | 38,504,393 | 39,602,861 | 41,961,968 | -1,531,744 | -3.01% |
| Colon, Rectum | 245,543,444 | 238,230,314 | 228,997,550 | 242,141,015 | 241,069,600 | -1,118,461 | -0.39% |
| Connective Tissue | 7,094,659 | 7,558,119 | 11,474,292 | 10,576,461 | 12,287,974 | 1,298,329 | 16.68% |
| Embryonic Tissue, Cells | 6,559,473 | 5,318,429 | 4,184,399 | 3,009,363 | 1,682,044 | -1,219,357 | -28.11% |
| Esophagus | 19,382,040 | 20,378,823 | 18,672,533 | 19,566,240 | 17,755,949 | -406,523 | -1.92% |
| Eye | 1,513,506 | 2,465,231 | 1,689,222 | 2,107,705 | 1,850,716 | 84,303 | 11.00% |
| Gall Bladder | 872,737 | 899,162 | 1,186,770 | 990,701 | 462,516 | -102,555 | -8.71% |
| Gastrointestinal Tract | 19,597,757 | 21,145,926 | 17,155,752 | 13,337,106 | 9,097,081 | -2,625,169 | -16.25% |
| Genital System, Female | 5,172,691 | 4,794,366 | 2,823,806 | 2,545,359 | 1,983,043 | -797,412 | -20.09% |
| Genital System, Male | 2,262,682 | 4,243,858 | 2,308,078 | 2,074,914 | 1,955,709 | -76,743 | 6.52% |
| Head and Neck | 44,167,285 | 44,641,240 | 41,555,151 | 37,581,195 | 43,067,725 | -274,890 | -0.20% |
| Heart | 4,909,069 | 4,452,774 | 4,255,232 | 3,088,826 | 2,857,539 | -512,883 | -12.16% |
| Hodgkin's Lymphoma | 16,247,077 | 16,354,733 | 19,636,312 | 15,148,880 | 15,433,893 | -203,296 | -0.06% |
| Kaposi Sarcoma | 18,688,727 | 20,071,159 | 20,133,663 | 20,075,346 | 19,750,554 | 265,457 | 1.45% |
| Kidney | 22,618,493 | 24,984,890 | 22,472,490 | 22,095,888 | 25,070,678 | 613,046 | 3.05% |
| Larynx | 777,411 | 491,395 | 353,412 | 333,234 | 94,951 | -170,615 | -35.52% |
| Leukemia | 196,638,676 | 201,052,444 | 198,818,288 | 182,882,813 | 180,455,806 | -4,045,718 | -2.05% |
| Liver | 54,341,107 | 52,888,388 | 53,472,232 | 58,928,177 | 57,758,872 | 854,441 | 1.66% |
| Lung | 253,490,911 | 245,457,301 | 220,104,368 | 205,545,637 | 211,664,104 | -10,456,702 | -4.28% |
| Lymph Node | 1,247,100 | 4,350,116 | 3,744,942 | 4,278,957 | 5,067,477 | 955,094 | 66.90% |
| Lymphatic System | 1,130,650 | 424,632 | 718,819 | 658,665 | 1,008,473 | -30,544 | 12.89% |
| Melanoma | 86,725,177 | 94,558,088 | 94,920,227 | 85,849,652 | 88,137,544 | 353,092 | 0.63% |

continued

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

Table 15. NCI Organ and Related Site-Specific Dollars for FY2004 - FY2008 – Annual Percent Change*

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

| ANATOMICAL SITE | 2004 | 2005 | 2006 | 2007 | 2008 | Average Dollar Change/yr. | Average Percent Change/yr. |
|----------------------------|-------------|-------------|-------------|-------------|-------------|---------------------------|----------------------------|
| Muscle | 9,961,120 | 9,250,584 | 7,605,653 | 7,437,525 | 7,024,414 | -734,177 | -8.17% |
| Myeloma | 21,375,570 | 25,085,863 | 27,013,588 | 27,362,776 | 33,503,775 | 3,032,051 | 12.19% |
| Nervous System | 2,859,805 | 2,909,612 | 3,302,967 | 4,023,649 | 5,435,453 | 643,912 | 18.04% |
| Neuroblastoma | 22,723,369 | 22,004,713 | 19,558,040 | 15,104,996 | 15,573,801 | -1,787,392 | -8.49% |
| Non-Hodgkin's Lymphoma | 91,103,091 | 94,545,180 | 98,911,228 | 99,384,129 | 99,020,696 | 1,979,401 | 2.13% |
| Nose, Nasal Passages | 2,435,202 | 1,759,357 | 956,549 | 762,856 | 805,092 | -407,528 | -22.02% |
| Ovary | 93,598,684 | 91,509,918 | 87,686,822 | 88,505,726 | 84,649,015 | -2,237,417 | -2.46% |
| Pancreas | 50,924,876 | 64,697,347 | 70,407,600 | 69,056,905 | 79,059,158 | 7,033,571 | 12.11% |
| Parathyroid | 206,013 | 186,052 | 187,134 | 171,823 | 144,230 | -15,446 | -8.34% |
| Penis | 1,007,097 | 1,777,028 | 2,938,868 | 2,720,503 | 3,031,187 | 506,023 | 36.46% |
| Pharynx | 3,610,213 | 3,405,521 | 3,703,659 | 3,924,697 | 3,893,205 | 70,748 | 2.06% |
| Pituitary | 1,958,668 | 1,904,001 | 1,726,533 | 897,516 | 583,208 | -343,865 | -23.79% |
| Prostate | 283,487,876 | 281,876,087 | 262,443,938 | 269,922,959 | 255,319,704 | -7,042,043 | -2.51% |
| Respiratory System | 477,322 | 447,805 | 413,800 | 400,761 | 381,863 | -23,865 | -5.41% |
| Reticuloendothelial System | 19,752,858 | 16,748,919 | 14,526,383 | 12,410,375 | 8,597,331 | -2,788,882 | -18.44% |
| Retinoblastoma | 2,470,155 | 3,716,422 | 3,340,918 | 3,691,685 | 4,486,957 | 504,201 | 18.10% |
| Salivary Glands | 305,461 | 247,997 | 209,785 | 166,982 | 167,305 | -34,539 | -13.61% |
| Skin | 63,687,265 | 63,603,865 | 59,159,876 | 55,115,019 | 46,826,626 | -4,215,160 | -7.25% |
| Small Intestine | 1,592,051 | 1,956,314 | 3,736,917 | 3,398,526 | 1,695,992 | 25,985 | 13.69% |
| Spleen | 561,467 | 314,378 | 413,583 | 553,101 | 579,727 | 4,565 | 6.52% |
| Stomach | 9,841,719 | 9,259,931 | 9,655,711 | 10,208,137 | 8,358,787 | -370,733 | -3.51% |
| Testis | 6,584,671 | 6,138,620 | 7,345,304 | 7,745,565 | 6,627,363 | 10,673 | 0.97% |
| Thymus | 625,911 | 1,102,792 | 1,285,454 | 1,097,000 | 944,461 | 79,638 | 16.05% |
| Thyroid | 5,729,563 | 6,696,420 | 9,035,918 | 7,116,425 | 9,946,977 | 1,054,354 | 17.59% |
| Trachea, Bronchus | 256,373 | 272,569 | 209,385 | 256,970 | 283,631 | 6,815 | 4.06% |
| Uterus | 24,678,691 | 29,654,053 | 17,863,777 | 15,215,991 | 13,302,939 | -2,843,938 | -11.75% |
| Vagina | 571,670 | 922,677 | 405,092 | 334,452 | 395,049 | -44,155 | 1.50% |
| Vascular | 44,089,096 | 35,543,894 | 30,549,373 | 23,495,473 | 15,923,035 | -7,041,515 | -22.19% |
| Wilms Tumor | 4,243,617 | 3,394,348 | 4,070,329 | 3,551,394 | 3,486,161 | -189,364 | -3.67% |

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

Table 16. NCI Special Interest Category (SIC) Dollars for FY2004 - FY2008 – Annual Percent Change*

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

| Special Interest Categories (SIC) | 2004 | 2005 | 2006 | 2007 | 2008 | Average Dollar Change per Year | Average Percent Change per Year |
|--------------------------------------|-------------|-------------|-------------|-------------|-------------|--------------------------------|---------------------------------|
| Adoptive Cell Immunotherapy | 70,375,002 | 70,072,700 | 77,231,307 | 74,955,015 | 70,996,207 | 155,301 | 0.39% |
| Adv. Manufacturing Technology | 12,662,969 | 16,171,766 | 12,137,985 | 10,801,162 | 5,511,219 | -1,787,938 | -14.31% |
| Aging | 160,302,073 | 171,633,181 | 159,035,657 | 161,216,276 | 152,145,852 | -2,039,055 | -1.13% |
| AIDS | 130,840,621 | 131,010,836 | 116,787,294 | 112,492,187 | 103,067,182 | -6,943,360 | -5.70% |
| Alternative Medicine, Direct | 62,596,463 | 59,802,451 | 65,332,949 | 72,400,207 | 94,206,788 | 7,902,581 | 11.43% |
| Alternative Medicine, Indirect | 33,406,568 | 25,822,838 | 21,292,360 | 19,658,748 | 12,699,686 | -5,176,721 | -20.83% |
| Alzheimers Dementia | 1,558,931 | 1,536,040 | 874,500 | 688,918 | 519,280 | -259,913 | -22.60% |
| Arctic Research | 3,477,543 | 2,227,788 | 1,569,039 | 401,216 | 657,911 | -704,908 | -18.99% |
| Arthritis | 1,515,693 | 1,007,647 | 902,084 | 675,986 | 558,858 | -239,209 | -21.60% |
| Asbestos | 2,255,176 | 2,728,981 | 3,507,819 | 2,045,502 | 2,928,933 | 168,439 | 12.76% |
| Ataxia Telangiectasia | 4,569,973 | 4,746,714 | 4,234,624 | 3,510,779 | 3,327,580 | -310,598 | -7.31% |
| Autoimmune Diseases | 9,958,212 | 9,037,735 | 7,958,704 | 6,680,112 | 6,740,955 | -804,314 | -9.08% |
| Behavior Research | 284,166,605 | 295,139,435 | 282,212,112 | 290,345,827 | 267,635,881 | -4,132,681 | -1.36% |
| Bioengineering | 293,329,685 | 207,349,791 | 195,581,838 | 188,957,673 | 186,040,980 | -26,822,176 | -9.98% |
| Bioinformatics | 124,834,295 | 147,062,040 | 175,997,702 | 186,084,187 | 209,948,644 | 21,278,587 | 14.01% |
| Biological Carcinogenesis, Non-Viral | 6,128,334 | 5,956,723 | 7,500,235 | 9,839,320 | 9,579,173 | 862,710 | 12.91% |
| Biological Response Modifiers | 750,275,261 | 887,217,706 | 880,071,661 | 860,970,394 | 798,141,312 | 11,966,513 | 1.99% |
| Biomaterials Research | 39,745,363 | 37,785,085 | 29,846,909 | 28,675,262 | 29,381,474 | -2,590,972 | -6.85% |
| Biomedical Computing | † | † | † | 105,704,582 | 150,599,210 | 44,894,628 | 42.47% |
| Birth Defects | 8,894,762 | 9,889,474 | 9,956,995 | 12,542,976 | 12,567,050 | 918,072 | 9.51% |
| Bone Marrow Transplantation | 57,457,088 | 49,480,615 | 52,200,213 | 55,302,120 | 45,432,991 | -3,006,024 | -5.07% |
| Breast Cancer, Detection | 97,976,659 | 101,390,086 | 111,131,349 | 106,172,825 | 107,322,996 | 2,336,584 | 2.43% |
| Breast Cancer, Early Detection | 43,101,816 | 48,551,540 | 55,723,001 | 53,629,264 | 51,733,151 | 2,157,834 | 5.03% |
| Breast Cancer, Education | 19,386,970 | 19,854,753 | 18,302,054 | 18,883,906 | 15,001,800 | -1,096,293 | -5.70% |
| Breast Cancer, Epidemiology | 70,470,523 | 63,832,544 | 60,364,732 | 57,226,668 | 53,983,579 | -4,121,736 | -6.43% |
| Breast Cancer, Genetics | 77,442,317 | 81,815,294 | 94,109,611 | 94,230,669 | 95,988,119 | 4,636,451 | 5.67% |
| Breast Cancer, Prevention | 32,510,070 | 32,360,672 | 33,363,774 | 33,215,639 | 23,912,416 | -2,149,414 | -6.45% |
| Breast Cancer, Rehabilitation | 15,549,473 | 18,220,763 | 17,438,406 | 19,165,391 | 17,693,808 | 536,084 | 3.78% |
| Breast Cancer, Screening | 26,554,448 | 25,913,420 | 26,400,323 | 23,893,551 | 21,218,698 | -1,333,938 | -5.31% |
| Breast Cancer, Treatment | 155,143,128 | 154,285,405 | 152,504,604 | 156,754,889 | 158,632,338 | 872,303 | 0.57% |
| Breast Cancer, Basic | 143,663,931 | 143,175,326 | 153,408,211 | 149,008,004 | 144,944,361 | 320,108 | 0.30% |
| Cancer Survivorship | 144,326,030 | 145,043,558 | 182,562,991 | 183,385,657 | 183,484,755 | 9,789,681 | 6.72% |

continued

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

† Coding not required or requested.

Table 16. NCI Special Interest Category (SIC) Dollars for FY2004 - FY2008 – Annual Percent Change*

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

| Special Interest Categories (SIC) | 2004 | 2005 | 2006 | 2007 | 2008 | Average Dollar Change per Year | Average Percent Change per Year |
|--------------------------------------|-------------|-------------|-------------|-------------|-------------|--------------------------------|---------------------------------|
| Carcinogenesis, Environmental | 540,898,673 | 542,772,539 | 508,632,113 | 480,503,052 | 417,435,709 | -30,865,741 | -6.15% |
| Cervical Cancer Education | 4,271,351 | 4,178,353 | 5,056,722 | 6,182,900 | 5,744,831 | 368,370 | 8.51% |
| Chemoprevention | 187,160,162 | 187,622,217 | 178,294,664 | 173,799,362 | 152,331,942 | -8,707,055 | -4.90% |
| Chemoprevention, Clinical | 61,170,813 | 63,463,878 | 62,232,663 | 52,265,744 | 43,755,118 | -4,353,924 | -7.62% |
| Chemotherapy | 465,719,189 | 479,353,115 | 492,096,516 | 511,658,388 | 486,292,469 | 5,143,320 | 1.15% |
| Child Health | 53,727,243 | 61,887,153 | 63,340,710 | 60,378,263 | 53,647,731 | -19,878 | 0.43% |
| Childhood Cancers | 155,350,035 | 159,567,547 | 162,737,733 | 154,308,213 | 157,603,497 | 563,366 | 0.41% |
| Chronic Myeloproliferative Disorders | 30,942,794 | 36,959,663 | 39,593,377 | 36,332,441 | 30,128,084 | -203,678 | 0.31% |
| Clinical Trials, Diagnosis | 125,946,948 | 113,103,165 | 102,442,171 | 81,920,488 | 73,641,723 | -13,076,306 | -12.44% |
| Clinical Trials, Other | 24,130,327 | 54,757,357 | 69,989,916 | 81,173,367 | 91,237,981 | 16,776,914 | 45.78% |
| Clinical Trials, Prevention | 71,998,187 | 68,628,972 | 69,044,253 | 69,733,610 | 67,120,061 | -1,219,532 | -1.71% |
| Clinical Trials, Therapy | 419,641,529 | 401,297,009 | 421,686,177 | 439,300,266 | 402,694,464 | -4,236,766 | -0.86% |
| Combined Treatment Modalities | 315,475,918 | 330,666,739 | 314,506,511 | 336,391,245 | 328,805,877 | 3,332,490 | 1.16% |
| Cost Effectiveness | † | 23,995,438 | 23,921,107 | 25,035,865 | 26,636,734 | 880,432 | 3.58% |
| Diabetes | 6,353,949 | 10,440,254 | 8,964,992 | 6,820,800 | 6,794,392 | 110,111 | 6.47% |
| Diagnosis | 580,801,202 | 618,317,471 | 623,326,562 | 592,320,513 | 600,487,839 | 4,921,659 | 0.92% |
| Diagnostic Imaging | 294,539,520 | 317,336,979 | 316,552,835 | 310,447,316 | 324,161,058 | 7,405,385 | 2.50% |
| Diethylstilbestrol | 1,677,478 | 2,222,054 | 1,822,731 | 1,871,382 | 1,707,757 | 7,570 | 2.10% |
| Dioxin | 1,258,661 | 194,225 | 1,211,643 | 1,143,466 | 1,187,187 | -17,869 | 109.37% |
| DNA Repair | 163,589,431 | 157,358,768 | 152,063,390 | 151,334,073 | 129,868,435 | -8,430,249 | -5.46% |
| Drug Development | 516,896,095 | 559,855,963 | 547,465,176 | 569,531,767 | 594,508,969 | 19,403,219 | 3.63% |
| Drug Discovery | 54,828,594 | 66,215,930 | 70,219,959 | 81,218,072 | 86,460,260 | 7,907,917 | 12.23% |
| Drug Resistance | 115,298,251 | 120,398,474 | 110,355,246 | 112,906,437 | 105,408,222 | -2,472,507 | -2.06% |
| Drugs, Natural Products | 138,003,587 | 132,933,883 | 136,300,671 | 142,695,237 | 132,810,296 | -1,298,323 | -0.84% |
| Early Detection | 271,300,826 | 301,025,316 | 301,289,984 | 279,983,823 | 254,455,950 | -4,211,219 | -1.29% |
| Effectiveness Research | † | 68,702,939 | 55,680,495 | 48,982,584 | 38,755,884 | -9,982,352 | -17.29% |
| Endocrinology | 178,585,401 | 183,285,587 | 179,691,910 | 169,505,236 | 149,659,737 | -7,231,416 | -4.18% |
| Energy Balance | 26,440,260 | 38,184,297 | 37,257,614 | 39,314,259 | 37,926,551 | 2,871,573 | 11.00% |
| Epidemiology, Biochemical | 219,502,809 | 206,718,733 | 186,779,069 | 194,325,396 | 191,429,441 | -7,018,342 | -3.23% |
| Epidemiology, Environmental | 215,241,204 | 218,875,075 | 189,175,911 | 186,698,902 | 174,036,057 | -10,301,287 | -4.99% |
| Epigenetics | 65,005,515 | 94,971,910 | 108,953,373 | 117,556,094 | 110,601,258 | 11,398,936 | 15.70% |
| Gene Mapping, Human | 217,496,425 | 182,663,241 | 156,498,765 | 136,466,661 | 118,007,627 | -24,872,200 | -14.17% |

continued

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

† Coding not required or requested.

Table 16. NCI Special Interest Category (SIC) Dollars for FY2004 - FY2008 – Annual Percent Change*

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

| Special Interest Categories (SIC) | 2004 | 2005 | 2006 | 2007 | 2008 | Average Dollar Change per Year | Average Percent Change per Year |
|-----------------------------------|---------------|---------------|---------------|---------------|---------------|--------------------------------|---------------------------------|
| Gene Mapping, Non-Human | 80,515,173 | 67,952,386 | 62,725,805 | 55,900,097 | 48,645,517 | -7,967,414 | -11.79% |
| Gene Transfer Clinical | 20,661,840 | 17,254,725 | 19,282,015 | 16,253,425 | 8,853,885 | -2,951,989 | -16.49% |
| Genetic Testing Research, Human | 191,499,674 | 196,298,554 | 195,880,886 | 175,570,284 | 153,302,520 | -9,549,289 | -5.19% |
| Genomics | 16,217,856 | 24,245,008 | 63,935,842 | 90,249,814 | 190,911,970 | 43,673,529 | 91.47% |
| Health Literacy | † | 2,001,381 | 4,490,912 | 9,043,623 | 13,580,160 | 3,859,593 | 91.98% |
| Health Promotion | 211,627,936 | 238,467,719 | 223,190,419 | 222,364,888 | 194,924,155 | -4,175,945 | -1.61% |
| Healthcare Delivery | † | † | 28,336,001 | 49,315,952 | 58,437,701 | 15,050,850 | 46.27% |
| Helicobacter | 4,423,309 | 3,815,249 | 4,831,420 | 6,991,551 | 5,648,579 | 306,318 | 9.60% |
| Hematology | 447,179,086 | 450,398,699 | 448,191,248 | 462,367,203 | 452,616,267 | 1,359,295 | 0.32% |
| Hematopoietic Stem Cell Research | 99,710,757 | 105,121,325 | 123,066,724 | 113,195,029 | 110,411,418 | 2,675,165 | 3.00% |
| Hormone Replacement Rx | 12,859,852 | 14,254,242 | 11,719,547 | 10,761,691 | 6,676,504 | -1,545,837 | -13.27% |
| Hospice | 6,272,396 | 8,671,792 | 9,281,180 | 9,486,659 | 6,083,327 | -47,267 | 2.90% |
| Iatrogenesis | 54,060,109 | 56,013,837 | 52,112,380 | 50,524,538 | 55,841,059 | 445,238 | 1.03% |
| Infant Mortality | 131,431 | 216,858 | 209,577 | 157,137 | 143,992 | 3,140 | 7.06% |
| Information Dissemination | 365,997,428 | 390,365,620 | 352,206,158 | 320,747,829 | 291,642,914 | -18,588,629 | -5.28% |
| Metastasis | 309,340,607 | 310,478,648 | 323,687,694 | 336,636,916 | 337,268,992 | 6,982,096 | 2.20% |
| Mind/Body Research | 20,374,850 | 19,535,017 | 17,114,346 | 14,990,313 | 13,187,773 | -1,796,769 | -10.24% |
| Molecular Disease | 1,339,620,569 | 1,432,200,446 | 1,505,288,239 | 1,494,763,190 | 1,476,030,136 | 34,102,392 | 2.52% |
| Molecular Targeted Prevention | † | † | 26,767,232 | 34,803,249 | 38,589,501 | 5,911,135 | 20.45% |
| Molecular Targeted Therapy | 86,681,914 | 168,524,743 | 235,736,478 | 304,259,412 | 383,816,836 | 74,283,730 | 47.38% |
| Nanotechnology | 162,067,173 | 160,886,764 | 139,280,697 | 115,493,360 | 151,959,286 | -2,526,972 | 0.08% |
| Neurofibromatosis | 4,440,584 | 5,441,436 | 6,196,638 | 3,981,414 | 4,017,486 | -105,775 | 0.39% |
| Nursing Research | 12,314,520 | 12,875,140 | 14,431,353 | 15,260,161 | 12,201,542 | -28,245 | 0.58% |
| Nutrition, Fiber | 11,497,589 | 10,944,448 | 8,727,644 | 9,077,551 | 7,394,407 | -1,025,796 | -9.90% |
| Nutrition | 211,442,595 | 225,476,479 | 209,329,870 | 223,526,960 | 201,619,594 | -2,455,750 | -0.89% |
| Nutrition Monitoring | 25,273,055 | 27,724,349 | 21,030,276 | 22,761,837 | 13,630,246 | -2,910,702 | -11.58% |
| Obesity | 29,053,667 | 47,654,377 | 47,392,071 | 51,503,516 | 47,333,147 | 4,569,870 | 16.01% |
| Occupational Cancer | 11,920,612 | 12,431,237 | 12,471,937 | 10,925,839 | 10,713,973 | -301,660 | -2.43% |
| Oncogenes | 634,237,576 | 650,329,143 | 635,069,232 | 601,158,227 | 533,729,012 | -25,127,141 | -4.09% |
| Organ Transplant Research | 73,412,458 | 65,746,345 | 65,707,332 | 70,998,100 | 62,167,759 | -2,811,175 | -3.72% |
| Osteoporosis | 1,141,017 | 1,657,557 | 1,536,104 | 1,291,894 | 1,596,851 | 113,959 | 11.41% |
| Pain | 17,002,607 | 20,644,937 | 18,649,226 | 17,232,485 | 14,851,154 | -537,863 | -2.42% |
| Palliative Care | 22,501,723 | 24,483,291 | 23,757,110 | 25,370,733 | 19,987,513 | -628,553 | -2.15% |
| Pap Testing | 17,012,637 | 18,343,787 | 17,521,998 | 15,939,640 | 13,137,398 | -968,810 | -5.82% |

continued

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

† Coding not required or requested.

Table 16. NCI Special Interest Category (SIC) Dollars for FY2004 - FY2008 – Annual Percent Change*

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

| Special Interest Categories (SIC) | 2004 | 2005 | 2006 | 2007 | 2008 | Average Dollar Change per Year | Average Percent Change per Year |
|---------------------------------------|---------------|---------------|---------------|---------------|---------------|--------------------------------|---------------------------------|
| Pediatric Research | 227,132,843 | 240,263,190 | 240,581,866 | 226,000,356 | 198,764,140 | -7,092,176 | -3.05% |
| Pesticides | 3,576,795 | 2,300,012 | 2,502,883 | 2,757,238 | 2,310,305 | -316,623 | -8.23% |
| Prevention, Primary | 392,570,979 | 407,329,290 | 398,996,283 | 403,184,059 | 368,664,039 | -5,976,735 | -1.45% |
| Proteomics | 23,290,691 | 37,141,648 | 68,071,793 | 82,439,359 | 134,855,573 | 27,891,220 | 56.86% |
| Radiation, Electromagnetic Fields | 427,464 | 580,932 | 591,341 | 1,246,146 | 821,382 | 98,480 | 28.58% |
| Radiation, Ionizing | 39,238,254 | 43,059,514 | 43,805,949 | 37,278,455 | 31,997,830 | -1,810,106 | -4.40% |
| Radiation, Ionizing Diagnosis | † | 31,082,541 | 36,896,621 | 45,911,196 | 49,298,293 | 6,071,917 | 16.84% |
| Radiation, Ionizing Radiotherapy | 222,200,058 | 233,258,022 | 224,914,720 | 211,921,221 | 201,677,405 | -5,130,663 | -2.30% |
| Radiation, Low-Level Ionizing | † | 11,900,597 | 9,904,869 | 6,781,869 | 6,004,368 | -1,965,410 | -19.92% |
| Radiation, Magnetic Resonance Imaging | 67,077,228 | 69,701,604 | 73,324,083 | 76,509,175 | 78,536,764 | 2,864,884 | 4.03% |
| Radiation, Mammography | 38,427,220 | 36,724,102 | 35,098,510 | 26,506,642 | 26,290,017 | -3,034,301 | -8.54% |
| Radiation, Non-Ionizing | 39,381,363 | 38,469,271 | 41,765,880 | 36,518,288 | 30,188,447 | -2,298,229 | -5.91% |
| Radiation, Non-Ionizing Diagnosis | ‡ | 97,126,317 | 106,677,590 | 113,743,238 | 129,147,614 | 10,673,766 | 10.00% |
| Radiation, Non-Ionizing Therapy | ‡ | 10,281,596 | 19,703,696 | 20,512,897 | 30,389,175 | 6,702,526 | 47.96% |
| Radiation, UV | 37,662,847 | 36,599,581 | 34,863,897 | 30,248,878 | 25,712,458 | -2,987,597 | -8.95% |
| Radon | 311,741 | 2,064,419 | 1,877,626 | 1,928,547 | 2,177,728 | 466,497 | 142.20% |
| Rare Diseases | 42,994,896 | 41,827,984 | 40,951,967 | 35,970,832 | 30,474,361 | -3,130,134 | -8.06% |
| Rehabilitation | 28,124,501 | 33,264,360 | 33,023,938 | 36,343,543 | 33,128,036 | 1,250,884 | 4.69% |
| Rural Populations | 42,209,191 | 49,888,988 | 47,378,913 | 46,608,058 | 45,719,118 | 877,482 | 2.41% |
| Sexually Transmitted Diseases | 49,370,699 | 53,246,020 | 49,404,310 | 46,567,630 | 38,109,174 | -2,815,381 | -5.82% |
| Sleep Disorders | † | † | 8,394,505 | 7,121,771 | 7,432,947 | -480,779 | -5.40% |
| Small Molecules | † | 72,467,673 | 75,198,858 | 75,388,735 | 76,740,713 | 1,424,347 | 1.94% |
| Smokeless Tobacco | 3,235,635 | 3,157,981 | 5,455,151 | 4,915,185 | 5,757,700 | 630,516 | 19.40% |
| Smoking Behavior | 77,398,392 | 65,185,509 | 57,593,749 | 54,845,966 | 58,744,833 | -4,663,390 | -6.27% |
| Smoking, Passive | 6,163,806 | 5,646,628 | 5,916,667 | 4,724,698 | 4,619,916 | -385,973 | -6.49% |
| Structural Biology | 370,571,496 | 382,597,297 | 373,716,079 | 350,255,158 | 342,497,661 | -7,018,459 | -1.89% |
| Surgery | 137,281,620 | 102,248,250 | 68,506,434 | 62,186,093 | 60,403,091 | -19,219,632 | -17.65% |
| Taxol | 79,061,172 | 67,584,901 | 67,818,280 | 68,614,085 | 61,670,540 | -4,347,658 | -5.78% |
| Telehealth | 137,081,094 | 122,527,280 | 114,070,880 | 109,251,686 | 93,969,029 | -10,778,016 | -8.93% |
| Therapy | 1,217,391,826 | 1,272,641,374 | 1,266,274,256 | 1,298,039,566 | 1,266,717,259 | 12,331,358 | 1.03% |
| Tobacco | 140,691,633 | 131,902,138 | 116,460,252 | 107,599,912 | 104,590,592 | -9,025,260 | -7.09% |
| Tropical Diseases | 10,255,864 | 11,102,730 | 11,470,288 | 8,793,217 | 8,202,639 | -513,306 | -4.62% |

continued

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

† Coding not required or requested.

‡ Radiation categories were redefined in 2005.

Table 16. NCI Special Interest Category (SIC) Dollars for FY2004 - FY2008 – Annual Percent Change*

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

| Special Interest Categories (SIC) | 2004 | 2005 | 2006 | 2007 | 2008 | Average Dollar Change per Year | Average Percent Change per Year |
|-----------------------------------|-------------|-------------|-------------|-------------|-------------|--------------------------------|---------------------------------|
| Tumor Markers | 451,794,712 | 434,204,129 | 379,942,155 | 319,696,793 | 252,702,581 | -49,773,033 | -13.30% |
| Underserved Populations | 138,519,933 | 177,574,214 | 185,053,103 | 193,031,767 | 177,547,393 | 9,756,865 | 7.17% |
| Vaccine Development | 21,617,405 | 27,059,011 | 28,477,513 | 25,921,581 | 23,403,407 | 446,501 | 2.93% |
| Vaccine Production | 1,976,306 | 1,693,418 | 2,554,459 | 2,813,459 | 1,698,905 | -69,350 | 1.76% |
| Vaccine Research | 41,596,477 | 40,521,325 | 40,811,267 | 35,338,089 | 47,978,733 | 1,595,564 | 5.12% |
| Vaccine Testing | 44,774,687 | 45,170,380 | 41,589,965 | 42,358,539 | 36,980,922 | -1,948,441 | -4.47% |
| Virus Cancer Research | 194,880,644 | 191,052,843 | 184,005,089 | 169,548,341 | 170,424,367 | -6,114,069 | -3.25% |
| Virus, Epstein-Barr | 23,134,534 | 24,534,511 | 24,823,910 | 20,885,807 | 26,125,350 | 747,704 | 4.11% |
| Virus, Genital Herpes | 670,672 | 507,354 | 297,627 | 496,778 | 540,230 | -32,611 | 2.49% |
| Virus, Hepatitis B | 8,795,216 | 7,739,861 | 9,761,386 | 11,248,067 | 11,012,984 | 554,442 | 6.81% |
| Virus, Hepatitis C | 4,263,315 | 4,890,912 | 5,314,150 | 6,013,368 | 4,333,370 | 17,514 | 2.15% |
| Virus, Herpes | 53,522,401 | 52,021,227 | 50,636,437 | 49,617,358 | 54,880,575 | 339,544 | 0.78% |
| Virus, HHV6 | 42,500 | 51,916 | 48,840 | 38,658 | 38,658 | -961 | -1.15% |
| Virus, HHV8 | 17,648,098 | 19,069,528 | 19,444,589 | 21,063,289 | 22,368,841 | 1,180,186 | 6.14% |
| Virus, HTLV-I | 7,369,926 | 8,734,324 | 9,255,632 | 8,125,525 | 6,781,564 | -147,091 | -1.07% |
| Virus, HTLV-II | 39,299 | 246,497 | 180,823 | 286,731 | 409,579 | 92,570 | 150.50% |
| Virus, HTLV-Unspecified | 72,443 | 76,253 | 72,673 | 250,500 | 157,000 | 21,139 | 51.98% |
| Virus, Papilloma | 51,897,332 | 56,846,619 | 48,746,509 | 52,204,543 | 45,471,104 | -1,606,557 | -2.63% |
| Virus, Papova | 65,462,575 | 69,718,574 | 63,010,553 | 64,028,274 | 56,437,588 | -2,256,247 | -3.34% |
| Virus, SV40 | 10,130,358 | 10,464,181 | 10,663,884 | 8,629,445 | 7,070,625 | -764,933 | -7.98% |
| Vitamin A | 22,194,566 | 23,874,074 | 18,860,654 | 19,668,632 | 16,458,484 | -1,434,021 | -6.37% |
| Vitamin C | 5,566,346 | 5,490,209 | 4,567,404 | 2,659,444 | 1,898,594 | -916,938 | -22.14% |
| Vitamins, Other | 19,859,860 | 23,430,615 | 22,232,900 | 21,766,523 | 19,687,064 | -43,199 | 0.30% |

Table 17. NCI Funding of Foreign Research Grants in FY2008 (Dollars in Thousands)

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

| Country | | Funding Mechanism | | | | | | | Subtotal | |
|-----------|---------|-------------------|-----|-----|-----|-----|-----|-----|----------|-------|
| | | R01 | R03 | R21 | R33 | R37 | U01 | U10 | | U24 |
| Australia | Grants | 6 | 2 | | | 1 | 1 | | 1 | 11 |
| | Funding | 1,650 | 102 | | | 230 | 479 | | 1,485 | 3,945 |
| Belgium | Grants | | | | | | | 1 | | 1 |
| | Funding | | | | | | | 793 | | 793 |

continued

**Table 17. NCI Funding of Foreign Research Grants in FY2008
(Dollars in Thousands)**

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

| Country | | Funding Mechanism | | | | | | | Subtotal | |
|----------------|----------------|-------------------|------------|------------|------------|------------|--------------|--------------|--------------|---------------|
| | | R01 | R03 | R21 | R33 | R37 | U01 | U10 | | U24 |
| Canada | Grants | 11 | 2 | 4 | 1 | 1 | 2 | 3 | 1 | 25 |
| | Funding | 3,190 | 108 | 492 | 277 | 322 | 1,130 | 1,556 | 1,174 | 8,249 |
| China | Grants | 1 | | | | | | | | 1 |
| | Funding | 176 | | | | | | | | 176 |
| Egypt | Grants | | 1 | | | | | | | 1 |
| | Funding | | 54 | | | | | | | 54 |
| France | Grants | 2 | 1 | | | | 1 | | | 4 |
| | Funding | 1,279 | 57 | | | | 778 | | | 2,114 |
| Germany | Grants | 1 | | | | | | | | 1 |
| | Funding | 386 | | | | | | | | 386 |
| Iceland | Grants | 1 | | | | | | | | 1 |
| | Funding | 274 | | | | | | | | 274 |
| India | Grants | 1 | | | | | | | | 1 |
| | Funding | 190 | | | | | | | | 190 |
| Ireland | Grants | 1 | | | | | | | | 1 |
| | Funding | 202 | | | | | | | | 202 |
| Israel | Grants | 7 | | | | 2 | 1 | | | 10 |
| | Funding | 1,251 | | | | 446 | 247 | | | 1,944 |
| Italy | Grants | | 1 | | | | | | | 1 |
| | Funding | | 52 | | | | | | | 52 |
| Netherlands | Grants | | 1 | | | | 2 | | | 3 |
| | Funding | | 55 | | | | 330 | | | 385 |
| New Zealand | Grants | | 1 | | | | | | | 1 |
| | Funding | | 55 | | | | | | | 55 |
| Singapore | Grants | | | | 1 | | | | | 1 |
| | Funding | | | | 385 | | | | | 385 |
| South Africa | Grants | 1 | | | | | | | | 1 |
| | Funding | 46 | | | | | | | | 46 |
| Spain | Grants | 3 | | | | | | | | 3 |
| | Funding | 554 | | | | | | | | 554 |
| Sweden | Grants | 2 | | 1 | | | | | | 3 |
| | Funding | 912 | | 117 | | | | | | 1,029 |
| Switzerland | Grants | 2 | | | | | | | | 2 |
| | Funding | 332 | | | | | | | | 332 |
| United Kingdom | Grants | 7 | | 1 | | | 1 | | 1 | 10 |
| | Funding | 1,647 | | 108 | | | 1,299 | | 242 | 3,297 |
| Totals | Grants | 46 | 9 | 6 | 2 | 4 | 8 | 4 | 3 | 82 |
| | Funding | 12,285 | 483 | 717 | 662 | 998 | 4,263 | 2,349 | 2,901 | 24,544 |

Table 18. Foreign Components of U.S. Domestic Research Grants in FY2008*(This table reports extramural grants only; intramural grants, training grants, and contracts are excluded.)*

| Country | Mechanism | | | | | | | | | | | | | | | Sub-total |
|----------------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|
| | R01 | R03 | R15 | R21 | R24 | R33 | R37 | R41 | R44 | P01 | P50 | U01 | U19 | U24 | U54 | |
| Africa | | | | | | | | | | | | 1 | | | | 1 |
| Argentina | | | | | | | | | | | | 1 | | 1 | | 2 |
| Australia | 9 | | | | | | | | | 1 | 1 | 6 | | 3 | | 20 |
| Austria | 2 | | | | | | | | | | | | | 1 | | 3 |
| Bangladesh | 1 | | | | | | | | | | | | | | | 1 |
| Barbados | 1 | | | | | | | | | | | | | | | 1 |
| Belgium | 1 | | | | | | | | | | | | | 1 | | 2 |
| Brazil | 5 | 2 | | | | | | | | | | 2 | 1 | 1 | | 11 |
| Cameroon | | | | | | | | | | | | | | | 1 | 1 |
| Canada | 33 | 1 | | 1 | | | 1 | | | 5 | 3 | 12 | 1 | 4 | 1 | 62 |
| China | 16 | 3 | | | | | | | | 1 | 1 | | 1 | 2 | | 24 |
| Colombia | | | | | | | | | | | | | | 1 | | 1 |
| Costa Rica | | | | | | | | | | | | 1 | | | | 1 |
| Czech Republic | 3 | | | | | | | | | | | | | 1 | | 4 |
| Denmark | 6 | 1 | 1 | | | | | | | | 1 | | | 1 | | 10 |
| Dominica | | | | | | | | | | | | | 1 | | | 1 |
| Egypt | 2 | | | 1 | 1 | | | 1 | | | | | | | | 5 |
| Fiji | | | | | | | | | | | | | 1 | | | 1 |
| Finland | 5 | | | | | | | | | | | | | 1 | | 6 |
| France | 3 | | | | | | | | | | 1 | | | 1 | | 5 |
| Germany | 12 | | | | 1 | | | | | 1 | 1 | 2 | | 2 | | 19 |
| Hungary | | | | | | | | | | | | | | 2 | | 2 |
| India | 1 | | | | | | | | | | 2 | | | 1 | | 4 |
| Indonesia | | | | | | | | | | 1 | | | | | | 1 |
| Iran | | | | | | | | | | | | | | 1 | | 1 |
| Ireland | 1 | | | | | | | | | | | | | 1 | | 2 |
| Israel | 7 | | | | | | 1 | | | | | | | 2 | | 10 |
| Italy | 5 | | | 1 | | | 1 | | | | | | | 2 | | 9 |
| Japan | 5 | 1 | | | | | | | | | | 1 | 1 | 1 | | 9 |
| Kenya | 3 | | | | | | | | | | | 2 | | | 1 | 6 |
| Kuwait | | | | | | | | | | | | | | 1 | | 1 |
| Latvia | 1 | | | | | | | | | | | | | | | 1 |
| Malaysia | | | | | | | | | | | 1 | | | 1 | | 2 |
| Mexico | 1 | 1 | | | | | | | | | 1 | | | 1 | | 4 |
| Moldova | | | | | | | 1 | | | | | | | | | 1 |
| Netherlands | 9 | | | | | | 1 | | | 1 | | 1 | | 1 | | 13 |

continued

Table 18. Foreign Components of U.S. Domestic Research Grants in FY2008*(This table reports extramural grants only; intramural grants, training grants, and contracts are excluded.)*

| Country | Mechanism | | | | | | | | | | | | | | | Sub-total |
|------------------|------------|-----------|----------|-----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|----------|------------|
| | R01 | R03 | R15 | R21 | R24 | R33 | R37 | R41 | R44 | P01 | P50 | U01 | U19 | U24 | U54 | |
| New Zealand | 3 | | 1 | | | | | | | | 1 | | | 2 | | 7 |
| Nigeria | | | | | | | | | | | 1 | | | | 2 | 3 |
| Norway | | 1 | | | | | | | | | | 1 | | | | 2 |
| Pakistan | | | | | | | | | | | | | | 1 | | 1 |
| Panama | | | | | | | | | | | | | | 1 | | 1 |
| Papua New Guinea | 1 | | | | | | | | | | | | 1 | | | 2 |
| Phillipines | | | | | | | | | | | | | 1 | | | 1 |
| Poland | 1 | | | | | | | | | | | | | 1 | | 2 |
| Portugal | | | | | | | | | | | | | | 1 | | 1 |
| Russia | 2 | | | | | | | | | | | | | 1 | | 3 |
| Saudi Arabia | | | | | | | | | | | | | | 1 | | 1 |
| Senegal | 3 | | | 1 | | | | | | | | | | | | 4 |
| Singapore | 5 | | | | | | | | | | | | | 1 | | 6 |
| Slovenia | | | | | | | | | | | | | | 1 | | 1 |
| South Africa | | | | | | | | | | | | | | 2 | | 2 |
| South Korea | 1 | | | | | | | | | | | | | 1 | | 2 |
| Spain | 5 | | | | | | | | | | | 2 | | 2 | | 9 |
| Sri Lanka | | | | | | | | | | | | | 1 | | | 1 |
| St. Maarten | | | | | | | | | | | | | 1 | | | 1 |
| Sweden | 7 | | | 2 | | | | | | | | 1 | | 2 | | 12 |
| Switzerland | | | 1 | | 2 | | | | | | | | | | | 3 |
| Taiwan | 2 | | | | | | | | 1 | | | | | 1 | | 4 |
| Thailand | | | | 1 | | | | | | 1 | 1 | 1 | | | | 4 |
| Tobago | 1 | | | | | | | | | | | | | | | 1 |
| Turkey | | | | | | | | | | 1 | | | | 1 | | 2 |
| Uganda | 1 | | | | | 1 | | | | | | 2 | | | | 4 |
| United Kingdom | 24 | 2 | | 2 | | 1 | | | | | 3 | 6 | | 1 | 1 | 40 |
| Uruguay | | | | | | | | | | | 1 | | | 1 | | 2 |
| Venezuela | | | | | | | | | | | | | | 1 | | 1 |
| Vietnam | 1 | | | | | | | | | | | | | | | 1 |
| Zambia | | | | 1 | | | | | | | | | | | | 1 |
| Totals | 189 | 12 | 3 | 10 | 4 | 2 | 5 | 1 | 1 | 12 | 19 | 42 | 10 | 56 | 6 | 372 |

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, DHHS, 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 5,688 applications in 2008 requesting \$1,712,276,408 in direct costs.

The Board heard presentations, discussed, and provided advice on a variety of topics and NCI activities in FY2008, such as:

- NCI Director's Report
- President's Cancer Panel Report
- Legislative Update
- NIH Director's Report
- Annual Delegations of Authority
- Special Recognition of Retiring NCAB Members
- Update: NIH Roadmap
- Update: Roadmap/Common Fund
- Update: Specialized Programs of Research Excellence (SPORE)
- Update: Center for Cancer Research (CCR):
 - New Tricks From a Multidrug Transporter
 - Signal Relay During Chemotaxis
 - The H2AX Phosphorylation in Cancer and Drug Development
 - Immunotherapy for Malignant Mesothelioma
- Update: The Cancer Genome Atlas
 - Glioblastoma: The Disease
 - Genomic Aberrations in GBM From TCGA Pilot Program
 - Transcriptional Subsets: Integrative Approaches and Opportunities
 - Sequencing the Cancer Genome: Translation of TCGA Data
- Update: Clinical Proteomics Technology Initiative for Cancer
- CCR Genomics Initiatives
- Annual Tobacco Control Update
 - Science and Future Research Directions for Reduced Nicotine Content Cigarettes
 - Tobacco Quitline
- Annual Report: Implementation of Clinical Trials Working Group/Translational Research Working Group (CTWG/TRWG) Recommendations and Clinical Trials Advisory Committee Status Report
 - CTWG and TRWG Implementation Update: Integrated Management
 - NCI Clinical Trials Database Implementation Plan
 - Activating and Opening Oncology Clinical Trials: A Process and Timing Study
 - CTWG Evaluation Plan Results of Baseline Feasibility Analysis
 - TRWG Report Implementation
- Annual Update: American Society of Clinical Oncology (ASCO)
- Status Report: NCI Community Cancer Center's Program (NCCCP)
- Cellular Telephones and Brain Tumors
- Neuro-Oncology Overview
- Program Review of the Division of Cancer Epidemiology and Genetics: Defining the Genetic Contribution to Cancer: Genome-Wide Association Studies and Follow-Up Opportunities

- Enhancing Peer Review
- The NIH Research, Condition and Disease Categorization (RCDC) Project
- From IGF to mTOR Signaling in Pediatric Sarcomas: Opportunities for Novel Therapeutic Intervention
- American Cancer Society Medal of Honor: The NCI Recipients
- Vitamin D and Cancer
- Strategies and Opportunities for Cancer Therapy With Vaccines Inducing T Cells or Antibodies
- American Association for Cancer Research (AACR): A Second Century of Leadership in Cancer Science and Medicine
- Visioning the Future of the NIH Clinical Center
- Cell Transfer Immunotherapy and Gene Therapy for Patients With Cancer

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 Web Site at: <http://deainfo.nci.nih.gov/advisory/ncabminmenu.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 FY2008:

- Report of the NCI Director
- NCI/Congressional Relations
- ASPO-NCI Listens Report
- Request for Applications (RFA) Annual Report
- Mini-Symposium: Human Papillomavirus (HPV) Vaccine: Discovery, Development, and Application
- Mini-Symposium: Future of Imaging in the NCI Programs: From Molecule to Man
- Update: Integrative Cancer Biology Program (ICBP)
- Update: The Cancer Genome Atlas (TCGA)
- Update: The Early Detection Research Network (EDRN)
- Annual Update: Clinical Trials and Translational Research Working Groups (CTWG/TRWG) and Clinical Trials Advisory Committee (CTAC)
- Status Report: Centers for Population Health and Health Disparities
- Status Report: Nanotechnology
- Status Report: Cancer Care Outcomes Research and Surveillance Consortium (canCORS)
- NIH Research, Condition, and Disease Categorization (RCDC) Project
- Enhancing Peer Review
- Phase 0 Trials
- Linked Investigator Research in Cancer Biology
- Therapeutically Applicable Research to Generate Effective Treatments (TARGET) Subcommittee Report

RFA Concepts Approved

Division of Cancer Biology/Division of Cancer Control and Population Sciences

- Collaborative Comparative Systems of Genetics of Cancer

Division of Cancer Biology/Division of Cancer Prevention/Division of Cancer Treatment and Diagnosis

- Tumor Stem Cells: Basic Research, Prevention, and Therapy

Division of Cancer Control and Population Sciences

- Increasing Smoking Cessation in Low Income Adult Populations

RFA Concept Re-Issuances

Division of Cancer Control and Population Sciences

- Cancer Care Outcomes Research and Surveillance Consortium (CanCORS)
- Measures and Determinants of Smokeless Tobacco Use Prevention and Cessation
- Centers for Population Health and Health Disparities (CPHHD)

RFP Concept Re-Issuance

Division of Cancer Treatment and Diagnosis

- Pediatric Preclinical Testing Program

Combined RFA/Cooperative Agreements Re-Issuances

Office of the Director

- Comprehensive Minority Institution Cancer Center Partnership (MI/CCP)

Division of Cancer Biology

- The NCI Mouse Models of Human Cancers Consortium (NCI-MMHCC)

Division of Cancer Control and Population Sciences

- Transdisciplinary Cancer Genomics Research: Translation of Genome-Wide Association Studies

Division of Cancer Prevention

- Community Clinical Oncology Program (CCOP)
- Minority-Based Community Clinical Oncology (MBCCOP)

Division of Cancer Treatment and Diagnosis

- Cancer Disparities Research Partnership Program
- Pediatric Brain Tumor Consortium (PBTC)

BSA-NCI Listens Session

American Society for Preventive Oncology (ASPO)

Bethesda, MD, March 16 – 18, 2008

NCI Listens, Monday, March 17, 2008

Robert Croyle, Ph.D.
National Cancer Institute

Paulette S. Gray, Ph.D.
National Cancer Institute

Winfred Malone, Ph.D., M.P.H.
National Cancer Institute

Sharon Ross, Ph.D.
National Cancer Institute

Victor J. Strecher, Ph.D., M.P.H.
University of Michigan

The full text of recent BSA meeting summaries is available on the NCI Web Site at: <http://deainfo.nci.nih.gov/advisory/bsaminmenu.htm>.

Appendix C: List of Chartered Committees, FY2008

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Jennifer A. Pietenpol, Ph.D. Vanderbilt University

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†Deceased in January 2008.

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‡Joined in 2008.

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Subcommittee D—Clinical Studies

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Subcommittee E—Cancer Epidemiology, Prevention, and Control

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Scientific Review Officer

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Members

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 Christine M. Eischen, Ph.D.Vanderbilt University Medical Center
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Subcommittee J—Population and Patient-Oriented Training

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Initial Review Group Subcommittees



Manpower and Training



Education

Initial Review Group Subcommittees



Career Development



Population and Patient-Oriented Training

Special Emphasis Panels



Small Grant for Behavioral Research in Cancer Control



Cellular and Tissue Biology

Special Emphasis Panels (continued)



Clinical Studies P01



Molecular Oncology

Special Emphasis Panels (continued)



Prevention, Control, and Population Sciences



Quantitative Imaging for Evaluation of Response Due to Cancer Therapy

Special Emphasis Panels (continued)



SPORE in Brain, Prostate, Kidney, and Breast Cancer



SPORE in Lymphoma and Lung Cancer

Special Emphasis Panels (continued)



SPORE in Ovarian and Other Gynecologic Cancers

Appendix D: NCI Initial Review Group Consultants, FY2008

1. Consultants Serving as Temporary Members on IRG Subcommittees in FY2008

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Berwick, Marianne, Ph.D. University of New Mexico
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Blankenberg, Francis Gerard, M.D. Stanford University
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Bolwell, Brian J., M.D. Cleveland Clinic Foundation
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 Eberlein, Timothy J., M.D. Washington University
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 Schuetze, Scott M., M.D., Ph.D. University of Michigan, Ann Arbor
 Schulick, Richard D., M.D. The Johns Hopkins University
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 Sellers, Thomas A., Ph.D. H. Lee Moffitt Cancer Center & Research Institute
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Appendix D-1: Consultants Serving as Temporary Members on IRG Subcommittees in FY2008

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Shields, Peter G., M.D.Georgetown University
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Speicher, David W., Ph.D.Wistar Institute
Stock, Wendy, M.D.The University of Chicago

T

Telleria, Carlos Marcelo, Ph.D.University of South Dakota
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V

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W

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Wang, Shaomeng, Ph.D.University of Michigan, Ann Arbor
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Watson, Dennis K., Ph.D.Medical University of South Carolina
Watson, Mark A., M.D., Ph.D.Washington University
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Wen, Patrick Y., M.D.Dana-Farber Cancer Institute
Weng, Andrew P., M.D., Ph.D.British Columbia Cancer Agency
Wewers, Mary Ellen, Ph.D., R.N.The Ohio State University
Wilding, George, M.D.University of Wisconsin, Madison
Wiley, Patti, M.B.A.On The Wings of Angels
Wilson, Bridget S., Ph.D.University of New Mexico
Wong, Melissa H., Ph.D.Oregon Health & Science University
Woods, William G., M.D.Children's Healthcare of Atlanta, Inc.

Y

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2. Consultants Serving as *Ad Hoc* Committee Members on IRG Site Visit Teams in FY2008

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Glickson, Jerry D., Ph.D. The University of Pennsylvania
Gotay, Carolyn C., Ph.D. University of British Columbia
Govindan, Ramaswamy, M.D. Washington University
Grann, Victor R., M.D. Columbia University Health Sciences

Graves, Barbara J., Ph.D. University of Utah
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 Hollingsworth, Michael A., Ph.D. University of Nebraska Medical Center
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 Weiss, Geoffrey R., M.D. University of Virginia
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X

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Zhang, Michael Q., Ph.D. Cold Spring Harbor Laboratory
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Total number of Reviewers: 205

3. Consultants Serving on Special Emphasis Panels (SEPs) in FY2008

A

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|--|--|
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| Abounader, Roger, M.D., Ph.D. | University of Virginia, Charlottesville |
| Abrams, Judith, Ph.D. | Wayne State University |
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| Adams, Alyce Sophia, Ph.D. | Kaiser Foundation Research Institute |
| Agarwal, Rajesh, M.D., Ph.D. | University of Colorado, Denver |
| Aguilar-Cordova, Estuardo, M.D., Ph.D. | Advantagene, Inc. |
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| Banerjee, Sushanta K., Ph.D. | Kansas City Veterans Administration Medical Center |
| Baranowska-Kortylewicz, Janina, Ph.D. | University of Nebraska Medical Center |
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| Bardeesy, Nabeel, Ph.D. | Massachusetts General Hospital |
| Barg, Frances K., Ph.D. | University of Pennsylvania |
| Barker, Peter E., Ph.D. | National Institute of Standards & Technology |
| Bar-Sagi, Dafna, Ph.D. | New York University |
| Bartle-Haring, Suzanne, Ph.D. | The Ohio State University |
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| Chow, Gary, M.P.H. | American Cancer Society, California |
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| Cibull, Michael, M.D. | University of Kentucky |
| Claffey, Kevin P., Ph.D. | University of Connecticut |
| Clarke, Robert R., Ph.D., D.Sc. | Georgetown University |
| Clawson, Gary A., M.D., Ph.D. | Pennsylvania State Hershey Medical Center |
| Cleveland, John L., Ph.D. | The Scripps Research Institute |
| Cobos, Everardo, M.D. | Texas Tech University |
| Coffey, Robert J., M.D. | Vanderbilt University |
| Cohen, Edward P., M.D. | University of Illinois, Chicago |
| Cohen, Michael B., M.D. | University of Iowa |
| Cohen, Pinchas, M.D. | University of California, Los Angeles |
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| Collins, Scott D., Ph.D. | University of Maine at Orono |
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| Conrads, Thomas Patrick, Ph.D. | University of Pittsburgh at Pittsburgh |
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| Coop, Andrew, Ph.D. | University of Maryland, Baltimore |
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| Cote, Richard James, M.D. | University of Southern California |
| Couch, Fergus Joseph, Ph.D. | Mayo Clinic College of Medicine, Rochester |
| Coukos, George, M.D., Ph.D. | University of Pennsylvania |
| Cozen, Wendy, D.O., M.P.H. | University of Southern California |
| Crano, William D., Ph.D. | Claremont Graduate University |
| Crawford, Susan E., M.D. | Evanston Northwestern Healthcare |
| Cronan, Thereasa A., Ph.D. | San Diego State University |
| Croy, Robert G., Ph.D. | Massachusetts Institute of Technology |
| Cruciani, Ricardo, M.D., Ph.D. | Beth Israel Medical Center, New York |
| Culha, Mustafa, Ph.D. | Yeditepe University |
| Cummings, Richard D., Ph.D. | Emory University |
| Cunningham, John M., M.D. | The University of Chicago |
| Curbow, Barbara Ann, Ph.D. | University of Florida |
| Curiel, David T., M.D., Ph.D. | University of Alabama at Birmingham |
| Czinn, Steven J., M.D., Ph.D. | University of Maryland, Baltimore |

D

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| Daaka, Yehia, Ph.D. | Medical College of Georgia |
| Daley, Christine Makosky, Ph.D. | University of Kansas Medical Center |
| Dalton, Jo Ann, Ed.D., R.N., F.A.A.N. | Emory University |
| Daly, Mary Beryl, M.D., Ph.D. | Fox Chase Cancer Center |

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| Danaher, Brian G., Ph.D. | Oregon Research Institute |
| Daniels, R. Hugh, Ph.D. | Nanosys, Inc. |
| Danks, Mary K., Ph.D. | Beckman Research Institute of City of Hope |
| Dantzer, Robert, D.V.M., Ph.D. | University of Illinois at Urbana-Champaign |
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| Deeg, H. Joachim, M.D. | Fred Hutchinson Cancer Research Center |
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| Diamond, Alan, Ph.D. | University of Illinois, Chicago |
| Dias, Jerry R., Ph.D. | University of Missouri, Kansas City |
| Dickinson, Mary E., Ph.D. | Baylor College of Medicine |
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| Duclos, Richard Irving, Ph.D. | Northeastern University |

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 Feld, Michael Stephen, Ph.D. Massachusetts Institute of Technology
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| Firestine, Steven M., Ph.D. | Wayne State University |
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| Foster, Morris W., Ph.D. | University of Oklahoma, Norman |
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| Fox, Ira J., M.D. | University of Pittsburgh |
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| Franklin, Renty B., Ph.D. | University of Maryland, Baltimore |
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Appendix D-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY 2008

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| Vieweg, Johannes W.G., M.D. | University of Florida |
| Vigneron, Daniel B., Ph.D. | University of California, San Francisco |
| Visovsky, Constance G., Ph.D., R.N., A.C.N.P. | University of Nebraska Medical Center |
| Visuri, Steven R., Ph.D. | Prodesse, Inc. |
| Vogelzang, Nicholas, M.D. | The University of Chicago Medical Center |
| Vohra, Yogesh K., Ph.D. | University of Alabama at Birmingham |
| Vokes, Everett E., M.D. | The University of Chicago Medical Center |

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| Wagner, Wendeline Lea, D.V.M. | Bioqual, Inc. |
| Wahl, Richard Leo, M.D. | The Johns Hopkins University |
| Waldman, Frederic M., M.D., Ph.D. | University of California, San Francisco |
| Wali, Ramesh K., Ph.D. | Evanston Northwestern Healthcare |
| Waller, Edmund K., M.D., Ph.D. | Emory University |
| Walsh-Childers, Kim B., Ph.D. | University of Florida |
| Wands, Jack R., M.D. | Rhode Island Hospital |
| Wang, Denong, M.D., Ph.D. | Stanford University |
| Wang, Fen, Ph.D. | Texas A&M University Health Science Center |
| Wang, Jean C.Y., M.D., Ph.D. | University of Toronto |
| Wang, Ruikang, Ph.D. | Oregon Health & Science University |
| Wang, Timothy Cragin, M.D. | University of Massachusetts Medical School, Worcester |
| Wang, Yue, Ph.D. | Virginia Polytechnic Institute and State University |
| Wang, Zhenghe, Ph.D. | Case Western Reserve University |
| Wang, Zhou, Ph.D. | University of Pittsburgh |
| Wang-Rodriguez, Jessica, M.D. | University of California, San Diego |
| Ward, Pamela, Ph.D. | University of California, Irvine |
| Wargovich, Michael, Ph.D. | Medical University of South Carolina |
| Washington, Mary K., M.D., Ph.D. | Vanderbilt University |
| Wasik, Mariusz A., M.D. | University of Pennsylvania |
| Waterman, Marian L., Ph.D. | University of California, Irvine |

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| Watkins, Simon C., Ph.D. | University of Pittsburgh |
| Watson, Dennis K., Ph.D. | Medical University of South Carolina |
| Watson, Jack T., Ph.D. | Michigan State University |
| Watson, Mark A., M.D., Ph.D. | Washington University |
| Wawro, Debra D., M.S. | Resonant Sensors, Inc. |
| Weaver, James Bode, Ph.D. | Emory University |
| Weber, Jeffrey S., M.D., Ph.D. | H. Lee Moffitt Cancer Center & Research Institute |
| Weichert, Jamey P., M.D., Ph.D. | University of Wisconsin, Madison |
| Weier, Heinz-Ulrich G., Ph.D. | University of California, Lawrence Berkeley Laboratory |
| Weigel, Ronald J., M.D., Ph.D. | University of Iowa |
| Weinberg, Armin D., Ph.D. | Baylor College of Medicine |
| Weinberg, Robert A., Ph.D. | Whitehead Institute for Biomedical Research |
| Weiner, George J., M.D. | University of Iowa |
| Weiner, Roy S., M.D. | Tulane University of Louisiana |
| Weiss, Heidi L., Ph.D. | University of Texas Medical Branch, Galveston |
| Weissman, Sherman, M.D. | Yale University |
| West, Christopher M., Ph.D. | University of Oklahoma Health Sciences Center |
| Wheatley, Barnarese, M.P.H. | Alameda County Medical Center |
| Wheatley, Bonnie, M.P.H. | Alameda County Medical Center |
| White, Kristin, Ph.D. | Massachusetts General Hospital |
| Whiteley, Gordon R., Ph.D. | SAIC, Inc. – NCI Frederick |
| Whitesell, Luke J., M.D. | Whitehead Institute for Biomedical Research |
| Wicha, Max S., M.D. | University of Michigan, Ann Arbor |
| Wickstrom, Eric, Ph.D. | Thomas Jefferson University |
| Wieder, Robert, M.D., Ph.D. | University of Medicine and Dentistry of New Jersey |
| Wiener, Erik C., Ph.D. | University of Pittsburgh at Pittsburgh |
| Wilburn, Louella S., M.S. | People Living With Cancer |
| Wilkie, Diana J., Ph.D., R.N., F.A.A.N. | University of Illinois, Chicago |
| Williams, Donna L., M.S., M.P.H. | Louisiana State University Health Sciences Center, New Orleans |
| Williams, Mark B., Ph.D. | University of Virginia, Charlottesville |
| Wilson, Brian C., Ph.D. | University of Toronto |
| Wilson, Thaddeus Andrew, Ph.D. | University of Tennessee Health Science Center |
| Wingard, John R., M.D. | University of Florida, Shands Cancer Center |
| Wise, Lauren A., D.Sc. | Boston University Medical Campus |
| Wiseman, Robert W., Ph.D. | Michigan State University |
| Wittrup, Karl D., Ph.D. | Massachusetts Institute of Technology |
| Wolf, Martin Peter, Ph.D. | University of Zurich |
| Woloschak, Gayle E., Ph.D. | Northwestern University |
| Wong, David T., D.M.D. | University of California, Los Angeles |
| Wood, Marie E., M.D. | University of Vermont and St. Agric College |
| Woodall, W. Gill, Ph.D. | University of New Mexico |
| Woodgett, James R., Ph.D. | Mt. Sinai Hospital, Samuel Lunenfeld Research Institute |
| Woods, Virgil L., M.D. | University of California, San Diego |
| Wortis, Henry H., M.D. | Tufts University Boston |
| Wu, Hong, M.D., Ph.D. | University of California, Los Angeles |
| Wu, Jie, Ph.D. | H. Lee Moffitt Cancer Center & Research Institute |
| Wu, Lily, M.D., Ph.D. | University of California, Los Angeles |
| Wu, Reen, Ph.D. | University of California, Davis |

Appendix D-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY 2008

Wu, T.C., M.D., Ph.D.The Johns Hopkins University
Wu, Xiangwei, Ph.D. The University of Texas M.D. Anderson Cancer Center
Wu, Xiaocheng, M.D. Louisiana State University Health Sciences Center, New Orleans

X

Xing, Michael Mingzhao, M.D., Ph.D.The Johns Hopkins University
Xu, Yan, Ph.D.Melvin and Bren Simon Cancer Center at Indiana University

Y

Yamamoto, Masato, M.D., Ph.D. University of Minnesota, Twin Cities
Yang, Chung S., Ph.D.Rutgers, The State University of New Jersey, New Brunswick
Yang, Ping, M.D., Ph.D.Mayo Clinic College of Medicine, Rochester
Yang, Wei, Ph.D.National Institute of Diabetes and Digestive and Kidney Diseases
Yannelli, John R., Ph.D. University of Kentucky
Yanovitzky, Itzhak, Ph.D.Rutgers, The State University of New Jersey, New Brunswick
Yee, Cassian, M.D.Fred Hutchinson Cancer Research Center
Yee, Douglas, M.D.University of Minnesota
Yen, Yun, M.D., Ph.D. Beckman Research Institute of City of Hope
Yeung, Anthony T., Ph.D. Institute for Cancer Research
Younes, Anas, M.D. The University of Texas M.D. Anderson Cancer Center
Young, Jeanne P.Childhood Brain Tumor Foundation
Young, M. Rita, Ph.D.Ralph H. Johnson Veterans Administration Medical Center
Yount, Susan E., Ph.D.Evanston Northwestern Healthcare
Yu, Herbert, M.D., Ph.D. Yale University
Yuan, Junying, Ph.D.Harvard University
Yung, W.K. Alfred, M.D. The University of Texas M.D. Anderson Cancer Center

Z

Zamore, Phillip D., Ph.D.University of Massachusetts Medical School, Worcester
Zangar, Richard C., Ph.D.Battelle Pacific Northwest Laboratories
Zaren, Howard A., M.D. John H. Stroger Jr. Hospital, Cook County
Zauber, Ann Graham, Ph.D. Sloan-Kettering Institute for Cancer Research
Zhang, David Y., M.D., Ph.D. Mount Sinai School of Medicine of New York University
Zhang, Peiming, Ph.D. Arizona State University, Tempe
Zhang, Wei, Ph.D. The University of Texas M.D. Anderson Cancer Center
Zhao, Dawen, Ph.D.University of Texas Southwestern Medical Center, Dallas
Zheng, Wei, M.D., Ph.D., M.P.H. Vanderbilt University
Zhu, Yong, Ph.D. Yale University
Zientara, Gary P., Ph.D. Brigham and Women's Hospital
Zimet, Gregory D., Ph.D.Melvin and Bren Simon Cancer Center at Indiana University
Zondlo, Neal Joseph, Ph.D. University of Delaware
Zuna, Rosemary E., M.D. University of Oklahoma Health Sciences Center
Zutter, Mary M., M.D. Vanderbilt University

Total number of Reviewers: 1,257

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 | |
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| K01 | <p>The Howard Temin Award (no longer supported through use of the K01 by the NCI; see the K99/R00)</p> <p>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.</p> |
| K01 | <p>Mentored Career Development Award for Underrepresented Minorities</p> <p>To support scientists committed to research who are in need of both advanced research training and additional experience.</p> |
| K05 | <p>Established Investigator Award in Cancer Prevention, Control, Behavioral, and Population Research</p> <p>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.</p> |
| K07 | <p>Cancer Prevention, Control, Behavioral, and Population Sciences Career Development Award</p> <p>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.</p> |
| K08 | <p>Mentored Clinical Scientists Development Award</p> <p>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.</p> |
| K08 | <p>Mentored Clinical Scientists Development Award—Minorities in Clinical Oncology</p> <p>A specialized type of Mentored Clinical Scientist Developmental Awards (K08s) that support 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.</p> |

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| K12 | <p>Institutional Clinical Oncology Research Career Development Award</p> <p>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.</p> |
| K22 | <p>The NCI Transition Career Development Award for Underrepresented Minorities</p> <p>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.</p> |
| K22 | <p>The NCI Scholars Program</p> <p>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 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.</p> |
| K23 | <p>Mentored Patient-Oriented Research Career Development Award</p> <p>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.</p> |
| K23 | <p>Mentored Patient-Oriented Research Career Development Award for Underrepresented Minorities</p> <p>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.</p> |
| K24 | <p>Mid-Career Investigator Award in Patient-Oriented Research</p> <p>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.</p> |
| K25 | <p>Mentored Quantitative Research Career Development Award</p> <p>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.</p> |

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| K99/ R00 | <p>NIH Pathway to Independence (PI) Award</p> <p>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 1-2 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 post-doctoral 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> |
| P Series: Research Program Projects and Centers | |
| P01 | <p>Research Program Projects</p> <p>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.</p> |
| P20 | <p>Exploratory Grants</p> <p>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.</p> |
| P30 | <p>Center Core Grants</p> <p>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.</p> |
| P50 | <p>Specialized Center Grants</p> <p>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.</p> |

| R Series: Research Projects | |
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| R01 | <p>Research Project</p> <p>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.</p> |
| R03 | <p>Small Research Grants</p> <p>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.</p> |
| R13 | <p>Conferences</p> <p>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.</p> |
| R15 | <p>The NIH Academic Research Enhancement Awards (AREA)</p> <p>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.</p> |
| R21 | <p>Exploratory/Developmental Grants</p> <p>To encourage the development of new research activities in categorical program areas. (Support generally is restricted in the level of support and duration.)</p> |
| R24 | <p>Resource-Related Research Projects</p> <p>To support research projects that will enhance the capability of resources to serve biomedical research.</p> |

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| R25E | <p>Cancer Education Grant Program (CEGP)</p> <p>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.</p> |
| R25T | <p>Cancer Education and Career Development Program</p> <p>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 particularly applicable to the behavioral, prevention, control, nutrition, and population sciences but should also 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.</p> |
| R33 | <p>Exploratory/Developmental Grants, Phase II</p> <p>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.</p> |
| R37 | <p>Method to Extend Research in Time (MERIT) Award</p> <p>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.</p> |

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.

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| 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 that are likely to result in commercial products or services. |
| R55 | James A. Shannon Director's Awards; Guidelines 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. (Investigators may not apply for an R56 grant.) |

| S Series: Research-Related Programs | |
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| SC1 | <p>Research Enhancement Award</p> <p>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).</p> |
| SC2 | <p>Pilot Research Project</p> <p>Individual investigator-initiated pilot research projects for faculty at minority-serving institutions (MSIs) to generate preliminary data for a more ambitious research project.</p> |
| S06 | <p>Minority Biomedical Research Support (MBRS)</p> <p>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.</p> |
| S07 | <p>Biomedical Research Support Grants (NCRR BRSG)</p> <p>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 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).</p> |
| S10 | <p>Biomedical Research Support Shared Instrumentation Grants (NCRR SIG)</p> <p>The National Center for Research Resources (NCRR) initiated its competitive Shared Instrumentation Grant (SIG) Program in FY1982. Shared Instrumentation Grants provide 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 the 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.</p> |
| S21 | <p>Research and Institutional Resources Health Disparities Endowment Grants—Capacity Building</p> <p>To strengthen the research and training infrastructure of the institution, while addressing current and emerging needs in minority health and other health disparities research.</p> |

| T Series: Training Programs | |
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| 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 Series: 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. |

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| 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

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|-------|---|--------|--|
| ACD | Advisory Committee to the Director | DHHS | U.S. Department of Health and Human Services |
| ACSR | AIDS and Cancer Specimen Resource | EC | Early Concurrence |
| AERIO | Agency Extramural Research Integrity Officer | EPMC | Extramural Program Management Committee |
| AHRQ | Agency for Healthcare Research and Quality | eRA | Electronic Research Administration |
| AISB | Applied Information Systems Branch | ESA | Extramural Support Assistant |
| ARA | Awaiting Receipt of Application | ESATTS | Extramural Scientist Administrator Training Tracking System |
| AREA | Academic Research Enhancement Award | EUREKA | Exceptional, Unconventional Research Enabling Knowledge Acceleration |
| ASCO | American Society of Clinical Oncology | FACA | Federal Advisory Committee Act |
| ASPO | American Society for Preventive Oncology | FCRDC | Frederick Cancer Research and Development Center |
| BRSG | Biomedical Research Support Grant | FDCC | Federal Desktop Core Configuration |
| BSA | Board of Scientific Advisors | FIC | Fogarty International Center |
| BSC | Board of Scientific Counselors | FIRCA- | Fogarty International Research |
| CAM | Complementary and Alternative Medicine | BSS | Collaboration-Behavioral and Social Sciences |
| CCR | Center for Cancer Research | FLARE | Fiscal Linked Analysis of Research Emphasis |
| CCR | Central Contractor Registry | FOA | Funding Opportunity Announcements |
| CCSG | Cancer Center Support Grant | FY | Fiscal Year |
| CCT | Center for Cancer Training | GEI | Genes, Environment, and Health Initiative |
| CDC | Centers for Disease Control and Prevention | GSA | General Services Administration |
| C&E | Certification and Accreditation | HNRIM | Human Nutrition Research Information Management System |
| CEGP | Cancer Education Grant Program | IC | Institute/Center |
| CECCR | Centers of Excellence in Cancer Communication Research | ICMIC | <i>In Vivo</i> Cellular and Molecular Imaging Center |
| CIT | Center for Information Technology | IDeA | Institutional Development Award |
| CMO | Committee Management Office | IMPAC | Information for Management, Planning, Analysis, and Coordination |
| CRCHD | Center to Reduce Cancer Health Disparities | IRG | Initial Review Group |
| CSO | Common Scientific Outline | IRT | Incidence Response Team |
| CSR | Center for Scientific Review | ISCS | Information Systems and Computer Services |
| CSSI | Center for Strategic Scientific Initiatives | IT | Information Technology |
| CTAC | Clinical Trials and Translational Research Advisory Committee | LOI | Letter of Intent |
| CTEP | Clinical Trials Evaluation Program | MACS | Multicenter AIDS Cohort Study |
| CTWG | Clinical Trials Working Group | MBRS | Minority Biomedical Research Support |
| DCB | Division of Cancer Biology | MERIT | Method to Extend Research in Time |
| DCCPS | Division of Cancer Control and Population Sciences | MICCP | Minority Institution Cancer Center Partnership |
| DCEG | Division of Cancer Epidemiology and Genetics | MLPCN | Molecular Libraries Probe Production Centers Network |
| DCLG | Director's Consumer Liaison Group | MSI | Minority-Serving Institution |
| DCP | Division of Cancer Prevention | NCAB | National Cancer Advisory Board |
| DCTD | Division of Cancer Treatment and Diagnosis | NCCAM | National Center for Complementary and Alternative Medicine |
| DEA | Division of Extramural Activities | NCI | National Cancer Institute |
| DEAS | Division of Extramural Activities Support | NCod | Non-communicable Chronic Diseases (Research Training Program) |
| DFO | Designated Federal Official | | |
| DHCP | Dynamic Host Configuration Protocol | | |

Appendix F: Glossary of Acronyms

| | | | |
|-------|--|--------|--|
| NCCR | National Center for Research Resources | ORRPC | Office of Referral, Review, and Program Coordination |
| NDPA | NIH Director Pioneer Award | OTIR | Office of Technology and Industrial Relations |
| NEI | National Eye Institute | PA | Program Announcement |
| NHGRI | National Human Genome Research Institute | PAR | Reviewed Program Announcement |
| NHLBI | National Heart, Lung and Blood Institute | PCP | President's Cancer Panel |
| NIA | National Institute on Aging | PCRB | Program Coordination and Referral Branch |
| NIAAA | National Institute on Alcohol Abuse and Alcoholism | PFP | Progress for Patients Award |
| NIAID | National Institute of Allergy and Infectious Diseases | PHS | Public Health Service (DHHS) |
| NIAMS | National Institute of Arthritis and Musculoskeletal and Skin Diseases | PROMIS | Patient-Reported Outcomes Measurement Information System |
| NIBIB | National Institute of Biomedical Imaging and Bioengineering | RAEB | Research Analysis and Evaluation Branch |
| NICDR | National Institute of Dental and Craniofacial Research | RCDC | Research, Condition, and Disease Categorization |
| NICHD | <i>Eunice Kennedy Shriver</i> National Institute of Child Health and Human Development | R&D | Research and Development |
| NIDA | National Institute on Drug Abuse | RDCRC | Rare Diseases Clinical Research Consortia |
| NIDCD | National Institute on Deafness and Other Communication Disorders | REAP | Research Enhancement Awards Program |
| NIDDK | National Institute of Diabetes and Digestive and Kidney Diseases | RFA | Request for Applications |
| NIEHS | National Institute of Environmental Health Sciences | RFP | Request for Proposals |
| NIGMS | National Institute of General Medical Sciences | RIF | Request for Information |
| NIH | National Institutes of Health | RIO | Research Integrity Officer |
| NIMH | National Institute of Mental Health | RM | Road Map |
| NINDS | National Institute of Neurological Disorders and Stroke | RO | Referral Officer |
| NINR | National Institute of Nursing Research | RPRB | Research Programs Review Branch |
| NLM | National Library of Medicine | RTRB | Resources and Training Review Branch |
| NRSA | National Research Service Award | SBIR | Small Business Innovation Research |
| NTR | Network for Translational Research | SBIRDC | SBIR Development Center |
| NTROI | Network for Translational Research in Optical Imaging | SCORE | Support of Competitive Research |
| OAR | Office of AIDS Research | SEP | Special Emphasis Panel |
| OBF | Office of Budget and Finance | SGE | Special Government Employee |
| OBSSR | Office of Behavioral and Social Sciences Research (NIH) | SIC | Special Interest Category |
| OCAM | Office of Complementary and Alternative Medicine | SIG | Shared Instrumentation Grant |
| OCTR | Office of Centers, Training and Resources | SITE | Organ Site Codes |
| OD | Office of the Director | SPECS | Strategic Partnering to Evaluate Cancer Signatures |
| OEA | Office of Extramural Applications | SPORE | Specialized Program of Research Excellence |
| OER | Office of Extramural Research | SPRS | Secure Payee Reimbursement System |
| OFACP | Office of Federal Advisory Committee Policy | SREA | Scientific Review and Evaluation Activities |
| OHAM | Office of HIV and AIDS Malignancies | SRLB | Special Review and Logistics Branch |
| OPERA | Office of Policy for Extramural Research Administration | SRO | Scientific Review Officer (formerly Scientific Review Administrator) |
| | | STTR | Small Business Technology Transfer Research |
| | | TARGET | Therapeutically Applicable Research to Generate Effective Treatments |
| | | TCGA | The Cancer Genome Atlas |
| | | T&E | Training and Education |
| | | TRWG | Translational Research Working Group |

Appendix G: Cancer Information Sources on the Internet

NCI Web Site

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

DEA Web Sites

The following Web sites 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; contact information for DEA staff.

Advisory Boards and Groups

<http://deainfo.nci.nih.gov/advisory/Boards.htm>

Links to the home pages of NCI's Advisory Boards.

<http://deainfo.nci.nih.gov/advisory/pcp/pcp.htm>

Charter of the President's Cancer Panel; meeting agendas; meeting minutes; annual reports.

<http://deainfo.nci.nih.gov/advisory/ncab.htm>

Charter of the National Cancer Advisory Board; members of subcommittees; meeting agendas.

<http://deainfo.nci.nih.gov/advisory/ncabmin-menu.htm>

Full text of NCAB meeting summaries.

<http://deainfo.nci.nih.gov/advisory/bsa.htm>

Charter of the Board of Scientific Advisors; members of subcommittees; meeting agendas.

<http://deainfo.nci.nih.gov/advisory/bsaminmenu.htm>

Full text of BSA meeting summaries.

<http://deainfo.nci.nih.gov/advisory/bsc.htm>

Charter of the Board of Scientific Counselors; members of subcommittees.

<http://deainfo.nci.nih.gov/advisory/CTAC/CTAC.htm>

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

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

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

<http://deainfo.nci.nih.gov/advisory/joint.htm>

Charter of the Advisory Committee to the Director; meeting schedules, agendas, and minutes; members of NCI Director's Working Groups, Program Review Working Groups, and Progress Review Working Groups.

http://deainfo.nci.nih.gov/advisory/bsa/bsa_program/bsaprgr.htm

Program Review Group reports.

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

Charter of the Initial Review Group; members of subcommittees.

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

Charter of the Special Emphasis Panel; rosters of recent meetings.

<http://deainfo.nci.nih.gov/advisory/pog/progress/index.htm>

Function and organization of Progress Review Groups (PRGs); PRG reports and meeting schedules; members of PRGs.

Funding Opportunities

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

Comprehensive information about funding for cancer research; lists of active PAs and RFAs; recently cleared concepts; grant policies and guidelines; 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>

Grants 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 visitor can search the 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 Web site 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.

NIH Web Sites

<http://www.nih.gov>

<http://era.nih.gov/ElectronicReceipt/>

<http://grants1.nih.gov/grants/policy/policy.htm>

<http://grants.nih.gov/grants/guide/index.html>

<http://grants.nih.gov/training/extramural.htm>

<http://report.nih.gov>

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



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