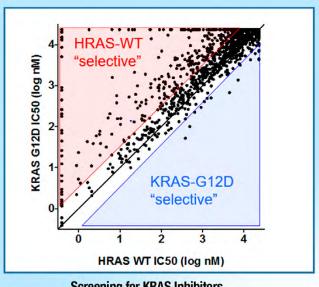
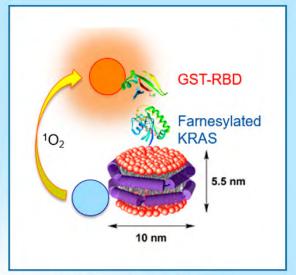
Division of Extramural Activities Annual Report 2015





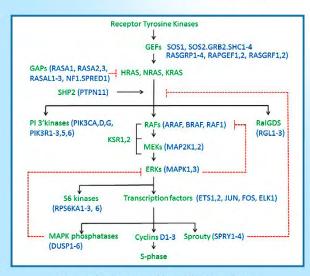
Screening for KRAS Inhibitors

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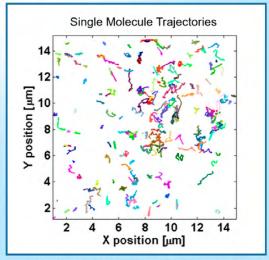
Targeting RAS



Structural Analysis of RAS-Raf Complexes



The RAS Pathway (Simplified Version)



Tracking Single RAS Proteins in Live Cells

The RAS Initiative

The RAS family of oncogenes were the first oncogenes identified in human cancer cell DNA in 1981. Since then, their role as major drivers of human cancer has been well established. Activating mutations in RAS genes, in particular KRAS, are observed in about 35 percent of lung adenocarcinomas and more than 90 percent of pancreatic cancers. RAS oncogenes also play important roles in many other cancers, including colorectal cancer, acute myeloid leukemia, and melanoma. In most cases, RAS mutations initiate cancer and are major drivers, thus establishing RAS proteins as valuable therapeutic targets. Most activating mutations occur at codons 12, 13, or 61¹, all of which prevent inactivation by GTPase Activating Proteins, so that they remain in their active states persistently, driving abnormal cell proliferation, migration, and survival.²

Despite RAS' clear role in cancer, little progress has been made towards treating RAS-driven cancers. This is largely due to the fact that RAS proteins, unlike protein kinases, do not have active sites that are amenable to interaction with small molecule inhibitors.³. Furthermore, RAS proteins are downstream of receptor tyrosine kinases (RTKs), and as a result, approved drugs targeting RTKs are ineffective in treating RAS-driven cancers. In addition, oncogenic RAS proteins activate pathways that confer "stem-like" properties on cancer cells, making them drug resistant with a high tumorigenic potential.⁴ To date, most efforts to target RAS have involved indirect attack on kinases downstream of RAS that are thought to be essential for RAS activity, such as RAF, MEK, or ERK. However, as shown in the lower left panel, these pathways are very complicated, with significant redundancy and feedback. To date, drugs targeting this dynamic network have not been effective in treating RAS cancers, leaving patients with few good therapeutic options.

Recognizing these issues, Drs. Harold Varmus, the previous Director, NCI, and Doug Lowy, the current Acting Director, NCI, with input from the Frederick National Advisory Committee (FNLAC), launched the national NCI RAS Initiative in 2013 to explore innovative approaches of targeting mutant forms of RAS directly and treating RAS-driven cancers. A Hub and Spoke model was proposed, in which the RAS Initiative would be based at the Frederick National Laboratory for Cancer Research (FNLCR), and would collaborate with an international network of RAS investigators, including academic, commercial, and biopharmaceutical partners. Three years later, the RAS Initiative is in full swing, with more than 50 researchers at the FNLCR working as an integrated team to solve the RAS problem, with input from the RAS Initiative Working Group and in collaboration with multiple partners.

A major focus of the RAS Initiative is to solve structures of oncogenic KRAS proteins alone and in complex with their critical effectors and regulators. Solving these structures is expected to guide drug discovery efforts, either by exploiting new effector or regulator pockets using *in silico* computational methods, or by supporting traditional drug screening efforts and medicinal chemistry. The cover page central figure⁵ illustrates a three-dimensional structure of oncogenic KRAS-GTP mutant (green) bound to the RAS-binding domain of RAF kinase (blue). The interface between these proteins is a potential target for intervention, as RAS-dependent activation of RAF kinase is a critical component of downstream signaling pathways that drive cancer. Another possible point of intervention is the site of GTP hydrolysis created by the binding of RAS proteins to GAPs. Normally, this interaction results in the hydrolysis of GTP by wild-type RAS, thus inactivating RAS signaling. In oncogenic RAS mutants, the GTPase machinery is defective, and RAS activity cannot be turned off. Compounds that restore GTP hydrolytic activity would inactivate oncogenic RAS proteins. Efforts to find such compounds will be greatly facilitated by defining structures of complexes formed between mutant RAS proteins and GAP. Some of these structures have now been solved, revealing new opportunities for therapy.

In addition to structure-based inhibitor drug design, the RAS Initiative is developing novel screens for detecting compounds that turn RAS off. Some of these screens are cell-based, some biochemical, and others are imaging-based techniques that detect dislocation of RAS from the plasma membrane. The upper left panel⁶ shows results of a cell-based screen of small molecules with known molecular targets that selectively block oncogenic KRAS-G12D but do not affect wild-type HRAS cell proliferation. Each dot represents an 11-point IC50 determination for a specific compound. This screen was done in collaboration with the National Center for Advancing Translational Sciences (NCATS), and has been the basis of further collaborations with pharmaceutical partners.

The RAS Initiative also has been highly successful in the production of high-quality, fully processed KRAS protein, enabling additional biochemical screens as well as intense biophysical analysis of KRAS in synthetic membranes. The upper right panel illustrates a fully processed, farnesylated KRAS inserted into the surface of lipid nanodiscs and its interaction with glutathione-S-transferase (GST) tagged RAF binding domain (GST-RBD). This format is ideal for high-throughput biochemical screening, NMR analysis, and other biophysical methods to identify inhibitors of RAS:RAF effector interactions.

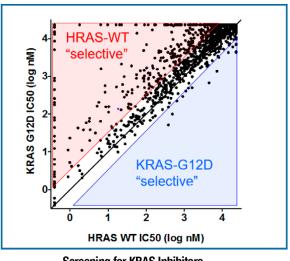
Image-based assays of RAS proteins also help us to understand how RAS inhibitors affect the protein's association with the plasma membrane. Investigators have been able to track fluorescent dye tagged RAS molecules in the membrane of living cells, as shown in the lower right panel. Studies using single-molecule microscopy have revealed that RAS proteins exist in three major motility states (i.e., fast moving, intermediate, and slow moving) consistent with a model in which RAS proteins are mostly monomers, but enter different states when they engage signaling molecules. Using this system, the RAS investigators seek to learn how normal and oncogenic mutants are regulated, how they enter and exit signaling complexes, and how they are affected by therapeutic agents.

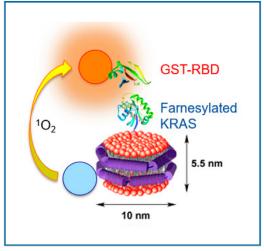
By using an integrated, team-based approach centered at the FNLCR, and in collaboration with an extensive network of laboratories in academia, the NCI, and industry, the RAS Initiative hopes to develop drug candidates that target RAS proteins directly, or block RAS activity in cancer cells. We expect that these candidates will advance quickly towards pre-clinical testing and that, in the not too distant future, therapies for this deadly group of RAS-driven cancers will be a reality.

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- 9. Halo-tagged KRAS protein was expressed and tracked in living cells by Dr. Tommy Turbyville and colleagues at the FNLCR.

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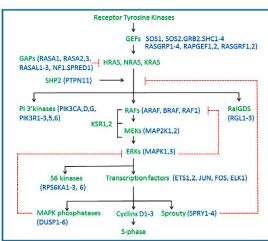
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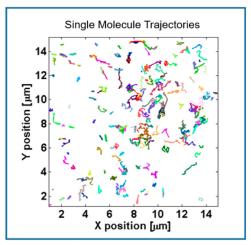
Targeting RAS



Structural Analysis of RAS-Raf Complexes







Tracking Single RAS Proteins in Live Cells

Images and narrative are the courtesy of Dr. Frank McCormick, Professor Emeritus, University of California, San Francisco Helen Diller Family Comprehensive Cancer Center.

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Introduction



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

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

DEA coordinates the activities of: (1) the National Cancer Advisory Board (NCAB), which consists of members appointed by the President, conducts the second-level review of grants and cooperative agreements and advises the Director, NCI, on policy for the conduct of the National Cancer Program; (2) the Board of Scientific Advisors (BSA), which is composed of distinguished scientists from outside the NCI and representatives from the advocacy community who advise the NCI leadership on the progress and future direction of the NCI extramural program, evaluates NCI extramural programs, and reviews NCI-initiated research concepts; (3) the activities of the Frederick National Laboratory Advisory Committee (FNLAC), which reviews the state of research at the Frederick National Laboratory of Cancer Research (FNLCR); and (4) extramural training opportunities for NCI Program and Review staff.

As a Division, we evaluate the content of all extramural research funded by the NCI and annually track the NCI research portfolio of more than 8,000 research and training awards by using consistent budget-linked scientific information to provide

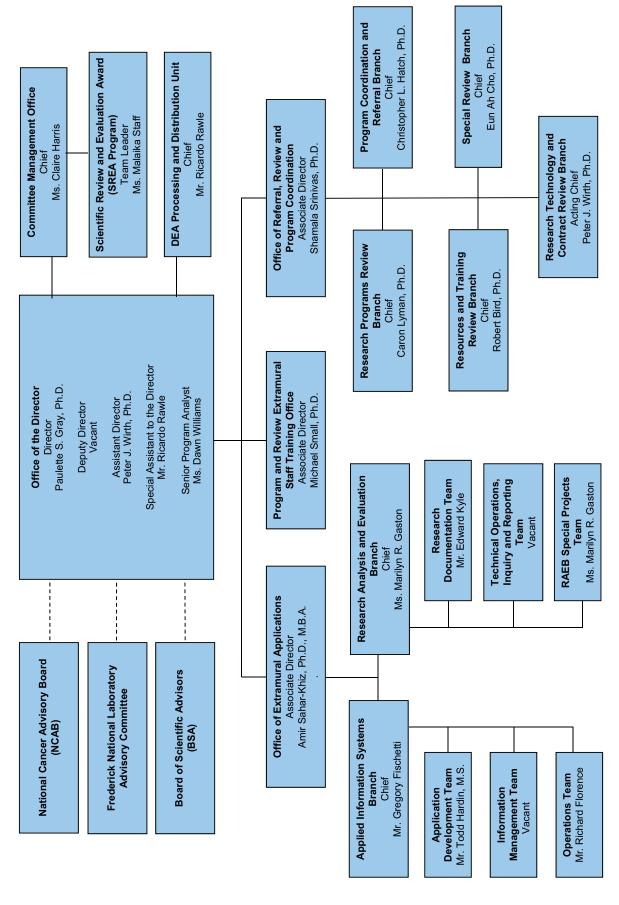
a basis for budget projections; maintain extensive records of this research and provide specialized analyses of the costs, goals, and accomplishments of the research; and serve as an NCI resource to others for reporting and dissemination of the NCI's research portfolio. DEA monitors budgetary limitations 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 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 to and coordinates requests from the NIH Office of Extramural Research's Agency Extramural Research Integrity Officer (RIO) 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 DEA in support of NCI's mission. A comprehensive look at each of the major areas of responsibility within the Division is provided. The data presented cover Fiscal Year (FY) 2015 (1 October 2014 - 30 September 2015) 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 actively engaged in research for assistance in selecting the best research and training projects. We sincerely want to thank the more than 2,400 researchers, clinicians, and advocates who gave unselfishly of their time in FY2015 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



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Overview of the Division of Extramural Activities

The paramount goal of the National Cancer Institute (NCI) is to develop the knowledge base that will ultimately lessen the impact of cancer. Among the most important contributors to this base are the outstanding extramurally funded scientists supported by the NCI through grants, contracts, and cooperative agreements. The DEA was established within the NCI to provide the Institute and the scientific community with expert scientific review of the merits of extramural research. An important part of DEA's mission is to manage and coordinate the second level of grant review by the National Cancer Advisory Board (NCAB); concept review of all new and reissued Requests for Applications (RFAs) and Research and Development (R&D) Requests for Proposals (RFPs) by the Board of Scientific Advisors (BSA), and activities of the Frederick National Laboratory Advisory Committee (FNLAC), which reviews the state of research at the Frederick National Laboratory of Cancer Research (FNLCR). The DEA also provides effective and timely coordination of program initiatives from the initial concept stage through publication of Requests of Applications (RFAs), Requests for Proposals (RFPs), Program Announcements (PAs), Notices, and finally the peer review of grant and cooperative agreement applications and contract proposals.

The Committee Management Office (CMO) provides oversight of all NCI-chartered advisory boards and committees, working groups, task forces, and chartered review groups. The CMO also serves as an NIH service center for the National Institutes of Health (NIH), the National Institute on Alcohol Abuse and Alcoholism (NIAAA), and the NIH Council of Councils (CoC). The CMO provides policy guidance and assistance to ensure that the NCI and client HHS/NIH Institutes, Centers, and Offices operate within the appropriate Federal Advisory Committee Act (FACA), the Government in Sunshine Act, and various other policies, procedures, and guidelines.

The Office of Referral, Review, and Program Coordination (ORRPC), which consists of four review branches and a program coordination and referral branch, provides: (1) coordination of the development and issuance of NCI program initiatives; (2) execution of grant receipt and referral; and (3) management of NCI peer

review activities. Review activities include the organization and management of peer review for all applications and proposals received in response to RFAs, PAs, PAs with Special Receipt (PARs), complex, multi-component grant and cooperative agreement initiatives, and R&D RFPs. The program coordination responsibilities of the DEA, in cooperation with NCI extramural program Divisions, Offices, and Centers, extend to the development of all new extramural program guidelines and funding opportunity announcements (FOAs).

Another program coordination activity is the development and maintenance of referral guidelines for assignment of grant applications to the NCI. These guidelines, included in the *Referral Guidelines for Funding Components of PHS*, are critical to the development of program initiatives across the NIH, as well as 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 (OBF) to provide budget-linked portfolio data for NCI grants, cooperative agreements, and contracts. In doing so, the Institute has the capability of responding expeditiously to congressional and other inquiries. RAEB has historical budget-linked portfolio data that go back to the 1930s.

The DEA conducts continual evaluation of program initiatives and coordinates policies and procedures to ensure that all aspects are as clear and accessible as possible to NCI staff, advisory groups, and applicants. To facilitate this evaluation, the DEA 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 accessible Internet (http://deainfo. nci.nih.gov/funding.htm) and NCI limited-access Intranet versions.

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 ensures that 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. In 1998, an NIH inclusion policy was implemented requiring applicants and grantees to include children (as defined as an individual less than 18 years of age) in clinical research, unless there is strong justification for their exclusion. Administrative procedures allow NCI staff to resolve inclusion problems after initial review of grant applications that are otherwise highly meritorious. In the event that an applicant believes the proposed study does not warrant or require inclusion of women, children, or persons from minority or medically underserved population 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 FY2015, 23 applications with preliminary bars to award were received by the DEA. Through corrective action, working with the applicants and program directors, all bars to award were brought into compliance before awards were made.

Additionally, the DEA Director serves as the locus for implementation and oversight of NCI policies concerning extramural research integrity and serves as a resource to all NCI staff with questions in this area. In this role, the DEA Director and designees work to address concerns about extramural research misconduct, misuse of human and animal research subjects, financial mismanagement, and financial conflict of interest involving NCI-supported research. The DEA Director functions as the NCI Research Integrity Officer (RIO) and receives from the appropriate sources all documents related to research misconduct for transmittal and reporting to relevant sources. In FY2015, 11 cases of alleged research misconduct involving NCI funding were opened and under investigation by the Office of Research Integrity, HHS, and referred to the Director, DEA. Six cases were closed and one case was found to involve research misconduct. Cases found to involve research misconduct are published in the Federal Register and DHHS Office of Research Integrity.

Extramural Staff Training

Program and Review Extramural Staff Training Office (PRESTO)

The Program and Review Extramural Staff Training Office (PRESTO), which resides in the DEA OD, develops and coordinates the training of Program, Review, and other extramural staff. The mission of PRESTO is to increase the knowledge base of new and experienced staff members and optimize their effectiveness in supporting the goals of the NCI. To accomplish this mission, PRESTO: (1) designs and implements a broad-based curriculum for Program and Review staff; (2) provides training on specialized topics related to understanding of and compliance with NIH policies; and (3) identifies and develops resources to facilitate individual learning and performance. Finally, PRESTO tracks the participation of extramural staff in NIH- and NCI-sponsored training activities as well as continuously evaluates the efficacy of these activities.

During FY2015, PRESTO activities included:

- Launch of a revamped PRESTO website providing an improved user interface with NIH and NCI training resources.
- A Project Management Series featuring project management professionals and addressing various issues of interest to NCI extramural staff.
- An Electronic Tools Workshop Series specifically designed for new Program Officials to enhance their knowledge and skills related to the use of QVR, Greensheets, Workbench, and other electronic systems.
- PRESTO-sponsored training focused on Administrative, Scientific, and Research Resource topics including Research Misconduct, Precision Medicine, and Biological & Biopharmaceutical Agent Development.

During FY2016, PRESTO will continue to offer a variety of training opportunities, with particular focus on new and emerging topics of broad interest to NCI extramural staff. PRESTO plans to conduct boot camps for newly hired Scientific Review Officers so as to provide them with the fundamentals of peer review. The NCI Scientific Review Officer Handbook also will be revised to increase its usability. Various information technology tools will be employed to enhance the effectiveness of PRESTO-sponsored training activities.



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 RFAs and PAs. Members of the Program Coordination and Referral Branch (PCRB) provide expert assistance to NCI Program staff to develop and publish new (or reissue) FOAs. PCRB staff members disseminate various operating policies and procedures pertaining to extramural funding programs. To maintain consistency and completeness, all new and reissued NCI FOAs, Notices, and associated guidelines are reviewed. edited as needed, and cleared through the DEA, under PCRB coordination, before being forwarded to the NIH Office of Extramural Research (OER) for approval and publication in the NIH Guide for Grants and Contracts. 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. PCRB verifies consistency with NIH-wide requirements, provides quality control, and coordinates timelines throughout the development and publication processes. Overall, these services ensure the high quality and timely availability of NCI's funding opportunities for cancer researchers as prospective applicants.

Tables 1a and 1b show the variety of RFAs issued by the NCI in FY2015, and Table 2 lists RFAs

issued by other NIH Institutes or Centers (ICs) that the NCI has joined as a participating partner. **Tables 3a** and **3b** show the variety of PAs issued by the NCI in FY2015, and **Table 4** lists PAs issued by other NIH ICs that the NCI has joined as a participating partner.

PCRB staff members continue to provide relevant information and timely updates to all NCI extramural staff members on activities and results related to the requirements for and uses of electronic grant applications. The Branch also serves as a direct source of guidance on this topic for program officials at the NCI and applicants in the extramural scientific community. Staff members in the Referral Office (RO) in PCRB collaborated with NCI information technology staff members and their contractors to successfully develop and deploy an improved Web-based Awaiting Receipt of Application (ARA) management system (permission for special application receipts), which contributes to an improved efficiency of use by NCI staff members and quality of service for the NCI's grant applicants and awardees. In addition to performing their program coordination and referral responsibilities, PCRB Health Scientist Administrators also served as Scientific Review Officers (SROs) in managing the reviews of 374 student loan repayment program (LRP) contract proposals in FY2015 (Table 12).

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

In FY2015, a total of 16,017 grant and cooperative agreement applications were submitted to the NCI for funding with appropriated funds (see Figure 1 and Table 5). Applications encompassed 50 different types of award mechanisms (Appendix E), including investigator-initiated Research Project (R01), Career Development (K series), Research Program Project (P01), Cancer Center Support (P30), Specialized Program of Research Excellence (SPORE, P50), Small Research Project (R03), Exploratory/Developmental Project (R21), Exploratory/Developmental Phase II Project (R33), Small Business Technology Transfer (STTR) (R41/ R42), Small Business Innovation Research (SBIR) (R43/R44), and Cooperative Agreement (U-series) activity codes.

All applications seeking NIH support are initially submitted to the NIH Center for Scientific Review (CSR) Division of Receipt and Referral (DRR), which assigns each application to a specific NIH funding Institute or Center (IC) and the locus of review for the application (i.e., either to a CSR Study Section or within a specific IC. The ICs, in turn, have well-defined processes in place for the internal assignment and review of submitted applications. Upon receipt of applications from CSR, the NCI Referral Officers (ROs) in PCRB: (1) assign all incoming applications to one of the 50 NCI extramural research program areas; (2) track program acceptance of the applications; and (3) if necessary, negotiate transfers of grant applications to and from the NCI to other NIH



Figure 1. Receipt and Referral of NCI Grant Applications FY2011 – 2015

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

ICs and even other HHS research funding agencies, such as the Agency for Healthcare Research and Quality (AHRQ), the Centers for Disease Control and Prevention (CDC), and the Food and Drug Administration (FDA).

The first point of contact for applicants seeking NCI support for their research is often a PCRB RO who provides the investigators with information related to funding opportunities, peer review policies and process, and contact information of an NCI Program staff member who can provide guidance through the application process. In addition, the RO assists members of the extramural community in navigating NIH and NCI Web pages to obtain current information, forms, and guidelines. PCRB also 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 support.

For certain FOAs, in particular Program Projects and specialized initiatives, applicants are encouraged to submit a Letter of Intent (LOI) to the PCRB prior to the submission of their application. The LOI typically provides the name of the contact principal investigator and other participating key investigators, a listing of the specific aims of the application and a brief description of the research, an approximate cost and years of support to be requested, and any additional information requested in the FOA. In most instances, the LOI is not mandatory or binding, but provides the Institute with an estimate of the number of applications that might be submitted in response to a specific FOA.

All applications requesting \$500,000 or more in direct costs in any year require prior agreement by NIH staff to accept the assignment of that application to that IC unless stated otherwise in the FOA. This is accomplished by the applicant contacting Program staff well in advance of the anticipated submission date. If the Program agrees to accept the application, the Program must submit an Awaiting Receipt of Applications (ARA) form to CSR DRR. The ARA form also facilitates requests for assignments from ICs and other information that needs to be connected to a specific application. For additional guidance on this process, refer to NOT-OD-02-004 "Revised Policy on the Acceptance for Review of Unsolicited Applications That Request \$500,000 or More in Direct Costs."

Peer Review—The Next Step

Once an application is referred to the NCI and assigned to the appropriate program, the application must be reviewed. The high caliber of NCI-sponsored research is maintained through a rigorous peer review process in which established experts in the appropriate scientific fields review and evaluate the scientific and technical merit of research grant applications, cooperative agreements, and contract proposals. The peer review process helps to ensure that the NCI uses its resources wisely and supports highly meritorious research that has the potential to make a significant contribution and impact in science and medicine. The NCI's extramural programs and activities are funded primarily through peer reviewed grants and cooperative agreements. Programs that are funded through research and development (R&D) contracts also are subject to peer review, including contract-supported projects conducted within the intramural research program.

The NIH peer review system consists of two sequential levels of review mandated by statute and regulation. The first level of review is managed by Scientific Review Officers (SROs) who serve as the Designated Federal Officer (DFO) and are conducted in either an NIH CSR study section, a chartered NCI Initial Review Group (IRG), or an NCI Special Emphasis Panel (SEP). The purpose of this initial review is to evaluate the scientific and technical merit, protection of human subjects, inclusion plans, animal welfare, and budget and/or administrative issues of the applications or cooperative agreements under review. The second level of review, which is not a re-review of scientific merit but a validation of the initial review and an evaluation of program relevance, is conducted by the National Cancer Advisory Board (NCAB).

Most investigators are familiar with the functions of an NIH CSR study section, which has the primary responsibility for the peer review of most investigator-initiated Research Program Grants (RPGs) (R01) and Fellowship (F) applications. What is less widely known, however, is that grant applications requesting more than 50 percent of

the NCI's overall extramural budget are reviewed by chartered NCI IRGs and SEPs that are conducted within the DEA. The locus of the peer review, whether by the CSR or the DEA, is usually determined by the type of grant mechanism of the application under review.

Although the NCI has no direct input into the selection of CSR study section reviewers, members of NCI IRGs and SEPs are selected by DEA review staff, with suggestions from NCI Program staff. NCI IRGs and SEPs provide advice on the scientific and technical merit of applications for research, research training, education, and career development; cooperative agreements; and contract proposals relating to scientific areas relevant to cancer.

All chartered NCI IRG Subcommittee members are approved by the Director, DEA, based on their knowledge and demonstrated expertise in various disciplines and fields related to cancer. The NCI currently has four specialized IRG Subcommittees. Subcommittee A reviews Cancer Center Support grant (CCSG) applications. Subcommittee F reviews Institutional Training and Education applications. Subcommittee I reviews Transition to Independence applications, and Subcommittee J reviews Career Development applications. NCI IRG members are appointed for varying terms of service, which may be up to 6 years. DEA SEPs are selected ad hoc on a one-time, as-needed basis, to review specific grant and cooperative agreement applications received in response to RFAs, PAs, PARs, and other specialized applications, or R&D contract proposals received in response to RFPs.

The peer review of grant applications and contract proposals generally occurs in the fall, winter, and spring prior to the January, May, and October NCAB meetings, respectively. The membership of NCI-chartered subcommittees may be found in Appendix C and at http://deainfo.nci.nih.gov/advisory/irg/irg.htm, and information about NCI SEPs can be accessed at http://deainfo.nci.nih.gov/advisory/sep/sep.htm.

Review Workload

In FY2015, DEA organized, managed, and reported the review of a total of 5,217 research grant and cooperative agreement applications (Table 6) and 512 contract proposals (Table 12) assigned to the NCI for funding with appropriated dollars. The total number of grant applications, cooperative agreements, and contract proposals reviewed in FY2015 was 5,729 (Figure 2). In addition, the DEA conducted 15 Cancer Center site visits, 12 IRG Subcommittee review meetings, 157 SEPs to review grant applications and contract proposals, and 51 other review-associated meetings, such as orientation teleconferences. Tables 7 and 12 provide a summary of the applications and proposals reviewed by NCI IRG Subcommittees and SEPs. Approximately 2,400 peer reviewers served on the NCI DEA-managed IRG Subcommittees, SEPs, and workgroups in FY2015 (see Appendixes C and D). Members were selected on the basis of their demonstrated experience and expertise in relevant fields of biomedical research or their informed consumer perspectives.

Peer Review Functions

The Office of Referral, Review, and Program Coordination (ORRPC) is responsible for the coordination and management of the review of NCI grant applications, cooperative agreements, and contract proposals. ORRPC is composed of four review branches, a coordination and referral branch, and the Office of the Associate Director. The individual review branches are responsible for organizing, managing, and reporting the results of scientific peer review of grant and cooperative applications or proposals for a wide variety of grant mechanisms and topics. Reviews of grant applications are conducted by either one of four NCI IRG Subcommittees or by specially convened SEPs as shown in Table 7. Contract proposals and Small Business Innovation Research (SBIR) Special Topics are reviewed by SEPs as shown in Table 12.

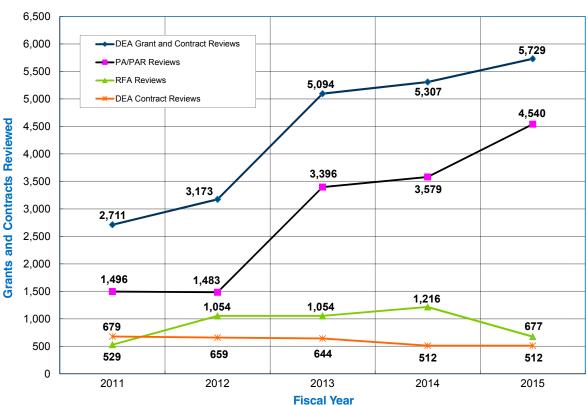


Figure 2. DEA Review Workload FY2011 - 2015

The Resources and Training Review Branch (RTRB) is primarily responsible for the peer review of multicomponent (*aka* "complex") Cancer Center Support as well as single component Training, Education, and Career Development grant applications (see Table 6). The RTRB also has responsibility for the management of the four NCI IRG Subcommittees (see Appendix D).

The Research Programs Review Branch (RPRB) has primary responsibility for review of unsolicited multicomponent Program Project (P01) and Specialized Programs of Research Excellence (SPORE) (P50) translational research applications focused on various disease sites.

The Special Review Branch (SRB) is primarily responsible for the management and peer review of grant applications submitted in response to NCI issued RFAs (e.g., NCI Provocative Questions) and PAs/PARs (e.g., NCI R03/R21) as well as other special initiatives.

The Research Technology and Contract Review Branch (RTCRB) is primarily responsible for the peer review of Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR) grant applications and Special Topics proposals, technology-related applications, and R&D contract proposals submitted in response to Request for Proposals (RFPs). All review meetings managed by RPRB, SRB and RTCRB are conducted using SEPs.

The Program Coordination and Referral Branch (PCRB) is primarily responsible for the management and peer review of grant applications submitted in response to the NIH Parent Conference Grant R13 PA and assigned to the NCI as well as for the management and peer review of proposals submitted to the NIH Loan Repayment Program (LRP) (L30, L40) solicitation and assigned to the NCI.

Resources and Training Review Branch (RTRB)

The RTRB has primary responsibility for review of Cancer Center Support, Training and Education, and Career Development applications. RTRB is also responsible for the management of the four NCI IRG Subcommittees: A, F, I, and J (Appendix D).

The review of Cancer Center Support Grant (CCSG) applications involves a two-tier initial peer review process. Normally, the first tier of the review involves a site visit to the applicant institution by a non-FACA working group review panel. The site visit reviewers serve as a fact-finding body of experts to obtain updated information and/or clarification of any issues identified in the written application through an onsite face-to-face discussion with the Cancer Center investigators with focus on addressing CCSG-specific review criteria, thereby enhancing the review process. The site visit committee prepares a site visit review report that is presented, along with the written CCSG application, to the NCI IRG Subcommittee A for discussion, evaluation, and final impact scoring of the application. Final impact scoring by Subcommittee A provides a more uniform evaluation of the individual CCSG applications than scoring based solely on the initial site visit review group. In FY2014, new guidelines were implemented in which Cancer Centers may elect not to have a site visit. In this case, the review will be based only on the information provided in the written application (i.e., "paper" review) with final evaluation and impact scoring by NCI Subcommittee A. During FY2015, Subcommittee A reviewed 16 CCSG applications.

Training and Career Development

Career Development and Training and Education grant applications are reviewed by IRG Subcommittees F, I, and J. The number of Career Development applications were fairly stable (435-438) in 2011/2012, increased to 527 in 2014, and decreased slightly to 484 in 2015. The number of Training and Education grant applications has remained fairly constant from 2011 (142) to 177 applications in 2015 (Figure 3).

NCI Community Oncology Research Program (NCORP)

Late in 2012, the NCI initiated efforts to develop a national network of investigators, cancer care providers, academic institutions, and other health-related organizations for the conduct of multi-site cancer clinical trials and studies in diverse populations with the establishment of the

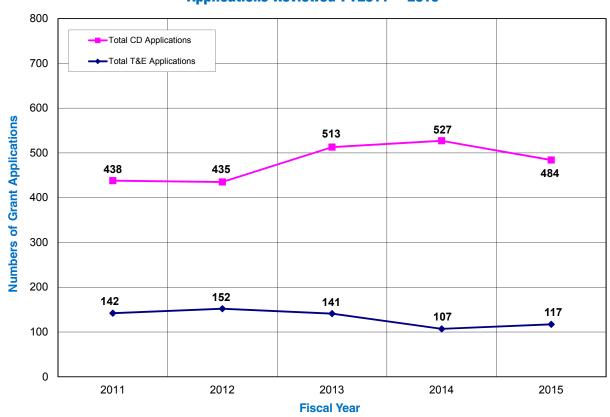


Figure 3. Numbers of Career Development (CD) and Training and Education (T&E)

Applications Reviewed FY2011 – 2015

NCI Community Oncology Research Program (NCORP). NCORP integrated two prior networks: the NCI Community Clinical Oncology Program (Community Clinical Oncology Programs and Minority-Based CCOP, Research Bases), and NCI Community Cancer Centers Program (NCCCP) for the conduct of clinical research in the community setting. The goal of NCORP is to facilitate the design and conduct of clinical trials to improve cancer prevention, cancer control, screening for early cancers, and post-treatment surveillance; and the delivery of cancer care and performance of comparative effectiveness research. In addition, NCORP seeks to facilitate access to treatment and imaging trials conducted by the National Clinical Trials Network (NCTN). In November 2013, three FOAs were issued soliciting cooperative agreement applications for NCORP Research Bases; Community Sites; and Minority/Underserved Community Sites.

Other RTRB Activities

To assist reviewers in their participation for RTRB peer review, Reviewer Guides are maintained for

the different types of applications reviewed by the RTRB. Reviewer Guides were regularly updated for the newly reissued FOAs and for the electronic submission of grant applications. Reviewer Guides also contain general information on peer review and NIH policies regarding the use of human subjects in research, as well as specific instructions for each of the mechanisms to be reviewed. These mechanism-specific guides have been completed for all Training, Education, and Career Development and Cancer Center Support applications. This resource is especially helpful for IRG Subcommittee members who often participate in the review of single component Training, Education, and Career Development grant applications or multicomponent CCSG grant applications, each with their own specific review criteria.

Research Programs Review Branch (RPRB)

Program Project (P01) Applications

A significant effort of RPRB during FY2015 was the review of unsolicited multicomponent Program Project (P01) applications. P01 applications are typically reviewed using a one-tier, "paper only" review process. The applications are grouped based on their scientific focus and typically clustered into three to four groups of up to 10 applications in each group. The applications often represent a continuum of research from basic through translational to preclinical and clinical studies. All P01 review panels are constituted as SEPs, with reviewers recruited based on the scientific expertise needed for the applications being reviewed. The SEP review committees evaluate the technical and scientific merit of the individual projects and supporting core resource facilities, determine the level of program integration and leadership, and then assign an overall impact score to each application. During FY2015, RPRB managed the review of 80 new, renewal (competing), resubmitted (amended), and revised (competitive supplement) P01 applications (Figure 4 and Table 8). Forty-six (58%) of the applications proposed new multidisciplinary research programs, 25 (31%) of the applications were amended (Table 8), and 19 (24%) included multiple Principal Investigators (PIs). Thirty-six (45%) of the 80 applications were referred to NCI's Division of Cancer Treatment and Diagnosis (DCTD) (see Table 9). The 80 applications requested \$171,375,388 in total costs for the first year (see Table 9) and \$864,170,545 in total costs for 5 years.

Specialized Programs of Research Excellence (SPORE, P50)

Another major responsibility of RPRB is the review of NCI Specialized Programs of Research Excellence (SPORE) P50 applications. These complex, multidisciplinary, translational applications focus on research directly applicable to human disease in various organ sites. In FY2015, RPRB organized and managed six SEPs for the review of 39 SPORE applications (Figure 4). The applications addressed multiple organ sites, with the following distribution of applications: Breast (1); Endometrial (1); Gastrointestinal (1); Head and Neck (4); Kidney (3); Leukemia (1); Lymphoma (3); Lung (4); Mesothelioma (2); Myeloma (2); Ovarian (5); Pancreas (2); Prostate (4); Melanoma (1); Sarcoma (1); Neuroendocrine (1); Liver (1); Uterine (1); and RAS

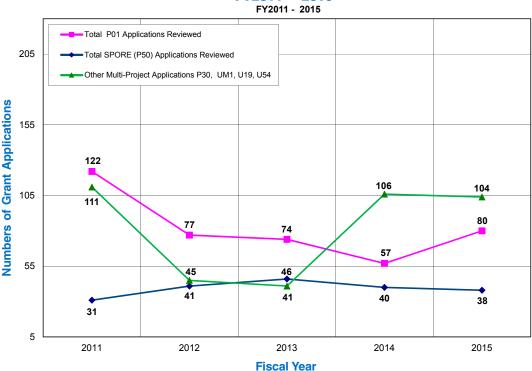


Figure 4. P01, SPORE, and Other Multi-Project Research Applications Reviewed FY2011 – 2015

tumors (1). Overall, 24 (62%) of the 39 applications were submitted for new SPOREs, and 15 (38%) were renewal applications. The disease sites addressed in the SPORE applications vary from round to round. Ten applications addressing nine different disease sites were reviewed for the January 2015 NCAB cycle; 22 applications addressing 14 disease sites were reviewed for the May 2015 NCAB cycle, and seven applications addressing seven disease sites were reviewed for the October 2015 NCAB meeting. The applications requested \$88,047,460 in total costs for the first year of support and \$439,255,310 in total costs for 5 years.

Other RPRB Activities

Potential applicants for P01 and P50 grant submissions are strongly encouraged to participate in a pre-submission discussion with appropriate NCI Program and DEA Review staff members so that they can fully understand the guidelines, requirements, and goals of these complex applications. SROs from RPRB routinely participate in these pre-submission conferences to assist the applicants in the application formatting requirements, the review process, the special review criteria. and the scoring paradigms for these applications. Additionally, RPRB manages the review of investigator-initiated R01 applications proposing multi-center clinical trials. Of the 21 applications reviewed in FY2015, 11 (52%) were referred to the Division of Cancer Prevention (DCP) and 7 (33%) were referred to the Division of Cancer Control and Population Sciences (DCCPS).

Special Review Branch (SRB)

The SRB organizes and manages the peer review of applications submitted in response to NCI-issued RFAs, PAs, and PARs. Following approval of RFA concepts by the NCI Scientific Program Leaders (SPL) and the Board of Scientific Advisors (BSA), Program staff prepares RFAs for publication in the NIH Guide for Grants and Contracts. DEA PCRB staff, including SROs from the four NCI review branches, assist in critically reading the draft documents and in providing recommendations for clarity relative to application requirements and

review criteria. In an RFA, a specific, published dollar amount is set aside by the Institute, whereas for a PA/PAR, there is no dollar set-aside and no requirement for BSA review. Table 10 summarizes the number of applications submitted for the RFAs and Table 11 summarizes the number of applications submitted in response to PAs or PARs and reviewed by DEA. During FY2015, the SRB with the assistance of the three other DEA review branches (RPRB, RTCRB, and RTRB) reviewed a total of 5,207 applications received in response to 33 RFAs (Table 10) and 66 PAs/PARs (4,540 applications) (Table 11). The review of these applications was conducted by SEPs and involved the recruitment of scientists with the appropriate expertise for each review meetings.

Research Answers to NCI's Provocative Questions (PQ)

Following input from the scientific community through focus groups, forums, and online postings, 28 perplexing scientific questions were identified and grouped, 4-6 questions each, into five thematic cancer areas: Cancer Prevention and Risk (Group A); Mechanisms of Tumor Development or Recurrence (Group B); Tumor Detection, Diagnosis, and Prognosis (Group C); Cancer Therapy and Outcomes (Group D); and Clinical Effectiveness (Group E). There were 80 R01 Research Project application and 58 R21 Exploratory/Developmental applications submitted in response to 10 RFAs (Table 10). Applications were peer reviewed in SEP review meetings to assess the scientific and technical merit and assign a final impact score to each application.

Exploratory/Developmental Research

In FY2015, the DEA reviewed 2,490 R21 applications submitted for the NCI Omnibus Exploratory /Developmental Research Grant Program (Table 11). The applications are initially grouped based on their scientific focus and reviewed in 10 to 14 SEPs. The groupings varied depending on the number of applications received and the science proposed. The applications represent a continuum of research from basic

through translational to preclinical and clinical studies. The Omnibus applications were reviewed in a total of 40 SEPs over the three review cycles.

Small Grant Programs

Several small grant (R03) PAR program initiatives in the areas of cancer epidemiology (PAR12-039), and NCI Omnibus R03 for cancer research (PAR14-007) stimulated increased interest in the applicant community. In FY2015, 547 applications were submitted and reviewed by the DEA in response to these initiatives.

Research Technology and Contract Review Branch (RTCRB)

The RTCRB organizes and manages the peer review of SBIR/STTR applications and Special Topics, technology-related applications, and R&D contract proposals submitted in response to RFPs.

SBIR/STTR and Technology Research Applications

The SBIR program supports Phase I feasibility applications (R43), Phase II applications (R44), and Fast-Track applications (R43/R44). In 2009, the first issued SBIR Phase II Bridge Award RFA was designed to "bridge the gap" between the end of the Phase II award and commercial development. That program continued in FY2015 with the review of 23 R44 SBIR Phase II Bridge Award applications. The majority of technology research initiatives use the R21 Exploratory/Developmental award mechanism and the R33 Exploratory/Developmental Phase II award mechanism. The R21 mechanism is intended to encourage exploratory/developmental research by providing support for exploratory pilot projects in the early stages of project development. The R33 mechanism is suitable for projects where "proof-of-principle" of the proposed technology or methodology already has been established and supportive preliminary data are available. Both of these mechanisms are well suited for technology development. In 2015, 286 technology applications (Figure 5) for Exploratory/Developmental grants (R21) and Exploratory /Developmental Phase II grants (R33) were reviewed for the Innovative Molecular Analysis Technologies (IMAT) for Cancer Research program (RFA-CA14-003/CA15-002 [R21] and RFA-CA14-004/CA15-003[R33]) as well as the Innovative Technologies for Cancer-Relevant Biospecimen Science (RFA-CA14-005/CA15-004 [R21] and RFA-CA14-006/CA15-005 [R33]) (Table 10).

Research and Development (R&D) Contract Proposals

In FY2015, RTCRB received and reviewed 512 contract proposals, including 372 Loan Repayment L30 and L40 proposals, in response to 23 RFPs (Table 12). During review, specific elements of each proposal are individually evaluated and scored, with the combined score indicating the overall merit. After negotiations, contract awards are made for the RFP solicitation. Phase II SBIR proposals are submitted to Topics and are openly announced in a Broad Agency Agreement Announcement.

Other RTCRB Activities

In FY2015, RTCRB participated in the critical reading and editing of pre-publication drafts for Funding Opportunity Announcements (PAs, PARs, RFAs) and research and development contract acquisition plans that are published as Requests for Proposals (RFPs), and were a part of presentations to prospective applicants during pre-application webinars and teleconferences. Members of the branch also assisted in the review of applications for initiatives that were coordinated by the SRB, including the NCI Provocative Questions Initiative, the NCI Omnibus Exploratory (R21) Grant program, and the Small Grant (R03) program.

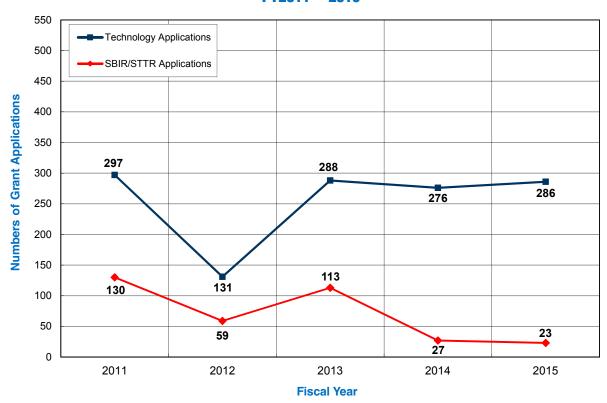


Figure 5. Technology Initiatives Applications Reviewed* FY2011 - 2015

^{*}Withdrawn applications are not included.

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, the BSA provides concept review for NCI-sponsored RFAs. Figures 6 and 7 show total NCI Grant and RFA funding according to scientific concept area in FY2014 and FY2015. Figure 8 shows RFA concepts that the BSA approved from FY2012 through FY2015 according to the sponsoring NCI Division, Office, and Center.

Table 13 presents a summary of total funding of NCI grant awards by mechanism for FY2015. In Table 14, a comparison is made of the average cost

and number of NCI R01, P01, R03, R13, R21, P30, P50, U01, U10/ U19, and U54 grants and cooperative agreements awarded in FY2011 through FY2015 according to the extramural Divisions, Offices, and Centers.

Trends in grant funding according to scientific discipline and organ site are provided in Tables 15 and 16. Table 17 reports NCI's funding of foreign research grants in FY2015, and Table 18 reports foreign components of U.S. domestic research grants in FY2015. Note: Some grant awards made during a fiscal year may have been for grant applications reviewed in a prior fiscal year.

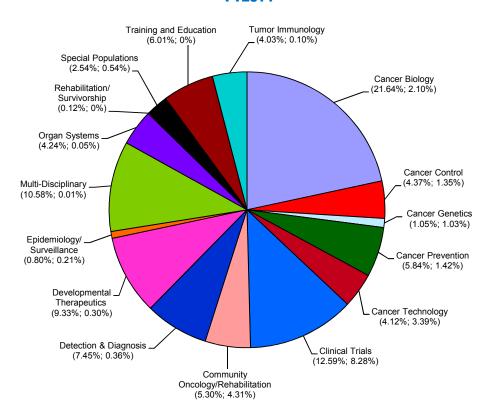


Figure 6. NCI Grant and RFA Funding Percentages by Concept Area FY2014

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

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

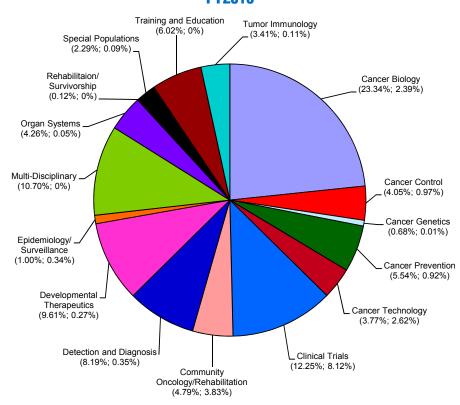


Figure 7. NCI Grant and RFA Funding Percentages by Concept Area FY2015

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)

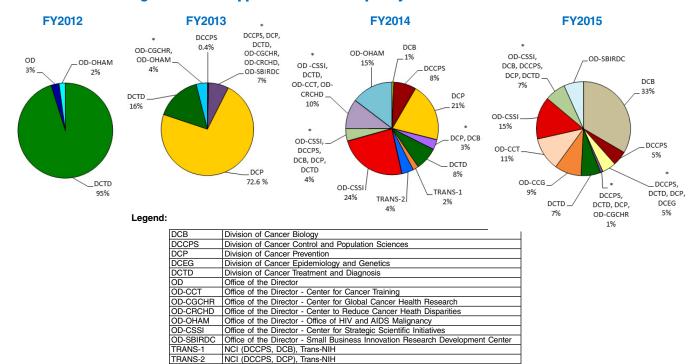


Figure 8. BSA-Approved RFA Concepts by Division/Office/Center

^{*} Indicates co-funding among NCI Divisions/Offices/Centers.



Supporting Peer Review Consultants

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

The NCI SREA program is a multi-million-dollar program. The staff members of CMO continue to effectively 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 191 peer review associated meetings to successfully manage the budget. The CMO is able to provide the DEA Director with a clear picture of funds spent against the SREA budget throughout the year to ensure there are enough funds to cover all NCI peer review activities. In FY2015, there were an additional 9 meetings held as compared to the 179 that were held in FY2014.

During FY2015, approximately 2,434 consultants were reimbursed honoraria and flat rate payment for serving at more than 188 peer review meetings (Appendix D). There were 3,740 instances of honoraria and flat rate payments to NCI peer review consultants. The SREA staff works diligently to ensure reviewers are reimbursed in a timely manner and when appropriate, contacts those reviewers with an unpaid or returned reimbursements status. The SROs have expressed their gratitude to the members of the SREA team for tracking the reviewers' payments and when necessary, assisting reviewers with completing their Secure Payee

Registration System (SPRS) registration. Due to these proactive efforts by the SREA staff, only 9 out of the 3,740 instances of honoraria and flat rate payments to NCI peer review consultants were not paid out in FY2015.

Throughout the year the SREA staff ensures the timely review and submission of hotel contracts for processing to secure lodging and meeting room space for face-to-face peer review meetings. In FY2015, 80 hotel contracts were processed by the SREA staff. The SREA is also responsible for ensuring all meeting logistic invoices (i.e., hotels, World Travel Service and teleconference services charges) are accurate and valid before all invoices are processed for payment. All discrepancies are immediately addressed with the appropriate vendor and a revised invoice is requested. A total of 90 hotel invoices and 60 consultant travel invoices were reviewed and submitted for payment in FY2015.

In terms of FACA and the Annual Report to GSA, SREA staff served on the Annual Comprehensive Review (ACR) Workgroup in the Office of Federal Advisory Committee Policy. The goal of the workgroup was to restructure the ACR instructions to help CMOs effectively prepare the required annual report, users, and minimize errors in reports that are sent to GSA. As a result, the Workgroup created ACR Instruction Manuals for each type of committee (i.e., NAC, PAC, BSC and Peer Review).

The SREA staff collaborates with the Associate Director, ORRPC, NCI DEA Branch Chiefs, CMO, and SROs on the development of NCI SREA policies and procedures. On an ongoing basis, they monitor and evaluate current SREA activities and initiate changes and improvements when warranted.

In addition, CMO and SREA collaborates with the Program and Review Extramural Staff Training Office (PRESTO) staff to ensure the training needs of DEA review staff are met for all aspects of CMO and SREA activities. SREA created new training materials and the following training sessions were conducted in FY2015:

- For all review staff How to prepare the Official Meeting File for FACA NCI peer review meetings. Topics of discussion were:
 - Federal Advisory Committee Act (FACA)
 - U.S. General Services Administration (GSA) FACA Final Rule
 - List of NCI Initial Review Groups & Special Emphasis Panels
 - The documents required in an OMF
 - Collecting and retrieving the documents from peer review consultants
 - Submitting a completed file to CMO

All CMO and SREA documents related to peer review meeting activities are sent to PRESTO to be posted on the "NCI/DEA Peer Review Reference Guide for Staff Assistants" page on the PRESTO website. The documents are then utilized by NCI DEA SROs and SAs. These training tools are imperative to the peer review process and the integrity of NCI's mission.



DEA's Role in Advisory Activities

Beyond its central role in coordinating the referral of grants and peer review, perhaps the most farreaching role that the DEA plays across the NCI is the coordination and administration of NCI's nine chartered Federal advisory committees (Appendix C). The memberships and activities of these advisory bodies are coordinated by the Office of the Director, DEA, and the Committee Management Office, DEA, in consultation with the NCI **Director**. A primary responsibility of the DEA is coordination of the activities of the NCAB, whose members are appointed by the President and whose responsibilities include the second-level review of grant and cooperative agreement applications, as well as advising the NCI Director on policy for the conduct of the National Cancer Program. The DEA also coordinates administration of the BSA, the body responsible for the oversight and concept review of the extramural programs and initiatives of the NCI, and FNLAC, which reviews research activities of the FNLCR. Under the various chartered committees, working groups are formed to address and make recommendations on important areas of cancer research related to basic research, clinical trials, diverse populations, cancer advocacy, treatment, cancer control, drug development, prevention, communication, education, and so on. As such, the DEA plays a major role in the development and issuance of PAs, PARs, and RFAs, the major extramural program initiatives used by the NCI to fund extramural research. The DEA Director serves as Executive Secretary to the NCAB and the BSA. (See Appendices A and B for highlights of the activities of these Boards in FY2015 and Appendix C for a list of current chartered committee members.)

Major NCI Advisory Bodies Administered by the DEA

National Cancer Advisory Board (NCAB). NCI's principal advisory body is the presidentially appointed NCAB. The NCAB advises the HHS Secretary and the NCI Director on issues related to the entire National Cancer Program and provides a second level of review for grant applications referred to

the NCI and for the Food and Drug Administration (FDA) (Appendix A).

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

Board of Scientific Advisors (BSA). The BSA represents the scientific community's voice in NCI-supported extramural science. The BSA, 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 BSA evaluates NCI extramural programs and policies, and it reviews concepts for new research opportunities and solicitations to ensure that those concepts are meritorious and consistent with the Institute's mission (Appendix B).

Boards of Scientific Counselors (BSCs) for Basic Sciences, and for Clinical Sciences and Epidemiology. The two BSCs, managed through the Office of the Director (OD), NCI, advise the NCI 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). The two BSCs, composed of scientific experts from outside the NCI, evaluate the performance and productivity of NCI Intramural Principal Investigators and Staff Scientists through periodic site visits to the intramural laboratories and provide evaluation and advice on the course of research for each Laboratory and Branch.

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

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

Frederick National Laboratory Advisory Council (FNLAC). The FNLAC provides advice and makes recommendations to the Director, NCI, and the Associate Director, NCI-Frederick, on the optimal use of the NCI-Frederick facility to rapidly meet the most urgent needs of the Institute. The NCI facility in Frederick, Maryland, was established in

1972 as a Government-owned Contractor-operated facility. In 1975, the facility was designated as a Federally Funded Research and Development Center (FFRDC) to provide a unique national resource for the development of new technologies and the translation of basic science discoveries into novel agents for the prevention, diagnosis, and treatment of cancer and AIDS. The FFRDC has been renamed as the Frederick National Laboratory for Cancer Research (FNLCR). FNLAC reviews new projects proposed to be performed at NCI-Frederick and advises the Director, NCI, and the Associate Director, NCI-Frederick, about the intrinsic merit of the projects and about whether they should be done at the Frederick facility.

NCI Initial Review Groups (IRGs). The NCI IRGs, composed of four active subcommittees, review grant applications for Cancer Centers, research projects, and Training, Education, and Career Development activities in the areas of cancer cause, prevention, diagnosis, treatment, and control. IRG members may be appointed as standing committee members with overlapping terms of up to 6 years, or as "temporary" ad hoc members. Ad hoc members have all of the rights and obligations of IRG 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 to provide information or advice. These individuals generally serve on site visit groups or work groups providing critical information to the chartered advisory subcommittees responsible for initial peer review.

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

Committee Management Activities

The **NCI Committee Management Office** (CMO) is critical to the continued success of all NCI Federal advisory committee activities, including Boards, Advisory Committees, subcommittees, working groups, blue ribbon panels and review panels, etc. The CMO is located in in the Office of the Director, Division of Extramural Activities (DEA), National Cancer Institute (NCI). This office continues to provide expert advice to the Director, NCI, Deputy Directors, NCI, the Director, DEA, NCI, and other senior level Institute/Center/Client staff on all rules, regulations, guidelines, policies, procedures, etc. governing the Federal Advisory Committee Act (FACA). The Committee Management Office also is an established Service Center for the management of other Institutes' Federal advisory committees. Currently, CMO serves as the Service Center for the NIH Council of Councils (CoC) located in the Division of Program Coordination, Planning, and Strategic Initiatives, Office of the Director, National Institutes of Health and the National Institute on Alcohol Abuse and Alcoholism (NIAAA). NIAAA has seven Federal Advisory committees, which includes an Advisory Council, a BSC, four IRG Subcommittees, and a SEP.

CMO successfully manages 21 Federal advisory committees and numerous subcommittees and working groups. The Office is also responsible for providing logistical planning and support of the following: four National Cancer Advisory Board meetings, three Board of Scientific Advisors meetings, and two Frederick National Laboratory Advisory Committee meetings as well as numerous subcommittees and working groups. Meetings are held via videoconference, Webinar, teleconference, or face to face. The Office also provides logistical support for three NIAAA Council meetings each year. The office continues to manage the Division's SREA Program which includes reimbursement of thousands of peer review consultants, processing and payment of hotel contracts, teleconferences and reconciliation of the SREA budget.

As a service center for the Office of the Director, NIH and NIAAA the Committee Management Office continued to provide exceptional service to these Client-Institutes on the management of their Federal advisory committees. CMO effectively managed a comprehensive ethics program in support of CoC. Ethics services include analysis and review of Special Government Employee OGE-450s and Foreign Activity Questionnaire of new CoC advisory committee members and preparation of recusal lists and waivers of current members. Additionally, CMO prepares charter renewals, analyzes potential nominees and prepares nomination slates, issuances of waivers for membership requirements, Federal Register notices, and annual and fiscal year reports for its Service Center Clients.

Highlights of CMO activities in FY2015 include the following:

- Provide extensive logistical support to the BSA/NCAB SPORE Working Group.
- Served on the NIH OFACP Ventures Proposal Team (CA, AI, HL, OD, Center for Complementary and Integrative Health) and were awarded \$100K (\$50K from the NIH OD and \$50K from CMS) to develop an electronic interface that allows data sharing with NIH's existing systems to reduce the administrative burden on new Special Government Employee (SGE) advisory board and committee members and improve overall programmatic effectiveness of the onboarding process. The current SGE appointment process requires a new member to receive a 94-page package and complete 14+ forms, which requires more than 3 hours to complete. Thus, making the process very cumbersome for a newly appointed member.
- Responded to several FOIA requests for SGE member personnel documents and provided justification to the NCI FOIA Officer

- regarding the need to redact personal and confidential information. Cited past Department of Justice Court findings regarding redaction of certain pieces of confidential information.
- New members of the NCAB were appointed this past year. Staff worked quickly to ensure the members' HR paperwork was processed expeditiously so they could be fully appointed Special Government Employees at the following NCAB meeting.
- Provided information in an interview to a reporter from the *Pittsburgh Post-Gazette* on a new NCAB member's appointment to the NCAB.
- Researched several data requests and provided historical information to DEA regarding Board of Scientific Counselors and on pediatric oncologists who have served on the NCAB.
- Met with the NCI DEA Director and staff from the Oncology Nursing Society to discuss the function and membership of the NCAB regarding nursing nominees.
- CMO Staff were recognized by the NCI DEA Director for providing continuous outstanding support to the Division and the NCI on all aspects of NCI's Federal Advisory Committees.
- CMO staff received the NIH Merit Award Group Award titled, "National Cancer Advisory Board Virtual Meeting Technology Team."

The following training sessions were given by CMO to various Federal and non-Federal audiences over the course of the year:

- 1. Working Group Overview and Subcommittee Overview Training to newly assigned DFOs working with various subcommittees and working Groups of the NCAB, BSA, FNLAC, NCRA, CTAC and CoC.
- 2. FACA Training to new NCRA Designated Federal Official.
- Oversaw travel authorizations and vouchering of more than 200 SGE travel instances, many of which are complex and require negotiating with the board member.
- The Committee Management IMPAC II Module is an integral part of the day to day activities in the management of advisory committees. As such, CMO continues to evaluate the current database system and provide feedback to the Committee Management Users Group Representative on potential modifications to the Module.
- Responded to requests from senior NCI and Client staff on various non-FACA meetings and working group concerns.

Portfolio Tracking and Analysis

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

Trends in funding from FY2011 through FY2015 for selected organ sites and SIC Codes are presented in Tables 15 and 16. In addition, RAEB staff members serve as DEA or NCI representatives on NCI or NIH-wide scientific reporting initiatives. These groups and committees deal with various aspects of NIH grants and contracts or tracking and reporting on areas of special interest to the NIH, NCI, and/or Congress.

In FY2015, the RAEB provided numerous portfolio analyses, for example:

 The Leukemia & Lymphoma Society, National Office: Data on the percentage of

- NCI Basic and Translational research funding out of the NCI total grants funding, FY2015.
- NCI Office of the Director: Funding trends on health disparities/underserved populations in relation to certain sites, specifically breast, colon, prostate, liver, uterus, multiple myeloma, kidney, stomach, and pancreas, FY2015.
- NCI Office of Budget and Finance: AIDS relevant research funding, FY2015; success rates for AIDS relevant grants, FY2015.
- NCI Program Directors: FY2015 grant information, including cardiotoxicity, health disparities, nutrition, physical activity survivorship and DCIS.
- Office of Government and Congressional Relations: Figures showing success rate trends for stomach cancer applications, FY2010 – FY2015; success rates for R01, RPG stomach cancer applications, FY2015.
- NCI Center for Global Health: Information on foreign grants, contracts, and foreign countries collaborating on research with U.S. institutions, FY2015.
- Supported the International Cancer Research Partners (ICRP), a group of international cancer funding organizations, by coding NCI extramural projects and cancer grants funded by other NIH institutes to the Common Scientific Outline (CSO) and by participating in the ICRP.
- Continued coordination with the NCI Office of Budget and Finance (OBF) to update and align budget reporting categories.
- Chaired the NCI Accrual Working Group for biennial reporting of NCI compliance with Congressional Health Disparities reporting requirements.
- Served as NCI subject matter expert on the NIH Inclusion Operating Procedures Working Group and its Policy subgroup.
- Served as DEA representative to the NCI Communications Committee.
- Served as DEA representative to the NCI Planning and Evaluation SIG.

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

In FY2015, the NCI allocated \$15.7 million to support 45 grants and contracts received by foreign research institutions. These foreign grants are listed by country, mechanism, disease area, and total funding support in Table 17. Canadian institutions received the most funding from the NCI, with 14 grants and 3 contracts adding up \$9 million. R01s were the most common mechanisms funded with 19 grants receiving \$5.7 million. Disease areas receiving the most NCI funding to foreign institutions were Not Site Specific (\$4.7 million), Breast (\$2.9 million), and Leukemia (\$1.3 million).

FY2015 Funding of Foreign Institutions (See Table 17 for more information.)

Country	Grants & Contracts #	Funding \$
Canada	17	9,003,270
United Kingdom	6	1,963,515
France	7	1,683,147
Australia	2	1,029,771
Israel	3	781,844
South Africa	3	360,119
Japan	1	291,030
Belgium	1	287,531
Germany	1	224,100
Switzerland	1	50,690
Italy	1	24,000
Hong Kong	2	12,600
Totals	45	15,711,617

In FY2015, the NCI supported 272 U.S. domestic grants with 462 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. Institutions in Canada (63 grants), the United Kingdom (46 grants), Australia (28 grants), China (28 grants), and Germany (28 grants) were the NCI's most frequent collaborators. R01 is the most common funding mechanism used for collaborations, with 248 grants, followed by U24 (57grants), and U01 (50 grants).

Success Rates of Extramural Science Categories

The RAEB assigns scientific indexing to both funded and unfunded applications, so it is possible to calculate success rates for funding in scientific categories. For example, the following graphs and tables illustrate FY2015 success rates for high incidence cancers (Figure 9) and for selected Special Interest Categories (SIC) (Figure 10). The highest incidence cancer rankings are from the SEER rank of top 15 cancer sites, 2004-2008, age-adjusted incidence for all races and sexes. Success rates were calculated by dividing the total number of newly funded applications in 2015 (Type 1 and 2 grants) for that research category (SIC or Organ Site) by the total number of applications for that research category (see Figures 9 and 10).

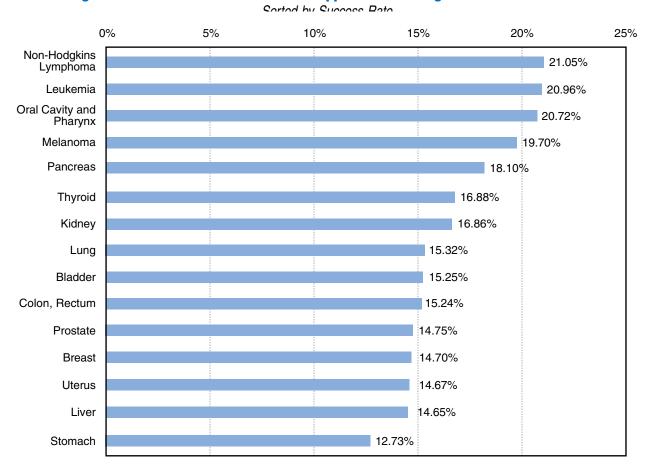


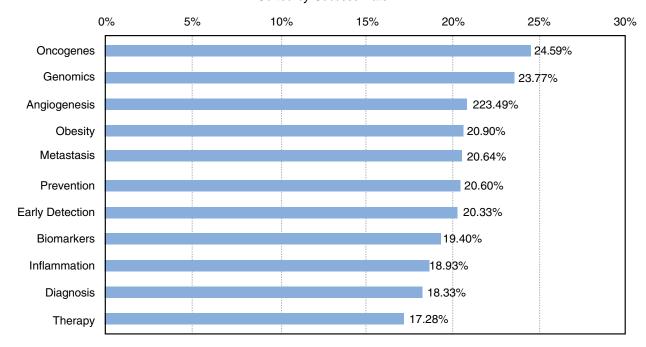
Figure 9. FY2015 Success Rates for Applications in High Incidence Cancers*

Selected Oncology Sites	SEER Rank*	Types 1 & 2 Funded in 2015 for This Site	Total Applications Received in 2015 for This Site	2015 Success Rate for This Site	Total Funding for Types 1 & 2 in 2015 for This Site
Non-Hodgkins Lymphoma	7	76	361	21.05%	\$22,536,238
Leukemia	10	136	649	20.96%	\$44,806,090
Oral cavity & pharynx	13	23	111	20.72%	\$6,058,403
Melanoma	6	106	538	19.70%	\$26,410,051
Pancreas	11	133	735	18.10%	\$34,717,320
Thyroid	12	13	77	16.88%	\$3,106,032
Kidney	8	29	172	16.86%	\$7,840,671
Lung	3	187	1221	15.32%	\$59,271,798
Bladder	5	18	118	15.25%	\$3,746,975
Colon, Rectum	4	128	840	15.24%	\$39,321,234
Prostate	1	151	1,024	14.75%	\$51,642,510
Breast	2	374	2,544	14.70%	\$119,384,669
Uterus	9	11	75	14.67%	\$1,728,225
Liver	15	58	396	14.65%	\$19,335,701
Stomach	14	7	55	12.73%	\$2,312,711

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

Figure 10. FY2015 Success Rates for Applications in Selected Special Interest Categories (SIC)

Sorted by Success Rate



Special Interest Category	Types 1 & 2 Funded in 2015 for This SIC	Total Applications Received in 2015 for This SIC	2015 Success Rate for This SIC	Total Funding for Types 1 & 2 in 2015 for This SIC
Oncogene	342	1,391	24.59%	\$90,544,641
Genomics	260	1,094	23.77%	\$85,014,638
Angiogenesis	74	315	23.49%	\$14,429,468
Obesity	56	268	20.90%	\$12,344,049
Metastasis	383	1,856	20.64%	\$92,968,726
Prevention	173	840	20.60%	\$63,995,692
Early Detection	161	792	20.33%	\$60,070,843
Biomarkers	363	1,871	19.40%	\$101,363,542
Inflammation	110	581	18.93%	\$25,797,902
Diagnosis	361	1,969	18.33%	\$141,139,474
Therapy	973	5,631	17.28%	\$347,902,189

Information Resources Management

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

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

For FY2015, specific AISB accomplishments are highlighted below.

System Administration and Desktop Support

Security Assurance Support for DEAIS and FLARE – performed DEAIS Security and Assurance review and realignment to 800-53 R4; FLARE independent review and annual filing, including item-by-item controls update; and the following documentation for both DEAIS and FLARE: Contingency Plan, CP Testing, CP Training; Configuration Management Policy; Audit Policy and Procedures; Risk Assessment; Annual Assessment; System Security Plan; and, E-Authentication/FIPS-199. Also, upgraded a third of DEA desktops from Dell 760-90 to 9020 models.

Application Development Projects

- Concept to Awards Tracking System major revisions made to administrative view and completed workflow to accommodate PCRB annual PA review.
- NGRAD Alpha release included refinement of workflow and major revisions to lead user interface; development of training materials for user groups.
- CMO Reporting Tools major overhaul of the application; organized user/programmer forums to develop improvements; conducted internal and user testing, refinement, and release.
- Staff Listing development to adjust the administrative module for more effective use and accurate data representation with the integration of the NED – real-time notification of changes and module to manually adjust inclusion/exclusion.
- FOA revision to search criteria for more granular data retrieval.
- DPDU coordinated revision of application and API to accommodate new FedEx international shipping requirements.
- Board Presentations new module to capture, organize, and afford users access to presentation materials of past NCI advisory board meetings.
- Initiated development of an application to generate SBIR meeting rosters.
- The following application infrastructure upgrades were completed for DEAIS: Oracle database instances 12c; Oracle Java JDK; Apache HTTPPD and Tomcat; OpenSSL; eRA-SSL authentication; Lucene search; and Standard GUI for Web components.
- Transitioned user authentication from NCI LDAP to NIH AD using proxy servers, which established document management services with eRA and the IMPACII data center.

User Training

- Presented and participated in brown bag forums for DEA on IT trends, government policies and new technologies.
- Led training for NCI Office of Training and Education on technological aspects of scientific presentation.
- Conducted training and support for NHLBI and NIAAA in the use of the DEAIS RevPrep application.
- WebEx Presentations Led the transitioning of DEA/AISB telecommunication towards a Cisco WebEx platform.

DEA Website Development

 Collaborated with PRESTO on a redesign and introduction of new features for their intranet website.

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

FLARE Project

SQL and PL/SQL Development and Testing

- Developed and implemented PL/SQL API for FLARE data management, which included: analyzed and documented existing processes; established formal business rules where necessary; and creating and testing PL/SQL packages for transaction management, logging, and system maintenance.
- Created and implemented SQL*Plus scripts and Excel macros for manually created reports: AIDS Report; BAD Codes Reports; ICRP Report; Women's Health Report; Coding Activity Report; and Science Area Summaries.
- Created and implemented scripts for manual FLARE data exchange operations (IRDB download and I2E upload); analyzed existing procedures; extracted business rules;

developed scripts to facilitate data exchange; added supporting scripts to execute download as a batch operation; and added log analysis for rudimentary error checks.

Database Operations

- Established a procedure to deploy reports to the NCI I2E database.
- Coordinated Oracle upgrade to 12c, which included: prepared documentation and fallback plan; and upated the download scripts and Java code to support 12c.
- Created a process for creating and sharing database links among FLARE database schemas
- Initiated support for QlikView development
 — for use as a reporting system in 2016; and
 FLARE Indexing (new UI) development —
 to replace existing FLARE application in
 2016.
- Upgraded Dev, Test, and Prod database to Oracle 12c (installed Oracle software, created and configured the database, loaded data and tested).

RAEB Online

- Application development, which included: minor changes and fixes; implemented NCI-only authentication; and performed dependency updates.
- Presented application demos at the DEA Brown Bag and the NCI SPL.

AISB Staff Involvement

Represented the needs and concerns of DEA staff through active participation in the following groups: Frederick Security Team, CBIIT Process Improvement Team, NCI Computer Upgrade Project – Technology Refresh Program, NIH Mobile Device Policy Team, NCI Conference Room Special Interest Group (SIG), Service Now SIG, NCI Division IT Contacts Meeting, Science Management Workspace (SMW), DEA Brown Bag seminars, International Cancer Research Portfolio

(ICRP) Data Meetings, NCI BAD codes (Basic and Applied) Working Group, NCI Coding QA/QC Team, NIH eRA Technical Users Group (eTUG), and the Shady Grove IT and Server Consolidation Planning Team.

Arranged for equipment trials with outside vendors for testing new products and services for use in DEA (i.e., touch screen Blackberry phones, Windows tablets, 4th generation iPads, docking stations for laptops, etc.). The Windows tablet evaluation led to the MS Surface Tablet as NCI's supported tablet. Worked with CBIIT staff on testing the

Windows 10 platform, and with NCI specialists in improving the usability of the iPads in replacing paper documents during advisory board meetings. Participated with CBIIT in piloting new Office 365 software for DEA.

Established areas of improvement in IT collaboration with the NCI's installation of the CBIIT liaison position, which resulted in improved working relationships between DEA and several CBIIT Operation Teams who support Server Management, Equipment Imagining, Service Now Team, etc.

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

Paulette Gray, Ph.D	Director
Vacant	Deputy Director
Peter Wirth, Ph.D.	Assistant Director
Dawn William	Senior Program Analyst
Kathy Tiong	Program Analyst
Judi Ziegler	Secretary

DEA Processing and Distribution Unit (DPDU)

Provides services to DEA staff, including the coordination, consolidation, purchasing of supplies, tracking of expenditures, and preparation of meeting folders, Board book and orientation documents, and annual reports. In conjunction with the establishment of this unit, the number of DEA Purchase Cards was reduced from 15 to 6. This change has minimized hoarding of office supplies and overall reduction in dollar costs associated with the use of DEA Purchase Cards.

Ricardo Rawle	Special Assistant to the Director
Clara Murphy	Program Specialist
Adrian Bishop	Staff Assistant
Sanjeeb Choudhry	Staff Assistant
Robert Kruth	Staff Assistant

Committee Management Office, OD

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

Claire Harris	Committee Management Officer
Janet Craigie*	Deputy Committee Management Officer
Joy Wiszneauckas†	Deputy Committee Management Officer
Natasha Copeland	Senior Committee Management Specialist
Malaika Staff	Senior Committee Management Specialist
Etsegenet Abebe	Committee Management Specialist
Darnetta King	Committee Management Specialist
Alonda Lord	Committee Management Specialist
Rosalind Niamke	Committee Management Specialist
Danny Prince II [‡]	Committee Management Specialist

^{*}Moved to PRESTO April 2015.

[†]Joined in April 2015.

[‡]Moved to SRB in September 2015.

Program and Review Extramural Staff Training Office

- Develops and implements both broad-based and focused curricula for NCI Program and Review staff.
- Coordinates training for other extramural staff upon request.
- Identifies and develops resources (electronic and human) to facilitate learning and optimal individual, group, and organizational performance.
- Collaborates with NCI Divisions, Offices, Centers, and groups both internal and external to the NCI, to provide customized job-related training and career development opportunities.
- Tracks participation of extramural staff in NIH- and NCI-sponsored training activities.

Michael Small, Ph.D	Chief
Scot Chen, Ph.D	Health Scientist Administrator
Ivan Ding, M.D	Health Scientist Administrator
Gregory Jones	Program Analyst
Denise Santeufemio	Program Analyst
Janet Craigie*	Program Analyst

^{*}Joined April 2015.

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

Shamala Srinivas, Ph.D	Associate Director
Catherine Battistone	Program Analyst
Linda Brown	Program Specialist

Special Review Branch (SRB)

- Plans, manages, and assists in the scientific and technical review of grant and cooperative agreement applications received in response to RFAs, PAs, and PARs
- Identifies and recommends appropriate review committee members as required for the review of assigned applications.
- Provides the SROs and other support staff for the technical review committees.
- Serves as the information and coordination center for all grant applications and cooperative agreements pending review by the Branch.
- Provides input and advice on grant review policy and procedures, application patterns, research trends, and other related information, as required.

Eun Ah Cho, Ph. D	Chief
Dona Love, Ph.D.*	Scientific Review Officer
Cliff Schweinfest, Ph.D	Scientific Review Officer
Viatcheslav Soldatenkov, Ph.D	Scientific Review Officer
Yisong Wang, Ph.D.†	Scientific Review Officer
Thomas Winters, Ph.D	Scientific Review Officer
Zhiqiang Zou, Ph.D	Scientific Review Officer
Thu Nguyen	Program Analyst
Tonya Miller	Lead Staff Assistant
Imela Gradington-Jones	Staff Assistant
Nakessha Mendez Modeste [‡]	Staff Assistant
Micah Traurig§	Staff Assistant

^{*}Joined in December 2014.

[†]Joined in February 2015.

[‡]Left in January 2015.

[§] Joined in August 2015.

Research Technology and Contract Review Branch (RTCRB)

- Plans, manages, and assists in the scientific and technical merit review of grant and cooperative agreement applications received in response to RFAs and PARs and contract proposals received in response to RFPs.
- Identifies and recommends appropriate review committee members 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 technology-related 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.

Peter J. Wirth, Ph. D.*	Acting Chief
Thomas Vollberg, Ph. D.†	Chief
Kenneth Bielat, Ph.D	
Donald Coppock, Ph.D.‡	Scientific Review Officer
Jeffrey DeClue, Ph.D	Scientific Review Officer
Reed Graves, Ph.D.§	Scientific Review Officer
Nicholas Kenney, Ph.D.**	Scientific Review Officer
Gerard Lacourciere, Ph.D.††	Scientific Review Officer
Gerald Lovinger, Ph.D	Scientific Review Officer
Ellen Schwartz, D.Ed. ‡‡	Scientific Review Officer
Paul Gallourakis	Program Analyst
Donnell Wilson§§	Lead Staff Assistant
Alisha Craig	Staff Assistant
Hanh "Julie" Hoang	Staff Assistant
Lauren McLaughlin	Staff Assistant
Kimberly Millner	Staff Assistant

^{*}Joined in July 2015.

[†]Left in July 2015.

[‡]Left in April 2015.

[§] Joined in March 2015.

^{**} Joined in January 2015.

^{††}Joined in March 2015.

[#]Left February 2015.

^{§§}Moved to RTRB in November 2014.

Program Coordination and Referral Branch

- Serves as the information and coordination point within the NCI for the development, clearance, publication, and tracking of all NCI extramural program (funding) initiatives, which include all RFAs, PAs, and Notices submitted for publication in the NIH Guide for Grants and Contracts, and also on Grants.gov, which is a Federal-wide online portal for electronic submission of grant applications.
- Coordinates the development and periodic revision of referral (i.e., application assignment) guidelines within the NCI for both external and internal use.
- Coordinates the development of shared (referral) interest statements with other NIH Institutes
 and Centers (ICs) so that grant applications of possible or real mutual interest can be properly
 assigned for receipt, review, and/or funding.
- Serves as the liaison to the Center for Scientific Review (CSR), NIH, to ensure the appropriate referrals (i.e., assignments) of grant applications to the Institute and the transfers of grant applications between the NCI and other NIH ICs.
- Refers new (Type 1) applications to the appropriate cancer activity area(s) according to the NCI Internal Referral Guidelines that define the program interests of each of the 53 cancer activity areas (which typically represent program branches in the NCI extramural divisions).
- Semi-automatically refers resubmission (A1) and renewal (Type 2) applications to the cancer
 activity area that accepted the previously submitted application (with quality control measures
 performed to ensure the accuracy of referrals).
- Coordinates requests from Program staff for application status changes (including corrections of application assignments and numbers, which is done in collaboration with NCI Program staff, CSR referral staff, and referral staff of other ICs and agencies) and for acceptance of grant assignments.
- Serves as the NCI contact point and liaison to involved parties at the NIH for approval of the
 use of cooperative agreement mechanisms and for conversion of grants to cooperative agreements
- Works with NCI Program and Review staff and with NIH referral liaisons to address unresolved referral and review issues with the CSR and other NIH ICs.
- Receives Letters of Intent (LOI) from applicants (Principal Investigators) intending to submit large budget grants (including, but not limited to, program projects and cooperative agreements for clinical trials).
- 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 provides assistance at the NCI for applicants who
 want to apply for an Academic Research Enhancement Award (i.e., the NIH R15 AREA grant
 mechanism).
- Processes and tracks requests for submissions of large-budget grant applications that allow them to be received at the NIH, peer reviewed, and possibly awarded by the NCI.
- Maintains database records of prospective large-budget grant and conference grant applications for each council round.
- Serves as the primary NCI information and referral point for the extramural scientific community on a broad range of subjects, including grant guidelines, application information, new initiatives announced as RFAs or PAs, and the review process.
- Assists the extramural community in navigating the NIH and NCI Web pages to help users obtain current information, forms, and guidelines.

Organizational Structure of the Division of Extramural Activities _

- Directs applicants to the appropriate SROs and Program Officers 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
Bratin Saha, Ph.D	Referral Officer, Scientific Review Officer
Jan Woynarowski, Ph.D	RFA/PA Coordinator, Scientific Review Officer
Natacha P. Lassègue	Program Analyst
Dianne Johnson*	Staff Assistant

^{*}Left in June 2015.

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 Special Emphasis Panels.
- Identifies and recommends appropriate review committee members for the review of assigned applications.
- Provides input and advice on grant review policy and procedures, application patterns, research trends, and other related information, as required.
- Coordinates grant review activities with staff of other NCI Divisions/Offices/Centers and other DEA Branches.

Caron A. Lyman, Ph.D	Chief
Shakeel Ahmad, Ph.D	Scientific Review Officer
Caterina Bianco Ph.D	Scientific Review Officer
Majed Hamawy, Ph.D., M.B.A	Scientific Review Officer
Wlodek Lopaczynski, M.D., Ph.D	Scientific Review Officer
David Ransom, Ph.D	Scientific Review Officer
Delia Tang, Ph.D	Scientific Review Officer
Charles Choi	Program Analyst
Deneen Mattocks	Lead Staff Assistant
Shannon Harley	Staff Assistant
Kenneth Nock	Staff Assistant

Resources and Training Review Branch

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

Robert E. Bird, Ph.D	Chief
Ilda Melo, Ph.D.*	Scientific Review Officer
Timothy Meeker, M.D	Scientific Review Officer
Sergei Radaev, Ph.D	Scientific Review Officer
Adriana Stoica, Ph.D	Scientific Review Officer
Sheila Hester	Program Specialist
Gelia Holloway	Lead Staff Assistant
Linda Edwards	Staff Assistant
Leslie Kinney	Staff Assistant
Bridgette Wilson	Staff Assistant

^{*}Left in June 2015.

Office of Extramural Applications

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

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

Research Analysis and Evaluation Branch (RAEB)

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

Marilyn Gaston...... Chief Edward Kyle...... Deputy Chief

Research Documentation

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

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.
- Represents the DEA as its communications coordinator in the Office of Communications and Education Steering Committee.

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

Applied Information Systems Branch (AISB)

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

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Application Development Team

- Analyzes and coordinates life-cycle software development for the Division.
- Develops and designs applications to support the Division's business processes, including user guides.
- Coordinates security assessment and authorization for the Division's general support system applications.
- Develops, administers, and monitors contracts for acquisition, support, and maintenance of database systems.
- Formulates system development policy, and oversees eRA/IMPAC II operations for the Division.
- Coordinates internal user groups and training for specific DEA applications.

Todd Hardin	. Team Leader
Teresa Park	Information Technology Specialist
Vivien Yeh	Information Technology Specialist

Information Management Team

- Designs and maintains the Division's Intranet and Internet sites and pages, and identifies documents to be placed on the NCI website to make Division information more accessible to the public.
- Coordinates security assessment and authorization for systems and applications developed and implemented for the Research Analysis and Evaluation Branch (RAEB).
- 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 RAEB in the areas of scientific coding and analysis.
- Administers and implements purchasing for the Division's computer hardware/software, maintenance, and supplies.
- 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.

Joshua Rhoderick	Team Leader
Michael Hu	Information Technology Specialist
Lorrie Smith	Information Technology Specialist
Vacant	Information Technology Specialist

Operations Team

- Administers and maintains the Division's application, database, and Web servers.
- Oversees and provides guidance for IT security policies and regulations.
- Coordinates and implements the Division's security assessment and authorization policies for the server environment.
- Manages the software application environment for development, testing, and production.
- Coordinates network connectivity for the Division with CBIIT.
- Provides user and technical support and training for desktop and laptop computers, office automation products, and applications.
- Plans and recommends purchases of all IT-related equipment for the Division.
- Maintains an accountable IT equipment inventory for the Division.
- Develops and maintains policies for the use of office automation technology.

Richard Florence	Team Leader
Roderick James	Information Technology Specialist
Raymond Vidal	Information Technology Specialist

Table 1a. Requests for Applications (RFAs) Published by the NCI in FY2015

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center
	CA14-014	U01	The Early Detection Research Network: Biomarker Developmental Laboratories	
	CA14-015		The Early Detection Research Network: Clinical Validation Centers	
11/6/2014	CA14-016	U24	The Early Detection Research Network: Biomarker Reference Laboratories	DCP
	CA14-017	U01	The Early Detection Research Network: Data Management and Coordinating Center	
11/24/2014	CA15-001	UH2, UH3	Cancer Detection, Diagnosis, and Treatment Technologies for Global Health	CGH
	CA15-002	R21	Innovative Molecular Analysis Technologies for Cancer Research	
1/0/0015	CA15-003	R33	Advanced Development and Validation of Emerging Molecular Analysis Technologies for Cancer Research	- CSSI
1/8/2015	CA15-004	R21	Innovative Technologies for Cancer-Relevant Biospecimen Science	USSI
	CA15-005	R33	Advanced Development and Validation of Emerging Technologies for Cancer-Relevant Biospecimen Science	-
2/23/2015	CA15-006	UH2	Big Data to Knowledge (BD2K) Advancing Biomedical Science Using Crowdsourcing and Interactive Digital Media	DCB
3/13/2015	CA15-010	R44	SBIR Phase IIB Bridge Awards to Accelerate the Development of Cancer Therapeutics, Imaging Technologies, Interventional Devices, Diagnostics and Prognostics Toward Commercialization	SBIRDC
3/23/2015	CA15-501	UM1	Limited Competition: Revisions to Add Phase 2 Clinical Trials Program to Experimental Therapeutics Clinical Trials Network (ETCTN)	DCTD
3/27/2015	CA15-008	R01	Research Answers to NCI's Provocative Questions	ALL
3/2//2013	CA15-009	R21	nesearch Answers to NOTS Provocative Questions	DIVISIONS
5/14/2015	CA15-012	R01	Provocative Questions (PQ) Initiative; Cancer with an Underlying HIV Infection	ALL DIVISIONS
3/14/2013	CA15-013	R21	Provocative Questions in Cancer with an Underlying HIV Infection	ALL DIVISIONS
6/5/2015	CA15-011	R01	Smoking Cessation within the Context of Lung Cancer Screening	DCCPS
7/23/2015	CA15-017	U01	Big Data to Knowledge (BD2K) Development of Software Tools and Methods for Biomedical Big Data in Targeted Areas of High Need	
9/2/2015	CA15-014	U54	Research Centers for Cancer Systems Biology Consortium	DCB
3/2/2013	CA15-015	U24	Coordinating Center for Cancer Systems Biology Consortium	
	CA15-502	U24	Limited Competition: Childhood Cancer Survivor Study	DCTD
9/14/2015	CA15-007	P20	Planning for Regional Centers of Research Excellence in Non- communicable Diseases in Low and Middle Income Countries	OD

Table 1b. Requests for Applications (RFAs) Published by the NCI in FY2015Sorted by Division, Office, and Center

Division, Office, and Center	RFA	Mechanism	Title	Date of Publication
	CA15-008	R01	Research Answers to NCI's Provocative Questions	3/27/2015
ALL	CA15-009	R21	nesearch Answers to Nors Provocative Questions	3/21/2013
DIVISIONS	CA15-012	R01	Provocative Questions (PQ) Initiative; Cancer with an Underlying HIV Infection	5/14/2015
	CA15-013	R21	Provocative Questions in Cancer with an Underlying HIV Infection	
CGH	CA15-001	UH2, UH3	Cancer Detection, Diagnosis, and Treatment Technologies for Global Health	11/24/2014
	CA15-002	R21	Innovative Molecular Analysis Technologies for Cancer Research	
CSSI	CA15-003	R33	Advanced Development and Validation of Emerging Molecular Analysis Technologies for Cancer Research	1/8/2015
CSSI	CA15-004	R21	Innovative Technologies for Cancer-Relevant Biospecimen Science	1/0/2015
	CA15-005	R33	Advanced Development and Validation of Emerging Technologies for Cancer-Relevant Biospecimen Science	
	CA15-006	UH2	Big Data to Knowledge (BD2K) Advancing Biomedical Science Using Crowdsourcing and Interactive Digital Media	2/23/2015
DCB	CA15-017	U01	Big Data to Knowledge (BD2K) Development of Software Tools and Methods for Biomedical Big Data in Targeted Areas of High Need	7/23/2015
	CA15-014	U54	Research Centers for Cancer Systems Biology Consortium	9/2/2015
	CA15-015	U24	Coordinating Center for Cancer Systems Biology Consortium	9/2/2013
DCCPS	CA15-011	R01	Smoking Cessation within the Context of Lung Cancer Screening	6/5/2015
	CA14-014	U01	The Early Detection Research Network: Biomarker Developmental Laboratories	
DCP	CA14-015	U01	The Early Detection Research Network: Clinical Validation Centers	11/6/2014
DOI	CA14-016	U24	The Early Detection Research Network: Biomarker Reference Laboratories	11/0/2014
	CA14-017	U01	The Early Detection Research Network: Data Management and Coordinating Center	
DCTD	CA15-501	UM1	Limited Competition: Revisions to Add Phase 2 Clinical Trials Program to Experimental Therapeutics Clinical Trials Network (ETCTN)	3/23/2015
	CA15-502	U24	Limited Competition: Childhood Cancer Survivor Study	9/14/2015
OD	CA15-007	P20	Planning for Regional Centers of Research Excellence in Non- communicable Diseases in Low and Middle Income Countries	9/14/2015
SBIRDC	CA15-010	R44	SBIR Phase IIB Bridge Awards to Accelerate the Development of Cancer Therapeutics, Imaging Technologies, Interventional Devices, Diagnostics and Prognostics Toward Commercialization	3/13/2015

Table 2. NCI Participation in Trans-NIH Requests for Applications (RFAs) in FY2015

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
	DK14-027		Consortium for the Study of Chronic Pancreatitis, Diabetes and Pancreatic Cancer Clinical Centers (CSCPDPC-CCs)		
10/17/2014	DK14-028	U01	Consortium for the Study of Chronic Pancreatitis, Diabetes and Pancreatic Cancer Coordination and Data Management Center (CSCPDPC-CDMC)	DCP	NIH
11/0/0014	ES14-011	1104	Coordinating Center for the Breast Cancer and the Environment Research Program	DCCPS	NIH
11/3/2014	ES14-012	U01	Environmental Influences during Windows of Susceptibility in Breast Cancer Risk	DCCP5	NIH
11/06/0014	LM15-001	Dos	NIH Big Data to Knowledge (BD2K) Initiative Research Education: Massive Open Online Course (MOOC) on Data Management for Biomedical Big Data	ССТ	NIH
11/26/2014	LM15-002	R25	NIH Big Data to Knowledge (BD2K) Initiative Research Education: Open Educational Resources for Sharing, Annotating and Curating Biomedical Big Data	— CCT	NIH
12/18/2014	OD15-002	R01	Empirical Research on Ethical Issues Related to Central IRBs and Consent for Research Using Clinical Records and Data	DCCPS	NIH
12/19/2014	ES15-004	U24	Biomedical Data Science Training Coordination Center	ALL DIVISIONS	NIH
12/23/2014	RM14-030	U54	Nuclear Organization and Function Interdisciplinary Consortium (NOFIC)	DCB	NIH-RM
1/8/2015	RM14-017	U24	NIH Science of Behavior Change Resource and Coordinating Center	ALL DIVISIONS	NIH-RM
	RM14-018	UH2, UH3	Science of Behavior Change: Assay Development and Validation for Interpersonal and Social Processes Targets		
1/8/2015	RM14-019		Science of Behavior Change: Assay Development and Validation for Stress Reactivity and Stress Resilience Targets	DCCPS	NIH-RM
	RM14-020		Science of Behavior Change: Assay Development and Validation for Self-Regulation Targets		
1/12/2015	MD15-005	R25	NIH Big Data to Knowledge (BD2K) Enhancing Diversity in Biomedical Data Science	CCT	NIH
1/21/2015	RM15-001	U01	Metabolomics Core for the Undiagnosed Diseases Network (UDN)	ALL DIVISIONS	NIH-RM
	DA15-014	U24	Adolescent Brain Cognitive Development (ABCD) Study – Coordinating Center		
2/4/2015	DA15-015	U01	Adolescent Brain Cognitive Development (ABCD) Study – Research Project Sites	DCCPS	NIH
	DA15-016	U24	Adolescent Brain Cognitive Development (ABCD) Study – Data Analysis and Informatics Center		
4/10/2015	Al15-017	U01	Limited Competition: International epidemiology Databases to Evaluate AIDS (IeDEA)	ОНАМ	

continued

Table 2 (cont'd). NCI Participation in Trans-NIH Requests for Applications (RFAs) in FY2015

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
4/16/2015	RM15-004	R21	Undiagnosed Diseases Gene Function Research	ALL DIVISIONS	NIH-RM
4/23/2015	OD15-004	R03	Tobacco Regulatory Science Small Grant Program for New Investigators	DCCPS	NIH
5/14/2015	AG16-013	R21	Development of Measures of Fatigability in Older Adults	DCCPS	NIH
6/1/2015	RM15-005	R01	NIH Transformative Research Awards	ALL DIVISIONS	NIH-RM
	RM15-007 U01	U01	Facile Methods and Technologies for Synthesis of Biomedically Relevant Carbohydrates		
7/14/2015	RM15-008	R21	Novel and Innovative Tools to Facilitate Identification, Tracking, Manipulation, and Analysis of Glycans and their	DCP	NIH-RM
	RM15-009	U01	Functions		
8/21/2015	OD15-005	R01	Chemistry, Toxicology, and Addiction Research on Waterpipe Tobacco	- DCCPS	NIH
8/24/2015	OD15-006	HUI	Abuse Liability Associated with Reduced Nicotine Content Tobacco Products	DOOPS	INIL
	HD16-021 R01	R01			
9/14/2015	HD16-022	R03	Multidisciplinary Approaches for Developmental Research with Individuals with DSD	ОНАМ	NIH
	HD16-023	R21			

Table 3a. Program Announcements (PAs) Published by the NCI in FY2015Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center
	PA15-009	R21		
10/10/2014	PA15-010	R01	Spatial Uncertainty: Data, Modeling, and Communication	DCCPS
	PA15-011	R03		
10/21/2014	PAR15-021	U01	Physical Sciences-Oncology Network (PS-ON): Physical Sciences-Oncology Projects (PS-OP)	DCB
10/28/2014	PAR15-023	P01	National Cancer Institute Program Project Applications	ALL DIVISIONS
11/14/2014	PAR15-033	K07	Cancer Prevention, Control, Behavioral Sciences, and Population Sciences Career Development Award	CCT
11/25/2014	PAR15-053	R21	Exploratory Grant Award to Promote Workforce Diversity in Basic Cancer Research	CRCHD
	PAR15-060	K08	NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity	
12/8/2014	PAR15-062	K23	NCI Mentored Patient-Oriented Research Career Development Award to Promote Diversity	-
	PAR15-063	K22	NCI Transition Career Development Award to Promote Diversity	CCT
	PAR15-064	K01	NCI Mentored Research Scientist Development Award to Promote Diversity	
12/10/2014	PAR15-056	K22	The NCI Transition Career Development Award	-
12/16/2014	PAR15-075	R01	Academic-Industrial Partnerships for Translation of Technologies for Cancer Diagnosis and Treatment	DCTD, DCCPS
1/16/2015	PAR15-092	R21	Exploratory/Developmental Grants Program for Basic Cancer Research in Cancer Health Disparities	DCB
	PAR15-093	R01	Basic Cancer Research in Cancer Health Disparities	DCB, DCP
1/01/0015	PAR15-095	UH2, UH3	Access Malidation for High Oscalits Mankage for NOI Compared Olivinal Trials	DCTD,
1/21/2015	PAR15-096	UH3	Assay Validation for High Quality Markers for NCI-Supported Clinical Trials	DCP, DCCPS
	PAR15-103	U54	Comprehensive Partnerships to Advance Cancer Health Equity (CPACHE)	CRCHD
1/29/2015	PAR15-104	U01	Core Infrastructure and Methodological Research for Cancer Epidemiology Cohorts	DCCPS
1/30/2015	PAR15-108	U01	Multilevel Interventions in Cancer Care Delivery: Building from the Problem of Follow-up to Abnormal Screening Tests	ALL DIVISIONS
	PA15-124	R03		
	PA15-125	R21	Early-life Factors and Cancer Development Later in Life	DCCPS
2/26/2015	PA15-126	R01		
	PA15-127	R01	Advancing Translational and Clinical Probiotic/Prebiotic and Human Microbiome Research	DCP, DCTD, CRCHD, DCCPS

Table 3a (cont'd). Program Announcements (PAs) Published by the NCI in FY2015Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center
	PAR15-150		Cancer Research Education Grants Program – Curriculum or Methods Development	
3/24/2015	PAR15-151	R25	Cancer Research Education Grants Program – Courses for Skills Development	CCT
	PAR15-152		Cancer Research Education Grants Program – Research Experiences	
3/26/2015	PAR15-155	P30	Administrative Supplements to Promote Cancer Prevention and Control Research in Low and Middle Income Countries (Admin Supp)	OD, CGH
5/18/2015	PA15-264	P30, U10 U19, U54 U56, R01 R33, U01 U24	Assay Validation for High Quality Markers for NCI-Supported Clinical Trials (Admin Supp)	DCTD, DCP, DCCPS
5/21/2015	PAR15-266	U24	Oncology Co-Clinical Imaging Research Resources to Encourage Consensus on Quantitative Imaging Methods and Precision Medicine	DCTD, DCB, DCP
6/11/2015	PAR15-276	R01	Turkey-U.S. Collaborative Program for Affordable Medical Technologies	DCTD
6/30/2015	PAR15-289	U01	The Pancreatic Cancer Detection Consortium	
7/14/2015	PAR15-297	U01	Utilizing the PLCO Biospecimens Resource to Bridge Gaps in Cancer Etiology and Early Detection Research	DCP
	PA15-305	R01, R21 U01, U24	Supplements to Support Evaluation of the NCI Cancer Genomics Cloud Pilots (Admin Supp)	OD
	PAR15-307	U01	Translational Studies on Adducts for Cancer Risk Identification and Prevention	_
7/24/2015	PAR15-308	R01	Innovative Basic Research on Adducts in Cancer Risk Identification and Prevention	_
7/24/2013	PAR15-309	R21	Innovative Basic Research on Adducts in Cancer Risk Identification and Prevention	DCCPS, DCP
	PA15-310	N2 I	Physical Activity and Weight Control Interventions Among Cancer Survivors: Effects on Biomarkers of Prognosis and Survival	
	PA15-311	R01	Physical Activity and Weight Control Interventions Among Cancer Survivors: Effects on Biomarkers of Prognosis and Survival	
	PAR15-331	U24	Advanced Development of Informatics Technologies for Cancer Research and Management	
8/18/2015	PAR15-332	U01	Early-Stage Development of Informatics Technologies for Cancer Research and Management	OD
0/10/2013	PAR15-333	U24	Sustained Support for Informatics Resources for Cancer Research and Management	OD
	PAR15-334	R21	Development of Innovative Informatics Methods and Algorithms for Cancer Research and Management	
9/1/2015	PAR15-340	1141	NCI Exploratory/Developmental Research Grant Program (NCI Omnibus)	ALL DIVISIONS
9/4/2015	PAR15-342	R35	NCI Outstanding Investigator Award	DCB

Table 3b. Program Announcements (PAs) Published by the NCI in FY2015 Sorted by Division, Office, and Center

Division, Office, and Center	RFA	Mechanism	Title	Date of Publication
	PAR15-023	P01	National Cancer Institute Program Project Applications	10/28/2014
ALL DIVISIONS	PAR15-108	U01	Multilevel Interventions in Cancer Care Delivery: Building From the Problem of Follow-up to Abnormal Screening Tests	1/30/2015
	PAR15-340	R21	NCI Exploratory/Developmental Research Grant Program (NCI Omnibus)	9/1/2015
	PAR15-033	K07	Cancer Prevention, Control, Behavioral Sciences, and Population Sciences Career Development Award	11/14/2014
	PAR15-060	K08	NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity	
	PAR15-062	K23	NCI Mentored Patient-Oriented Research Career Development Award to Promote Diversity	12/8/2014
	PAR15-063	K22	NCI Transition Career Development Award to Promote Diversity	
CCT	PAR15-064	K01	NCI Mentored Research Scientist Development Award to Promote Diversity	
	PAR15-056	K22	The NCI Transition Career Development Award	12/10/2014
	PAR15-150	R25	Cancer Research Education Grants Program – Curriculum or Methods Development	3/24/2015
	PAR15-151		Cancer Research Education Grants Program – Courses for Skills Development	
	PAR15-152		Cancer Research Education Grants Program – Research Experiences	
CRCHD	PAR15-053	R21	Exploratory Grant Award to Promote Workforce Diversity in Basic Cancer Research	11/25/2014
СПОПО	PAR15-103	U54	Comprehensive Partnerships to Advance Cancer Health Equity (CPACHE)	1/29/2015
	PAR15-021	U01	Physical Sciences-Oncology Network (PS-ON): Physical Sciences-Oncology Projects (PS-OP)	10/21/2014
DCB	PAR15-092	R21	Exploratory/Developmental Grants Program for Basic Cancer Research in Cancer Health Disparities	1/16/2015
	PAR15-342	R35	NCI Outstanding Investigator Award	9/4/2015
DCB, DCP	PAR15-093	R01	Basic Cancer Research in Cancer Health Disparities	1/16/2015
	PA15-009	R21		
	PA15-010	R01	Spatial Uncertainty: Data, Modeling, and Communication	10/10/2014
DCCPS	PA15-011	R03		
	PAR15-104	U01	Core Infrastructure and Methodological Research for Cancer Epidemiology Cohorts	1/29/2015
	PA15-124	R03		
	PA15-125	R21	Early-life Factors and Cancer Development Later in Life	2/26/2015
	PA15-126	R01		

Table 3b (cont'd). Program Announcements (PAs) Published by the NCI in FY2015Sorted by Division, Office, and Center

Division, Office, and Center	RFA	Mechanism	Title	Date of Publication
	PAR15-307	U01	Translational Studies on Adducts for Cancer Risk Identification and Prevention	
	PAR15-308	R01	Innovative Basic Research on Adducts in Cancer Risk Identification and	
DCCPS, DCP	PAR15-309	Dod	Prevention	7/24/2015
DOI	PA15-310	R21	Physical Activity and Weight Control Interventions Among Cancer Survivors: Effects on Biomarkers of Prognosis and Survival	
	PA15-311	R01	Physical Activity and Weight Control Interventions Among Cancer Survivors: Effects on Biomarkers of Prognosis and Survival	
	PAR15-289		The Pancreatic Cancer Detection Consortium	6/30/2015
DCP	PAR15-297	U01	Utilizing the PLCO Biospecimens Resource to Bridge Gaps in Cancer Etiology and Early Detection Research	7/14/2015
DCP, DCTD, CRCHD, DCCPS	PA15-127		Advancing Translational and Clinical Probiotic/Prebiotic and Human Microbiome Research	2/26/2015
DCTD	PAR15-276	R01	Turkey-U.S. Collaborative Program for Affordable Medical Technologies	6/11/2015
DCTD, DCCPS	PAR15-075		Academic-Industrial Partnerships for Translation of Technologies for Cancer Diagnosis and Treatment	12/16/2014
DCTD, DCB, DCP	PAR15-266	U24	Oncology Co-Clinical Imaging Research Resources to Encourage Consensus on Quantitative Imaging Methods and Precision Medicine	5/21/2015
	PAR15-095	UH2, UH3	Assay Validation for High Quality Markers for NCI-Supported Clinical Trials	1/04/0045
DCTD, DCP,	PAR15-096	UH3	Assay Validation for High Quality Markers for NCI-Supported Clinical Trials	1/21/2015
DCCPS	PA15-264	P30, U10 U19, U54 U56, R01 R33, U01 U24	Assay Validation for High Quality Markers for NCI-Supported Clinical Trials (Admin Supp)	5/18/2015
	PA15-305	R01, R21 U01, U24	Supplements to Support Evaluation of the NCI Cancer Genomics Cloud Pilots (Admin Supp)	7/24/2015
	PAR15-331	U24	Advanced Development of Informatics Technologies for Cancer Research and Management	
OD	PAR15-332	U01	Early-Stage Development of Informatics Technologies for Cancer Research and Management	0/40/0045
	PAR15-333	U24	Sustained Support for Informatics Resources for Cancer Research and Management	8/18/2015
	PAR15-334	R21	Development of Innovative Informatics Methods and Algorithms for Cancer Research and Management	
OD, CGH	PAR15-155	P30	Administrative Supplements to Promote Cancer Prevention and Control Research in Low and Middle Income Countries (Admin Supp)	3/26/2015

Table 4. NCI Participation in Trans-NIH Program Announcements (PA/PARs) in FY2015

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
10/16/2014	PAR15-019	U54	Limited Competition for the Continuation of Rare Diseases Clinical Research Consortia in the Rare Diseases Clinical Research Network	DCTD	NIH
10/28/2014	PAR15-024	R01	Food Specific Molecular Profiles and Biomarkers of Food and Nutrient Intake, and Dietary Exposure	DCP, DCCPS	NIH
11/5/2014	PA15-030	P01 U19 DP2 DP3 DP5 UP5 R00 R01 R37 U01	Collaborative Activities to Promote Metabolomics Research (Admin Supp)	DCB	NIH
11/18/2014	PA15-035	R34	Research Aimed at Novel Behavioral Targets to Improve Adolescent Substance Abuse Treatment and Prevention Interventions	DCCPS	NIH
11/01/0014	PAR15-047	R21	Systems Science and Health in the Behavioral and Social	D001 0	IVIII
11/21/2014	PAR15-048	R01	Sciences		
1/8/2015	PA15-083	K99 R00	NIH Pathway to Independence Award (Parent)	CCT	NIH
1/8/2015	PAR15-085	U01	Predictive Multiscale Models for Biomedical, Biological, Behavioral, Environmental and Clinical Research	DCB	NIH, ARO, DOE, FDA, NASA, NSF, ONR
3/9/2015	PA15-135	R01	Advancing Mechanistic Probiotic/Prebiotic and Human Microbiome Research	DCB, DCP, DCTD	NIH
3/12/2015	PA15-137	P01 P20 P30 P40 P50 P60 P2C PM1 PN2 U10 U19 U54 U56 UM1 UL1	Administrative Supplements for Research on HIV/AIDS and Aging (Admin Supp)	ОНАМ	NIAID
3/18/2015	PA15-144	G12 P01 P20 P30 P41 P50 P2C PM1 PN2 U19 U41 U43 UC2	Supplements to Support Interoperability of NIH Funded Biomedical Data Repositories (Admin Supp)	ALL DIVISIONS	NIH
3/27/2015	PA15-163	R21	Exploratory/Developmental Clinical Research Grants in Obesity	DC	
4/0/22:=	PAR15-170	R01	Div. 18: 14: 14: 14: 14: 14: 14: 14: 14: 14: 14	DC, DCCPS	NIH
4/2/2015	PAR15-171	R21	Diet and Physical Activity Assessment Methodology		
4/9/2015	PA15-183	P01 P30 P50 U19 U54 R01 U01	Administrative Supplements for Tobacco Regulatory Research on Tobacco Flavors and Flavorings (Admin Supp)	DCCPS	NIH FDA

continued

Table 4 (cont'd). NCI Participation in Trans-NIH Program Announcements (PA/PARs) in FY2015

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
	PAR15-189	R00 SI2	Lasker Clinical Research Scholars Program	CCT	
4/28/2015	PA15-188	R01	Developing the Therapeutic Potential of the Endocannabinoid System for Pain Treatment	DCP, DCCPS	NIH
5/6/2015	PA15-249	P01 P20 P30 P40 P50 P51 U19 U42 U54 UM1 R01 R21 R21/R33 R34 U02 U24 UL1	NLM Administrative Supplements for Informationist Services in NIH-funded Research Projects (Admin Supp)	ALL DIVISIONS	NIH
5/14/2015	PA15-258	P01 P20 P30 P40 P50 P51 U19 U42 U54, UM1 R01 R21 R32/R33 R34	Administrative Supplements for Research on Dietary Supplements (Admin Supp)	DCP, DCCPS	NIH
5/15/2015	PAR15-259	X01	Discovery of the Genetic Basis of Structural Birth Defects and of Childhood Cancers: Gabriella Miller Kids First Pediatric Research Program	DCTD	NIH
	PA15-260	R15			
E/10/001E	PA15-261	R01	The Health of Sexual and Gender Minority (SGM)	OLIAM	NIII I
5/18/2015	PA15-262	R03	Populations	OHAM	NIH
	PA15-263	R21			
C/A/001E	PA15-269	R43 R44	PHS 2015-02 Omnibus Solicitation of the NIH, CDC, FDA and ACF for Small Business Innovation Research Grant Applications (Parent SBIR)	CDIDDC	NIH, CDC, FDA, ACF
6/4/2015	PA15-270	R41 R42	PHS 2015-02 Omnibus Solicitation of the NIH for Small Business Technology Transfer Grant Applications (Parent STTR)	SBIRDC	NIH
	PA15-273	D04	Harnessing Big Data to Halt HIV		
6/5/2015	PAR15-274	- R01	Ethical Issues in Research on HIV/AIDS and Its Co-		
	PAR15-275	R21	Morbidities		MINID
	PAR15-280	R01		OHAM	NIAID
6/18/2015	PAR15-281	R03	Multidisciplinary Studies of HIV/AIDS and Aging		
	PAR15-282	R21			
6/04/0015	PAR15-286	X02	Pre-application: Opportunities for Collaborative Research at the NIH Clinical Center	DCTD	NIH
0/24/2013	6/24/2015 PAR15-287 U01 Opportunities for Collaborative Research at the NIH Clinic Center		Opportunities for Collaborative Research at the NIH Clinical Center	טוט	INIT

continued

Table 4 (cont'd). NCI Participation in Trans-NIH Program Announcements (PA/PARs) in FY2015

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
6/30/2015	PAR15-288	R44	Direct Phase II SBIR Grants to Support Extended Development, Hardening, and Dissemination of Technologies in Biomedical Computing, Informatics, and Big Data Science	SBIRDC	NIH
	PA15-321	G12 P01 P20 P30 P40 P41 P50 P51 P60 P2C PM1 PN2 U10 U19 U41 U42 U54 U56 UM2 U2C	Research Supplements to Promote Re-Entry Into Biomedical and Behavioral Research Careers (Admin Supp)	CDCUD	NIH
8/7/2015	PA15-322	G12 P01 P20 P30 P40 P41 P50 P51 P60 P2C PM1 PN2 U10 U19 U41 U42 U54 U56 UM2 U2C	Research Supplements to Promote Diversity in Health- Related Research (Admin Supp)	CRCHD	NIH, CDC, NIOSH, CDC
	PA15-324	R01	End-of-Life and Palliative Needs of Adolescents and Young	DCCPS	NIH
	PA15-325	R21	Adults (AYA) With Serious Illnesses		INIII
8/11/2015	PA15-329	P01 P20 P30 P50 P51 P60 U10 U19 U54 U56	Administrative Supplements for Research on Sexual and Gender Minority (SGM) Populations (Admin Supp)	ОНАМ	NIH
	PAR15-346	R01	Time-Sensitive Obesity Policy and Program Evaluation		
9/17/2015	PA15-347	R01	Research on the Mechanisms and/or Behavioral Outcomes of Multisensory Processing	DCCPS	NIH
9/21/2015	PA15-354	R43, R44	SBIR Technology Transfer	SBIRDC	NIH

Table 5. Applications Received for Referral by the NCI/DEA in FY2015Sorted by Mechanism

			Арр	lications NCAB	s by	
Mechanism	Activity Code	Total by Activity	Feb	June	Sept	Total Costs Requested First Year
International Training Grants in Epidemiology (FIC)	D43	30	30	0	0	\$8,926,594
NIH Director's New Innovator Awards	DP2	1	0	1	0	\$1,500,000
Early Independence Award	DP5	3	0	0	3	\$1,266,250
Individual Predoctoral NRSA for M.D./Ph.D. Fellowships (ADAMHA)	F30	178	57	56	65	\$0
Predoctoral Individual National Research Service Award	F31	419	169	137	113	\$0
Postdoctoral Individual National Research Service Award	F32	299	76	130	93	\$0
National Research Service Award for Senior Fellows	F33	1	0	1	0	\$0
Research Scientist Development Award – Research and Training	K01	81	11	14	56	\$12,656,875
Research Scientist Award	K05	3	0	3	0	\$270,784
Academic/Teacher Award	K07	65	21	28	16	\$9,865,274
Clinical Investigator Award	K08	79	18	39	22	\$13,266,270
Physician Scientist Award (Program)	K12	8	8	0	0	\$4,013,532
Career Transition Award	K22	107	30	41	36	\$17,326,546
Mentored Patient-Oriented Research Development Award	K23	32	12	10	10	\$5,611,614
Midcareer Investigator Awd in Patient - Oriented Research	K24	10	3	2	5	\$1,579,374
Mentored Quantitative Research Career Development	K25	13	2	5	6	\$1,847,856
Career Transition Award	K99	186	71	58	57	\$21,108,258
Research Program Projects	P01	80	25	31	24	\$171,375,388
Exploratory Grants	P20	16	0	0	16	\$3,289,139
Center Core Grants	P30	26	14	6	6	\$85,620,015
Biotechnology Resource Grant Program	P41	1	1	0	0	\$2,393,389
Specialized Center	P50	46	11	27	8	\$102,933,108
Research Project	R01	6,633	2,424	2,134	2,075	\$3,265,916,817
Small Research Grants	R03	603	198	228	177	\$46,657,033
Conferences	R13	102	54	25	23	\$2,912,819
Academic Research Enhancement Awards (AREA)	R15	323	91	123	109	\$135,339,972
Exploratory/Developmental Grants	R21	3,575	1,140	1,275	1,160	\$809,715,465
Education Projects	R25	91	12	15	64	\$19,115,734
Exploratory/Developmental Grants Phase II	R33	97	23	45	29	\$41,983,581
Outstanding Investigator Award	R35	224	0	224	0	\$209,367,289

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. Withdrawn applications (455) were not included in the total count.

Table 5 (cont'd). Applications Received for Referral by the NCI/DEA in FY2015Sorted by Mechanism

			Applications by NCAB			
Mechanism	Activity Code	Total by Activity	Feb	June	Sept	Total Costs Requested First Year
Method to Extend Research in Time (MERIT) Award	R37	1	1	0	0	\$376,290
Small Business Technology Transfer (STTR) Grants – Phase I	R41	271	92	73	106	\$60,991,402
Small Business Technology Transfer (STTR) Grants – Phase II	R42	43	13	13	17	\$25,317,119
Small Business Innovation Research Grants (SBIR) - Phase I	R43	802	234	257	311	\$171,783,475
Small Business Innovation Research Grants (SBIR) - Phase II	R44	308	88	93	127	\$200,340,750
High Priority, Short Term Project Award	R56	8	5	3	0	\$1,201,476
Research Enhancement Award	SC1	25	4	0	21	\$7,910,803
Pilot Research Project	SC2	18	1	0	17	\$2,621,920
Intramural Clinical Scholar Research Award	SI2	4	4	0	0	\$0
Institutional National Research Service Award	T32	104	48	38	18	\$41,727,963
Research Project (Cooperative Agreements)	U01	848	209	296	343	\$733,473,859
Conference (Cooperative Agreement)	U13	3	1	0	2	\$97,997
Resource-Related Research Project (Cooperative Agreements)	U24	46	14	8	24	\$81,596,778
International Training Cooperative Agreement	U2R	20	0	20	0	\$5,625,642
Biotechnology Resource (Cooperative Agreements)	U41	2	1	1	0	\$2,183,051
Specialized Center (Cooperative Agreements)	U54	88	24	33	31	\$206,762,565
Exploratory/Developmental Cooperative Agreement – Phase I	UH2	52	0	0	52	\$25,227,856
Exploratory/Developmental Cooperative Agreement – Phase II	UH3	2	0	0	2	\$792,281
Research Project With Complex Structure Cooperative Agreement	UM1	4	3	0	1	\$29,191,033
Pre-Application	X02	36	22	14	0	\$0
Overall Totals		16,017	5,265	5,507	5,245	\$6,593,081,236

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. Withdrawn applications (455) were not included in the total count.

Table 6. Grant and Cooperative Agreement Applications Reviewed by the NCI/DEA in FY2015

Sorted by Mechanism

			Applica	ations by	NCAB	
Mechanism	Activity Code	Total by Activity	Feb	June	Sept	Total Costs Requested First Year
Research Scientist Development Award – Research and Training	K01	36	11	14	11	\$4,631,063
Research Scientist Award	K05	3	0	3	0	\$270,784
Academic/Teacher Award	K07	65	21	28	16	\$9,865,274
Clinical Investigator Award	K08	74	18	35	21	\$12,370,032
Physician Scientist Award (Program)	K12	8	8	0	0	\$4,013,532
Career Transition Award	K22	107	30	41	36	\$17,326,546
Mentored Patient-Oriented Research Development Award	K23	25	8	8	9	\$4,368,837
Midcareer Investigator Award in Patient-Oriented Research	K24	10	3	2	5	\$1,579,374
Mentored Quantitative Research Career Development	K25	13	2	5	6	\$1,847,856
Career Transition Award	K99	156	56	50	50	\$18,257,340
Research Program Projects	P01	80	25	31	24	\$171,375,388
Exploratory Grants	P20	16	0	0	16	\$3,289,139
Center Core Grants	P30	17	5	6	6	\$72,388,271
Specialized Center	P50	39	11	21	7	\$88,047,460
Research Project	R01	104	87	7	10	\$53,739,354
Small Research Grants	R03	547	172	207	168	\$42,517,269
Conferences	R13	70	35	18	17	\$1,797,864
Exploratory/Developmental Grants	R21	2,741	843	929	969	\$619,795,402
Education Projects	R25	31	9	12	10	\$9,437,145
Exploratory/Developmental Grants – Phase II	R33	93	21	45	27	\$40,991,630
Outstanding Investigator Award	R35	224	0	224	0	\$209,367,289
Small Business Innovation Research Grants (SBIR) – Phase II	R44	23	0	0	23	\$23,988,788
Institutional National Research Service Award	T32	79	26	38	15	\$28,773,262
Research Project (Cooperative Agreements)	U01	483	78	222	183	\$370,811,082
Resource-Related Research Project (Cooperative Agreements)	U24	29	14	8	7	\$42,953,802
Specialized Center (Cooperative Agreements)	U54	88	24	33	31	\$206,762,565
Exploratory/Developmental Cooperative Agreement – Phase I	UH2	52	0	0	52	\$25,227,856
Exploratory/Developmental Cooperative Agreement – Phase II	UH3	2	0	0	2	\$792,281
Research Project With Complex Structure Cooperative Agreement	UM1	4	3	0	1	\$29,191,033
Overall Totals		5,219	1,510	1,987	1,722	\$2,115,777,518

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. Withdrawn applications (189) were not included in the total count.

Table 7. Applications Reviewed by NCI IRG Subcommittees and Special Emphasis Panels (SEPs) in FY2015

NCI IRG Subcommittee	Types of Applications Reviewed	Total by Committee	Total Costs Requested First Year
A - Cancer Centers	P30	16	\$70,838,272
F - Institutional Training and Education	K12, R25, T32	117	\$42,044,316
I - Transition to Independence	K01, K22, K25, K99	310	\$41,767,570
J - Career Development	K05, K07, K08, K23, K24	174	\$27,940,802
Totals - NCI IRG Subcommittees		617	\$182,590,960
Total SEPs	K01, K05, K07, K22, K23, K24, K99, L30, L40, P01, P20, P30, P50, R01, R03, R13, R21, R25, R33, R35, R44, T32, U01, U24, U54, UH2, UH3, UM1	4,602	\$1,933,186,558
TOTAL		5,219	\$2,115,777,518

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. Withdrawn applications (16) were not included in the total count.

Table 8. Summary of Investigator-Initiated P01 Applications Reviewed in FY2015

	Applications by Board							
Type of Application	February 2015	June 2015	September 2015	FY2015 Total				
New	5	12	17	34				
Resubmitted New	4	8	0	12				
Renewal	6	5	2	13				
Resubmitted Renewal	5	4	4	13				
Revisions	5	2	1	8				
Total	25	31	24	80				

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications.

Table 9. Summary of Investigator-Initiated P01 Applications Reviewed, Sorted by NCI Program Division, in FY2015

Program Division	Number of Applications	Total Costs Requested First Year	Total Costs for Requested Period
Division of Cancer Biology (DCB)	28	\$57,818,689	\$289,530,131
Division of Cancer Control and Population Sciences (DCCPS)	9	\$27,401,456	\$141,323,619
Division of Cancer Prevention (DCP)	7	\$17,343,054	\$88,266,748
Division of Cancer Treatment and Diagnosis (DCTD)	36	\$68,812,189	\$345,050,047
Total	80	\$171,375,388	\$864,170,545

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications.

Table 10. Requests for Applications (RFAs) Reviewed by the NCI/DEA in FY2015

			Ар	olicatio	ns by NC	AB	Total Costs
Title of Initiative	RFA Number	Activity Code	Totals	Feb	June	Sept	Requested First Year
Research Answers to NCIs Provocative Questions –	CA13-016	R01	17	17	0	0	\$8,031,944
Group A	CA13-017	R21	12	12	0	0	\$2,632,026
Research Answers to NCIs Provocative Questions –	CA13-018	R01	26	26	0	0	\$11,828,465
Group B	CA13-019	R21	14	14	0	0	\$3,023,168
Research Answers to NCIs Provocative Questions –	CA13-020	R01	21	21	0	0	\$12,053,352
Group C	CA13-021	R21	24	24	0	0	\$5,338,384
Research Answers to NCIs Provocative Questions –	CA13-022	R01	8	8	0	0	\$3,632,223
Group D	CA13-023	R21	7	7	0	0	\$1,612,725
Research Answers to NCIs Provocative Questions –	CA13-024	R01	8	8	0	0	\$4,787,536
Group E	CA13-025	R21	1	1	0	0	\$231,000
Early-Stage Innovative Molecular Analysis Technology Development for Cancer Research)	CA14-003	R21	99	42	57	0	\$26,377,122
Validation and Advanced Development of Emerging Molecular Analysis Technologies for Cancer Research	CA14-004	R33	59	20	39	0	\$25,827,163
Early-Stage Development of Innovative Technologies for Biospecimen Science	CA14-005	R21	24	9	15	0	\$6,240,991
Validation and Advanced Development of Emerging Technologies for Biospecimen Science)	CA14-006	R33	7	1	6	0	\$2,886,069
Molecular and Cellular Characterization of Screen- Detected Lesions	CA14-010	U01	31	0	31	0	\$24,052,533
Molecular and Cellular Characterization of Screen- Detected Lesions – Coordinating Center and Data Management Group	CA14-011	U01	7	0	7	0	\$3,675,188
Cancer Intervention and Surveillance Modeling Network (CISNET)	CA14-012	U01	7	0	7	0	\$10,548,181
Centers of Cancer Nanotechnology Excellence (CCNEs)	CA14-013	U54	31	0	31	0	\$79,796,904
The Early Detection Research Network: Biomarker Developmental Laboratories	CA14-014	U01	56	0	0	56	\$32,760,731
The Early Detection Research Network: Clinical Validation Centers	CA14-015	U01	20	0	0	20	\$18,429,833
The Early Detection Research Network: Biomarker Reference Laboratories	CA14-016	U24	5	0	0	5	\$2,338,672
The Early Detection Research Network: Data Management and Coordinating Center	CA14-017	U24	2	0	0	2	\$11,740,000
Pediatric Preclinical Testing Consortium: Research Programs	CA14-018	U01	17	0	17	0	\$9,010,060
Pediatric Preclinical Testing Consortium: Coordinating Center	CA14-019	U01	3	0	3	0	\$1,584,821

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. Withdrawn applications (127) were not included in the total count.

Table 10 (cont'd). Requests for Applications (RFAs) Reviewed by the NCI/DEA in FY2015

			Applications by NCAB			Total Costs	
Title of Initiative	RFA Number	Activity Code	Totals	Feb	June	Sept	Requested First Year
Limited Competition: Biospecimen Banks to Support NCI-Clinical Trials Network (NCTN)	CA14-501	U24	5	5	0	0	\$15,210,175
Limited Competition: AIDS Malignancy Clinical Trials Consortium	CA14-502	UM1	1	0	0	1	\$21,400,000
Limited Competition: International Agency for Research on Cancer (IARC) Monographs Program	CA14-503	U01	1	0	1	0	\$859,000
Cancer Detection, Diagnosis, and Treatment Technologies for Global Health	CA15-001	UH2	44	0	0	44	\$22,225,245
Innovative Molecular Analysis Technologies for Cancer Research	CA15-002	R21	64	0	0	64	\$14,454,626
Advanced Development and Validation of Emerging Molecular Analysis Technologies for Cancer Research	CA15-003	R33	24	0	0	24	\$10,941,939
Innovative Technologies for Cancer-Relevant Biospecimen Science	CA15-004	R21	6	0	0	6	\$1,376,752
Advanced Development and Validation of Emerging Technologies for Cancer-Relevant Biospecimen Science	CA15-005	R33	3	0	0	3	\$1,336,459
SBIR Phase IIB Bridge Awards to Accelerate the Development of Cancer Therapeutics, Imaging Technologies, Interventional Devices, Diagnostics and Prognostics Toward Commercialization	CA15-010	R44	23	0	0	23	\$23,988,788
Totals			677	215	214	248	\$420,232,075

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. Withdrawn applications (119) were not included in the total count.

Table 11. Program Announcements (PAs) Reviewed by the NCI/DEA in FY2015

			Appli	cations	s by N	CAB	Total Costs
Title of Initiative	RFA Number	Activity Code	Totals	Feb	Jun	Sept	Requested First Year
Examination of Survivorship Care Planning Efficacy and Impact	PA12-275	R01	1	1	0	0	\$303,613
Mechanisms, Models, Measurement, and Management in Pain Research	PA13-118	R01	1	0	1	0	\$639,358
Research Project Grant (Parent)	PA13-302	R01	16	5	2	9	\$10,670,878
NIH Exploratory/Development Research Grant Program (Parent)	PA13-303	R21	0	0	0	0	\$0
NIH Support for Conferences and Scientific Meetings (Parent)	PA13-347	R13	70	35	18	17	\$1,797,864
Advancing the Science of Geriatric Palliative Care	PA13-354	R01	1	0	0	1	\$853,760
Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant (Parent)	PA14-015	T32	79	26	38	15	\$28,773,262
NIH Pathway to Independence Award (Parent)	PA14-042	K99	106	56	50	0	\$12,439,228
Mentored Clinical Scientist Research Career Development Award (Parent)	PA14-046	K08	67	16	31	20	\$11,208,685
Midcareer Investigator Award in Patient-Oriented Research (Parent)	PA14-047	K24	10	3	2	5	\$1,579,374
Mentored Quantitative Research Development Award (Parent)	PA14-048	K25	13	2	5	6	\$1,847,856
Mentored Patient-Oriented Research Career Development Award (Parent)	PA14-049	K23	23	7	8	8	\$4,054,303
NIH Pathway to Independence Award (Parent	PA15-083	K99	50	0	0	50	\$5,818,112
Small Grants Program for Cancer Epidemiology	PAR12-039	R03	79	33	46	0	\$6,090,465
Cancer Education Grants Program	PAR12-049	R25	31	9	12	10	\$9,437,145
NCI Mentored Research Scientist Development Award to Promote Diversity	PAR12-050	K01	25	11	14	0	\$3,140,293
NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity	PAR12-051	K08	6	2	4	0	\$992,867
NCI Mentored Patient-Oriented Research Career Development Award to Promote Diversity	PAR12-052	K23	1	1	0	0	\$143,678
The NCI Transition Career Development Award to Promote Diversity	PAR12-062	K22	5	2	3	0	\$780,625
NCI Established Investigator Award in Cancer Prevention and Control	PAR12-065	K05	3	0	3	0	\$270,784
Cancer Prevention, Control, Behavioral Sciences, and Population Sciences Career Development Award	PAR12-067	K07	49	21	28	0	\$7,441,325
The NCI Transition Career Development Award	PAR12-121	K22	66	28	38	0	\$10,217,363

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. Withdrawn applications (155) were not included in the total count.

Table 11 (cont'd). Program Announcements (PAs) Reviewed by the NCI/DEA in FY2015

			Appli	cations	s by N	CAB	Total Costs
Title of Initiative	RFA Number	Activity Code	Totals	Feb	Jun	Sept	Requested First Year
Revisions for Early-Stage Development of Informatics Technology	PAR12-286	R01	2	1	1	0	\$398,231
Early-Stage Development of Informatics Technology	PAR12-288	U01	23	12	11	0	\$9,361,935
Revisions for Early-Stage Development of Informatics Technology	PAR12-289	U01	1	1	0	0	\$245,000
Utilizing the PLCO Biospecimens Resource to Bridge Gaps in Cancer Etiology and Early Detection Research	PAR13-036	U01	25	11	0	14	\$14,771,512
Bridging the Gap Between Cancer Mechanism and Population Science	PAR13-081	U01	7	4	3	0	\$5,629,378
Bioengineering Research Grants (BRG)	PAR13-137	R01	1	0	1	0	\$539,994
NCI Exploratory/Developmental Research Grant Program (NCI Omnibus)	PAR13-146	R21	2,490	734	857	899	\$558,508,608
The Role of Microbial Metabolites in Cancer Prevention and Etiology	PAR13-159	U01	9	0	9	0	\$6,079,983
Collaborative Research in Integrative Cancer Biology	PAR13-184	U01	23	14	9	0	\$17,322,933
Paul Calabresi Career Development Award for Clinical Oncology	PAR13-201	K12	8	8	0	0	\$4,013,532
Advanced Development of Informatics Technology	PAR13-294	U24	15	7	8	0	\$11,507,211
Revision Applications to P50 Awards for Research on Imaging and Biomarkers for Early Cancer Detection	PAR13-318	P50	1	1	0	0	\$238,784
National Cancer Institute Program Project Applications	PAR13-321	P01	54	24	30	0	\$113,239,100
Opportunities for Collaborative Research at the NIH Clinical Center	PAR13-358	U01	17	0	0	17	\$11,076,596
Cancer Center Support Grants (CCSGs) for NCI-Designated Cancer Centers	PAR13-386	P30	17	5	6	6	\$72,388,271
NCI Small Grants Program for Cancer Research (NCI Omnibus)	PAR14-007	R03	468	139	161	168	\$36,426,804
Specialized Programs of Research Excellence (SPOREs) in Human Cancer for Years 2013 and 2014 (P50)	PAR14-031	P50	31	10	21	0	\$71,291,079
Specialized Programs of Research Excellence (SPOREs) in Human Cancer for Years 2013 and 2014	PAR14-031	U54	1	0	1	0	\$2,300,000
Fundamental Mechanisms of Affective and Decisional Processes in Cancer Control	PAR14-067	U01	33	16	17	0	\$17,882,262
Revision Applications for Research on Metabolic Reprogramming to Improve Immunotherapy	PAR14-087	P01	2	1	1	0	\$211,990
Quantitative Imaging for Evaluation of Response to Cancer Therapies	PAR14-116	U01	38	13	19	6	\$26,808,080
Feasibility Studies to Build Collaborative Partnerships in Cancer Research	PAR14-152	P20	16	0	0	16	\$3,289,139

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. Withdrawn applications (155) were not included in the total count.

Table 11 (cont'd). Program Announcements (PAs) Reviewed by the NCI/DEA in FY2015

			Appli	Applications by NCAB			Total Costs	
Title of Initiative	RFA Number	Activity Code	Totals	Feb	Jun	Sept	Requested First Year	
Core Infrastructure and Methodological Research for Cancer	PAR14-160	U01	19	7	12	0	\$40,420,859	
Epidemiology Cohorts	PAR14-160	UM1	3	3	0	0	\$7,791,033	
Physical Sciences-Oncology Centers	PAR14-169	U54	42	24	0	18	\$101,857,781	
Oncology Forums Model	PAR14-239	U24	2	2	0	0	\$2,157,744	
Outstanding Investigator Award	PAR14-267	R35	224	0	224	0	\$209,367,289	
Innovative Research in Cancer Nanotechnology (IRCN)	PAR14-285	U01	75	0	53	22	\$48,520,687	
New Approaches to Synthetic Lethality for Mutant KRas- Dependent Cancers	PAR14-314	U01	23	0	23	0	\$21,164,646	
Specialized Programs of Research Excellence (SPOREs) in Human Cancers for Years 2015 and 2016	PAR14-353	P50	7	0	0	7	\$16,517,597	
Limited Competition for the Continuation of Rare Diseases Clinical Research Consortia in the Rare Diseases Clinical Research Network	PAR15-019	U54	1	0	1	0	\$1,250,000	
Physical Sciences-Oncology Network (PS-ON): Physical Sciences-Oncology Projects (PS-OP)	PAR15-021	U01	36	0	0	36	\$25,871,606	
National Cancer Institute Program Project Applications	PAR15-023	P01	24	0	0	24	\$57,924,298	
Cancer Prevention, Control, Behavioral Sciences, and Population Sciences Career Development Award	PAR15-033	K07	16	0	0	16	\$2,423,949	
The NCI Transition Career Development Award	PAR15-056	K22	34	0	0	34	\$6,040,742	
NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity	PAR15-060	K08	1	0	0	1	\$168,480	
NCI Mentored Patient-Oriented Research Career Development Award to Promote Diversity	PAR15-062	K23	1	0	0	1	\$170,856	
NCI Transition Career Development Award to Promote Diversity	PAR15-063	K22	2	0	0	2		
NCI Mentored Research Scientist Development Award to Promote Diversity	PAR15-064	K01	11	0	0	11	\$1,490,770	
Assay Validation for High Quality Markers for NCI-Supported	PAR15-095	UH2	8	0	0	8	\$3,002,611	
Clinical Trials	PAR15-096	UH3	2	0	0	2	\$792,281	
Comprehensive Partnerships to Advance Cancer Health Equity (CPACHE)	PAR15-103	U54	13	0	0	13	\$21,557,880	
Core Infrastructure and Methodological Research for Cancer Epidemiology Cohorts	PAR15-104	U01	9	0	0	9	\$21,648,773	
Multilevel Interventions in Cancer Care Delivery: Building From the Problem of Follow-up to Abnormal Screening Tests	PAR15-108	U01	3	0	0	3	\$3,086,485	
Totals			4,540	1,295	1,771	1,474	\$1,695,545,443	

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. Withdrawn applications (155) were not included in the total count.

Table 12. SBIR Topics and Requests for Proposals (RFPs) Reviewed by the NCI/DEA in FY2015*

Announcement/ Topic Number	Announcement Title	Review Round	No. of Proposals
Topic 334 (Phase I & Fast-Track)	Vacutubes to Preserve the Viability of Circulating Tumor Cells	Nov-5	3 (3 FT)
Topic 335 (Phase I & Fast-Track)	Development of Advanced Culture Systems for Expansion of Cancer Stem Cells	Nov-5	13 (2 FT)
Topic 336 (Phase I & Fast-Track)	Development of Novel Therapeutic Agents that Target Cancer Stem Cells	Nov-5	9 (2 FT)
Topic 337 (Phase I & Fast-Track)	Cell-Free Nucleic Acid-Based Assay Development for Cancer Diagnosis	Nov-5	27
Topic 338 (Phase I & Fast-Track)	Predictive Biomarkers of Adverse Reactions to Radiation Treatment	Nov-5	6 (1 FT)
Topic 339 (Phase I & Fast-Track)	Systemic Targeted Radionuclide Theratpy for Cancer Treatment	Nov-5	11 (3 FT)
Topic 340 (Phase I & Fast-Track)	Validation of Mobile Technologies for Clinical Assessment, Monitoring, and Intervention	Nov-5	13
Phase II Topics From E	Earlier Phase I Awards		
Topic 309	Development of Low Cost, Small Sample Multi-Analyte Technologies for Cancer Diagnosis, Prognosis and Early Detection	Jan-30	1
Topic 314	Development of Human Tissue Culture Systems That Mimic the Tumor Microenvironment	Jan-30	5
Topic 315	Development of Companion Diagnostics: Enabling Precision Medicine in Cancer Therapy	Jan-30	1
Topic 316	Development of CYC Isolation Technologies Enabling Downstream Single Cell Molecular Analysis	Jan-30	2
Topic 317	Wound Healing Preparations Incorporating Nitric Oxide-Releasing Materials (NIH Technology Transfer)	Jan-30	1
Topic 319	Technology to Generate Anti-Peptide Capture Reagents for Affinity-Enriched Proteomic Studies	Jan-30	5
Topic 321	Chemically Defined Glycan Libraries for Reference Standards and Clycomics Research (Joint NCI-NIGMS Program)	Jan-30	7
Topic 322	Real-Time Integration of Sensor and Self-Report Data for Clinical and Research Applications	Jan-30	1
Topic 323	Development of Radiation Modulators for Use During Radiotherapy	Jan-30	1
Topic 324	Novel Imaging Agents to Expand the Clinical Toolkit for Cancer Diagnosis, Staging, and Treatment	Jan-30	2
Topic 325	Innovative Radiation Sources for Advanced Radiotherapy Equipment	Jan-30	2
Other Solicitations Re	viewed in DEA		
N01 CM51007-51	Carbon Ion Trials	Jul-23	2
N01 CN45009-45	Preclinical Prevent Cancer Program: Toxicology and Pharmacology Testing	May-19	7
N01 CN55003-47	Preclinical Prevent Cancer Program: Preclinical Efficacy and Intermediate Endpoint Biomarkers	May-28	8
L30 (OD14-105)	Loan Repayment Program for Clinical Researchers		283
L40 (OD14-107)	Loan Repayment Program for Pediatirc Researchers		91
TOTAL			512

^{*} The proposals were in response to SBIR Contract Solicitations - Phase I (82) and Fast Track-Phase I/II (11), Phase II (28), RFPs (N01) (17), and Loan Repayment (L30/L40) (374). Source: Office of Referral, Review and Program Coordination.

Table 13. Summary of NCI Grant Awards by Mechanism in FY2015*

Fund Type: Appropriated				% of N Gra	CI Total ints		Fiscal Year: 2015	
Cost Centers Mechanisms	Awards Count	Awards Dollars	Average Cost	Number	Dollars	Competing Requested	Competing Awarded	Success Rate
Research Project Grants								
Traditional Research Grants – R01/RL1	2,949	1,174,944,184	398,421	46.3 %	38.13%	4,550	623	13.69%
Program Projects – P01	100	193,818,246	1,938,182	1.57%	6.29%	69	16	23.19%
Small Grants – R03	162	12,868,300	79,434	2.54%	0.42%	582	67	11.51%
Exploratory/Developmental Research – R21	639	123,378,451	193,081	10.03%	4.0 %	2,864	325	11.35%
Phased Innovation Grant (phase 2) – R33	0	85,634	85,634	0.0 %	0.0 %	0	0	0.0 %
Bridge Award – R56	1	263,375	263,375	0.02%	0.01%	1	1	100.0 %
Pathway to Independence – R00/Si2	93	22,840,950	245,602	1.46%	0.74%	0	0	0.0 %
Exploratory/Development Coop Agreements – UH2/UH3	1	2,283,052	2,283,052	0.02%	0.07%	1	1	100.0 %
Merit Awards – R37	12	5,695,175	474,598	0.19%	0.18%	1	0	0.0 %
NIH Director Pioneer Award (NDPA) – DP1	2	2,412,844	1,206,422	0.03%	0.08%	0	0	0.0 %
NIH Director New Innovator Awards – DP2	0	401,539	401,539	0.0 %	0.01%	0	0	0.0 %
Outstanding Investigators – R35	43	34,740,450	807,917	0.68%	1.13%	224	43	19.2 %
NIH Director's Early Independence Awards – DP5	8	3,501,382	437,673	0.13%	0.11%	0	0	0.0 %
Academic Research Enhancement Awards (AREA) – R15	18	7,316,970	406,498	0.28%	0.24%	218	18	8.26%
Multi-Component Research Proj Coop Agreements – UM1/RM1	15	28,571,687	1,904,779	0.24%	0.93%	3	1	33.33%
Cooperative Agreements – U01/U19	167	110,069,044	659,096	2.62%	3.57%	363	57	15.7 %
Request for Applications	287	101,999,939	355,400	4.51%	3.31%	490	64	13.06%
Cooperative Agreements – RFA-U01/ U19	76	101,518,285	1,335,767	1.19%	3.29%	159	20	12.58%
Small Business Innovative Research – R43/R44	162	77,601,590	479,022	2.54%	2.52%	739	113	15.29%
Small Business Technology Transfer – R41/R42	32	14,996,817	468,651	0.5 %	0.49%	211	22	10.43%
Program Evaluation – R01	0	73,327,000	73,327,000	0.0 %	2.38%	0	0	0.0 %
Subtotal Research Project Grants	4,767	2,092,634,914	438,984	74.85%	67.92%	10,475	1,371	13.09%
Other Research								
Clinical Cooperative Groups – U10/UG1	102	241,653,674	2,369,154	1.6 %	7.84%	0	0	0.0 %
Clinical Cooperative Groups – U10 Specials	0	3,900,000	3,900,000	0.0 %	0.13%	0	0	0.0 %
Clinical Cooperative Groups – CCCT	0	5,283,157	5,283,157	0.0 %	0.17%	0	0	0.0 %
Conference Grants – R13/U13	54	752,306	13,932	0.85%	0.02%	78	49	62.82%
International Research Training Grants Conference – D43/U2R	0	1,415,900	1,415,900	0.0 %	0.05%	0	0	0.0 %

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

Source: Office of Extramural Finance and Information Analysis.

Table 13 (cont'd). Summary of NCI Grant Awards by Mechanism in FY2015*

Cancer Education Awards	Fund Type: Appropriated				% of NCI Total Grants			Fiscal Year: 2015		
Research/Resource Grant					Number	Dollars			Success Rate	
Dick Project Sc2	Cancer Education Awards – R25	85	28,025,961	329,717	1.33%	0.91%	30	13	43.33%	
Subtotal Other Research 276 341,034,452 1,235,632 4.33% 11.07% 140 76 54.2		34	59,846,454	1,760,190	0.53%	1.94%	31	13	41.94%	
Centers	Pilot Research Project – SC2	1	157,000	157,000	0.02%	0.01%	1	1	100.0 %	
Core/Planing - P20P30 93 285,944,851 3,074,676 1,46% 9,28% 33 24 72,7	Subtotal Other Research	276	341,034,452	1,235,632	4.33%	11.07%	140	76	54.29%	
Core - CCCT	Centers									
Spore Grants - P50	Core/Planing – P20/P30	93	285,944,851	3,074,676	1.46%	9.28%	33	24	72.73%	
Other P50/P20 4 5,838,527 1,459,632 0.06% 0.19% 1 0 0.0 Specialized Center (Nanotechnology) 0 0 0 0.0% 0.0% 23 0 0.0 Specialized Center (Cooperative Agreement) – U54/U41 101 106,000,098 1,049,506 1.59% 3.44% 61 23 37.3 Specialized Center (Cooperative Agreement) – U54/U41 2 5,604,815 2,802,408 0.03% 0.18% 0 0 0.0 Agreement) – BD2K 249 508,795,725 2,043,356 3.91% 16.51% 153 54 35.2 NRSA 8 8 8 3.91% 16.51% 153 54 35.2 NRSA Institution – T32/T35 137 48,089,092 351,015 2.15% 1.56% 70 29 41.4 NRSA Fellowships – F31/F32 539 21,714,339 40,286 8.46% 0.7% 687 188 27.3 Subtotal NRSA 676 69,803,3491 1	Core – CCCT	0	2,727,585	2,727,585	0.0 %	0.09%	0	0	0.0 %	
Specialized Center (Nanotechnology) 0 0 0 0 0 0 0 0 0	Spore Grants – P50	49	102,679,849	2,095,507	0.77%	3.33%	35	7	20.0 %	
Specialized Center (Cooperative Agreement) - U54/U41	Other P50/P20	4	5,838,527	1,459,632	0.06%	0.19%	1	0	0.0 %	
Agreement) – U54/U41 I01 106,000,098 1,049,506 1.59% 3.44% 61 23 37.4 Specialized Center (Cooperative Agreement) – BD2K 2 5,604,815 2.802,408 0.03% 0.18% 0 0 0.0 Subtotal Centers 249 508,795,725 2,043,356 3.91% 16.51% 153 54 35.2 NRSA NRSA Institution – T32/T35 137 48,089,092 351,015 2.15% 1.56% 70 29 41.4 NRSA Fellowships – F31/F32 539 21,714,399 40,286 8.46% 0.7% 687 188 27.3 Subtotal NRSA 676 69,803,491 103,260 10.61% 2.27% 757 217 28.6 Careers Mentored Clinical Scientist – K08 95 15,276,138 160,801 1.49% 0.5% 72 18 25.0 Preventive Oncology Award – K12 17 12,265,773 721,516 0.27% 0.4% 8 4 50.0 <	Specialized Center (Nanotechnology)	0	0	0	0.0 %	0.0 %	23	0	0.0 %	
Agreement) – BD2K 2 5,804,815 2,802,406 0.03% 0.16% 0 0 0.05% 0.16% Subtotal Centers 249 508,795,725 2,043,356 3.91% 16.51% 153 54 35.2 NRSA		101	106,000,098	1,049,506	1.59%	3.44%	61	23	37.7 %	
NRSA NRSA Institution – T32/T35 137 48,089,092 351,015 2.15% 1.56% 70 29 41.4 NRSA Fellowships – F31/F32 539 21,714,399 40,286 8.46% 0.7% 687 188 27.3 Subtotal NRSA 676 69,803,491 103,260 10.61% 2.27% 757 217 28.6 Careers Mentored Clinical Scientist – K08 95 15,276,138 160,801 1.49% 0.5% 72 18 25.0 Preventive Oncology Award – K07 66 9,866,299 149,489 1.04% 0.32% 67 17 25.3 Mentored Career Award – K12 17 12,265,773 721,516 0.27% 0.4% 8 4 50.0 Mentored Research Scientist Development Awards/Mentored Career 49 6,227,444 127,091 0.77% 0.2% 31 9 29.0 Career – K43 Clinical Research Tack – K22 41 6,985,148 170,369 0.64% 0.2		2	5,604,815	2,802,408	0.03%	0.18%	0	0	0.0 %	
NRSA Institution - T32/T35 137 48,089,092 351,015 2.15% 1.56% 70 29 41.4 NRSA Fellowships - F31/F32 539 21,714,399 40,286 8.46% 0.7% 687 188 27.3 Subtotal NRSA 676 69,803,491 103,260 10.61% 2.27% 757 217 28.6 Careers Mentored Clinical Scientist - K08 95 15,276,138 160,801 1.49% 0.5% 72 18 25.0 Preventive Oncology Award - K07 66 9,866,299 149,489 1.04% 0.32% 67 17 25.3 Mentored Career Award - K12 17 12,265,773 721,516 0.27% 0.4% 8 4 50.0 Mentored Research Scientist Development Awards/Mentored Career Development Awards/Mentored Career Development Awards/Mentored Career Development Awards/Temin - K01/Intl. 49 6,227,444 127,091 0.77% 0.2 % 31 9 29.0 Cinical Research Track - K22 41 6,985,148 170,369 <td< td=""><td>Subtotal Centers</td><td>249</td><td>508,795,725</td><td>2,043,356</td><td>3.91%</td><td>16.51%</td><td>153</td><td>54</td><td>35.29%</td></td<>	Subtotal Centers	249	508,795,725	2,043,356	3.91%	16.51%	153	54	35.29%	
NRSA Fellowships - F31/F32 539 21,714,399 40,286 8.46% 0.7 % 687 188 27.3	NRSA									
NRSA Fellowships - F31/F32 539 21,714,399 40,286 8.46% 0.7 % 687 188 27.3	NRSA Institution – T32/T35	137	48,089,092	351,015	2.15%	1.56%	70	29	41.43%	
Careers Mentored Clinical Scientist – K08 95 15,276,138 160,801 1.49% 0.5% 72 18 25.0 Preventive Oncology Award – K07 66 9,866,299 149,489 1.04% 0.32% 67 17 25.3 Mentored Career Award – K12 17 12,265,773 721,516 0.27% 0.4% 8 4 50.0 Mentored Research Scientist Development Awards / Mentored Career Development Awards / Mentored Career Development Awards / Femin – K01/Intl. Career – K43 49 6,227,444 127,091 0.77% 0.2% 31 9 29.0 Clinical Research Track – K22 41 6,985,148 170,369 0.64% 0.23% 111 19 17.1 Mentored Patient-Oriented Research Career Development Award – K23 27 4,479,483 165,907 0.42% 0.15% 22 3 13.6 Mid-Career Investigator in Patient-Oriented Research Award – K24 17 2,689,074 158,181 0.27% 0.09% 9 4 44.4 Mentored Quantitative Research Care	NRSA Fellowships – F31/F32	539		40,286	8.46%	0.7 %	687	188	27.37%	
Mentored Clinical Scientist – K08 95 15,276,138 160,801 1.49% 0.5% 72 18 25.0 Preventive Oncology Award – K07 66 9,866,299 149,489 1.04% 0.32% 67 17 25.3 Mentored Career Award – K12 17 12,265,773 721,516 0.27% 0.4% 8 4 50.0 Mentored Research Scientist Development Awards / Mentored Career Development Awards / K22 49 6,227,444 127,091 0.77% 0.2% 31 9 29.0 Clinical Research Track – K22 41 6,985,148 170,369 0.64% 0.2% 31 19 29.0 Mid-Career Development Award – K23 27 4,479,483 165,907 0.42% 0.15% 22 3 13.6 Mid-Career Investigator in Patient-Oriented Research Award – K24 17 2,689,074 158,181 0.27% 0.09% 9 4 44.4 Mentored Quantitative Research Career Development Award – K25 11	Subtotal NRSA	676	69,803,491	103,260	10.61%	2.27%	757	217	28.67%	
Preventive Oncology Award – K07 66 9,866,299 149,489 1.04% 0.32% 67 17 25.3 Mentored Career Award – K12 17 12,265,773 721,516 0.27% 0.4% 8 4 50.0 Mentored Research Scientist Development Awards / Mentored Career Development Awards / Mentored Career Development Awards / Mentored Career Development Awards / Temin – K01/Intl. Career – K43 49 6,227,444 127,091 0.77% 0.2% 31 9 29.0 Clinical Research Track – K22 41 6,985,148 170,369 0.64% 0.23% 111 19 17.1 Mentored Patient-Oriented Research Career Development Award – K23 27 4,479,483 165,907 0.42% 0.15% 22 3 13.6 Mid-Career Investigator in Patient-Oriented Research Award – K24 17 2,689,074 158,181 0.27% 0.09% 9 4 44.4 Mentored Quantitative Research Career Development Award – K25 11 1,665,577 151,416 0.17% 0.05% 10 0 0.0 Established Invest. Award in Cancer Preventio	Careers									
Preventive Oncology Award - K07	Mentored Clinical Scientist – K08	95	15,276,138	160,801	1.49%	0.5 %	72	18	25.0 %	
Mentored Career Award – K12 17 12,265,773 721,516 0.27% 0.4 % 8 4 50.0 Mentored Research Scientist Development Awards /Mentored Career Development Awards /Mentored Career Development Awards /Mentored Career Development Awards /Mentored Career – K43 49 6,227,444 127,091 0.77% 0.2 % 31 9 29.0 Clinical Research Track – K22 41 6,985,148 170,369 0.64% 0.23% 111 19 17.1 Mentored Patient-Oriented Research Career Development Award – K23 27 4,479,483 165,907 0.42% 0.15% 22 3 13.6 Mid-Career Investigator in Patient-Oriented Research Award – K24 17 2,689,074 158,181 0.27% 0.09% 9 4 44.4 Mentored Quantitative Research Career Development Award – K25 11 1,665,577 151,416 0.17% 0.05% 10 0 0.0 Established Invest. Award in Cancer Prevention and Control – K05 14 1,448,094 103,435 0.22% 0.05% 8 2 25.0 Pathway to Independence –	Preventive Oncology Award – K07	66		149,489	1.04%	0.32%	67	17	25.37%	
Development Awards /Mentored Career Development Awards/Temin – K01/Intl. Career – K43 49 6,227,444 127,091 0.77% 0.2 % 31 9 29.0 Clinical Research Track – K22 41 6,985,148 170,369 0.64% 0.23% 111 19 17.1 Mentored Patient-Oriented Research Career Development Award – K23 27 4,479,483 165,907 0.42% 0.15% 22 3 13.6 Mid-Career Investigator in Patient-Oriented Research Award – K24 17 2,689,074 158,181 0.27% 0.09% 9 4 44.4 Mentored Quantitative Research Career Development Award – K25 11 1,665,577 151,416 0.17% 0.05% 10 0 0.0 Established Invest. Award in Cancer Prevention and Control – K05 14 1,448,094 103,435 0.22% 0.05% 8 2 25.0 Pathway to Independence – K99 64 7,918,241 123,723 1.0 % 0.26% 138 33 23.9 Subtotal Careers 401 68,821,271 171,624 6.3 % 2.23% 476 109 22.5	•	17		-	0.27%	0.4 %	8	4	50.0 %	
Mentored Patient-Oriented Research Career Development Award – K23 27 4,479,483 165,907 0.42% 0.15% 22 3 13.6 Mid-Career Investigator in Patient-Oriented Research Award – K24 17 2,689,074 158,181 0.27% 0.09% 9 4 44.4 Mentored Quantitative Research Career Development Award – K25 11 1,665,577 151,416 0.17% 0.05% 10 0 0.0 Established Invest. Award in Cancer Prevention and Control – K05 14 1,448,094 103,435 0.22% 0.05% 8 2 25.0 Pathway to Independence – K99 64 7,918,241 123,723 1.0% 0.26% 138 33 23.9 Subtotal Careers 401 68,821,271 171,624 6.3% 2.23% 476 109 22.5	Development Awards / Mentored Career Development Awards / Temin – K01 / Intl.	49	6,227,444	127,091	0.77%	0.2 %	31	9	29.03%	
Career Development Award – K23 27 4,479,463 163,907 0.42% 0.15% 22 3 13.6 Mid-Career Investigator in Patient-Oriented Research Award – K24 17 2,689,074 158,181 0.27% 0.09% 9 4 44.4 Mentored Quantitative Research Career Development Award – K25 11 1,665,577 151,416 0.17% 0.05% 10 0 0.0 Established Invest. Award in Cancer Prevention and Control – K05 14 1,448,094 103,435 0.22% 0.05% 8 2 25.0 Pathway to Independence – K99 64 7,918,241 123,723 1.0% 0.26% 138 33 23.9 Subtotal Careers 401 68,821,271 171,624 6.3% 2.23% 476 109 22.9	Clinical Research Track – K22	41	6,985,148	170,369	0.64%	0.23%	111	19	17.12%	
Oriented Research Award – K24 17 2,689,074 158,181 0.27% 0.09% 9 4 44.4 Mentored Quantitative Research Career Development Award – K25 11 1,665,577 151,416 0.17% 0.05% 10 0 0.0 Established Invest. Award in Cancer Prevention and Control – K05 14 1,448,094 103,435 0.22% 0.05% 8 2 25.0 Pathway to Independence – K99 64 7,918,241 123,723 1.0% 0.26% 138 33 23.9 Subtotal Careers 401 68,821,271 171,624 6.3% 2.23% 476 109 22.9		27	4,479,483	165,907	0.42%	0.15%	22	3	13.64%	
Career Development Award – K25 11 1,665,577 151,416 0.17% 0.05% 10 0 0.05% Established Invest. Award in Cancer Prevention and Control – K05 14 1,448,094 103,435 0.22% 0.05% 8 2 25.0 Pathway to Independence – K99 64 7,918,241 123,723 1.0% 0.26% 138 33 23.9 Subtotal Careers 401 68,821,271 171,624 6.3% 2.23% 476 109 22.9		17	2,689,074	158,181	0.27%	0.09%	9	4	44.44%	
Prevention and Control – K05 14 1,448,094 103,435 0.22% 0.05% 8 2 25.0 Pathway to Independence – K99 64 7,918,241 123,723 1.0 % 0.26% 138 33 23.9 Subtotal Careers 401 68,821,271 171,624 6.3 % 2.23% 476 109 22.9		11	1,665,577	151,416	0.17%	0.05%	10	0	0.0 %	
Subtotal Careers 401 68,821,271 171,624 6.3 % 2.23% 476 109 22.5		14	1,448,094	103,435	0.22%	0.05%	8	2	25.0 %	
	Pathway to Independence – K99	64	7,918,241	123,723	1.0 %	0.26%	138	33	23.91%	
	Subtotal Careers	401	68,821,271	171,624	6.3 %	2.23%	476	109	22.9 %	
Total: 6,369 3,081,089,853 483,764 100.0 % 100.0 % 12,001 1,827 15.2	Total:	6.369		•			12.001	1.827	15.22%	

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

Source: Office of Extramural Finance and Information Analysis.

Table 14. Average Total Cost*† and Number of Research Project Grant Awards Sorted by Division, Office, Center, and Mechanism From FY2011 – FY2015

Budget Mechnism/	FY 2	2011	FY 2	2012	FY 2	2013	FY 2	2014	FY 2015		Percent 2011 -	
Division	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost
R01 Average C	ost of Awa	ard										
NCI Overall	3,648	365	3,526	374	3,306	358	3,085	378	2,949	398	-19.16%	9.04%
DCB	1,748	317	1,660	323	1,555	312	1,441	330	1,375	351	-21.3 %	10.9 %
DCP	258	400	245	421	226	389	201	434	199	442	-22.9 %	10.5 %
DCTD	1,141	343	1,139	355	1,078	342	1,041	362	1,014	390	-11.1 %	13.5 %
DCCPS	485	553	468	559	436	521	391	542	354	556	-27.0 %	0.4 %
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	16	901	14	924	11	1,221	11	1,343	7	1,703	-56.3 %	89.1 %
P01 Average C	ost of Awa	ard										
NCI Overall	129	2,010	122	1,997	124	1,868	109	1,937	100	1,938	-22.48%	-3.58%
DCB	53	1,804	54	1,771	54	1,612	45	1,708	44	1,713	-17.0 %	-5.1 %
DCP	8	1,814	8	1,579	7	1,414	7	1,652	5	1,253	-37.5 %	-30.9 %
DCTD	58	2,164	49	2,194	53	2,063	48	2,018	42	2,165	-27.6 %	0.1 %
DCCPS	10	2,298	11	2,502	10	2,517	9	2,836	9	2,299	-10.0 %	0.0 %
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	0	638	0	306	0	155	0	343	0	572	0.0 %	-10.3 %
R03 Average C	ost of Awa	ard										
NCI Overall	127	76	172	76	199	77	194	78	162	79	27.56%	3.95%
DCB	3	75	10	76	11	75	22	76	33	79	1,000.0 %	5.7 %
DCP	38	75	61	78	63	77	48	78	28	79	-26.3 %	5.1 %
DCTD	6	76	10	78	15	76	24	78	29	79	383.3 %	4.2 %
DCCPS	80	77	91	75	110	77	100	78	72	79	-10.0 %	3.4 %
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	0	0	0	0	0	0	0	0	0	68	0.0 %	100.0 %
R21 Average C	ost of Awa	ard										
NCI Overall	442	200	439	197	441	188	551	187	639	193	44.57%	-3.5 %
DCB	79	181	80	187	90	185	138	188	196	193	148.1 %	6.6 %
DCP	51	183	54	188	54	181	44	172	55	188	7.8 %	2.6 %
DCTD	207	220	188	215	190	194	242	194	266	196	28.5 %	-11.0 %
DCCPS	80	178	89	176	78	179	93	174	93	185	16.3 %	3.9 %
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	25	205	28	186	29	195	34	182	29	208	16.0 %	1.5 %

continued

Source: Office of Extramural Finance and Information Analysis.

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

Table 14 (cont'd). Average Total Cost*† and Number of Research Project Grant Awards Sorted by Division, Office, Center, and Mechanism
From FY2011 - FY2015

Budget Mechnism/	FY 2	2011	FY 2	2012	FY 2	2013	FY 2	2014	FY:	2015	Percent 2011	Change · 2015
Mechnism/ Division	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost
U01/U19 Avera	ge Cost o	f Award										
NCI Overall	130	1,062	132	989	115	1,093	79	988	53	1,141	-59.23%	7.44%
DCB	29	721	28	714	28	665	1	1,065	6	753	-79.3 %	4.4 %
DCP	35	671	36	681	36	674	35	546	11	975	-68.6 %	45.5 %
DCTD	26	1,313	23	939	5	3,621	1	3,820	7	780	-73.1 %	-40.6 %
DCCPS	23	1,752	22	1,761	22	1,593	16	1,570	16	1,570	-30.4 %	-10.4 %
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	17	1,135	23	1,119	24	1,235	26	1,113	13	1,129	-23.5 %	-0.5 %
R13 Average C	ost of Awa	ard										
NCI Overall	92	65	64	89	57	15	54	14	54	14	-41.3 %	-78.46%
DCB	35	4	22	6	24	5	22	6	29	4	-17.1 %	-0.3 %
DCP	9	15	5	19	6	18	3	34	6	17	-33.3 %	11.4 %
DCTD	16	11	14	14	15	8	18	6	11	10	-31.3 %	-3.3 %
DCCPS	17	14	11	21	7	19	8	21	5	26	-70.6 %	82.1 %
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	15	349	12	418	5	69	3	84	3	93	-80.0 %	-73.4 %
U10 Average C	ost of Awa	ard										
NCI Overall	135	1,801	128	1,789	120	1,958	49	3,637	49	3,130	-63.7 %	73.79%
DCP	77	1,160	75	1,165	75	1,130	0	11,012	0	1,009	-100.0 %	-13.0 %
DCTD	58	2,653	53	2,671	45	3,337	49	3,412	49	3,110	-15.5 %	17.2 %
P30 Average C	ost of Awa	ard										
NCI Overall	66	4,168	67	4,134	68	3,823	68	4,098	69	4,110	4.55%	-1.39%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	66	4,168	67	4,133	68	3,823	68	4,098	69	4,110	4.5 %	-1.4 %
P50 Average C	ost of Awa	ard										
NCI Overall	74	1,979	69	2,010	66	1,895	61	2.012	53	2.046	-28.38%	3.39%
DCP	0	400	0	400	0	388	0	388	0	0	0.0 %	-100.0 %
DCTD	64	1,999	59	2,044	59	1,907	56	2,032	53	2,042	-17.2 %	2.1 %
DCCPS	10	1,739	10	1,686	7	1,651	5	1,676	0	0	-100.0 %	-100.0 %
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	0	701	0	813	0	600	0	138	0	220	0.0 %	-68.6 %

continued

In thousands.

Source: Office of Extramural Finance and Information Analysis.

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

Table 14 (cont'd). Average Total Cost*† and Number of Research Project Grant Awards Sorted by Division, Office, Center, and Mechanism
From FY2011 - FY2015

Budget Mechnism/	FY 2	2011	FY 2	FY 2012 FY 2013 FY 2014 FY 2		2015		Change - 2015				
Division	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost
SBIR Average	SBIR Average Cost of Award											
NCI Overall	123	587	151	422	132	444	171	391	162	479	31.71%	-18.4 %
CRCHD	0	83	0	0	0	0	0	0	0	0	0.0 %	-100.0 %
DCTD	0	0	0	0	0	0	0	66	0	0	0.0 %	0.0 %
DCCPS	0	32	0	0	0	0	0	0	0	77	0.0 %	140.6 %
SBIRDC	123	586	151	422	132	444	171	391	162	479	31.7 %	-18.4 %
STTR Average	Cost of A	ward										
NCI Overall	21	562	39	350	27	469	46	325	32	469	52.38%	-16.55%
SBIRDC	21	562	39	350	27	469	46	325	32	469	52.4 %	-16.6 %
U54 Average C	Cost of Awa	ard										
NCI Overall	101	1,523	103	1,709	106	1,316	99	1,268	90	1,073	-10.89%	-29.55%
CRCHD	47	1,152	49	1,110	50	940	49	978	51	818	8.5 %	-28.9 %
CSSI	21	2,468	21	3,630	21	2,155	9	2,343	6	2,116	-71.4 %	-14.2 %
DCB	22	1,400	22	1,441	24	1,343	30	1,288	22	1,110	0.0 %	-20.7 %
DCCPS	11	1,551	11	1,244	11	1,365	11	1,626	11	1,611	0.0 %	3.9 %

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

† In thousands.

Source: Office of Extramural Finance and Information Analysis.

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

Anatomical Site	Counts and Relevant Dollars [†]	2011	2012	2013	2014	2015	Average Percent Change/Yr.
	Number of Grants	6	6	3	3	2	
Adrenal	Relevant Grant Dollars Total Count	557,068	694,479	334,332	440,344	255,563 2	
	Total Relevant Dollars	557,086	6 6 6 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	255,563	-9.36		
	Number of Grants	16	18		19	17	
	Relevant Grant Dollars	2,740,690	2,539,326	3,730,597	3,860,964	3,142,985	
Anus	Number of Contracts Relevant Contract Dollars	3 446,435	÷	÷	÷	‡ ‡	
	Total Count		· ·	•	· · · · · · · · · · · · · · · · · · ·	17	
	Total Relevant Dollars	3,187,125	2,539,326	3,730,597	3,860,964	3,142,985	2.87
	Number of Grants	176	-			129	
	Relevant Grant Dollars Number of Contracts	15,777,763			23,221,839	23,038,302 3	
Bladder	Relevant Contract Dollars	176,266	=		* ‡	2,845,018	
	Total Count	177	144	125	147	132	
	Total Relevant Dollars	15,954,029	19,243,362	16,329,246	23,221,839	25,883,320	14.79
	Number of Grants Relevant Grant Dollars	76 17.343.897				21 5,101,356	
Bone Marrow	Total Count	,,	, ,	, ,	, ,	3,101,330 21	
	Total Relevant Dollars	17,343,897			6,186,065	5,101,356	-24.75
	Number of Grants			68	54	19	
	Relevant Grant Dollars	14,539	10,824,238	7,034,582	4,313,783	2,011,240	
Bone, Cartilage	Number of Contracts Relevant Contract Dollars		÷	÷	+ †	‡ ‡	
	Total Count		* 72			19	
	Total Relevant Dollars	14,539,162	10,824,238	7,034,582	4,313,783	2,011,240	-38.15
	Number of Grants	500	512	544	557	538	
	Relevant Grant Dollars	143,786,108	, ,	, ,	, ,	184,919,655	
Brain	Number of Contracts Relevant Contract Dollars	698.895				2 968.489	
	Total Count	503	- ,		,	540	
	Total Relevant Dollars	144,485,003	148,705,261	153,722,560	162,556,139	185,888,144	6.60
	Number of Grants	1,859	,		,	1,729	
	Relevant Grant Dollars	552,999,395	, ,		, ,	491,214,544 11	
Breast	Number of Contracts Relevant Contract Dollars	9,370,644				9,929,929	
	Total Count	1,879	, ,	, ,	, ,	1,740	
	Total Relevant Dollars	562,370,039	549,254,983	512,699,268	483,879,269	501,144,473	-2.76
	Number of Grants					13	
Control Names	Relevant Grant Dollars	5,370,246	, ,	3,630,469	1,739,620	1,300,559	
Central Nervous System	Number of Contracts Relevant Contract Dollars			÷ †	÷ †	‡ ‡	
Cystom	Total Count			•		13	
	Total Relevant Dollars	5,770,246	4,169,107	3,630,469	1,739,620	1,300,559	-29.50

continued

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

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

[‡]Coding not required or requested.

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

Anatomical Site	Counts and Relevant Dollars [†]	2011	2012	2013	2014	2015	Average Percent Change/Yr.
	Number of Grants	295	298	283	305	227	
	Relevant Grant Dollars	60,341,462	58,198,274	50,597,621	52,183,192	45,275,628	
Cervix	Number of Contracts	4 700 505	3 200 401	1 2.280.313	740.476	‡ ‡	
	Relevant Contract Dollars Total Count	4,729,585 299	3,366,401 301	2,280,313 284	740,476 306	227	
	Total Relevant Dollars	65,071,047	61,564,675	52,877,934	52,923,668	45,275,628	-8.47
	Number of Grants	157	178	151	159	143	<u></u>
	Relevant Grant Dollars	33,329,128	51,786,291	51,230,678	36,743,720	36,439,553	
Childhood Leukemia	Number of Contracts	‡	‡	‡	‡	‡	
Critici 1000 Leukerrila	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	157	178	151	160	143	
	Total Relevant Dollars	33,291,283	51,786,291	51,230,678	36,788,720	36,439,553	6.34
	Number of Grants	951	937	916	866	754	
	Relevant Grant Dollars Number of Contracts	242,486,775	227,386,183	213,714,476	198,038,574	186,582,220	
Colon, Rectum	Relevant Contract Dollars	11 4,299,256	14 6,246,343	9 4.230.994	6 3,024,309	9 4,627,427	
	Total Count	4,233,230 962	951	4,230,394 925	872	763	
	Total Relevant Dollars	246,786,031	233,632,526	217,945,470	201,062,883	191,209,647	-6.17
	Number of Grants	56	44	21	13	9	
Connective Tiesus	Relevant Grant Dollars	9,999,338	8,185,709	3,310,900	3,141,987	1,224,585	
Connective Tissue	Total Count	56	44	21	13	9	
	Total Relevant Dollars	9,999,338	8,185,709	3,310,900	3,141,987	1,224,585	-35.95
	Number of Grants	8	5	3	2	2	
Embryonic Tissue,	Relevant Grant Dollars	1,325,565	368,936	340,919	145,522	‡_	
Cells	Total Count	8	5	3	2	2	
	Total Relevant Dollars	1,325,565	368,936	340,919	145,522	‡	-45.69
	Number of Grants	118	147	175	117	116	
	Relevant Grant Dollars Number of Contracts	28,238,207 1	23,801,157 2	23,146,386 1	24,631,620	26,634,006	
Esophagus	Relevant Contract Dollars	20,000	229,905	12,726	* ‡	† İ	
	Total Count	119	149	176	117	116	
	Total Relevant Dollars	28,258,207	24,031,062	23,159,112	24,631,620	26,634,006	-1.02
	Number of Grants	12	14	16	17	23	
Eye	Relevant Grant Dollars	2,161,882	2,008,983	2,362,025	2,855,615	4,363,108	
Lye	Total Count	12	14	16	17	23	
	Total Relevant Dollars	2,161,882	2,008,983	2,362,025	2,855,615	4,363,108	21.05
	Number of Grants	16	2	2	2	1	
Gall Bladder	Relevant Grant Dollars	199,485	156,086	146,805	‡	‡	
	Total Count Total Relevant Dollars	16	2	2	2	1	40.05
		199,485	156,086	146,805	‡	‡	-13.85
	Number of Grants	48	50	45	35	5 070 150	
Gastrointestinal	Relevant Grant Dollars Number of Contracts	8,306,179 †	9,181,848 †	7,398,956 †	5,831,855 ‡	5,873,156 2	
Tract	Relevant Contract Dollars	* ‡	‡ ‡	; ;	‡ ‡	1,663,052	
naot	Total Count	48	50	45	35	35	
	Total Relevant Dollars	8,306,179	9,181,848	7,398,956	5,831,855	7,536,208	-0.21
						1	

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

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

Source: Research Analysis and Evaluation Branch.

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

Anatomical Site	Counts and Relevant Dollars [†]	2011	2012	2013	2014	2015	Average Percent Change/Yr.
Genital System,	Number of Grants Relevant Grant Dollars Number of Contracts	19 1,708,702 1	38 2,136,318 ‡	43 2,875,521 ‡	74 1,800,605 ‡	14 1,458,230 ‡	
Female	Relevant Contract Dollars Total Count Total Relevant Dollars	187,496 20	38	‡ 43	‡ 74 1,800,605	‡ 14	-2.28
	Number of Grants	1,896,198 5	2,136,318 6	2,875,521	1,000,005	1,458,230 2	-2.20
Conital System	Relevant Grant Dollars	334,581	350,827 +	237,891	241,644 +	233,577	
Genital System, Male	Number of Contracts Relevant Contract Dollars	* ‡	* ‡	* ‡	* ‡	‡	
	Total Count Total Relevant Dollars	5 334,581	6 350,827	2 237,891	2 241,644	2 233,577	-7.27
	Number of Grants Relevant Grant Dollars	201 39,623,318	217 37,034,455	248 33,677,355	226 33,439,973	205 35,246,846	
Head and Neck	Number of Contracts Relevant Contract Dollars	3 1,337,385	7 4,032,932	5 717,810	3 1,733,390	3 1,713,852	
	Total Count Total Relevant Dollars	204 40,960,703	224 41,067,387	253 34,395,165	229 35,173,363	208 36,960,698	-2.16
Heart	Number of Grants Relevant Grant Dollars	16 1,737,287	12 1,971,428	10 1,792,289	7 1,344,822	3 929,886	
1.00.1	Total Count Total Relevant Dollars	16 1,737,287	12 1,971,428	10 1,792,289	7 1,344,822	3 929,886	-12.86
	Number of Grants Relevant Grant Dollars	77 8,994,562 *	94 9,649,890	83 9,563,149	51 10,262,763	39 8,519,854 ‡	
Hodgkins Lymphoma	Number of Contracts Relevant Contract Dollars	; ;	* ‡	* ‡	* ‡	‡	
	Total Count Total Relevant Dollars	77 8,994,562	94 9,649,890	83 9,563,149	51 10,262,763	39 8,519,854	-0.82
	Number of Grants Relevant Grant Dollars Number of Contracts	87 20,205,869 ‡	82 19,241,042	77 18,354,076 *	76 20,860,705 ÷	77 21,864,767 ‡	
Kaposi Sarcoma	Relevant Contract Dollars	‡	‡ ‡	* * 	* * 	‡	
	Total Count Total Relevant Dollars	87 20,205,869	82 19,241,042	77 18,354,076	76 20,860,705	77 21,864,767	2.27
	Number of Grants Relevant Grant Dollars	241 29,194,089	246 32,449,153	250 31,320,199	237 21,146,275	160 23,745,801	
Kidney	Number of Contracts Relevant Contract Dollars	2 390,889	‡ ‡	‡ ‡	‡ ‡	‡ ‡	
	Total Count Total Relevant Dollars	243 29,584,978	246 32,449,153	250 31,320,199	237 21,146,275	160 23,745,801	-3.50
	Number of Grants	4	6	6	7	5	
Larynx	Relevant Grant Dollars Total Count	203,215 4	464,533 6	1,259,413 6	1,535,331 7	671,024 5	
	Total Relevant Dollars	203,215	464,533	1,259,413	1,535,331	671,024	66.33

continued

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

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

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

Anatomical Site	Counts and Relevant Dollars [†]	2011	2012	2013	2014	2015	Average Percent Change/Yr.
Loukomia	Number of Grants Relevant Grant Dollars Number of Contracts	683 199,610,401 4	724 208,324,142 2	755 209,330,335 7	781 212,414,621 4	702 218,460,707 5	
Leukemia	Relevant Contract Dollars <i>Total Count</i> Total Relevant Dollars	1,098,646 687 200,709,047	213,752 726 208,537,894	3,612,561 762 212,942,896	1,775,197 785 214,189,818	3,259,086 707 221,719,793	2.53
	Number of Grants Relevant Grant Dollars	302 54,071	322 52,508,097	321 48,910,887	306 49,666,458	294 59,175,493	
Liver	Number of Contracts Relevant Contract Dollars Total Count	299,353 303	2 115,700 324	4,653,688 329	‡ ‡ 306	2 1,488,511 296	2.20
	Total Relevant Dollars Number of Grants Relevant Grant Dollars	54,370,763 968 260,155,893	52,623,797 993 268,028,541	53,564,575 1,003 243,708,636	49,666,458 977 219,322,515	60,664,004 898 220,913,549	3.36
Lung	Number of Contracts Relevant Contract Dollars	16 4,919,129	26 12,146,630	21 11,323,702	11 6,163,921	9 5,231,560	
	Total Count Total Relevant Dollars	984 265,075,022	1,019 280,175,171	1,024 255,032,338	988 225,486,436	907 226,145,109	-3.64
Lymph Node	Number of Grants Relevant Grant Dollars Total Count	13 2,017,737 13	9 1,975,041 9	9 608,275 9	4 316,561 4	4 273,875 4	
	Total Relevant Dollars	2,017,737	1,975,041	608,275	316,561	273,875	-33.19
Lymphatic System	Number of Grants Relevant Grant Dollars Total Count	5 788,609 5	4 803,722 4	3 489,999 3	3 397,376 3	5 704,373 5	
	Total Relevant Dollars	788,609	803,722	489,999	397,376	704,373	5.31
	Number of Grants Relevant Grant Dollars Number of Contracts	435 96,537,993 1	423 99,713,846 2	474 101,678,996 2	502 106,822,745 ‡	461 114,263,178 2	
Melanoma	Relevant Contract Dollars Total Count Total Relevant Dollars	50,000 436 96,587,993	1,349,977 425 101,063,823	1,764,768 476 103,443,764	‡ 502 106,822,745	597,520 463 114,860,698	4.44
Mesothelioma	Number of Grants Relevant Grant Dollars	16 3,457,493	18 4,863,814	19 4,452,535	25 7,157,480	25 5,376,051	
	Total Count Total Relevant Dollars	16 3,457,493	18 4,863,814	19 4,452,535	25 7,157,480	25 5,376,051	17.02
Muscle	Number of Grants Relevant Grant Dollars Total Count	48 8,018,193 48	58 6,914,232 58	41 3,361,305 41	10 862,759 10	5 384,442 3	49.72
	Total Relevant Dollars Number of Grants Relevant Grant Dollars	8,018,193 242 48,195,056	6,914,232 249 52,667,345	3,361,305 160 37,120,602	862,759 174 37,800,248	384,442 1 84 40,799,287	-48.73
Myeloma	Number of Contracts Relevant Contract Dollars	‡ ‡	1 ,499,746	‡ ‡	‡ ‡	‡ ‡	
	Total Count Total Relevant Dollars	242 48,195,056	250 54,167,091	160 37,120,602	174 37,800,248	184 40,799,287	-2.33

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[†]Relevant Dollars = portion of the funded amount relevant to a specific site. ‡Coding not required or requested. Source: Research Analysis and Evaluation Branch.

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

Anatomical Site	Counts and Relevant Dollars [†]	2011	2012	2013	2014	2015	Average Percent Change/Yr.
Nervous System	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count	28 6,787,090 1 8,250 29	26 6,438,816 ‡ ‡ 26	24 4,163,832 ‡ ‡ 24	24 4,421,874 ‡ ‡ 24	25 6,108,596 ‡ ‡ 25	204
Neuroblastoma	Total Relevant Dollars Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	6,795,340 98 20,974,714 ; 98 20,974,714	6,438,816 105 24,697,656 1 299,993 106 24,997,649	4,163,832 99 16,492,753 ‡ ‡ 99 16,492,753	4,421,874 104 21,130,521 104 21,130,521	6,108,596 75 16,233,598 ‡ 75 16,233,598	0.94 -2.47
Non-Hodgkins Lymphoma	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	472 101,566,115 1 1,500,000 473 103,066,115	473 93,857,913 1 125,000 474 93,982,913	480 89,044,122 1 749,986 481 89,794,108	452 93,955,405 ‡ ‡ 452 93,955,405	413 96,633,382 ‡ ‡ 413 96,633,382	-1.45
Nose, Nasal Passages	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	8 904,491 8 904,491	10 1,117,904 10 1,117,904	987,215 10 987,215	9 890,916 9 890,916	8 699,843 8 699,843	-4.82
Not Site Specific §	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	1,952 573,631,342 166 192,657,199 2,118 766,288,541	1,889 572,734,563 192 187,026,369 2,081 759,760,932	1,727 495,343,572 201 205,498,650 1,928 700,842,222	1,747 621,155,734 181 212,411,501 1,928 833,567,235	1,668 580,506,330 152 442,411,300 1,820 1,022,917,630	8.26
Oral Cavity	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	49 8,209,050 ‡ ‡ 49 8,209,050	59 11,657,227 ‡ ‡ 59 11,657,227	66 10,151,964 ‡ ‡ 66 10,151,964	66 8,835,614 ‡ ‡ 66 8,835,614	66 12,635,411 ‡ ‡ 66 12,635,411	14.78
Ovary	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	413 96,600,440 6 2,015,726 419 98,616,166	385 95,732,146 7 2,496,203 392 98,228,349	384 85,110,664 5 3,421,603 389 88,532,267	380 79,194,763 2 1,182,604 382 80,377,367	382 77,297,410 5 3,363,895 387 80,661,305	-4.78
Pancreas	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	417 91,095,822 3 673,594 420 91,769,416	97,245,213 3 306,780 424 97,551,993	465 93,541,191 2 1,249,838 467 94,791,029	494 109,038,628 5 6,483,207 499 115,521,835	499 113,151,301 4 3,791,916 503 116,943,217	6.64

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

^{*}Coding not required or requested.

Not Site Specific = research that lacks a focus on a particular type of cancer/cancer site (e.g., basic research on the role of a protein in cellular DNA damage in fruit flies. There is no cancer site focus; however, it is relevant to cancer research.) Source: Research Analysis and Evaluation Branch.

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

Anatomical Site	Counts and Relevant Dollars [†]	2011	2012	2013	2014	2015	Average Percent Change/Yr.
Parathyroid	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	1 ‡ 1 ‡	2 216,587 2 216,587	2 199,513 2 199,513	3 401,380 3 401,380	391,973 391,973 391,973	30.32
Penis	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	6 2,249,216 6 2,249,216	6 2,424,675 6 2,424,675	6 2,435,008 6 2,435,008	2,652,760 8 2,652,760	6 191,911 6 191,911	-18.90
Pharynx	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	18 1,692,375 ‡ ‡ 18 1,692,375	74 3,427,507 ; ; 74 3,427,507	63 4,442,944 ‡ ‡ 63 4,442,944	25 1,881,045 ‡ ‡ 25 1,881,045	21 2,704,917 ; ; 21 2,704,917	29.57
Pituitary	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	7 1,032,440 7 1,032,440	5 695,788 5 695,788	6 649,567 6 649,567	4 458,773 4 458,773	5 821,132 5 821,132	2.59
Prostate	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	960 254,592,786 13 5,670,388 973 260,263,174	968 231,897,860 10 3,076,292 978 234,974,152	923 223,571,212 12 6,244,033 935 229,815,245	866 187,129,390 5 6,350,291 871 193,479,681	774 198,462,848 9 6,069,471 783 204,532,319	-5.50
Reticuloendothelial System	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	23 4,207,337 23 4,207,337	3,007,301 12 3,007,301	9 1,097,687 9 1,097,687	8 1,318,507 8 1,318,507	7 1,188,247 7 1,188,247	-20.45
Respiratory System	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	5 433,241 5 433,241	4 424,144 4 424,144	* * * * *	* * * * * *	* * * * *	-2.10
Retinoblastoma	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	14 2,291,465 14 2,291,465	13 2,335,494 13 2,335,494	14 2,225,018 14 2,225,018	16 3,538,181 16 3,538,181	14 3,475,408 12 3,475,408	13.61
Salivary Glands	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	2 122,931 2 122,931	3 582,113 3 582,113	3 515,075 3 515,075	2 45,316 2 45,316	1 ‡ 1 ‡	90.27
Skin	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	206 39,781,606 1 999,000 207 40,780,606	209 38,979,774 1 299,993 210 39,279,767	205 36,075,772 1 608,798 206 36,684,570	192 35,045,052 ‡ ‡ 192 35,045,052	170 34,254,082 1 35,000 171 34,289,082	-4.23

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

[‡]Coding not required or requested.

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

Anatomical Site	Counts and Relevant Dollars [†]	2011	2012	2013	2014	2015	Average Percent Change/Yr.
Small Intestine	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	21 2,523,663 21 2,523,663	22 2,601,072 22 2,601,072	19 2,440,030 19 2,440,030	13 1,954,527 13 1,954,527	10 2,085,838 10 2,085,838	-4.08
Spleen	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	1 41,226 1 41,226	; ; ; ;	‡ ‡ ‡ ‡	2 136,258 2 136,258	2 141,998 2 141,998	117.36
Stomach	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	9,227,080 ‡ ‡ ‡ 58 9,227,080	46 8,068,624 2 85,605 48 8,154,229	43 8,064,193 ‡ ‡ 43 8,064,193	63 8,597,660 ‡ ‡ 63 8,597,660	9,547,109 ‡ ‡ 66 9,547,109	1.23
Testis	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	23 2,966,075 ‡ ‡ 23 2,966,075	12 3,825,536 ‡ ‡ 12 3,825,536	3,850,005 ‡ ‡ 8 3,850,005	3,880,838 ‡ ‡ 8 3,880,838	10 3,143,451 ‡ ‡ 10 3,143,451	2.85
Thymus	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	4 504,940 4 504,940	4 615,252 4 615,252	5 609,747 5 609,747	5 449,070 5 449,070	239,742 4 239,742	-13.00
Thyroid	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	51 10,394,218 ‡ ‡ 51 10,394,218	48 10,082,148 ‡ ‡ 48 10,082,148	52 14,641,877 1 95313 53 14,737,190	61 17,516,816 ‡ ‡ 61 17,516,816	62 19,137,599 ‡ ‡ 62 19,137,599	17.82
Trachea, Bronchus	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	4 927,176 4 927,176	3 707,722 3 707,722	3 523,065 3 523,065	3 279,944 3 279,944	26,998 26,998 26,998	-46.65
Uterus	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	90 13,617,358 ‡ ‡ 90 13,617,358	107 16,911,090 ‡ ‡ 107 16,911,090	104 15,653,222 1 142712 105 15,795,934	101 13,467,035 ‡ † 101 13,467,035	### 10,947,265 ### ### ### ### ### #### #### ########	-3.97

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

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

Anatomical Site	Counts and Relevant Dollars [†]	2011	2012	2013	2014	2015	Average Percent Change/Yr.
	Number of Grants	5	5	4	4	4	
Vasina	Relevant Grant Dollars	284,762	336,623	317,026	286,298	86,493	
Vagina	Total Count	5	5	4	4	4	
	Total Relevant Dollars	284,762	336,623	317,026	286,298	86,493	-16.77
	Number of Grants	48	40	30	19	14	
	Relevant Grant Dollars	11,108,479	7,523,998	3,990,351	2,310,811	1,745,884	
Vascular	Number of Contracts	‡	‡	‡	‡	‡	
vasculai	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	48	40	30	19	14	
	Total Relevant Dollars	11,108,479	7,523,998	3,990,351	2,310,811	1,745,884	-36.44
	Number of Grants	17	14	7	9	10	
Wilms Tumor	Relevant Grant Dollars	3,166,418	2,563,467	1,341,539	3,843,112	3,548,011	
vviiins lumor	Total Count	17	14	7	9	10	
	Total Relevant Dollars	3,166,418	2,563,467	1,341,539	3,843,112	3,548,011	28.02

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

[‡]Coding not required or requested.

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

Special Interest Categories	Counts and Relevant Dollars [†]	2011	2012	2013	2014	2015	Average Percent Change/Yr.
	Number of Grants	226	231	216	211	210	
Astronom Osti	Relevant Grant Dollars	68,415,543	64,459,206	55,186,231	52,024,707	45,245,708	
Adoptive Cell Immunotherapy	Number of Contracts Relevant Contract Dollars	1 247,568	‡ ‡	1 1,499,971	÷	÷ ‡	
пппипошетару	Total Count	247,300 227	23 [‡]	217	211	210	
	Total Relevant Dollars	68,663,021	64,459,206	56,686,202	52,024,707	45,245,708	-9.86
	Number of Grants	13	10	7	8	9	
Advanced	Relevant Grant Dollars	2,770,889	2,945,075	2,460,945	2,295,195	1,939,427	
Manufacturing	Number of Contracts	‡	100,000	+ ‡	÷	<u> </u>	
Technology	Relevant Contract Dollars Total Count	‡ 13	498,626 11	* 7	÷ 8	* 9	
	Total Relevant Dollars	2,770,889	3,443,701	2,460,945	2,295,195	1,939,427	-6.62
	Number of Grants	854	689	577	420	319	
	Relevant Grant Dollars	99,438,832	79,998,304	69,649,282	57,171,560	53,143,671	
Aging	Number of Contracts	5	2	1	1	3	
99	Relevant Contract Dollars	631,073	82,113	27,250	31,046	230,807	
	Total Count Total Relevant Dollars	859 100,069,905	691 80,080,417	578 69,676,532	421 57,202,606	322 53,374,478	-14.39
	Number of Grants	65	60	45	35	27	
	Relevant Grant Dollars	13,092,878	12,538,472	10,917,513	10,442,198	8,158,469	
AIDS	Number of Contracts	‡	‡	‡	‡	‡	
7 IIDO	Relevant Contract Dollars	‡	‡	‡	‡	‡ 	
	Total Count Total Relevant Dollars	65 13,092,878	60 12,538,472	45 10,917,513	35 10,442,198	27 8,158,469	-10.84
	Number of Grants	347	343	304	317	229	
	Relevant Grant Dollars	83,106,708	73,033,996	57,639,318	52,792,542	47,270,448	
Alternative Medicine,	Number of Contracts		3	‡	2	2	
Direct	Relevant Contract Dollars	‡	266,500	‡	3,552,516	4,201,607	
	Total Count	347	346	304	319	231	
	Total Relevant Dollars	83,106,708	73,300,496	57,639,318	56,345,058	51,472,055	-11.01
Alternative Medicine,	Number of Grants	9.262.142	31 6.091.106	23	4,009,200	23	
Indirect	Relevant Grant Dollars Total Count	8,363,143 47	6,981,196 31	4,798,508 23	4,098,399 24	3,769,298 23	
IIIdiiect	Total Relevant Dollars	8,363,143	6,981,196	4,798,508	4,098,399	3,769,298	-17.60
	Number of Grants	4	3	3	2	3	
Alzheimers Dementia	Relevant Grant Dollars	565,699	96,204	186,357	294,069	386,427	
, wellowing Demonda	Total Count	4	3	3	2	3	
	Total Relevant Dollars	565,699	96,204	186,357	294,069	386,427	24.98
	Number of Grants	3	5	7	8	5	
	Relevant Grant Dollars	692,817 ÷	570,649	1,048,649	1,141,359	562,755 +	
Arctic Research	Number of Contracts Relevant Contract Dollars	‡ ‡	471,532	‡ ‡	* *	÷ ‡	
	Total Count	* 3	47 1,332 6	* 7	* 8	* 5	

continued

‡Coding not required or requested. Source: Research Analysis and Evaluation Branch.

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

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

Special Interest Categories	Counts and Relevant Dollars [†]	2011	2012	2013	2014	2015	Average Percent Change/Yr.
Arthritis	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	5 396,477 5 396,477	7 1,066,691 7 1,066,691	6 881,952 6 881,952	6 864,304 6 864,304	4 672,293 4 672,293	31.88
Asbestos	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	2,591,109 12 2,591,109	3,609,082 13 3,609,082	13 2,872,753 13 2,872,753	2,937,531 12 2,937,531	13 3,365,262 13 3,365,262	8.93
Ataxia Telangiectasia	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	17 1,769,222 17 1,769,222	11 1,369,928 11 1,369,928	7 1,238,529 7 1,238,529	6 309,072 6 309,072	5 749,775 5 749,775	8.85
Autoimmune Diseases	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	35 4,076,442 35 4,076,442	33 3,767,007 33 3,767,007	28 2,747,501 28 2,747,501	22 1,403,677 22 1,403,677	14 630,151 14 630,151	-34.67
Behavior Research	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	1,098 322,649,017 12 7,177,481 1,110 329,826,498	1,106 328,483,291 18 7,750,198 1,124 336,233,489	1,093 288,411,741 19 11,278,961 1,112 299,690,702	1,032 239765778 5 3018920 1037 242784698	920 222,068,908 9 8,316,984 929 230,385,892	-8.25
Bioengineering	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	478 136,659,850 28 7,104,296 506 143,764,146	471 128,170,758 14 7,721,382 485 135,892,140	438 116,606,055 14 6,142,128 452 122,748,183	551 139,804,609 9 3,567,443 560 143,372,052	525 135,770,178 10 1,910,970 535 137,681,148	-0.57
Bioinformatics	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	620 195,579,757 20 20,328,761 640 215,908,518	691 220,626,261 25 20,993,037 716 241,619,298	655 188,164,686 31 24,968,039 686 213,132,725	649 183,215,139 29 24,606,810 678 207,821,949	645 162,383,424 18 33,425,767 663 195809191	-2.03
Biological Carcinogenesis, Non-Viral	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	68 14,509,921 ‡ ‡ 68 14,509,921	75 15,387,505 ‡ ‡ 75 15,387,505	77 14,300,282 ‡ ‡ 77 14,300,282	78 15,804,902 ; ; 78 15,804,902	83 18,764,027 ‡ ‡ 83 18,764,027	7.05
Biologics/ Biological Response Modifiers	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	1,668 603,303,533 15 16,939,205 1,683 620,242,738	1,484 530,129,682 10 10,691,980 1,494 540,821,662	1,353 477,320,267 10 9,671,661 1,363 486,991,928	1,188 289,423,470 5 5,894,582 1,193 295,318,052	1,031 271,992,850 7 28,016,244 1038 300,009,094	-15.13

continued

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

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

[‡]Coding not required or requested.

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

Special Interest Categories	Counts and Relevant Dollars†	2011	2012	2013	2014	2015	Average Percent Change/Yr.
	Number of Grants	114	104	94	84	78	
	Relevant Grant Dollars	17,519,246	15,414,009	12,137,705	14,254,502	13,939,654	
Biomaterials	Number of Contracts	‡	2	3	‡	‡	
Research	Relevant Contract Dollars	‡	1,186,186	797,035	‡	‡ 	
	Total Count Total Relevant Dollars	114 17,519,246	106 16,600,195	97 12,934,740	84 14,254,502	78 13,939,654	-4.83
							-4.03
	Number of Grants	542	596	588	<i>595</i>	617	
	Relevant Grant Dollars Number of Contracts	144,567,142 30	164,726,922 31	161,506,346 35	190,278,426 24	185,096,312 23	
Biomedical Computing	Relevant Contract Dollars	76,247,799	53,261,742	37,914,467	24,933,240	24,023,855	
	Total Count	572	627	623	619	640	
	Total Relevant Dollars	220,814,941	217,988,664	199,420,813	215,211,666	209,120,167	-1.17
	Number of Grants	56	46	33	30	35	
Birth Defects	Relevant Grant Dollars	10,773,700	8,086,859	5,021,213	4,403,949	8,435,172	
Birtir Bolooto	Total Count	56	46	33	30	35	4.00
	Total Relevant Dollars	10,773,700	8,086,859	5,021,213	4,403,949	8,435,172	4.09
	Number of Grants	146	112	130	115	104	
Dana Marrau	Relevant Grant Dollars	50,005,537	37,328,235	39,871,538	35,750,541	34,316,819	
Bone Marrow Transplantation	Number of Contracts Relevant Contract Dollars	‡ ‡	÷ ‡	<u> </u>	÷ ;	‡ ‡	
ITATISPIAITIALIOIT	Total Count	+ 146	* 112	* 130	* 115	* 104	
	Total Relevant Dollars	50,005,537	37,328,235	39,871,538	35,750,541	34,316,819	-8.22
	Number of Grants	458	441	411	385	344	
	Relevant Grant Dollars	91,023,962	88,105,336	81,666,201	75,065,760	82,711,296	
Breast Cancer	Number of Contracts	15	12	4	1	1	
Detection	Relevant Contract Dollars	6,478,783	5,863,578	3,543,475	1,100,000	750,000	
	Total Count Total Relevant Dollars	473 97,502,745	453 93,968,914	415 85,209,676	386 76,165,760	345 83,461,296	-3.49
	Number of Grants	196	197	180	180	189	
	Relevant Grant Dollars	48.915.492	46.685.468	43.528.756	43.117.642	41.884.877	
Breast Cancer Early	Number of Contracts	4	6	2	1	1	
Detection	Relevant Contract Dollars	2,561,486	3,764,617	2,295,819	1,100,000	750,000	
	Total Count	200	203	182	181	190	
	Total Relevant Dollars	51,476,978	50,450,085	45,824,575	44,217,642	42,634,877	-4.56
	Number of Grants	131	117	106	102	41	
Breast Cancer	Relevant Grant Dollars	16,114,826	13,390,623	9,550,272	4,699,015	4,270,107	
Education	Total Count Total Relevant Dollars	131 16,114,826	117 13,390,623	106 9,550,272	102 4,699,015	41 4,270,107	-26.38
							-20.30
	Number of Grants	195	215	219	210	192	
Breast Cancer	Relevant Grant Dollars Number of Contracts	67,767,559 1	79,021,942 2	74,082,885 6	65,139,979 1	55,393,919 3	
Epidemiology	Relevant Contracts	1,620,669	1,728,711	3,348,609	125,000	1,469,411	
Lpidomiology	Total Count	1,020,009 196	217	225	211	1,403,411 195	
	Total Relevant Dollars	69,388,228	80,750,653	77,431,494	65,264,979	56,863,330	-4.08

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

[‡]Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

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

Special Interest Categories	Counts and Relevant Dollars†	2011	2012	2013	2014	2015	Average Percent Change/Yr.
	Number of Grants	482	510	509	498	462	
Breast Cancer	Relevant Grant Dollars Number of Contracts	116,790,479 6	130,302,574 5	116,592,352 4	107,994,765 ‡	96,024,839 ‡	
Genetics	Relevant Contract Dollars	2,277,691	2,143,190	2,739,232	‡	‡	
	Total Count Total Relevant Dollars	488 119,068,170	515 132,445,764	513 119,331,584	498 107,994,765	462 96,024,839	-4.81
	Number of Grants	193	190	182	180	110	77.01
	Relevant Grant Dollars	19,425,993	18,454,078	18,639,346	16,628,036	18,681,211	
Breast Cancer	Number of Contracts	2	1	1	1	1	
Prevention	Relevant Contract Dollars Total Count	161745 195	35,700 191	68,000 183	1,478,927 181	3,163,159 111	
	Total Relevant Dollars	19,587,738	18,489,778	18,707,346	18,106,963	21,844,370	3.25
	Number of Grants	180	169	160	130	92	
Breast Cancer	Relevant Grant Dollars Number of Contracts	23,491,341	23,354,588	19,304,588 1	16,034,148	16,436,183 ‡	
Rehabilitation	Relevant Contract Dollars	* ‡	* ‡	200,000	‡ ‡	* ‡	
	Total Count	180	169	161	130	92	
	Total Relevant Dollars	23,491,341	23,354,588	19,504,588	16,034,148	16,436,183	-8.08
	Number of Grants Relevant Grant Dollars	178 24,098,034	178 26,090,155	170 24,889,715	142 20,751,155	91 17,485,192	
Breast Cancer	Number of Contracts	24,030,034 1	20,090,133 1	24,003,713 1	20,731,133 1	17,400,102	
Screening	Relevant Contract Dollars	1,599,992	1,400,000	1,300,000	1,100,000	750,000	
	Total Count Total Relevant Dollars	179 25,698,026	179 27,490,155	171 26,189,715	143 21,851,155	92 18,235,192	-7.71
	Number of Grants	671	679	664	687	644	
	Relevant Grant Dollars	182,244,051	151,868,982	142,815,791	138,560,818	152,387,067	
Breast Cancer Treatment	Number of Contracts Relevant Contract Dollars	3 461,244	8 4,169,128	5 2,525,833	4 2,065,223	3 892,527	
nodimoni	Total Count	674	687	669	691	647	
	Total Relevant Dollars	182,705,295	156,038,110	145,341,624	140,626,041	153,279,594	-3.92
	Number of Grants	758	744	767	855	763	
	Relevant Grant Dollars Number of Contracts	168,911,481 2	175,587,977 5	164,833,399 3	167,569,592 3	165,644,820 3	
Breast Cancer – Basic	Relevant Contract Dollars	648,203	1,013,726	1,431,744	653,485	3,654,832	
	Total Count Total Relevant Dollars	760 169,559,684	749 176,601,703	770 166,265,143	858 168,223,077	766 169,299,652	0.03
	Number of Grants	669	669	628	568	476	0.00
	Relevant Grant Dollars	244,829,411	247,349,527	245,984,817	169,414,751	171,526,613	
Cancer Survivorship	Number of Contracts	11	13	15	1	7	
r	Relevant Contract Dollars Total Count	10,974,854 <i>680</i>	12,698,851 <i>682</i>	11,019,708 <i>643</i>	997,190 <i>569</i>	9,847,866 483	
	Total Relevant Dollars	255,804,265	260,048,378	257,004,525	170,411,941	181,374,479	-6.69
	Number of Grants	1,237	1,163	1,116	1,041	943	
Caroinogonosio	Relevant Grant Dollars	384,795,833	367,617,534	313,980,620	273,042,396	260,061,824	
Carcinogenesis, Environmental	Number of Contracts Relevant Contract Dollars	<i>9</i> 3,411,768	13 4,057,751	17 5,565,513	11 3,879,202	9 3,465,524	
	Total Count	1,246	1,176	1,133	1,052	952	
	Total Relevant Dollars	388,207,601	371,675,285	319,546,133	276,921,598	263,527,348	-9.11

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[†]Relevant Dollars = portion of the funded amount relevant to a specific site. ‡Coding not required or requested. Source: Research Analysis and Evaluation Branch.

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

Special Interest Categories	Counts and Relevant Dollars [†]	2011	2012	2013	2014	2015	Average Percent Change/Yr.
0	Number of Grants	44	39	30	34	38	
Cervical Cancer Education	Relevant Grant Dollars Total Count	6,289,116 44	6,569,930 39	4,529,757 30	6,077,658 34	6,221,573 38	
Lucation	Total Relevant Dollars	6,289,116	6,569,930	4,529,757	6,077,658	6,221,573	2.48
	Number of Grants	513	521	490	429	342	
	Relevant Grant Dollars Number of Contracts	110,334,008 9	106,270,652 9	97,428,457 6	84,243,372 6	80,022,566 11	
Chemoprevention	Relevant Contract Dollars	12,224,778	7,745,895	8,399,689	15,066,511	20,758,658	
	Total Count	522	530	496	435	353	
	Total Relevant Dollars	122,558,786	114,016,547	105,828,146	99,309,883	100,781,224	-4.70
	Number of Grants Relevant Grant Dollars	129 30,974,445	129 26,207,896	118 24,973,361	91 14,722,116	36 12,015,435	
Chemoprevention,	Number of Contracts	4	5	1	‡	12,010,100	
Clinical	Relevant Contract Dollars	6,660,343	1,809,372	‡	‡	‡	
	Total Count Total Relevant Dollars	133 37,634,788	134 28,017,268	118 24,973,361	91 14,722,116	36 12,015,435	-23.96
	Number of Grants				1,087	930	-23.30
	Relevant Grant Dollars	1,268 487,783,247	1,309 483,927,715	1,232 439,082,427	250,373,415	246,109,305	
Chemotherapy	Number of Contracts	23	21	18	12	7	
Onemoticapy	Relevant Contract Dollars	15,509,777	15,400,076	10,450,686	9,970,324	5,413,456	
	Total Count Total Relevant Dollars	1,291 503,293,024	1,330 499,327,791	1,250 449,533,113	1,099 260,343,739	937 251,522,761	-14.05
	Number of Grants	146	132	123	122	102	1
	Relevant Grant Dollars	30,619,348	29,367,355	23,265,126	24,830,888	20,762,243	
Child Health	Number of Contracts	1	3	5	2	3	
	Relevant Contract Dollars Total Count	500,000 147	632,000 135	2,181,318 <i>128</i>	177,670 124	195,000 105	
	Total Relevant Dollars	31,119,348	29,999,355	25,446,444	25,008,558	20,957,243	-9.17
	Number of Grants	517	532	525	493	448	
	Relevant Grant Dollars	165,281,278	177,934,130	155,945,246	173,785,934	178,242,101	
Childhood Cancers	Number of Contracts Relevant Contract Dollars	1 2,791,925	2 2,999,993	3 4,212,177	2 3,007,558	‡ ‡	
	Total Count	518	534	528	495	448	
	Total Relevant Dollars	168,073,203	180,934,123	160,157,423	176,793,492	178,242,101	1.84
	Number of Grants Relevant Grant Dollars	143 40.413.091	143	143	132	113 30,632,366	
Chronic	Number of Contracts	40,413,091 ‡	38,980,403 ‡	36,692,865 ‡	36,189,051 ‡	30,03≥,300 1	
Myeloproliferative	Relevant Contract Dollars	‡	‡	‡	‡	1,489,494	
Disorders	Total Count	143	143	143	132	114	5.50
	Total Relevant Dollars	40,413,091	38,980,403	36,692,865	36,189,051	32,121,860	-5.50
	Number of Grants Relevant Grant Dollars	157 50,104,212	142 38,090,132	136 30,815,744	146 45,889,734	187 53,037,657	
Clinical Trials,	Number of Contracts	30,104,212 3	30,090,132	30,613,744 3	40,009,734 1	33,037,037 ‡	
Diagnosis	Relevant Contract Dollars	4,929,393	2,264,053	1,651,880	1,728,293	‡	
	Total Count	160	144 40 254 195	139	147	187	2.05
	Total Relevant Dollars	55,033,605	40,354,185	32,467,624	47,618,027	53,037,657	2.95

continued

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[‡]Coding not required or requested.

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

Special Interest Categories	Counts and Relevant Dollars†	2011	2012	2013	2014	2015	Average Percent Change/Yr.
	Number of Grants	220	241	115	279	250	
	Relevant Grant Dollars	69,256,696 4	73,756,321	40,042,677	149,612,281	133,237,216	
Clinical Trials, Other	Number of Contracts Relevant Contract Dollars	5.627.105	8 4.870.009	‡ ‡	3 7.962.288	5 27,271,204	
	Total Count	224	249	115	282	255	
	Total Relevant Dollars	74,883,801	78,626,330	40,042,677	157,574,569	160,508,420	63.82
	Number of Grants	227	140	115	114	119	
	Relevant Grant Dollars	142,302,439	51,726,135	40,042,677	35,417,115	31,032,388	
Clinical Trials,	Number of Contracts	6	8	‡ ‡	7 400 001	5 10.710.005	
Prevention	Relevant Contract Dollars Total Count	11,401,878 233	2,682,866 148	115	7,423,381 118	10,710,985 124	
	Total Relevant Dollars	153,704,317	54,409,001	40,042,677	42,840,496	41,743,373	-21.64
	Number of Grants	523	574	532	546	501	
	Relevant Grant Dollars	321,816,935	326,779,192	323,103,308	315,511,818	334,042,999	
Clinical Trials, Therapy	Number of Contracts	20	16	14	11	15	
Oliffical frials, Tricrapy	Relevant Contract Dollars	57,748,533	38,008,573	22,662,279	18,485,764	60,380,409	
	Total Count Total Relevant Dollars	543 379,565,468	590 364,787,765	546 345,765,587	557 333,997,582	516 394,423,408	1.39
							1.35
	Number of Grants Relevant Grant Dollars	769 388,561,125	922 407,422,052	1,022 412,395,044	1,056 241,467,906	1,084 266,541,656	
Combined Treatment	Number of Contracts	300,301,123 7	407,422,052 8	412,395,044 8	241,467,906 6	200,541,656 7	
Modalities	Relevant Contract Dollars	6,442,620	7,776,273	7,259,529	7,488,672	3,420,624	
	Total Count	776	930	1,030	1,062	1,091	
	Total Relevant Dollars	395,003,745	415,198,325	419,654,573	248,956,578	269,962,280	-6.51
	Number of Grants	177	181	155	139	131	
	Relevant Grant Dollars	29,938,700	29,528,911 1	23,509,038	22,816,491	24,073,416	
Cost Effectiveness	Number of Contracts Relevant Contract Dollars	1 248.461	2.479.561	* ‡	‡ ‡	‡ ‡	
	Total Count	178	2,470,301 182	155	139	131	
	Total Relevant Dollars	30,187,161	32,008,472	23,509,038	22,816,491	24,073,416	-4.48
	Number of Grants	36	49	68	77	77	
	Relevant Grant Dollars	4,851,425	7,823,131	9,846,534	8,622,303	10,029,759	
Diabetes	Number of Contracts	‡	‡	1	‡ *	‡	
	Relevant Contract Dollars Total Count	‡ 36	‡ 49	207,952 69	‡ 77	‡ 77	
	Total Relevant Dollars	4,851,425	7,823,131	10,054,486	8,622,303	10,029,759	22.96
	Number of Grants	1,779	1.758	1.695	1.686	1,631	
	Relevant Grant Dollars	559,531,772	538,315,913	492,426,013	529,392,958	539,541,884	
Diagnosis	Number of Contracts	51	52	54	39	31	
Diagilosis	Relevant Contract Dollars	24,273,760	32,848,866	40,112,891	30,979,563	49,265,219	
	Total Count Total Relevant Dollars	1,830	1,810	1,749	1,725	1,662	0.34
	IOIAI NEIEVAI IL DOIIAIS	583,805,532	571,164,779	532,538,904	560,372,521	588,807,103	0.34

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Source: Research Analysis and Evaluation Branch.

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

Special Interest Categories	Counts and Relevant Dollars [†]	2011	2012	2013	2014	2015	Average Percent Change/Yr.
Diethylstilbestrol	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	3 330,257 ‡ ‡ 3 330,257	3 323,182 ‡ ‡ 3 323,182	3 308,506 ‡ ‡ 3 308,506	2 263,724 ‡ ‡ 2 263,724	2 121,734 ‡ ‡ 2 121,734	-18.75
Dioxin	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	13 869,725 13 869,725	9 936,088 9 936,088	8 612,850 8 612,850	7 631,714 7 631,714	9 383,261 9 383,261	-15.78
DNA Repair	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	555 122,952,777 ‡ ‡ 555 122,952,777	540 111,276,907 1 999,596 541 112,276,503	512 102,121,375 ‡ ‡ 512 102,121,375	494 99,797,181 ‡ ‡ 494 99,797,181	507 100,671,223 ‡ ‡ 507 100,671,223	-4.78
Drug Development	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	2,095 582,044,480 84 44,439,383 2,179 626,483,863	2,233 593,685,849 69 58,367,271 2,302 652,053,120	2,310 583,484,075 64 43,062,404 2,374 626,546,479	2,393 604,291,255 39 36,749,532 2,432 641,040,787	2,284 617,108,394 47 84,307,830 2,331 701,416,224	2.97
Drug Discovery	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	380 71,551,561 11 2,805,286 391 74,356,847	426 77,078,178 7 2,752,844 433 79,831,022	423 76,661,475 14 5,018,328 437 81,679,803	432 83,662,149 3 298,072 435 83,960,221	422 80,704,643 4 2,349,989 426 83,054,632	2.84
Drug Resistance	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	638 126,166,864 2 388,667 640 126,555,531	697 137,912,021 2 399,349 699 138,311,370	712 133,575,885 3 3,198,559 715 136,774,444	785 148,056,783 1 1,000,000 786 149,056,783	852 177,796,465 3 824,798 855 178,621,263	9.24
Drugs – Natural Products	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	603 140,027,475 5 1,298,440 608 141,325,915	577 123,779,207 2 396,938 579 124,176,145	556 109,888,176 ‡ \$ 556 109,888,176	490 71,095,657 ‡ 490 71,095,657	371 57,656,190 ‡ ‡ 371 57,656,190	-19.47
Early Detection	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	799 231,169,872 10 9,463,743 809 240,633,615	788 220,140,713 17 15,164,662 805 235,305,375	755 204,867,734 14 13,803,863 769 218,671,597	748 225,248,442 9 8,393,779 757 233,642,221	714 220,102,816 14 8,686,400 728 228,789,216	-1.12

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Source: Research Analysis and Evaluation Branch.

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

Special Interest Categories	Counts and Relevant Dollars†	2011	2012	2013	2014	2015	Average Percent Change/Yr.
	Number of Grants	241	329	318	296	264	
Em all access	Relevant Grant Dollars	88,645,132	95,620,963	90,764,479	80,220,580	69,440,936	
Effectiveness Research	Number of Contracts Relevant Contract Dollars	2 303,094	7 5,463,193	8 12,172,772	1 10,500	2 4,377,973	
ricocaron	Total Count	243	<i>336</i>	326	297	266	
	Total Relevant Dollars	88,948,226	101,084,156	102,937,251	80,231,080	73,818,909	-3.64
	Number of Grants	669	619	572	539	512	
	Relevant Grant Dollars	134,691,456	127,583,367	111,913,229	107,069,679	104,762,093	
Endocrinology	Number of Contracts Relevant Contract Dollars	2 365,780	4 813,140	1 1,307,520	1 1,478,552	÷ ‡	
	Total Count	671	623	573	540	512	
	Total Relevant Dollars	135,057,236	128,396,507	113,220,749	108,548,231	104,762,093	-6.09
	Number of Grants	105	112	91	86	68	
	Relevant Grant Dollars	33,474,016	32,621,115	27,758,787	23,971,943	20,847,429	
Energy Balance	Number of Contracts Relevant Contract Dollars	÷ ‡	‡ ‡	1 31,250	‡ ‡	‡ +	
	Total Count			91,230	* 86	÷ 68	
	Total Relevant Dollars	33,474,016	32,621,115	27,790,037	23,971,943	20,847,429	-11.25
	Number of Grants	513	525	516	495	457	
	Relevant Grant Dollars	196,371,213	200,458,114	183,330,345	169,955,392	164,276,738	
Epidemiology –	Number of Contracts	10	10	4	0.100.050	1 710 400	
Biochemical	Relevant Contract Dollars Total Count	27,302,955 <i>523</i>	32,063,034 <i>535</i>	12,320,111 <i>520</i>	2,160,252 496	1,716,430 458	
	Total Relevant Dollars	223,674,168	232,521,148	195,650,456	172,115,644	165,993,168	-6.87
	Number of Grants	248	257	245	233	210	
	Relevant Grant Dollars	58,456,327	75,023,578	76,193,758	81,439,737	76,666,541	
Epidemiology	Number of Contracts Relevant Contract Dollars	9	10 100 007	42	33	27	
	Total Count	6,370,296 257	13,162,987 276	42,219,232 287	38,502,206 266	91,178,576 237	
	Total Relevant Dollars	64,826,623	88,186,565	118,412,990	119,941,943	167,845,117	27.88
	Number of Grants	442	402	380	336	303	
	Relevant Grant Dollars	158,195,340	146,924,987	117,386,653	107,915,202	93,061,131	
Epidemiology,	Number of Contracts	10	14	10,000,007	5	2.057.400	
Environmental	Relevant Contract Dollars Total Count	22,833,401 452	27,082,561 416	13,262,667 386	3,754,701 341	3,257,460 307	
	Total Relevant Dollars	181,028,741	174,007,548	130,649,320	111,669,903	96,318,591	-14.26
	Number of Grants	859	893	901	943	917	
	Relevant Grant Dollars	182,952,932	197,448,892	183,377,930	187,566,016	185,757,320	
Epigenetics	Number of Contracts	‡ +	90,000	90,000	‡ ‡	90,000	
. 5	Relevant Contract Dollars Total Count	.↓ 859	80,000 894	80,000 <i>902</i>	943	80,000 918	
	Total Relevant Dollars	182,952,932	197,528,892	183,457,930	187,566,016	185,837,320	0.54
	Number of Grants	402	349	283	237	197	
Gene Mapping,	Relevant Grant Dollars	149,903,735	112,977,260	75,989,190	61,585,479	48,294,930	
Human	Total Count	402	349	283	237	197	
	Total Relevant Dollars	149,903,735	112,977,260	75,989,190	61,585,479	48,294,930	-24.48

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

Source: Research Analysis and Evaluation Branch.

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

Special Interest Categories	Counts and Relevant Dollars†	2011	2012	2013	2014	2015	Average Percent Change/Yr.
	Number of Grants	215	183	157	130	82	
Gene Mapping,	Relevant Grant Dollars	35,807,176	30,805,418	24,907,163	14,858,944	9,387,204	
Non-Human	Total Count Total Relevant Dollars	215 35,807,176	183 30,805,418	157 24,907,163	130 14,858,944	82 9,387,204	-27.57
	Number of Grants	33	28	23	22	20	
Gene Transfer Clinical	Relevant Grant Dollars Total Count	8,242,594 33	6,398,890 28	5,731,303 23	4,272,656 22	4,512,499 20	
	Total Relevant Dollars	8,242,594	6,398,890	5,731,303	4,272,656	4,512,499	-13.15
	Number of Grants	286	250	195	154	131	
Genetic Testing	Relevant Grant Dollars	97,622,451	78,970,309	60,583,797	42,299,385	38,489,954	
Research,	Number of Contracts Relevant Contract Dollars	4 1,531,022	4 2,838,423	* ‡	1 660,000	* ‡	
Human	Total Count	290	254	195	155	131	
	Total Relevant Dollars	99,153,473	81,808,732	60,583,797	42,959,385	38,489,954	-20.73
	Number of Grants	936	1,090	1,113	1,182	1,203	
	Relevant Grant Dollars	312,504,344	355,990,253	315,909,113	323,758,372	341,321,721	
Genomics	Number of Contracts Relevant Contract Dollars	10 3,992,902	<i>9</i> 3,769,491	8 3,463,628	2 972,912	<i>9</i> 55,539,001	
	Total Count	946	1,099	1,121	1,184	1,212	
	Total Relevant Dollars	316,497,246	359,759,744	319,372,741	324,731,284	396,860,722	6.58
	Number of Grants	104	107	106	98	100	
	Relevant Grant Dollars	23,322,845	25,702,360	20,195,573	18,558,771	18,398,631 ‡	
Health Literacy	Number of Contracts Relevant Contract Dollars	1 2,034,678	1 2,026,250	1 2,298,614	* ‡	* ‡	
	Total Count	105	108	107	98	100	
	Total Relevant Dollars	25,357,523	27,728,610	22,494,187	18,558,771	18,398,631	-6.97
	Number of Grants	492	459	434	378	338	
	Relevant Grant Dollars Number of Contracts	158,653,454 5	152,900,603 9	125,530,387 6	107,111,437 7	92,700,255 3	
Health Promotion	Relevant Contract Dollars	4,853,740	5,078,162	7,193,454	4,712,166	1,673,149	
	Total Count	497	468	440	385	341	
	Total Relevant Dollars	163,507,194	157,978,765	132,723,841	111,823,603	94,373,404	-12.67
	Number of Grants	361	370	360	398	378	
	Relevant Grant Dollars Number of Contracts	111,213,954 10	116,521,815 12	108,978,920	218,923,687 3	200,905,989 5	
Health Care Delivery	Relevant Contract Dollars	6,239,884	6,285,437	14 12,762,591	2,221,373	5,400,399	
	Total Count	371	382	374	401	383	
	Total Relevant Dollars	117,453,838	122,807,252	121,741,511	221,145,060	206,306,388	19.65
	Number of Grants	33	32	31	29	29	
	Relevant Grant Dollars Number of Contracts	8,081,826 †	7,685,880	6,972,140 †	6,799,315 †	8,287,809 †	
Helicobacter	Relevant Contract Dollars	* ‡	* ‡	* ‡	* ‡	‡ ‡	
	Total Count	33	32	31	29	29	
	Total Relevant Dollars	8,081,826	7,685,880	6,972,140	6,799,315	8,287,809	1.31

continued

‡Coding not required or requested. Source: Research Analysis and Evaluation Branch.

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

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

Special Interest Categories	Counts and Relevant Dollars [†]	2011	2012	2013	2014	2015	Average Percent Change/Yr.
	Number of Grants Relevant Grant Dollars	1,423 464,441,339	1,440 454,740,603	1,411 428,144,424	1,336 432,281,168	1,283 443,608,933	
Hematology	Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	6 2,797,458 1,429 467,238,797	7 3,100,209 1,447 457,840,812	<i>9</i> 5,851,583 <i>1,420</i> 433,996,007	4 1,775,197 1,340 434,056,365	5 3,259,086 1,288 446,868,019	-1.06
Hematopoietic Stem Cell Research	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	465 122,611,326 ; 465 122,611,326	449 105,983,734 ‡ ‡ 449 105,983,734	431 101,488,276 ‡ ‡ 431 101,488,276	397 87,079,722 ‡ ‡ 397 87,079,722	306 88,073,334 ‡ ‡ 306 88,073,334	-7.71
Hormone Replacement Therapy	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	31 3,987,675 31 3,987,675	23 2,695,611 23 2,695,611	21 2,396,798 21 2,396,798	17 1,621,562 17 1,621,562	10 420,973 10 420,973	-37.47
Hospice	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	33 8,276,000 ‡ ‡ 33 8,276,000	34 7,183,290	31 5,960,311 ‡ ‡ 31 5,960,311	26 6,718,944 ‡ ‡ 26 6,718,944	21 5,068,406 ‡ ‡ 21 5,068,406	-10.52
Human Genome	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	631 262,277,096 2 1,398,722 633 263,675,818	762 303,194,306 4 1,744,057 766 304,938,363	831 285,048,104 6 2,922,371 837 287,970,475	889 288,232,403 2 972,912 891 289,205,315	893 270,053,324 ‡ ‡ 893 270,053,324	0.97
latrogenesis	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	247 62,271,326 3 487,983 250 62,759,309	264 70,740,383 4 1,406,258 268 72,146,641	240 63,359,024 15 9,252,324 255 72,611,348	255 62,665,069 16 11,590,700 271 74,255,769	234 65,666,762 9 7,954,033 243 73,620,795	4.25
Imaging	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	1012 309,142,019 20 7,316,896 1032 316,458,915	1,014 287,214,478 14 7,351,691 1,028 294,566,169	977 262,826,270 18 13,479,943 995 276,306,213	1,020 303,333,609 15 9,601,975 1,035 312,935,584	1,004 328,599,329 3 22,477,850 1,007 351,077,179	3.08
Immunization	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	449 122,814,703 4 3,429,651 453 126,244,354	469 127,780,151 1 1,996,084 470 129,776,235	443 108,339,472 5 8,810,556 448 117,150,028	432 104,548,325 4 4,894,582 436 109,442,907	411 102,651,388 7 28,016,244 418 130,667,632	1.47

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

Source: Research Analysis and Evaluation Branch.

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

Special Interest Categories	Counts and Relevant Dollars [†]	2011	2012	2013	2014	2015	Average Percent Change/Yr.
	Number of Grants	467	532	594	611	580	
	Relevant Grant Dollars	99,553,973	113,039,549	107,278,269	109,966,955	112,167,081	
Inflammation	Number of Contracts Relevant Contract Dollars	I ‡	‡ ‡	1 318.141	<i>3</i> 3,652,516	3 14.497.899	
	Total Count		532	510,141 595	3,032,310 614	14,497,699 583	
	Total Relevant Dollars	99,553,973	113,039,549	107,596,410	113,619,471	126,664,980	6.45
	Number of Grants	835	787	755	739	681	
	Relevant Grant Dollars	237,305,178	247,159,725	224,368,430	217,876,571	210,348,487	
Information	Number of Contracts	36	56	22	8	10	
Dissemination	Relevant Contract Dollars	70,246,091	76,556,706	19,915,843	14,567,395	3,998,692	
	Total Count	871	843	777	747	691	7.07
	Total Relevant Dollars	307,551,269	323,716,431	244,284,273	232,443,966	214,347,179	-7.97
	Number of Grants	1,534	1,543	1,550	1,545	1,604	
	Relevant Grant Dollars Number of Contracts	381,229,457 6	370,139,067 6	339,242,680 6	340,009,556 3	358,876,606 4	
Metastasis	Relevant Contract Dollars	1,024,332	3.434.990	2.322.483	961.421	1.108.062	
	Total Count	1,540	1,549	1,556	1,548	1,100,002 1,608	
	Total Relevant Dollars	382,253,789	373,574,057	341,565,163	340,970,977	359,984,668	-1.35
	Number of Grants	83	83	78	59	52	
	Relevant Grant Dollars	16,149,064	18,436,251	13,881,407	11,783,092	10,026,196	
Mind/Body Research	Number of Contracts	‡	2	‡	‡	‡	
Willia Body Hoodardii	Relevant Contract Dollars	‡	89,759	‡	‡	‡	
	Total Count Total Relevant Dollars	16 140 064	10 FOC 010	78	11 792 002	52	-10.09
		16,149,064	18,526,010	13,881,407	11,783,092	10,026,196	-10.09
	Number of Grants	4,879	4,945	<i>5,158</i>	<i>5,466</i>	<i>5,602</i>	
	Relevant Grant Dollars Number of Contracts	1,660,747,605 35	1,646,243,216 34	1,611,962,239 49	1,679,313,384 45	1,782,526,277 41	
Molecular Disease	Relevant Contract Dollars	14.337.338	19.893.543	30.025.697	30.765.834	79.018.098	
	Total Count	4,914	4,979	5,207	5,511	5,643	
	Total Relevant Dollars	1,675,084,943	1,666,136,759	1,641,987,936	1,710,079,218	1,861,544,375	2.75
	Number of Grants	701	724	672	620	609	
	Relevant Grant Dollars	181,500,075	184,280,121	160,435,399	152,907,543	156,307,861	
Molecular Imaging	Number of Contracts	15	4	5	3	1	
	Relevant Contract Dollars	5,602,005	798,078 728	2,940,739	1,942,675 <i>623</i>	118,783	
	Total Count Total Relevant Dollars	716 187,102,080	185,078,199	<i>677</i> 163,376,138	154,850,218	610 156,426,644	-4.25
				, ,		, ,	TIEU
	Number of Grants Relevant Grant Dollars	248 47,765,297	269 47.214.496	260 48.209.422	232 44.556.081	208 46.590.174	
Molecular Targeted	Number of Contracts	47,705,297 1	47,214,490 2	40,209,422 2	44,550,061 2	40,590,174 1	
Prevention	Relevant Contract Dollars	248,461	212,500	1,647,216	2,979,162	790,790	
	Total Count	249	271	262	234	209	
	Total Relevant Dollars	48.013.758	47.426.996	49.856.638	47.535.243	47.380.964	-0.26

continued

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

[‡]Coding not required or requested.

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

Special Interest Categories	Counts and Relevant Dollars†	2011	2012	2013	2014	2015	Average Percent Change/Yr.
	Number of Grants	1,577	1,775	1,888	2,044	2,148	
MalagodayTayyatad	Relevant Grant Dollars	442,319,529	475,531,951	470,992,018	523,857,998	581,779,389	
Molecular Targeted Therapy	Number of Contracts Relevant Contract Dollars	18 7,588,080	18 12,174,642	12 8,499,344	12 8,863,954	16 53,873,784	
тистару	Total Count	1,595	1,793	1,900	2,056	2,164	
	Total Relevant Dollars	449,907,609	487,706,593	479,491,362	532,721,952	635,653,173	9.28
	Number of Grants	444	480	476	455	481	
	Relevant Grant Dollars Number of Contracts	119,336,493 11	121,450,044 14	109,920,780 6	111,516,643 5	106197770 9	
Nanotechnology	Relevant Contract Dollars	5,161,598	7,104,793	2,045,407	5,326,115	56177120	
	Total Count	455	494	482	460	490	
	Total Relevant Dollars	124,498,091	128,554,837	111,966,187	116,842,758	162374890	8.41
	Number of Grants	15	15	11	8	10	
Neurofibromatosis	Relevant Grant Dollars Total Count	2,915,817 15	2,745,637 15	1,584,767 11	1,376,362 8	3,686,798 10	
	Total Relevant Dollars	2,915,817	2,745,637	1,584,767	1,376,362	3,686,798	26.65
	Number of Grants	49	45	37	35	36	
Nursing Research	Relevant Grant Dollars	11,599,142	11,366,624	9,407,781	8,475,918	8,132,143	
rtaroling ricocaron	Total Count Total Relevant Dollars	49 11,599,142	45 11,366,624	37 9,407,781	35 8,475,918	36 8,132,143	-8.30
							-0.30
	Number of Grants Relevant Grant Dollars	19 3,019,322	13 1,881,369	10 1,147,521	7 1,084,354	7 1,214,524	
Nutrition – Fiber	Number of Contracts	‡	1,001,000	†,147,021 ‡	‡	‡	
Nutrition – Fiber	Relevant Contract Dollars	‡	56,250	‡	‡_	<u>‡</u>	
	Total Count Total Relevant Dollars	19 3,019,322	14 1,937,619	10 1,147,521	7 1,084,354	7 1,214,524	-17.53
	Number of Grants	779	735	698	638	513	11.00
	Relevant Grant Dollars	201,597,394	176,394,674	152,339,204	131,807,340	117,756,071	
Nutrition	Number of Contracts	5	19	9	9	10	
Natition	Relevant Contract Dollars Total Count	9,069,226 784	12,900,479 754	11,924,668 707	4,372,361 647	4,220,813 523	
	Total Relevant Dollars	210,666,620	189,295,153	164,263,872	136,179,701	121,976,884	-12.72
	Number of Grants	42	36	30	30	33	
	Relevant Grant Dollars	15,194,549	9,995,060	10,354,902	8,955,163	9,882,676	
Nutrition Monitoring	Number of Contracts	‡	7	2	3	1	
· ·	Relevant Contract Dollars Total Count	‡ 42	1,107,515 43	1,277,146 32	2,210,544 33	323,154 34	
	Total Relevant Dollars	15,194,549	11,102,575	11,632,048	11,165,707	10,205,830	-8.69
	Number of Grants	251	258	283	290	281	
	Relevant Grant Dollars	58,308,346	63,008,280	62,423,989	63,637,392	64,004,183	
Obesity	Number of Contracts Relevant Contract Dollars	3 689394	4 1,012,349	; ;	1 1,478,927	3 3,323,159	
	Total Count	254	262	283	291	284	
	Total Relevant Dollars	59,006,740	64,020,629	62,423,989	65,116,319	67,327,342	3.42

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 $^{^{\}dagger}$ Relevant Dollars = portion of the funded amount relevant to a specific site.

[‡]Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

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

Special Interest Categories	Counts and Relevant Dollars†	2011	2012	2013	2014	2015	Average Percent Change/Yr.
Occupational Cancer	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	49 8,727,377 ‡ ‡ 49 8,727,377	42 7,737,704	36 6,712,701 ‡ ‡ 36 6,712,701	27 6,625,987 ‡ ‡ 27 6,625,987	30 6,560,117 ‡ ‡ 30 6,560,117	-6.72
Oncogenes	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	1,934 498,144,267 5 1,072,456 1,939 499,216,723	1,883 473,323,034 8 2,534,277 1,891 475,857,311	1,828 413,130,527 6 5,307,498 1,834 418,438,025	1,784 404,601,468 1 111,706 1,785 404,713,174	1,693 402,124,198 3 1,510,068 1,696 403,634,266	-5.07
Organ Transplant Research	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	194 67,155,158 ‡ ‡ 194 67,155,158	164 49,923,229 ‡ ‡ 164 49,923,229	175 55,542,375 ‡ ‡ 175 55,542,375	151 48,657,932 ‡ ‡ 151 48,657,932	132 45,618,921 ‡ ‡ 132 45,618,921	-8.26
Osteoporosis	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	6 317,668 6 317,668	6 925,324 6 925,324	5 722,771 5 722,771	7 1,471,815 7 1,471,815	6 1,557,646 6 1,557,646	69.72
Pain	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	152 16,300,996 ‡ ‡ 152 16,300,996	154 18,155,638 ‡ ‡ 154 18,155,638	159 17,703,099 1 100,000 160 17,803,099	132 12,405,393 ‡ ‡ 132 12,405,393	75 9,313,288 ; ; 75 9,313,288	-11.45
Palliative Care	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	153 21,247,383 1 52,655 154 21,300,038	153 21,916,672 1 21,000 154 21,937,672	152 18,689,924 1 53,991 153 18,743,915	129 15,149,837 1 10,500 130 15,160,337	68 10,957,597 ‡ ‡ 68 10,957,597	-14.60
Pap Testing	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	105 11,695,680 ‡ ‡ 105 11,695,680	111 11,312,785 ‡ ‡ 111 11,312,785	98 10,168,380 ‡ ‡ 98 10,168,380	81 5,542,465 ‡ 81 5,542,465	34 4,772,033 ‡ ‡ 34 4,772,033	-18.19
Pediatric Research	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	581 146,844,741 2 3,291,925 583 150,136,666	636 179,363,922 5 3,631,993 641 182,995,915	681 193,100,899 8 6,488,808 689 199,589,707	623 209,529,822 4 3,185,228 627 212,715,050	583 216,588,476 3 195,000 586 216,783,476	9.86

continued

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

[‡]Coding not required or requested.

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

Special Interest Categories	Counts and Relevant Dollars†	2011	2012	2013	2014	2015	Average Percent Change/Yr.
	Number of Grants	638	685	661	664	635	
Personalized Health	Relevant Grant Dollars Number of Contracts	180,445,101 17	184,951,025 20	164,974,350 12	155,335,886 1	153,442,074 3	
Care	Relevant Contract Dollars	32,351,821	37,283,739	8,158,581	224,999	25,437,656	
	Total Count	655	705	673	665	638	0.00
	Total Relevant Dollars	212,796,922	222,234,764	173,132,931	155,560,885	178,879,730	-3.20
	Number of Grants Relevant Grant Dollars	13 471,294	10 460,087	4 59.725	1 ‡	4 610,640	
Dostinidos	Number of Contracts	‡ †	+00,00 <i>i</i>	\$	‡	‡	
Pesticides	Relevant Contract Dollars	‡	‡	‡	‡	‡_	
	Total Count Total Relevant Dollars	13 471,294	10 460,087	4 59,725	1 ‡‡	4 610,640	277.67
	Number of Grants	276	266	248	226	183	211.01
	Relevant Grant Dollars	52,795,552	54,346,257	49,570,728	41,541,959	37,555,190	
Pharmacogenetics	Number of Contracts	1	2	‡	‡	‡	
rnamacogonoaco	Relevant Contract Dollars Total Count	193,637 277	670,000 268	‡ 248	‡ 226	‡ 183	
	Total Relevant Dollars	52,989,189	55,016,257	49,570,728	41,541,959	37,555,190	-7.96
	Number of Grants	1,220	1,235	1,240	1,221	1,067	
	Relevant Grant Dollars	332,988,470	338,729,425	324,824,552	366,837,607	339,430,238	
Prevention	Number of Contracts Relevant Contract Dollars	23	35 25,780,603	27	23 32,958,496	33 51,922,887	
	Total Count	30,211,780 1,243	25,760,603 1,270	30,875,471 1,267	32,936,496 1,244	51,922,007 1,100	
	Total Relevant Dollars	363,200,250	364,510,028	355,700,023	399,796,103	391,353,125	2.05
	Number of Grants	648	718	700	680	664	
	Relevant Grant Dollars	128,504,517	143,749,069	133,187,112	132,200,036	134218056	
Proteomics	Number of Contracts Relevant Contract Dollars	12 2,364,169	8 3,506,652	14 5,364,611	3 465,439	3 53481462	
	Total Count	660	726	714	<i>683</i>	667	
	Total Relevant Dollars	130,868,686	147,255,721	138,551,723	132,665,475	187699518	10.96
Radiation,	Number of Grants	5	2	1	1	3	
Electromagnetic	Relevant Grant Dollars Total Count	274,880 5	208,400 2	195,214 1	207,149 1	1,015,296 3	
Fields	Total Relevant Dollars	274,880	208,400	195,214	207,149	1,015,296	91.43
	Number of Grants	118	109	99	91	87	
	Relevant Grant Dollars	22,587,580	20,437,132	15,415,636	13,527,344	16,375,603	
Radiation, Ionizing	Number of Contracts Relevant Contract Dollars	Į †	1 91,808	95,313	1 209.449	291.030	
	Total Count	118	91,000 110	95,515 100	209,449 92	291,030 88	
	Total Relevant Dollars	22,587,580	20,528,940	15,510,949	13,736,793	16,666,633	-5.92
	Number of Grants	288	297	291	301	292	
Padiation Innizing	Relevant Grant Dollars	83,355,570	78,440,948	69,835,784	67,671,200	71,896,359	
Radiation, Ionizing Diagnosis	Number of Contracts Relevant Contract Dollars	6 3,682,723	4 2,664,706	6 4,565,381	3 4,153,185	1 750,000	
g	Total Count	294	301	297	304	293	
	Total Relevant Dollars	86,038,293	81,105,654	74,401,165	71,824,385	72,646,359	-4.07

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

Source: Research Analysis and Evaluation Branch.

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

Special Interest Categories	Counts and Relevant Dollars†	2011	2012	2013	2014	2015	Average Percent Change/Yr.
	Number of Grants Relevant Grant Dollars	594 215,668,304	<i>595</i> 178,645,894	<i>578</i> 168,829,680	510 105,995,072	459 113,662,465	
Radiation, Ionizing	Number of Contracts	213,000,304 6	170,045,094 6	100,029,000 14	100,990,072	113,002,403 14	
Radiotherapy	Relevant Contract Dollars	852,523	1,860,053	7,299,204	1,499,978	5,521,043	
	Total Count Total Relevant Dollars	600 216,520,827	601 180,505,947	592 176,128,884	511 107,495,050	473 119,183,508	-11.78
	Number of Grants	15	11	8	7	5	
	Relevant Grant Dollars	2,684,415	2,790,815	1,703,359	760,210	489,579	
Radiation, Low-Level	Number of Contracts	‡	‡	‡	‡	‡	
Ionizing	Relevant Contract Dollars Total Count	‡ 15	‡ 11	‡ 8	↓ 7	‡ 5	
	Total Relevant Dollars	2,684,415	2,790,815	1,703,359	760,210	489,579	-31.49
	Number of Grants	311	316	302	322	339	
	Relevant Grant Dollars	72,516,747	66,373,621	71,059,404	83,520,731	91,673,750	
Radiation, Magnetic	Number of Contracts Relevant Contract Dollars	3 810.966	4 1.649.709	3 813.452	I ‡	I ‡	
Resonance Imaging	Total Count	314	1,049,709 320	013,432 305	* 322	339	
	Total Relevant Dollars	73,327,713	68,023,330	71,872,856	83,520,731	91,673,750	6.09
	Number of Grants	186	183	173	153	95	
Dadiation	Relevant Grant Dollars	30,249,026	29,124,083 1	27,564,637 1	23,148,908 1	20,990,452	
Radiation, Mammography	Number of Contracts Relevant Contract Dollars	2 1.845.486	1.400.000	1.300.000	1.100.000	750.000	
Marimography	Total Count	188	184	174	154	96	
	Total Relevant Dollars	32,094,512	30,524,083	28,864,637	24,248,908	21,740,452	-9.16
	Number of Grants	160	149	129	130	129	
Radiation,	Relevant Grant Dollars Number of Contracts	26,910,915 1	25,283,118 1	21,566,717 ‡	24,739,055 †	25836973 1	
Non-Ionizing	Relevant Contract Dollars	999,000	137,350	‡	‡	35000	
· ·	Total Count	161	150	129	130	130	
	Total Relevant Dollars	27,909,915	25,420,468	21,566,717	24,739,055	25871973	-1.20
	Number of Grants Relevant Grant Dollars	467 131.948.820	491 126.670.584	469 114,249,805	474 130,723,063	470 134,607,297	
Radiation,	Number of Contracts	131,940,020 5	120,070,364 6	114,249,605 6	150,725,005 3	134,007,297	
Non-Ionizing Diagnosis	Relevant Contract Dollars	1,260,269	2,735,231	4,045,191	679,250	<u>.</u>	
Diagnosis	Total Count	472	497	475	477	470	. =-
	Total Relevant Dollars	133,209,089	129,405,815	118,294,996	131,402,313	134,607,297	0.52
	Number of Grants Relevant Grant Dollars	190	187	187	193	190	
Radiation,	Number of Contracts	48,439,155 ‡	45,869,628 1	42,314,931 2	51,128,011 <i>5</i>	53,934,953 2	
Non-lonizing	Relevant Contract Dollars	* ‡	1,499,896	1,573,324	1,044,592	1,798,842	
Radiotherapy	Total Count	190	188	189	198	192	
	Total Relevant Dollars	48,439,155	47,369,524	43,888,255	52,172,603	55,733,795	4.03

continued

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

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

[‡]Coding not required or requested.

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

Special Interest Categories	Counts and Relevant Dollars [†]	2011	2012	2013	2014	2015	Average Percent Change/Yr.
Radiation, UV	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	144 24,555,465 1 ‡ 145 25,554,465	133 23,909,838 1 137,350 134 24,047,188	121 20,530,426 ‡ ‡ 121 20,530,426	114 22,589,958 ‡ ‡ 114 22,589,958	98 18,726,175 1 35,000 99 18,761,175	-6.86
Radon	Number of Grants Relevant Grant Dollars Total Count Total Relevant Dollars	326,441 326,441	5 490,407 5 490,407	4 399,608 4 399,608	4 417,728 4 417,728	4 422,972 4 422,972	9.38
Rare Diseases	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	119 23,592,946 ‡ ‡ 119 23,592,946	100 18,712,924 ‡ ‡ 100 18,712,924	73 12,159,075 1 74,592 74 12,233,667	62 10,866,928 1 312,912 63 11,179,840	61 14,081,488 ‡ ‡ 61 14,081,488	-9.49
Rehabilitation	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	230 40,748,671 1 52,655 231 40,801,326	234 45,308,533 1 21,000 235 45,329,533	229 40,076,940 4 475,141 233 40,552,081	210 47,474,572 2 1,007,690 212 48,482,262	168 51,747,174 1 149,925 169 51,897,099	6.78
Rural Populations	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	103 34,658,560 10 8,535,867 113 43,194,427	100 31,874,931 8 7,269,316 108 39,144,247	91 28,293,909 ‡ ‡ 91 28,293,909	118 51,131,320 ; ; 118 51,131,320	103 45,918,623 ‡ ‡ 103 45,918,623	8.35
Sexually Transmitted Diseases	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	29,789,110 1 3,836,717 186 33,625,827	175 28,189,148 1 870,317 176 29,059,465	21,439,368 21,439,368 ‡ ‡ 154 21,439,368	130 17,283,985 ‡ ‡ 130 17,283,985	69 12,192,170 ‡ ‡ 69 12,192,170	-22.16
Sleep Disorders	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	7,810,486 7,810,486	54 6,729,657 1 300,000 55 7,029,657	46 5,420,968 3 550,000 49 5,970,968	48 6,930,386 1 78,195 49 7,008,581	49 7,520,997 1 35,000 50 7,555,997	0.03
Small Molecules	Number of Grants Relevant Grant Dollars Number of Contracts Relevant Contract Dollars Total Count Total Relevant Dollars	416 81,708,151 9 3,726,105 425 85,434,256	513 100,631,305 4 1,449,375 517 102,080,680	556 95,910,356 6 1,140,627 562 97,050,983	609 109,485,605 4 1,389,150 613 110,874,755	648 112,555,106 2 846,672 650 113,401,778	7.77

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

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

Source: Research Analysis and Evaluation Branch.

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

Special Interest Categories	Counts and Relevant Dollars [†]	2011	2012	2013	2014	2015	Average Percent Change/Yr.
	Number of Grants Relevant Grant Dollars	19	24 5 175 672	33 4,087,588	29	25	
Smokeless Tobacco	Number of Contracts	4,743,669 1	5,175,673 1	4,007,500 1	1,359,152 1	1,961,730 1	
Smokeless lobacco	Relevant Contract Dollars	385,000	385,000	332,500	420,000	420,000	
	Total Count Total Relevant Dollars	20 5,128,669	25 5,560,673	34 4,420,088	30 1,779,152	26 2,381,730	-9.49
	Number of Grants	15	14	18	20	20	
	Relevant Grant Dollars Number of Contracts	2,250,884 1	2,491,604	3,160,590	3,771,941	4,153,475 1	
Smoking, Passive	Relevant Contract Dollars	385,000	385,000	332,500	420,000	420,000	
	Total Count	0.005.004	15	19	21	21	14.00
	Total Relevant Dollars	2,635,884	2,876,604	3,493,090	4,191,941	4,573,475	14.92
	Number of Grants Relevant Grant Dollars	1,242 258,099,045	1,199 235,455,633	1,103 206,932,623	1,048 196,164,921	944 180,943,953	
Structural Biology	Number of Contracts	15	3	4	‡	2	
Oli doldi di Biology	Relevant Contract Dollars Total Count	1,522,607 1,257	615,101 1,202	1,595,591 1,107	‡ 1,048	52,481,360 <i>946</i>	
	Total Relevant Dollars	259,621,652	236,070,734	208,528,214	196,164,921	233,425,313	-1.91
	Number of Grants	333	328	326	300	208	
	Relevant Grant Dollars	85,655,815	76,917,479	77,598,007	48,740,495	47,266,013	
Surgery	Number of Contracts Relevant Contract Dollars	2 373,417	3 545,979	5 2,527,184	÷ ‡	2 1,094,494	
	Total Count	335	331	331	300	210	
	Total Relevant Dollars	86,029,232	77,463,458	80,125,191	48,740,495	48,360,507	-11.61
	Number of Grants Relevant Grant Dollars	285 70,198,681	273 60,447,024	270 52,963,267	<i>222</i> 17,879,201	149 14,735,085	
Toyal	Number of Contracts	70,130,001 ‡	00,447,024 1	52,905,207 ‡	† †	14,735,065	
Taxol	Relevant Contract Dollars	‡	199,714	‡	‡	‡	
	Total Count Total Relevant Dollars	285 70,198,681	274 60,646,738	270 52,963,267	222 17,879,201	149 14,735,085	-27.52
	Number of Grants	311	292	288	283	270	
	Relevant Grant Dollars	76,191,259	76,478,419	65,169,688	64,593,337	64,342,929	
Telehealth	Number of Contracts Relevant Contract Dollars	11 11,912,660	7 9,755,606	9,541,363	6 10,473,269	<i>6</i> 6,161,456	
	Total Count	322	299	295	289	276	
	Total Relevant Dollars	88,103,919	86,234,025	74,711,051	75,066,606	70,504,385	-5.27
	Number of Grants	3,626	3,738	3,838	4,057	4,079	
_	Relevant Grant Dollars Number of Contracts	1,295,238,778 <i>94</i>	1,293,761,000 92	1,246,559,964 104	1,366,836,549 <i>67</i>	1,430,619,450 81	
Therapy	Relevant Contract Dollars	93,641,732	88,810,315	71,823,475	80,749,732	137,502,906	
	Total Count Total Relevant Dollars	<i>3,720</i> 1,388,880,510	<i>3,830</i> 1,382,571,315	3,942 1,318,383,439	4,124 1,447,586,281	4,160 1,568,122,356	3.25
	Number of Grants	449	416	417	381	354	U.EU
	Relevant Grant Dollars	127,614,366	122,594,345	98,441,413	80,787,427	79736310	
Tobacco	Number of Contracts	4	4 200 250	0.000.510	1 005 500	1000000	
	Relevant Contract Dollars Total Count	1,419,652 453	1,302,350 420	2,268,519 425	1,335,500 <i>386</i>	1960000 359	
	Total Relevant Dollars	129,034,018	123,896,695	100,709,932	82,122,927	81696310	-10.41

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

^{*}Coding not required or requested.
Source: Research Analysis and Evaluation Branch.

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

Special Interest Categories	Counts and Relevant Dollars†	2011	2012	2013	2014	2015	Average Percent Change/Yr.
	Number of Grants	239	259	276	274	269	
The second of Bulletine	Relevant Grant Dollars Number of Contracts	83,456,895 2	87,985,064 4	73,128,257 6	64,136,938 5	63,391,848 3	
Tobacco Use Behavior	Relevant Contract Dollars	1,320,000	1,302,350	2,066,485	1,335,500	1,285,000	
	Total Count Total Relevant Dollars	241 84,776,895	263 89,287,414	282 75,194,742	279 65,472,438	272 64,676,848	-6.15
	Number of Grants	25	21	16	15	15	
	Relevant Grant Dollars	5,619,635	5,588,012	2,226,158	2,968,168	3,731,760	
Tropical Diseases	Number of Contracts Relevant Contract Dollars	‡ ‡	‡ ‡	‡ ‡	‡ ‡	; ;	
	Total Count	25	21	16	15	15	
	Total Relevant Dollars	5,619,635	5,588,012	2,226,158	2,968,168	3,731,760	-0.42
	Number of Grants Relevant Grant Dollars	<i>626</i> 161,691,676	508 124,259,866	393 88,015,396	298 59,605,975	214 49,088,453	
Tumor Markers	Number of Contracts	4	3	‡	‡	‡	
Tarrior Markers	Relevant Contract Dollars Total Count	2,569,530 <i>630</i>	2,693,245 511	‡ <i>393</i>	‡ 298	‡ 214	
	Total Relevant Dollars	164,531,206	126,953,111	88,015,396	59,605,975	49,088,453	-25.86
	Number of Grants	595	585	556	610	595	
Underserved	Relevant Grant Dollars Number of Contracts	210,385,470 16	216,074,187 16	189,290,919 2	245,809,745 ‡	230,676,876 4	
Populations	Relevant Contract Dollars	10,306,244	11,469,992	2,354,483	‡	5,952,032	
	Total Count Total Relevant Dollars	611 220,691,714	601 227,544,179	<i>558</i> 191,645,402	610 245,809,745	599 236,628,908	2.96
	Number of Grants	159	151	191,045,402	245,609,745	230,020,900	2.30
	Relevant Grant Dollars	21,105,678	20,714,291	17,452,232	15,119,199	17,882,191	
Vaccine Development	Number of Contracts	100,000	‡	700.405	1	1	
·	Relevant Contract Dollars Total Count	199,988 160	151	739,425 131	458,635 113	318,481 110	
	Total Relevant Dollars	21,305,666	20,714,291	18,191,657	15,577,834	18,200,672	-3.12
	Number of Grants	6	3	2	1	1	
	Relevant Grant Dollars Number of Contracts	661,049 1	589,530 ‡	152,239 1	‡ ‡	41,056 ‡	
Vaccine Production	Relevant Contract Dollars	1,499,001	‡	739,425	‡	‡	
	Total Count Total Relevant Dollars	7 2,160,050	3 589,530	3 891,664	1 ‡	1 41,056	-38.95
	Number of Grants	195	183	167	149	129	00.00
	Relevant Grant Dollars	34,117,779	31,279,880	25,866,062	25,518,109	22,248,751	
Vaccine Research	Number of Contracts Relevant Contract Dollars	2 1,502,003	1 1,996,084	<i>3</i> 5,831,735	‡ ‡	6 24,951,052	
	Total Count	1,302,003 197	1,990,004 184	3,031,733 170		24,931,032 135	
	Total Relevant Dollars	34,619,782	33,275,964	31,697,797	25,518,109	47,199,803	14.21
	Number of Grants	111 19 745 044	101	82	70	72	
Vaccine Testine	Relevant Grant Dollars Number of Contracts	18,745,944 1	17,217,816 1	13,797,753 ‡	14,265,015 3	14,360,299 1	
Vaccine Testing	Relevant Contract Dollars	3,836,717	870,317	‡	4,435,947	2,746,712	
	Total Count Total Relevant Dollars	112 22,582,661	102 18,088,133	82 13,797,753	73 18,700,962	73 17,107,011	-4.15
		,_ 5_,00 /	,,	, ,	,,	,,	•

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

[†]Relevant Dollars = portion of the funded amount relevant to a specific site. ‡Coding not required or requested. Source: Research Analysis and Evaluation Branch.

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

Special Interest Categories	Counts and Relevant Dollars [†]	2011	2012	2013	2014	2015	Average Percent Change/Yr.
	Number of Grants	505	481	458	442	419	
	Relevant Grant Dollars	142,438,045	133,815,083	123,611,800	124,977,046	121,319,532	
Virus Cancer	Number of Contracts	1 000 717	4 000 005	2	740.470	2	
Research	Relevant Contract Dollars Total Count	3,836,717 <i>506</i>	4,066,305 485	2,478,454 460	740,476 443	21,920,290 421	
	Total Relevant Dollars	146,274,762	137,881,388	126,090,254	125,717,522	143,239,822	-0.16
	Number of Grants	104	96	81	75	69	
	Relevant Grant Dollars	24,499,924	22,756,337	20,096,683	17,304,516	16,834,173	
Virus—Epstein-Barr	Number of Contracts	‡	‡	‡	‡	‡	
That Epoton Ban	Relevant Contract Dollars	‡	‡	‡	‡ 75	Ţ	
	Total Count Total Relevant Dollars	104 24.499.924	96 22.756.337	81 20.096.683	75 17,304,516	<i>69</i> 16.834.173	-8.85
	Number of Grants	4	3	163	‡	148	0.00
	Relevant Grant Dollars	372,188	290,654	41,684,291	* ‡	41,959,685	
Virus—Genital Herpes	Total Count	4	3	163	‡	148	
	Total Relevant Dollars	372,188	290,654	41,683,291	‡	41,959,685	4739.98
	Number of Grants	50	42	39	39	33	
Virus—Hepatitis B	Relevant Grant Dollars	6,370,613	4,928,799	3,929,183	4,816,519	3,855,582	
	Total Count	50	42	39	4 916 510	33	-10.07
	Total Relevant Dollars	6,370,613	4,928,799	3,929,183	4,816,519	3,855,582	-10.07
	Number of Grants	31	40	39	34	34	
	Relevant Grant Dollars Number of Contracts	4,600,379 +	5,332,014 ‡	3,990,130 ‡	3,507,767	6,172,959 ‡	
Virus—Hepatitis C	Relevant Contract Dollars	* ‡	* ‡	* ‡	† İ	† İ	
	Total Count	31	40	39	34	34	
	Total Relevant Dollars	4,600,379	5,332,014	3,990,130	3,507,767	6,172,959	13.66
	Number of Grants	190	182	163	157	148	
	Relevant Grant Dollars	48,127,519	44,080,597	41,683,291	42,315,552	41,959,685	
Virus—Herpes	Number of Contracts	‡ ‡	I ‡	; ;	Į	‡ *	
·	Relevant Contract Dollars Total Count	÷ 190	182	163	157	148	
	Total Relevant Dollars	48,127,519	44,080,597	41,683,291	42,315,552	41,959,685	-3.29
	Number of Grants	78	74	66	65	63	
	Relevant Grant Dollars	17,725,584	15,764,211	18,719,752	19,671,059	19,794,001	
Virus—HHV8	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars Total Count	‡ <i>78</i>	‡ 74	‡ <i>6</i> 6	‡ <i>65</i>	‡ 62	
	Total Relevant Dollars	7 8 17,725,584	7 4 15,764,211	18,719,752	19,671,059	<i>63</i> 19,794,001	3.35
	Number of Grants	24	22	20	22	18	3.33
	Relevant Grant Dollars	6,171,762	6,563,215	3,679,947	4,627,662	3,629,925	
Virgo LITIVI	Number of Contracts	‡	‡	‡	1,027,002	‡	
Virus—HTLV-I	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	24	22	20	22	18	
	Total Relevant Dollars	6,171,762	6,563,215	3,679,947	4,627,662	3,629,925	-8.35

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

[‡]Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

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

Special Interest Categories	Counts and Relevant Dollars [†]	2011	2012	2013	2014	2015	Average Percent Change/Yr.
	Number of Grants	2	1	1	1	1	
Virus—HTLV-II	Relevant Grant Dollars Total Count	2,000 2	171,471 1	160,325 1	151,718 1	171,471 1	
	Total Relevant Dollars	2,000	171,471	160,325	151,718	171,471	2118.68
	Number of Grants	168	165	162	176	167	
	Relevant Grant Dollars Number of Contracts	43,559,761 1	41,276,749 3	40,445,208 2	43,808,063 1	43,027,935 1	
Virus—Papilloma	Relevant Contract Dollars	3,836,717	3.866.401	2,478,454	740,476	1,327,705	
	Total Count	169	168	164	177	168	
	Total Relevant Dollars	47,396,478	45,143,150	42,923,662	44,548,539	44,355,640	-1.58
	Number of Grants	200	190	185	196	188	
	Relevant Grant Dollars Number of Contracts	52,541,742 1	49,415,531 3	49,217,700 2	50,340,929 1	49,604,921 1	
Virus—Papova	Relevant Contract Dollars	3,836,717	3,866,401	2,478,454	740,476	1,327,705	
	Total Count	201	193	187	197	189	
	Total Relevant Dollars	56,378,459	53,281,932	51,696,154	51,081,405	50,932,626	-2.49
	Number of Grants	25	21	15	7	2	
Virus—SV40	Relevant Grant Dollars	5,163,432	3,525,677	3,313,239	356,763	361,950	
	Total Count Total Relevant Dollars	25 5,163,432	21 3,525,677	15 3,313,239	7 356,763	2 361,950	-31,38
	Number of Grants	55	42	40	31	24	
	Relevant Grant Dollars	9,150,008	6,336,364	6,714,906	4,342,551	2,458,147	
Vitamin A	Number of Contracts	1	‡	‡	‡	‡	
	Relevant Contract Dollars Total Count	99,917 56	‡ 42	‡ 40	‡ 31	‡ 24	
	Total Relevant Dollars	9,249,925	6,336,364	6,714,906	4,342,551	2,458,147	-26.06
	Number of Grants	15	16	11	7	6	
Vitamin C	Relevant Grant Dollars	1,106,973	1,323,825	1,327,243	993,313	1,569,644	
VIICITIIITO	Total Count Total Relevant Dollars	1 100 070	1 200 005	1 207 042	7	6 1 500 044	13.18
		1,106,973	1,323,825	1,327,243	993,313	1,569,644	13.18
	Number of Grants Relevant Grant Dollars	70 20,457,495	76 20,791,513	70 17,759,137	81	<i>68</i> 16,217,405	
	Number of Contracts	20,457,495 İ	20,791,513 1	17,759,137 1	17,167,368 ‡	10,217,405 ‡	
Vitamin D	Relevant Contract Dollars	‡	56,250	918,685	; ‡	‡	
	Total Count	70	77	71	81	68	
	Total Relevant Dollars	20,457,495	20,847,763	18,677,822	17,167,368	16,217,405	-5.53
	Number of Grants	44	25	15	8	7	
	Relevant Grant Dollars Number of Contracts	10,076,781	6,252,528 1	4,252,163 ‡	3,199,595	3,184,755 ‡	
Vitamin, Other	Relevant Contract Dollars	* ‡	56,250	* *	* ‡	* ‡	
	Total Count	44	26	15	8	7	
	Total Relevant Dollars	10,076,781	6,308,778	4,252,163	3,199,595	3,184,755	-23.80

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

 $^{^{\}dagger}\text{Relevant Dollars} = \text{portion}$ of the funded amount relevant to a specific site.

[‡]Coding not required or requested.

Table 17. NCI Funding of Foreign Research Grants and Contracts in FY2015

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

Country/ Cancer Site						Mechanisr	n					
Australia	F32	N01	N02	N03	R01	R03	R21	U01	U10	U24	UM1	Totals
Grants # Funding \$					1 247,767			1 782,004				2 1,029,771
Breast Childhood Leukemia					247,767			391,002				247,767 391,002
Non-Hodgkins Lymphoma								391,002				391,002
Belgium	F32	N01	N02	N03	R01	R03	R21	U01	U10	U24	UM1	Totals
Grants # Funding \$									1 287,531			1 287,531
Bone, Cartilage Brain									7,501 5,001			7,501 5,001
Breast Central Nervous System									82,508 2,500			82,508 2,500
Cervix									5,001			5,001
Childhood Leukemia									35,004			35,004
Colon, Rectum									10,001			10,001
Esophagus									2,500			2,500
Head and Neck									2,500			2,500
Kidney Leukemia									5,001			5,001
Liver									35,004 2,500			35,004 2,500
Lung									20,002			20,002
Neuroblasoma									5,001			5,001
Non-Hodgkins Lymphoma									2,500			2,500
Not Site Specific*									20,002			20,002
Ovary									7,501			7,501
Pancreas									2,500			2,500
Pharynx									2,500			2,500
Prostate									27,503			27,503
Uterus									5,001			5,001

^{*}Not Site Specific = research that lacks a focus on a particular type of cancer/cancer site (e.g., basic research on the role of a protein in cellular DNA damage in fruit flies and has no cancer site focus; however, it is relevant to cancer research.)

Source: Research Analysis and Evaluation Branch.

Table 17 (cont'd). NCI Funding of Foreign Research Grants and Contracts in FY2015

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

Country/ Cancer Site					١	Mechanisn	1					
Canada	F32	N01	N02	N03	R01	R03	R21	U01	U10	U24	UM1	Totals
Grants # Funding \$		2 1,140,421		1 1,135,265	9 2,830,878		1 101,050	1 89,000	1 3,135,983	1 219,276	1 351,397	17 9,003,270
Bladder					4,462				156,799			161,261
Brain									156,799			156,799
Breast					960,122				1,254,393			2,214,515
Cervix									78,400			78,400
Childhood Leukemia					164,905							164,905
Colon, Rectum									125,439			125,439
Esophagus									62,720			62,720
Head and Neck									156,799			156,799
Kidney					700 007				156,799			156,799
Leukemia					780,967				117,599			898,566
Liver					E04 070				31,360			31,360 741,071
Lung Myeloma					584,272				156,799 78,400			78,400
Non-Hodgkins												
Lymphoma									117,599			117,599
Not Site Specific		1,140,421		1,135,265	224,100		101,050			219,276	351,397	3,171,509
Ovary								89,000	156,799			245,799
Pancreas									62,720			62,720
Prostate					112,050				156,799			268,849
Stomach									31,360			31,360
Uterus									78,400			78,400
France	F32	N01	N02	N03	R01	R03	R21	U01	U10	U24	UM1	Totals
Grants # Funding \$						2 113,000	2 233,248	3 1,336,899				7 1,683,147
Anus								241,940				241,940
Bladder								124,207				124,207
Esophagus							85,466					85,466
Head and Neck						56,500	4.47.700					56,500
Kidney						FC F00	147,782	140 100				147,782
Lung Not Site Specific						56,500		149,180 579,632				205,680 579,632
Pharynx								241,940				241,940
Germany	F32	N01	N02	N03	R01	R03	R21	U01	U10	U24	UM1	Totals
Grants #					1							1
Funding \$ Sarcoma, Soft					224,100							224,100
Tissue					224,100							224,100
Hong Kong	F32	N01	N02	N03	R01	R03	R21	U01	U10	U24	UM1	Totals
Grants # Funding \$			2 12,600									2 12,600
Not Site Specific			12,600									12,600
. tot olto oposilio			,000									,000

^{*}Not Site Specific = research that lacks a focus on a particular type of cancer/cancer site (e.g., basic research on the role of a protein in cellular DNA damage in fruit flies and has no cancer site focus; however, it is relevant to cancer research.)

Source: Research Analysis and Evaluation Branch.

Table 17 (cont'd). NCI Funding of Foreign Research Grants and Contracts in FY2015

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

Country/ Cancer Site					ı	/lechanisn	n					
Japan	F32	N01	N02	N03	R01	R03	R21	U01	U10	U24	UM1	Totals
Grants # Funding \$		1 291,030										1 291,030
Not Site Specific		291,030										291,030
Italy	F32	N01	N02	N03	R01	R03	R21	U01	U10	U24	UM1	Totals
Grants # Funding \$			1 24,000									1 24,000
Not Site Specific			24,000									24,000
Israel	F32	N01	N02	N03	R01	R03	R21	U01	U10	U24	UM1	Totals
Grants # Funding \$					3 781,844							3 781,844
Breast Colon, Rectum Lung Not Site Specific Ovary Skin					51,237 51,237 51,237 474,123 102,773 51,237							51,237 51,237 51,237 474,123 102,773 51,237
South Africa	F32	N01	N02	N03	R01	R03	R21	U01	U10	U24	UM1	Totals
Grants # Funding \$					1 88,403		2 271,716					3 360,119
Breast Kaposi Sarcoma Non-Hodgkins Lymphoma					88,403		162,916 108,800					88,403 162,916 108,800
Switzerland	F32	N01	N02	N03	R01	R03	R21	U01	U10	U24	UM1	Totals
Grants # Funding \$	50,690											50,690
Breast	50,690											50,690
United Kingdom	F32	N01	N02	N03	R01	R03	R21	U01	U10	U24	UM1	Totals
Grants # Funding \$ Brain					1,569,982 161,263			1 144,467		1 249,066		1,963,515 161,263
Breast Central Nervous					222,503							222,503
System					161,263							161,263
Eye					403,788							403,788
Melanoma Myeloma					403,788 217,377							403,788 217,377
Not Site Specific Thyroid					217,077			144,467		249,066		144,467 249,066
Total Grants & Contracts	1	3	3	1	19	2	5	6	2	2	1	45
Total \$ Per Grant & Contract type	50,690	1,431,451	36,600	1,135,265	5,742,974	113,000	606,014	2,352,370	3,423,514	468,342	351,397	15,711,617

^{*}Not Site Specific = research that lacks a focus on a particular type of cancer/cancer site (e.g., basic research on the role of a protein in cellular DNA damage in fruit flies and has no cancer site focus; however, it is relevant to cancer research.)

Source: Research Analysis and Evaluation Branch.

Table 18. Foreign Components of U.S. Domestic Research Grants and Contracts in FY2015

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

Country												nding l	_	_	_											Sub-
Country	F30	F31 F	32 K	01 K05	K07	K08	K22 k	(23	K99 I	N01	P01	R00 F	R01	R03	R13	R15	R21	R25 R	35 R4	2 R44	U01	U24	UG1	UH2	UM1	total
Africa													1													1
Argentina				1									1									1				3
Asia (unspecified)													2	1												3
Australia				1			1		1				18	1			1				2	2			1	28
Austria																						1				1
Bahamas																					1					1
Belgium													3				2					1				6
Benin													1													1
Bhutan																	1									1
Brazil													1				1	1			1	1		1		6
Cameroon													1													1
Canada				1							2	;	39	1	3		2	1		2	8	2	1		1	63
Caribbean (unspecified)													1													1
Central America (unspecified)													1													1
Chile													1													1
China		1			2					1			11	2			4				2	2			3	28
Columbia													2				1					1		1		5
Costa Rica																					1					1
Czech																						1				1
Denmark			1										7	1			2				1	1				13
Egypt													1									1				2
El Salvador													1													1
Europe (unspecified)													1	1												2
Finland													2								1	1				4
France													7	3							3	1				14
Germany												1 :	20				1			1	3	2				28
Ghana																	1				1					2
Greece													3													3
Hungary																						2				2
Iceland																					1					1
India			1	1									4									1		1		8
Iran																						1				1
Ireland													2									1				3
Israel		1											5			1		1		1	2	2				13
Italy	1			1									5	2							3	2				14
Japan										1			8	1			1					1				12
Kenya	1												3												1	5
Kuwait																						1				1
Malaysia																						1				1
Mexico				1	1								3				1					1				7
Middle East (unspecified)													1													1
Netherlands											1		11								5	1				18
continued																										

Table 18. (cont'd). Foreign Components of U.S. Domestic Research Grants and Contracts in FY2015

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

0												Fu	ındin	g Mec	hanis	m												Sub-
Country -	F30	F31	F32	K01	K05	K07	K08	K22	K23	K99	N01	P01	R00	R01	R03	R13	R15	R21	R25	R35	R42	R44	U01	U24	UG1	UH2	UM1	total
New Zealand														2										2				4
Nigeria																							1			1		2
North America (unspecified)														1														1
Norway														5	1								1					7
Oceania (unspecified)														1														1
Pakistan																								1				1
Panama																								1				1
Paraguay																		1										1
Peru																										1		1
Philipines																										1		1
Poland														2										1				3
Portugal														2										1				3
Russia																								1				1
Saudi Arabia																								1				1
Senegal																							1					1
Singapore										1				4						1				1			1	8
Slovenia																								1				1
South Africa																		1					1	2		1	1	6
South America (unspecified)														1														1
South Korea														1	1									1				3
Spain														8	1			2	1					2				14
Sweden														7									3	2				12
Switzerland							1							5				1					1	2				10
Taiwan														4										1				5
Tanzania														3														3
Thailand														2														2
Turkey	1	1																						1				3
Uganda		1							1					2														4
United Kingdom		1												29	2			3	1		1		7	2				46
Uraguay																								1				1
Venezuela																								1				1
Vietnam														1														1
Zambia		1												1														2
Zimbabwe																											1	1
Totals	3	6	2	2	4	3	1	1	1	2	2	3	1	248	18	3	1	26	5	1	1	4	50	57	1	7	9	462*

^{*} Because many grants and contracts have multiple foreign contributors, the total count (462) is greater than the total number of grants and contracts (272). Source: Research Analysis and Evaluation Branch.

Appendix A: Activities of the National Cancer Advisory Board

Originally established as the National Advisory Cancer Council in 1937, the NCAB consists of 18 members who are appointed by the President and 12 nonvoting ex officio members. The NCAB advises, assists, consults with, and makes recommendations to the Secretary, HHS, and to the NCI Director with respect to the activities carried out by and through the Institute and on policies pertaining to these activities. It is authorized to recommend support for grants and cooperative agreements following technical and scientific peer review. The Director of the DEA serves as Executive Secretary of the NCAB. In fulfilling its role as the locus for second-level review of all peer reviewed applications, the Board reviewed a total of 7,929 applications in FY2015 requesting \$2,574,711,046 in direct costs with appropriated funds. Additionally, the Board reviewed 14 FDA applications.

The Board heard presentations, discussed, and provided advice on a variety of topics and NCI activities in FY2015, such as:

- NCI Director's Report
- President's Cancer Panel Report
- Legislative Update
- Biennial Inclusion Report
- Annual Delegations of Authority
- NCAB Phase II Cancer Centers Budget Working Group Report

- Precision Medicine Initiative
- Center for Cancer Research and Food and Drug Administration Collaboration
- NCI-China Collaborations
- Update: Electronic Cigarette
- Reducing the Number of Types of K Award Mechanisms
- Modular Grants
- Perspective on Cancer Prevention Research and Implementation

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

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

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

Appendix B: Activities of the Board of Scientific Advisors

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

In addition to approving a number of extramural program initiatives (see below), the BSA also heard presentations on the following in FY2015:

- Report of the NCI Director
- Cancer Genomics
- Update: Electronic Cigarettes
- Reducing the Types of K Award Mechanisms
- Modular Grants
- National Institute of Standards and Technology (NIST) Collaborative Activities/ Interactions with NCI and NIH
- Center for Cancer Research and Food and Drug Administration Collaboration
- Precision Medicine Initiative
- NCAB Phase II Cancer Centers Budget Working Group Report
- Perspective on Cancer Prevention Research and Implementation

RFA Concept Approved

Center for Cancer Training

 The NCI Predoc to Postdoc Transition Award (K21/K00)

Division of Cancer Control and Population Sciences

 Smoking Cessation Within the Context of Lung Cancer Screening

Division of Cancer Biology

Research Specialist Award

Division of Cancer Biology and Office of the Director

 Provocative Question in Cancer with an Underlying HIV Infection

Office of the Director

 Non-Communicable Disease Regional Infrastructure Core Planning Grant

RFA/Cooperative Agreements Approved

Division of Cancer Biology

- Impact of Aging on Animal Models of Disease
- Cancer Systems Biology Consortium (CSBC) Initiative

Division of Cancer Treatment and Diagnosis

 Phase II of the Experimental Therapeutics Clinical Trials Network (ETCTN)

RFA Re-Issuances

Office of the Director

- Innovative Molecular Analysis Technologies (IMAT)
- Small Business Innovative Research (SBIR)

RFA/Cooperative Agreements Re-Issuances

Office of the Director

- Genome Data Analysis Network (GDAN)
- Clinical Proteomic Tumor Analysis Consortium (CPTAC)

Division of Cancer Treatment and Diagnosis

Childhood Cancer Survivor Study

Appendix C: List of Chartered Committees

President's Cancer Panel

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Barbara K. Rimer, Dr.P.H., M.P.H. The University of North Carolina at Chapel Hill

Members

Executive Secretary

National Cancer Advisory Board

Chair

Members

Waun K. Hong, M.D. The University of Texas MD Anderson Cancer Center Charles L. Sawyers, M.D. Weill Cornell Medical College of Cornell University

Ex Officio Members of the National Cancer Advisory Board

Francis S. Collins, M.D., Ph.D.	National Institutes of Health
Margaret A. Hamburg, M.D	U.S. Food and Drug Administration
John P. Holdren, Ph.D	Office of Science and Technology Policy
John Howard, M.D., M.P.H., J.D., L.L.M	National Institute for Occupational Safety and Health
Gina McCarthy, M.S.	U.S. Environmental Protection Agency
The Honorable Thomas E. Perez	U.S. Department of Labor
Robert A. Petzel, M.D	U.S. Department of Veterans Affairs
The Honorable Kathleen Sebelius, M.P.A.	U.S. Department of Health and Human Services
Inez Tenenbaum, M.Ed	U.S. Consumer Product Safety Commission
Sharlene Weatherwax, Ph.D	
Jonathan Woodson, M.D	
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Alternates to *Ex Officio* Members of the National Cancer Advisory Board

Robert T. Anderson, Ph.D	
Michael A. Babich, Ph.D	U.S. Consumer Product Safety Commission
Patricia Bray, M.D., M.P.H	OSHA/U.S. Department of Labor
Vincent J. Cogliano, Ph.D	U.S. Environmental Protection Agency
Michael Kelley, M.D., F.A.C.P	U.S. Department of Veterans Affairs
Aubrey Miller, M.D.	National Institute of Environmental Health Sciences, NIH
Richard Pazdur, M.D., F.A.C.P	U.S. Food and Drug Administration
Craig D. Shriver, M.D., F.A.C.S., COL	, M.C U.S. Department of Defense
Kerry Souza, Sc.D., M.P.H	National Institute for Occupational Safety and Health
Michael Stebbins, Ph.D	
Lawrence A. Tabak, D.D.S., Ph.D	National Institutes of Health
Richard J. Thomas, M.D., M.P.H	OSHA/U.S. Department of Labor

Executive Secretary

Frederick National Laboratory Advisory Committee to the NCI

(formerly the NCI-Frederick Advisory Committee)

Chair

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J. Carl Barrett, Ph.D	AstraZeneca Pharmaceuticals LP
Gail A. Bishop, Ph.D.	The University of Iowa College of Medicine
David Botstein, Ph.D.	Princeton University
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Levi A. Garraway, M.D., Ph.D	Harvard Medical School
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Representatives	
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Ex Officio Members of the Frederick National	ř
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Executive Secretary	
Thomas M. Vollberg, Sr., Ph.D	
NCI Board of Scientific Advisors Chair Todd R. Golub, M.D.	The Broad Institute of MIT and Harvard University
Members	
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Appendix C: List of Chartered Committees

Betty R. Ferrell, Ph.D., R.N., F.A.A.N	City of Hope National Medical Center
Kathleen M. Foley, M.D	Memorial Sloan Kettering Cancer Center
Stanton L. Gerson, M.D	
Chanita Hughes-Halbert, Ph.D	Medical University of South Carolina
Theodore S. Lawrence, M.D., Ph.D	University of Michigan
Mr. Donald Listwin	
	University of California, San Diego
Luis F. Parada, Ph.D.	The University of Texas Southwestern Medical Center
Diane Z. Quale, J.D	Bladder Cancer Advisory Network
Martine F. Roussel (Sherr), Ph.D	St. Jude Children's Research Hospital
Kevin M. Shannon, M.D.	University of California, San Francisco
Mary L. Smith, J.D., M.B.A	Research Advocacy Network
Lincoln Stein, M.D., Ph.D.	Ontario Institute for Cancer Research
Bruce W. Stillman, Ph.D.	
Frank M. Torti, M.D., M.P.H	
Gregory L. Verdine, Ph.D.	Harvard University
Cheryl L. Walker, Ph.D., A.T.S., F.A.A.A.S	STexas A&M Health Science Center
Irving L. Weissman, M.D.	Stanford University
Eileen P. White, Ph.D.	Rutgers Cancer Institute of New Jersey
Kevin P. White, Ph.D.	

Executive Secretary

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Chair

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Susan G. Arbuck, M.D., M.Sc., F.A.C.P. David F. Arons, J.D. Susan M. Blaney, M.D. Monica M. Bertagnolli, M.D. Curt I. Civin, M.D. Kevin J. Cullen, M.D. Walter J. Curran, M.D., Ph.D. Nancy E. Davidson, M.D. J. Philip Kuebler, M.D., Ph.D. Michael L. LeBlanc, Ph.D. Scott M. Lippman, M.D. David A. Mankoff, M.D., Ph.D. Mary S. McCabe, R.N., M.A. Edith P. Mitchell, M.D., F.A.C.P. Nikhil C. Munshi, M.D. Lisa A. Newman, M.D. George W. Sledge, Jr., M.D. Chris H. Takimoto, M.D., Ph.D., F.A.C.P. Gillian M. Thomas, M.D., F.R.C.P.C., F.R.C.R. Frank M. Torti, M.D., M.P.H. Miguel A. Villalona-Calero, M.D. George J. Weiner, M.D.	
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Nancy Goodman, J.D	Kids V Cancer
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,	Louisiana State University
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	Johns Hopkins University
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· · · · · · · · · · · · · · · · · · ·	Albert Einstein College of Medicine of Yeshiva University
,	Tulane University Medical School
•	The University of Southern California
· · · · · · · · · · · · · · · · · · ·	The University of Chicago Medical Center
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,	University of California, Irvine
· · · · · · · · · · · · · · · · · · ·	
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Tzvv-Choou Wu, M.D., Ph.D., M.P.H.,	Johns Hopkins University
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Wayne M. Yokoyama, M.D.	
Wayne M. Yokoyama, M.D Virginia A. Zakian, Ph.D	
Wayne M. Yokoyama, M.D Virginia A. Zakian, Ph.D	

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(formerly NCI Director's Consumer Liaison Group)

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Ms. Mila McCurrach	The Lustgarten Foundation
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	National Coalition for Cancer Survivorship
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	Fox Chase Cancer Center
Robert S. DiPaola, M.D	
S. Gail Eckhardt, M.D.	University of Colorado, Denver
Dennis E. Hallahan, M.D., F.A.S.T.R.O	
Helen E. Heslop, M.D.	Baylor College
Roy A. Jensen, M.D.	
Karen E. Knudsen, Ph.D.	Thomas Jefferson University
King C. Li, M.D., M.B.A Wake Forest Univ	
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Alfred W. Rademaker, Ph.D.	•
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Eric J. Small, M.D.	University of California, San Francisco
Eduardo M. Sotomayor, M.D	I. Lee Moffit Cancer Center & Research Institute
Ian M. Thompson, Jr., M.D The University	
	BPW Consulting Services
Patti Wiley, M.B.A On t	the Wings of Angels Pediatric Cancer Foundation

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Subcommittee F—Institutional Training & Education

Chair

Members

Lisa K. Denzin, Ph.D.	
Marlene L. Hauck, D.V.M., Ph.D	North Carolina State University
Jennifer J. Hu, Ph.D.	University of Miami Miller School of Medicine
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Jesse D. Martinez, Ph.D.	The University of Arizona
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Polly A. Newcomb, Ph.D	
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Mark P. Pfeifer, M.D.	
Gavin P. Robertson, Ph.D.	The Pennsylvania State University
Kathryn H. Schmitz, Ph.D., M.P.H	University of Pennsylvania
Danny R. Welch, Ph.D.	
Gayle E. Woloschak, Ph.D.	Northwestern University

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Subcommittee I—Transition to Independence

Chair

Members

Emmanuel T. Akporiaye, Ph.D	Providence Portland Medical Center
Deepak Bastia, Ph.D.	
Lawrence H. Boise, Ph.D.	Emory University
Amy H. Bouton, Ph.D.	University of Virginia
Jennifer P. Clarke, Ph.D	University of Nebraska–Lincoln
Andrei Goga, M.D., Ph.D.	University of California, San Francisco
Charles Keller, M.D.	Oregon Health & Science University
Kenneth A. Krohn, Ph.D.	
Sophie A. Lelievre, D.V.M., Ph.D., LL.M(PH)	
Anna E. Lokshin, Ph.D	University of Pittsburgh
	Wayne State University
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Keith D. Paulsen, Ph.D	
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David B. Solit, M.D.	Memorial Sloan Kettering Cancer Center
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E. Aubrey Thompson, Ph.D	Mayo Clinic, Jacksonville
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Michael A. White, Ph.D.	The University of Texas
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Yu-Chung Yang, Ph.D.	

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Subcommittee J—Career Development

Chair

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Heather S.L. Jim, Ph.D.	H. Lee Moffitt Cancer Center & Research Institute
Santosh Kesari, M.D., Ph.D.	University of California, San Diego
Alexander S. Krupnick, M.D	Washington University in Saint Louis
Gertraud Maskarinec, M.D., Ph.D., M.P.H	University of Hawaii
Chaya S. Moskowitz, Ph.D	Memorial Sloan Kettering Cancer Center
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Scott A. Waldman, M.D., Ph.D	Thomas Jefferson University
Zuo-Feng Zhang, M.D., Ph.D.	University of California, Los Angeles

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Appendix D: NCI Initial Review Group Consultants

1. Consultants Serving as Temporary Members on IRG Subcommittees in FY2015

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	Andersen, Bogi, M.D. University of California, Irvine Arceci, Robert J., M.D., Ph.D. The University of Arizona Axelrod, David E., Ph.D. Rutgers, The State University of New Jersey
B	
	Bae-Jump, Victoria L., M.D., Ph.D. Basu, Sujit, M.D., Ph.D. Baumgartner, Kathy B., Ph.D. Behbod, Fariba, Pharm.D., Ph.D. Berwick, Marianne, Ph.D., M.P.H. Bjornsti, Mary-Ann, Ph.D. Brock, Malcolm V., M.D. Buchsbaum, Donald J., Ph.D. The University of Alabama at Birmingham Byers, Stephen W., Ph.D. The University of Alabama at Birmingham Byers, Stephen W., Ph.D. Georgetown University
C	
	Cannon, Martin J., Ph.D
D	
	Datta, Kaustubh, Ph.D
F	
	Figlin, Robert A., M.DCedars-Sinai Medical Center
G	
	Garza, Mary A., M.D

Aŗ	opendix D-1: Consultants Serving as Ter	mporary Members on IRG Subcommittees in FY2015
		Rutgers Cancer Institute of New JerseyGeorgetown University
Н		
	Hawkins, William G., M.D. Hezel, Aram F., M.D. Hohl, Raymond J., M.D., Ph.D. Hong, Chi-Chen, Ph.D.	
J		
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K		
	Kalyanaraman, Balaraman, Ph.D. Kazak, Anne E., Ph.D. Kesler, Shelli R., Ph.D. Kessel, David, Ph.D. Khan, Shafiq A., Ph.D. Kline, Justin P., M.D.	
L		
	0 /	Vanderbilt UniversityGeorgetown University
M		
	Majumdar, Adhip P. N., D.Sc., Ph.D Malafa, Mokenge P., M.D Malkas, Linda H., Ph.D Manjili, Masoud H., D.V.M., Ph.D Martinez, Jesse D., Ph.D	

Mermelstein, Robin J., Ph.D.

Michor, Franziska, Ph.D.

Dana-Farber Cancer Institute
Morel, Penelope A., M.D.

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Mortimer, Joanne E., M.D.

City of Hope National Medical Center
Mukhtar, Hasan, Ph.D.

University of Wisconsin, Madison

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	Neugut, Alfred I., M.D., Ph.D., M.P.H
0	
U	O'Connor, Kathleen L., Ph.D
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	Pagel, John M., M.D., Ph.D. Fred Hutchinson Cancer Research Center Patankar, Manish S., Ph.D. Eastern Virginia Medical School Paterson, Yvonne J., Ph.D. University of Pennsylvania
Q	
	Quarles, Christopher C., Ph.D
R	
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Williams, Karen P., Ph.D	

Y

Z

Total Number of Reviewers: 97

2. Consultants Serving as *Ad Hoc* Committee Members on IRG Site Visit Teams in FY2015

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	Bastani, Roshan, Ph.D
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	• '	Dartmouth College
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		The University of Arizona
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		Oklahoma Medical Research Foundation
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	Mao, Li, M.D
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	McCarthy, James B., Ph.D
	McWeeney, Shannon K., Ph.D
	Meneses, Karen M., Ph.D., R.N
	Mermelstein, Robin J., Ph.D
	Mikkelsen, Tom, M.D
	Moley, Jeffrey F., M.D
	Mori, Motomi, Ph.D
	Munster, Pamela N., M.D
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	O'Connor, Kathleen L., Ph.D
	O'Malley, Michael S., Ph.D
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	Resnicow, Ken A., Ph.D
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3. Consultants Serving on Special Emphasis Panels (SEPs) in FY2015

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	Virginia Polytechnic Institute and State University
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	Optimum Therapeutics, LLC
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	Albert Einstein College of Medicine of Yeshiva University
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	e Forest University Health Sciences & Baptist Medical Center
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Azcarate-rein, W. Andrea, rn.D	
	Georgia Institute of Technology
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	Dana-Farber Cancer Institute
	Florida International University
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	University of Nebraska Medical Center
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Bosenberg, Marcus W., M.D., Ph.D.	
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Braun, Benjamin, M.D., Ph.D	University of California, San Francisco
Braunlin, Elizabeth, M.D., Ph.D	University of Minnesota
	Oregon Health & Science University
·	Bend Research, Inc.
, ,	Albert Einstein College of Medicine of Yeshiva University
	Texas Tech University Health Sciences Center
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	D Memorial Sloan Kettering Cancer Center
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	Acoustic MedSystems, Inc.
	Albert Einstein College of Medicine of Yeshiva University
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	University of Rochester
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	The University of Texas MD Anderson Cancer Center
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Cantor, Sharon B., Ph.D.	
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Chen, Lin-Feng, Ph.D	
Chen, Ming-Hui, Ph.D	
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	New York University School of Medicine
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	Boston University Medical Campus
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, ,	University of Delaware
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Total Number of Reviewers: 2,098

Appendix E: NCI Grant Mechanisms and Descriptions

Below is a brief description of different 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 De-scriptions 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: Institutional Training and Director Program 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.

DP1 NIH Director's Pioneer Award (NDPA)

To support individuals who have the potential to make extraordinary contributions to medical research. The NIH Director's Pioneer Award is not renewable.

DP2 NIH Director's New Innovator Awards

To support highly innovative research projects by new investigators in all areas of biomedical and behavioral research.

F Series: Fellowship Programs

F30 Ruth L. Kirschstein National Research Service Award (NRSA) for Individual Predoctoral M.D./ Ph.D. Degree Fellows

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 Ruth L. Kirschstein National Research Service Award for Predoctoral Individuals

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

F32 Ruth L. Kirschstein 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 Ruth L. Kirschstein National Research Service Award for Senior Fellows

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

K Series: Career Development Programs K01 The Howard Temin Award (no longer supported through use of the K01 by the NCI; see the K99/R00) A previously used NCI-specific variant of the NIH Mentored Research Scientist Development Award that was designed to provide research scientists with an additional period of sponsored research experience as a way to gain expertise in a research area new to the applicant or in an area that would demonstrably enhance the applicant's scientific career. K01 **Mentored Career Development Award for Underrepresented Minorities** To support scientists committed to research who are in need of both advanced research training and additional experience. Established Investigator Award in Cancer Prevention, Control, Behavioral, and Population K05 Research To support scientists qualified to pursue independent research that would extend the research program of the sponsoring institution, or to direct an essential part of this program. K07 Cancer Prevention, Control, Behavioral, and Population Sciences Career Development Award To support the postdoctoral career development of investigators who are committed to academic research careers in cancer prevention, control, behavioral, epidemiological, and/or the population sciences. It supports up to 5 years of combined didactic and supervised (i.e., mentored) research experiences to acquire the methodological and theoretical research skills needed to become an independent scientist. The very broad nature of the prevention, control, and population sciences makes it applicable to those individuals doctorally trained in the basic sciences, medicine, behavioral sciences, and/or public health. The K07 award has been expanded from a scope limited to "preventive oncology" to include the entire spectrum of fields that are of vital importance to cancer prevention and control such as nutrition, epidemiology, and behavioral sciences. K08 **Mentored Clinical Scientists Development Award** To provide the opportunity for promising medical scientists with demonstrated aptitude to develop into independent investigators, or for faculty members to pursue research in categorical areas applicable to the awarding unit, and to aid in filling the academic faculty gap in specific shortage areas within U.S. health professions institutions. K08 Mentored Clinical Scientists Development Award—Minorities in Clinical Oncology A specialized type of Mentored Clinical Scientist Developmental Award (K08) that supports the development of outstanding clinical research scientists, with this type being reserved for qualified individuals from underrepresented minority groups. Both types of K08 awards support periods of specialized study for clinically trained professionals who are committed to careers in research and who have the potential to develop into independent investigators. The K08 awards for Minorities in Clinical Oncology are distinct and important because they provide opportunities for promising medical scientists with demonstrated aptitudes who belong to underrepresented minority groups to develop into independent investigators, or for faculty members who belong to underrepresented minority groups to pursue research aspects

gaps in these shortage areas within U.S. health professions institutions.

of categorical areas applicable to the awarding unit(s), and aid in filling the academic faculty

K12 Institutional Clinical Oncology Research Career Development Award

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

K18 The Career Enhancement Award

Provides either full-time or part-time support for experienced scientists who would like to broaden their scientific capabilities or to make changes in their research careers by acquiring new research skills or knowledge. Career enhancement experiences supported by this award should usually last no more than 1 year.

K22 The NCI Transition Career Development Award for Underrepresented Minorities

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

K22 The NCI Scholars Program

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

K23 Mentored Patient-Oriented Research Career Development Award

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

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

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

K24 Mid-Career Investigator Award in Patient-Oriented Research

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

K25 Mentored Quantitative Research Career Development Award

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

K99/ NIH Pathway to Independence (PI) Award

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

L Series: Loan Repayment Program

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L30 Loan Repayment Program for Clinical Researchers

To provide for the repayment of the educational loan debt of qualified health professionals involved in clinical research. Qualified health professionals who contractually agree to conduct qualified clinical research are eligible to apply for this program.

L32 Loan Repayment Program for Clinical Researchers From Disadvantaged Backgrounds

To provide for the repayment of the educational loan debt of qualified health professionals from disadvantaged backgrounds involved in clinical research. Qualified health professionals from disadvantaged backgrounds who contractually agree to conduct qualified clinical research are eligible to apply for this program.

L40 Loan Repayment Program for Pediatric Research

To provide for the repayment of the educational loan debt of qualified health professionals involved in research directly related to diseases, disorders, and other conditions in children. Qualified health professionals who contractually agree to conduct qualified pediatric research are eligible to apply for this program. (See the NIH Guidelines about Loan Repayment at http://www.lrp.nih.gov/index.aspx.)

L50 Loan Repayment Program for Contraception and Infertility Research

To provide for the repayment of the educational loan debt of qualified health professionals (including graduate students) who contractually agree to commit to conduct qualified contraception and/or infertility research.

L60 Loan Repayment Program for Health Disparities Research

To provide for the repayment of the educational loan debt of qualified health professionals involved in minority health and health disparities research, for the purposes of improving minority health and reducing health disparities. Qualified health professionals who contractually agree to conduct qualified minority health disparities research or other health disparities research are eligible to apply for this program.

P Series: Research Program Projects and Centers

P01 Research Program Projects

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

P20 Exploratory Grants

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

P30 Center Core Grants

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

P41 Biotechnology Resource Grants

To support biotechnology resources available to all qualified investigators without regard to the scientific disciplines or disease orientations of their research activities or specifically directed to a categorical program area.

P50 | Specialized Center Grants

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

R Series: Research Projects

R01 Research Project

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

R03 Small Research Grants

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

R13 Conferences

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

R15 The NIH Academic Research Enhancement Awards (AREA)

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

R21 Exploratory/Developmental Grants

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

R24 Resource-Related Research Projects

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

R25E | Cancer Education Grant Program (CEGP)

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

R25T | Cancer Education and Career Development Program

To support the development and implementation of curriculum-dependent, team-oriented programs to train predoctoral and postdoctoral candidates in cancer research team settings that are highly interdisciplinary and collaborative. This specialized program is 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.

R33 | Exploratory/Developmental Grants, Phase II

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

R35 Outstanding Investigator Award (OIA)

To provide long-term support to experienced investigators with outstanding records of cancer research productivity who propose to conduct exceptional research. The OIA is intended to allow investigators the opportunity to take greater risks, be more adventurous in their lines of inquiry, or take the time to develop new techniques. The OIA would allow an Institution to submit an application nominating an established Program Director/Principal Investigator (PD/PI) for a 7-year grant.

R37 Method to Extend Research in Time (MERIT) Award

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

R55 James A. Shannon Director's Award

To provide a limited award to investigators to further develop, test, and refine research techniques; perform secondary analysis of available data sets; test the feasibility of innovative and creative approaches; and conduct other discrete projects that can demonstrate their research capabilities and lend additional weight to their already meritorious applications. Essentially replaced in FY2005 by the R56 award.

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.

Small Business Innovation Research (SBIR) (R43/44) and Small Business Technology Transfer (STTR) (R41/42) 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. Applicants may propose longer periods of time and greater amounts of funds necessary for completion of the project.

R41	STTR Grants, Phase I To support cooperative research and development (R&D) projects between small business concerns and research institutions, limited in time and amount, to establish the technical merit and feasibility of ideas that have potential for commercialization.				
R42	STTR Grants, Phase II To support in-depth development of cooperative R&D projects between small business concerns and research institutions, limited in time and amount, whose feasibility has been established in Phase I and that have potential for commercial products or services.				
R43	SBIR Grants, Phase I To support projects, limited in time and amount, to establish the technical merit and feasibility of R&D ideas that may ultimately lead to commercial products or services.				
R44	SBIR Grants, Phase II To support in-depth development of R&D ideas whose feasibility has been established in Phase I and that are likely to result in commercial products or services.				
S Seri	S Series: Research-Related Programs				
SC1	Research Enhancement Award Individual investigator-initiated research projects aimed at developing researchers at minority-serving institutions (MSIs) to a stage where they can transition successfully to other extramural support (R01 or equivalent).				
SC2	Pilot Research Project Individual investigator-initiated pilot research projects for faculty at minority-serving institutions (MSIs) to generate preliminary data for a more ambitious research project.				
S06	Minority Biomedical Research Support (MBRS) To strengthen the biomedical research and research training capability of ethnic minority institutions and thus establish a more favorable milieu for increasing the involvement of minority faculty and students in biomedical research.				

S07 Biomedical Research Support Grants (NCRR BRSG)

As an example of this funding mechanism, the NIH issued a Request for Applications (RFA) in FY2004 to provide short-term interim support for institutional activities that will strengthen oversight of human subjects research at institutions that receive significant NIH support for clinical research. Although there is considerable flexibility in the types of activities that could be supported under the BRSG program, that RFA emphasized the importance of efforts to enhance the protection of research subjects by means that would be sustained by the recipient institution after the award period ends. Awardees also are required to collaborate with other institutions conducting human subjects research and are not currently funded under this program, and to share educational resources, computer technologies, best practices, etc. Although all NIH components supporting clinical research (including the NCI) are providing support for this program, it is administered by the National Center for Research Resources (NCRR).

S10 Biomedical Research Support Shared Instrumentation Grants (NCRR SIG)

The National Center for Research Resources (NCRR) initiated its competitive Shared Instrumentation Grant (SIG) Program in FY1982. 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.

S21 Research and Institutional Resources Health Disparities Endowment Grants—Capacity Building

To strengthen the research and training infrastructure of the institution, while addressing current and emerging needs in minority health and other health disparities research.

T Series: Training Programs

T15 Continuing Education Training Grants

To assist professional schools and other public and nonprofit institutions in the establishment, expansion, or improvement of programs of continuing professional education, especially for programs of extensive continuation, extension, or refresher education dealing with new developments in the science and technology of the profession.

T32 NIH National Research Service Award—Institutional Research Training Grants

To enable institutions to make National Research Service Awards to individuals selected by them for predoctoral and postdoctoral research training in specified shortage areas.

T34 Undergraduate NRSA Institutional Research Training Grants

To enhance the undergraduate research training of individuals from groups underrepresented in biomedical, behavioral, clinical, and social sciences through Institutional National Research Service Award Training Grants in preparation for research doctorate degree programs.

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.				
U42	Animal (Mammalian and Nonmammalian) Model, and Animal and Biological Materials Resource Cooperative Agreements To develop and support animal (mammalian and nonmammalian) models or animal or biological materials resources available to all qualified investigators without regard to the scientific disciplines or disease orientations of their research activities or specifically directed to a categorical program. Nonmammalian resources include nonmammalian vertebrates, invertebrates, cell systems, and nonbiological systems.				
U43	Small Business Innovation Research (SBIR) Cooperative Agreements—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.				
U44	Small Business Innovation Research (SBIR) Cooperative Agreements—Phase II To support in-depth development of R&D ideas whose feasibility has been established in Phase I and that are likely to result in commercial products or services.				

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.

UH2/ Exploratory/Developmental Cooperative Agreement Phase I/II UH3 To support the development of new research activities in cate

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

The UH3 provides a second phase for the support for innovative exploratory and development research activities initiated under the UH2 mechanism. Although only UH2 awardees are generally eligible to apply for UH3 support, specific program initiatives may establish eligibility criteria under which applications could be accepted from applicants demonstrating progress equivalent to that expected under the UH2.

UM1 Research Project With Complex Structure Cooperative Agreement

To support cooperative agreements involving large-scale research activities with complicated structures that cannot be appropriately categorized into an available single component activity code (e.g., clinical networks, research programs, or consortia). The components represent a variety of supporting functions and are not independent of each component. Substantial Federal programmatic staff involvement is intended to assist investigators during performance of the research activities, as defined in the terms and conditions of the award. The performance period may extend up to 7 years but only through the established deviation request process. ICs desiring to use this activity code for programs greater than 5 years must receive OPERA prior approval through the deviation request process.

Appendix F: Glossary of Acronyms

			D
ABTC	Adult Brain Tumor Consortium	DCCPS	Division of Cancer Control and Popu-
AHRQ	Agency for Healthcare Research and	D050	lation Sciences
AIDO	Quality	DCEG	Division of Cancer Epidemiology and
AIDS	Acquired Immune Deficiency	DOI 0	Genetics
ALOD	Syndrome	DCLG	Director's Consumer Liaison Group
AISB	Applied Information Systems Branch	DOD	(now NCRA)
AMC	AIDS Malignancy Clinical Trials	DCP	Division of Cancer Prevention
A D A	Consortium	DCTD	Division of Cancer Treatment and
ARA	Awaiting Receipt of Application	DEA	Diagnosis
AREA	Academic Research Enhancement	DEA	Division of Extramural Activities
DDOO	Award	DEAS	Division of Extramural Activities
BRSG	Biomedical Research Support Grant	DEALC	Support
BSA	Board of Scientific Advisors	DEAIS	DEA Information System
BSC	Board of Scientific Counselors	DFO	Designated Federal Officer
CAM	Complementary and Alternative	DHHS	U.S. Department of Health and
OATO	Medicine	DDIO	Human Services (now HHS)
CATS	Concept to Award Tracking System	DPIC	Detection of Pathogen-Induced
CBIIT	NCI Center for Biomedical Informat-	DDD	Cancer
0007	ics and Information Technology	DRR	Division of Receipt and Referral
CCCT	Coordinating Center for Clinical Trials	EDRN	Early Detection Research Network
CCG	Center for Cancer Genomics	EEC	Electronic Early Concurrence
CCR	Center for Cancer Research	EPMC	Extramural Program Management
CCSG	Cancer Center Support Grant		Committee
CCT	Center for Cancer Training	eRA	Electronic Research Administration
CD	Career Development	ESA	Extramural Support Assistant
CDC	Centers for Disease Control and	ESATTS	Extramural Officer Science Adminis-
	Prevention		trator Training – Tracking System
CEGP	Cancer Education Grant Program	ETCTN	Experimental Therapeutics Clinical
CGCHR	Center for Global Cancer Health		Trials Network
	Research	eTUG	NIH eRA Technical Users Group
CGH	Center for Global Health	FACA	Federal Advisory Committee Act
CHTN	Collaborative Human Tissue Network	FDA	Food and Drug Administration
CISNET	Cancer Intervention and Surveillance	FFRDC	Federally Funded Research and Devel-
	Modeling Network		opment Center
CIT	Center for Information Technology	FIC	Fogarty International Center
CMO	Committee Management Office	FLARE	Fiscal Linked Analysis of Research
COI	Conflict of Interest		Emphasis
CPACHE	Comprehensive Partnerships to	FNLAC	Frederick National Laboratory Advi-
	Advance Cancer Health Equity		sory Committee
CRCHD	Center to Reduce Cancer Health	FNLCR	Frederick National Laboratory for
	Disparities		Cancer Research
CRP	Collaborative Research Partnership	FOA	Funding Opportunity Announcements
CSO	Common Scientific Outline	FOIA	Freedom of Information Act
CSPPC	Consortium of the Study of Chronic	FY	Fiscal Year
	Pancreatitis, Diabetes, and Pancreatic	HHS	Department of Health and Human
	Cancer		Services (replaces DHHS)
CSR	Center for Scientific Review	IC	Institute/Center
CSSI	Center for Strategic Scientific	ICRP	International Cancer Research
	Initiatives		Partnership
CTAC	Clinical Trials and Translational	IDeA	Institutional Development Award
	Research Advisory Committee	IMAT	Innovative Molecular Analysis
DCB	Division of Cancer Biology		Technologies

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IMPAC	Information for Management, Plan-	OSP	Office of Scientific Programs
	ning, Analysis, and Coordination	PA	Program Announcement
IRG	Initial Review Group	PAR	Reviewed Program Announcement
IRM	Information Resources Management	PCP	President's Cancer Panel
IT	Information Technology	PCRB	Program Coordination and Referral
LOI	Letter of Intent	TOTID	Branch
LRP		PD	
	Loan Repayment Program		Pharmacodynamics
MBRS	Minority Biomedical Research	PHS	Public Health Service (HHS)
	Support	PI	Principal Investigator
MERIT	Method to Extend Research in Time	PO	Program Official
MSI	Minority-Serving Institution	POA&M	Plan of Actions and Milestones
NCAB	National Cancer Advisory Board	PQ	Provocative Questions
NCCCP	NCI Community Cancer Centers	PRESTO	Program Review and Extramural Staff
	Program		Training Office
NCI	National Cancer Institute	RAEB	Research Analysis and Evaluation
NCORP	NCI Community Oncology Research	TITLE	Branch
NCON		R&D	
NODA	Program		Research and Development
NCRA	NCI Council of Research Advocates	RFA	Request for Applications
	(replaces DCLG)	RFP	Request for Proposals
NCRR	National Center for Research	RIO	Research Integrity Officer
	Resources	RM	Road Map
NCTN	National Clinical Trials Network	RO	Referral Officer
NDPA	NIH Director Pioneer Award	RPG	Research Project Grant
NED	NIH Electronic Directory	RPRB	Research Programs Review Branch
NExT	NCI Experimental Therapeutics	RTCRB	Research Technology and Contract
NFRP	NCI Funded Research Portfolio	THOTE	Review Branch
NGRAD		RTRB	
	NCI Grant-Related Directory		Resources and Training Review Branch
NHLBI	National Heart, Lung, and Blood	SA	Staff Assistant
	Institute	SA&A	Security Assessment and
NIAAA	National Institute on Alcohol Abuse		Authorization
	and Alcoholism	SBIR	Small Business Innovation Research
NIAID	National Institute of Allergy and Infec-	SBIRDC	SBIR Development Center
	tious Diseases	SEER	Surveillance, Epidemiology, and End
NIEHS	National Institute of Environmental		Results
	Health Sciences	SEP	Special Emphasis Panel
NIH	National Institutes of Health	SGE	Special Government Employee
NLM	National Library of Medicine	SIC	Special Interest Category
NRSA	National Research Service Award	SIG	Shared Instrumentation Grant
OBBR	Office of Biorepositories and Biospeci-	SMW	Science Management Workspace
0.05	men Research	SPL	Scientific Program Leader
OBF	Office of Budget and Finance	SPORE	Specialized Program of Research
OCG	Office of Cancer Genomics		Excellence
OD	Office of the Director	SPRS	Secure Payee Reimbursement System
OEA	Office of Extramural Applications	SRB	Special Review Branch
OER	Office of Extramural Research	SREA	Scientific Review and Evaluation
OFACP	Office of Federal Advisory Committee		Activities
	Policy	SRLB	Special Review and Logistics Branch
OHAM	Office of HIV and AIDS Malignancies	SRO	Scientific Review Officer (formerly
OIA	Outstanding Investigator Award	0.10	Scientific Revie w Administrator)
OPERA		STTR	
OFERA	Office of Policy for Extramural	SIIN	Small Business Technology Transfer
ODDDO	Research Administration	TOF	Research
ORRPC	Office of Referral, Review, and Pro-	T&E	Training and Education
	gram Coordination	TMEN	Tumor Microenvironment Network



Appendix G: Cancer Information Sources on the Internet

NCI Website

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

DEA Websites

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

Links to the individual DEA Web pages via the DEA home page are listed below.

Advisory Boards and Groups

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

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

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

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

NCAB meeting information (agenda, minutes, and presentations).

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

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

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

BSA meeting information (agenda, minutes, and presentations).

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

NCI Frederick National Laboratory Advisory Committee Charter, functional statement, members, meeting information, and subcommittees.

http://deainfo.nci.nih.gov/advisory/bsc/bs/bs.htm Board of Scientific Counselors (Basic Sciences) Charter; functional statement, and members.

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

Board of Scientific Counselors (Clinical Sciences and Epidemiology) Charter, functional statement, and members.

http://deainfo.nci.nih.gov/advisory/ctac/ctac.htm Clinical Trials and Translational Research Advisory Committee Charter, members, minutes, and agendas.

http://deainfo.nci.nih.gov/advisory/ncra/ncra.htm NCI Council of Research Advocates (NCRA) Charter, functional statement, members, and meeting information.

http://deainfo.nci.nih.gov/advisory/irg/irg.htm NCI Initial Review Group (IRG) Charter, functional statement, and members.

http://deainfo.nci.nih.gov/advisory/sep/sep.htm Special Emphasis Panel Charter, functional statement, and rosters of most recent review meetings.

Funding Opportunities/Policies

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

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

http://deais.nci.nih.gov/foastatus/RFA-PA.jsp?nt=P Active PAs, with links to detailed descriptions.

http://deais.nci.nih.gov/foastatus/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://grants.nih.gov/grants/new_investigators/index.htm

New and Early Stage Investigator Policies.

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

The Center for Cancer Training (CCT).

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

Research Portfolio Online Reporting Tools (RePORT): Reports, Data, and Analyses of NIH Research Activities.

Other NIH Websites

http://www.nih.gov NIH Homepage

http://grants.nih.gov/grants/ElectronicReceipt/ Grants & Funding – Applying electronically

http://grants.nih.gov/grants/policy/policy.htm Grants & Funding – Grants policies and guidance

http://grants.nih.gov/grants/guide/index.html
Grants & Funding – Funding opportunities and notices

http://grants.nih.gov/training/extramural.htm Extramural training mechanisms An electronic version of this document can be viewed and downloaded from the Internet at http://deainfo.nci.nih.gov/



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