

The Therapeutic Challenge of Brain Metastases of Breast Cancer

Brain or Central Nervous System (CNS) metastases of breast cancer have become more prevalent as systemic therapies improved. For breast cancer patients whose tumor overexpresses the HER2 oncogene, 37 percent of metastatic patients develop brain metastases, often when they are responding to therapy or have stable systemic disease. For patients whose tumors are negative for hormone receptors and normal for HER2 (triple-negative), brain metastases are common but often occur in the context of uncontrolled systemic disease.¹

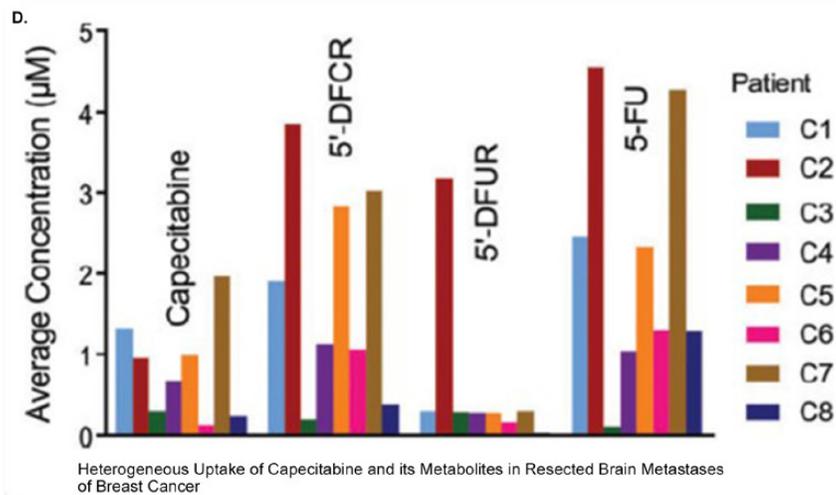
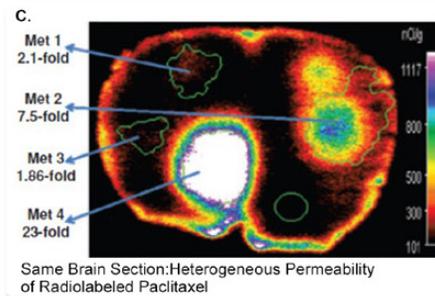
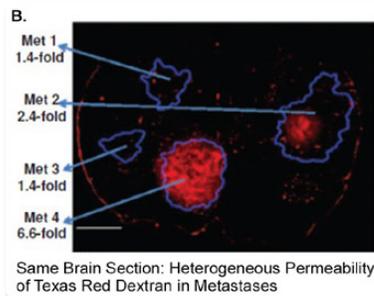
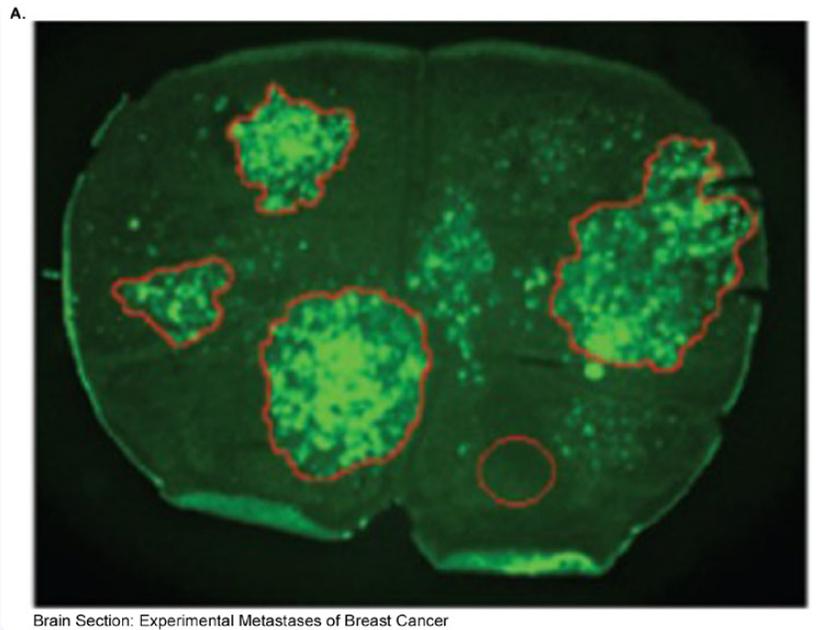
Therapy for brain metastases is palliative, including radiation therapy and surgery. Overwhelmingly, drugs with activity in metastatic breast cancer have shown few or no responses in brain metastases. Multiple approaches are underway to combat this disease: DNA sequencing found that many brain metastases harbor actionable mutations not present in the patient's primary tumor.² Molecular characterization of the brain metastatic process, focusing on tumor cell interactions with the neuroinflammatory microenvironment, has identified new potential therapeutic targets.³⁻⁶ The role of the blood-brain barrier (BBB) in limiting drug uptake and efficacy in brain metastases also has been investigated.

The BBB surrounds brain capillaries and keeps harmful substances from entering the brain. Upon metastasis formation, the BBB morphs into an inadequately understood blood-tumor barrier (BTB). In a seminal experiment conducted by Drs. Quentin Smith (Texas Tech University), Paul Lockman (West Virginia University), and Patricia Steeg (NCI), experimental triple-negative breast cancer metastases developed in mice, labeled with Green Fluorescent Protein in the brain section shown (A). Before necropsy, mice were injected with a Texas Red Dextran dye and radiolabeled paclitaxel, which were permitted to circulate before perfusion. Uptake of either Texas Red Dextran (B) or paclitaxel (C) in the metastatic lesions was heterogeneous, with 15 percent of the lesions not significantly different from the normal BBB, and 9 percent of the lesions highly permeable. Only the few highly permeable lesions demonstrated a cytotoxic response to paclitaxel, confirming a role for the BTB in limiting drug uptake.⁷ Similar findings have been reported with other drugs.⁸⁻¹⁰ A presurgical study found the same heterogeneous uptake of capecitabine (D) and lapatinib in surgically resected patient brain metastases.¹¹

Current research has asked whether the BTB is a random breakdown of the BBB, or an orderly sequence that could be targeted to improve drug uptake. Using three experimental models of brain metastases of breast cancer, the transition from the BBB to a BTB was accompanied by a set of endothelial, basement membrane, astrocyte and pericyte alterations. Within metastases, the most permeable lesions exhibited a shift in subpopulations of pericytes.¹² The data suggest that the BTB is a tractable structure for improvement in drug accessibility to brain metastases. These findings are expected to identify new approaches to safely deliver drugs to brain metastases, with the goals of improved survival and fewer physical and neurocognitive adverse effects.

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Images and narrative are the courtesy of Dr. Patricia S. Steeg, Deputy Chief, Women's Malignancies Branch, Co-Director, Office of Translational Resources Associate Director, Center for Cancer Research, NCI.

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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 proposed 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 in the peer review process, which is critically important to science in that it allows good ideas to surface and be evaluated based on their potential impact. The peer review system is the keystone for ensuring that the best science is supported.

The DEA coordinates the activities of: (1) the National Cancer Advisory Board (NCAB), which consists of members appointed by the U.S. President, conducts the second-level review of grants and cooperative agreements, and advises the NCI Director 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 Frederick National Laboratory Advisory Committee (FNLAC), which reviews the state of research at the Frederick National Laboratory for Cancer Research (FNLRC); 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

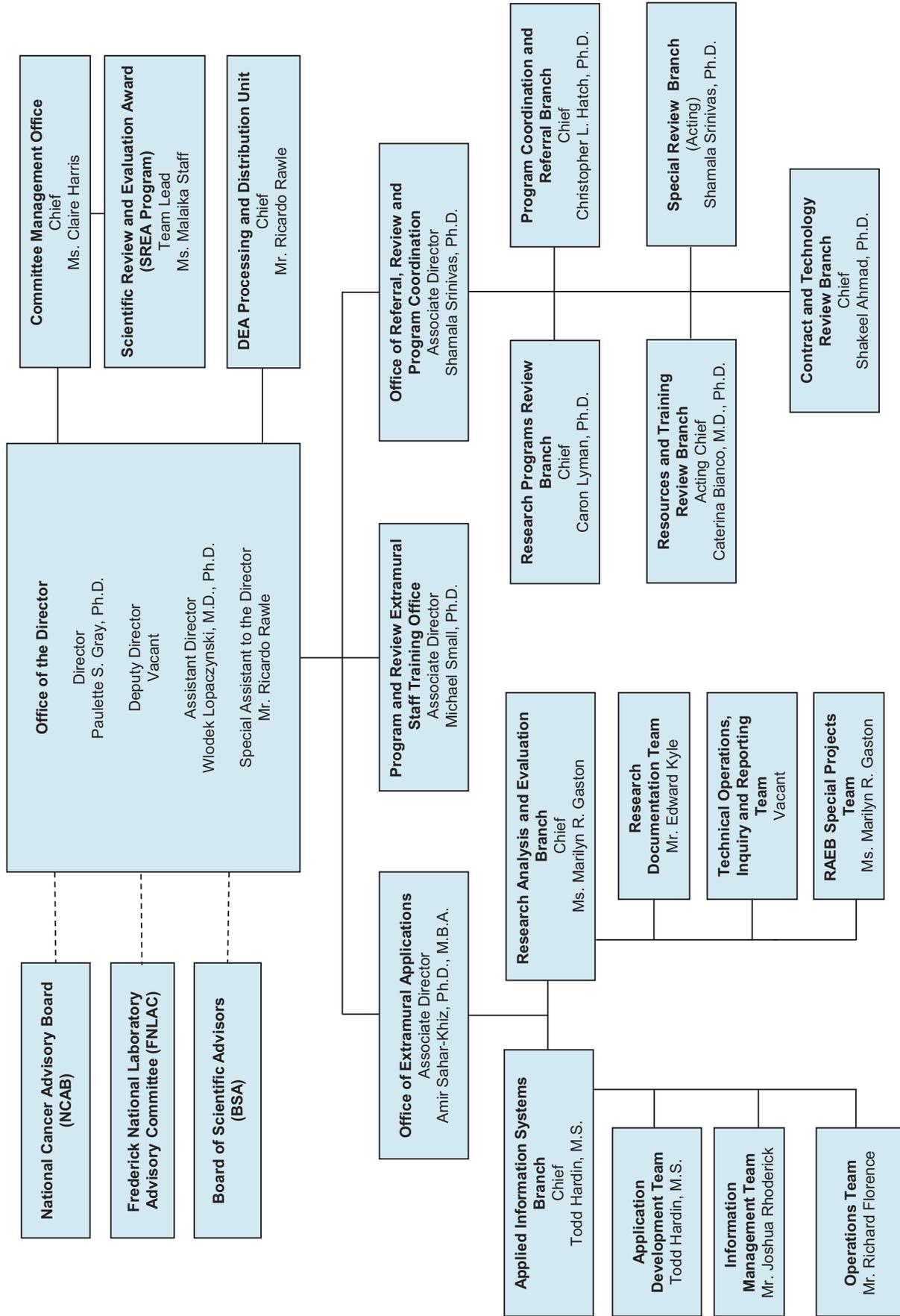
a basis for budget projections; maintain extensive records of this research and provide specialized analyses of the costs, goals, and accomplishments of the research; and serve as an NCI resource to others for reporting and dissemination of the NCI's research portfolio. The DEA monitors budgetary limitations for grant applications; participates in establishing policies to expedite funding; and initiates and implements changes to applications, guidelines, and award processes. Also, the Division: 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 role of the DEA in support of NCI's mission and the research funding process. A comprehensive look at each of the major areas of responsibility within the Division is provided. The data presented cover Fiscal Year (FY) 2017 (1 October 2016 – 30 September 2017) 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 2,500 researchers, clinicians, and advocates who devoted unselfishly of their time in FY2017 and contributed to the continuing success of NCI's peer review and advisory activities.

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

Division of Extramural Activities



Overview of the Division of Extramural Activities

The paramount goal of the National Cancer Institute (NCI) is to develop the knowledge base that will ultimately lessen the impact of cancer on humankind. Among the most important contributors to this base are the outstanding extramurally funded scientists supported by the NCI through grants, cooperative agreements, and contracts. 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. Important parts of the DEA's mission are to manage and coordinate: the second level grant review by the National Cancer Advisory Board (NCAB); concept reviewing of new and reissue requests for applications (RFAs), and research and development (R&D) requests for proposals (RFPs) by the Board of Scientific Advisors (BSA); and, coordination of activities of the Frederick National Laboratory Advisory Committee (FNLAC), which reviews the state of research at the Frederick National Laboratory for Cancer Research (FNLRCR). The DEA also provides effective and timely coordination of program initiatives from the initial concept stage through publication of RFAs, RFPs, program announcements (PAs), and 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, subcommittees, working groups, task forces, and review groups. The CMO also serves as an NIH service center for the National Institutes of Health (NIH) Advisory Committee to the Director (ACD), Council of Councils (CoC), Advisory Committee on Research on Women's Health (ACRWH), and the National Institute on Alcohol Abuse and Alcoholism (NIAAA). 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: coordination of development and issuance of NCI program

initiatives; execution of grant receipt and referral; and, 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), 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 (DOCs), 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 programmatic 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 from NCI grants, cooperative agreements, and contracts. In doing so, the NCI has the capability of responding expeditiously to congressional and other inquiries. The 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 adherence by NCI staff, advisory groups, and applicants. 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. The system includes information on approved concepts, listings of active PAs, recently published RFAs, and policies related to the clearance of new program initiatives. This information is accessible to the public at <https://deainfo.nci.nih.gov/funding.htm>.

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. Also, the DEA OD ensures that the NCI meets the congressional mandate to promote increased participation of women, children, and members of minority and medically underserved populations in the research areas of cancer cause, prevention, control, diagnosis, and treatment. The NIH Revitalization Act of 1993 mandates that women and members of minority groups be included as subjects in each research project, unless there are clear scientific or ethical reasons that inclusion is inappropriate with respect to the health of the subject or the purpose of the research. 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 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 FY2017, 19 applications with preliminary bars to award were received by the DEA. Through corrective action, working with the applicants and NCI 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 FY2017, 15 cases of alleged research misconduct involving NCI funding were opened and under investigation by the Office of Research Integrity, HHS, and referred to the DEA Director. Four 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 NCI Program, Review, and other extramural staff members. 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; (3) identifies and develops resources to facilitate individual learning and performance; and, (4) tracks the participation of extramural staff in NIH- and NCI-sponsored training activities as well as continuously evaluates the efficacy of these activities.

During FY2017, PRESTO activities included:

- An Electronic Tools Workshop Series specifically designed for new Program Officials to

enhance their knowledge and skills related to the use of various portfolio management and analysis applications (e.g., RePORTER and iRePORT), and the Concept to Award Tracking System (CATS).

- PRESTO-sponsored training focused on administrative, scientific, and research resource topics including Management and Evaluation of U01/U24 Funding, Sex as a Biological Variable, NCAB Closed Session Activities, and Immunological Check Points and Cancer Immunotherapy.
- A half-day Project Management Seminar featuring project management professionals addressing various issues of interest to NCI extramural staff.
- A Scientific Review Officer (SRO) Bootcamp providing new SROs with the fundamentals of managing peer review.

- An eight-part Program Official Basic Training series.
- Participation as faculty in the NCI Office of Grants Administration (OGA) “Intro to the Grants Lifecycle.”

During FY2018, PRESTO will continue to offer a variety of training opportunities with focus on new and emerging topics of broad interest to NCI extramural staff. PRESTO plans to implement a monthly SRO Discussion Luncheon series to provide an opportunity for SROs to share best practices as well as inform them of recent policy and electronic system updates. 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 and Notices 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, the PCRB staff members help to streamline and clarify FOA technical parameters and requirements as well as optimize accuracy, precision, and clarity of their presentation in proper format. The PCRB verifies consistency with NIH-wide requirements, provides quality control, and coordinates timelines throughout the development and publication processes. Overall, these services ensure the high quality and timely availability of NCI's funding opportunities for cancer researchers as prospective applicants.

Tables 1a and **1b** show the variety of RFAs issued by the NCI in FY2017, 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/PARs issued by the NCI in FY2017, and **Table 4** lists PAs/PARs issued by other NIH ICs that the NCI has joined as a participating partner.

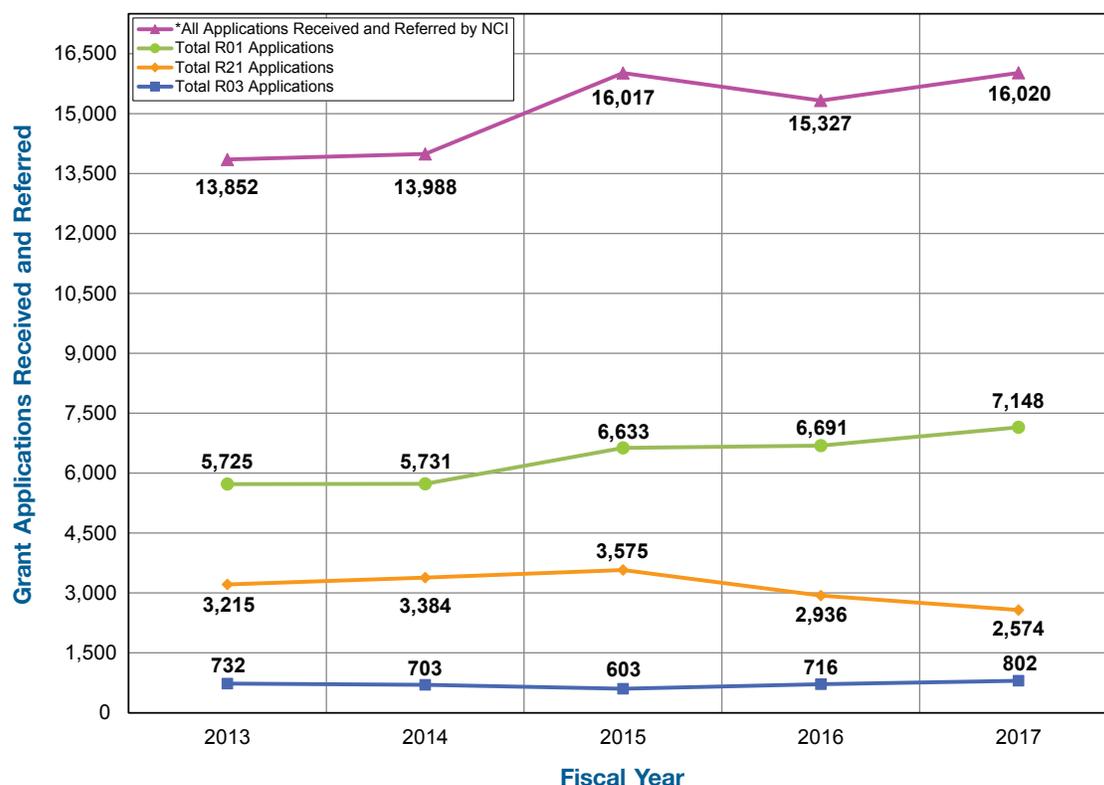
PCRB staff members continue to provide relevant information and timely updates to all NCI extramural staff members on activities and results related to the requirements for and uses of electronic grant applications. The Branch also serves as a direct source of guidance on this topic for program officials at the NCI and applicants in the extramural scientific community. The Referral Officers (ROs) in PCRB collaborated with NCI information technology staff members and their contractors to examine and improve the business systems used for grant application receipt and referral, 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 SROs in managing the reviews of 359 student loan repayment program (LRP) contract proposals as well as of R13 conference grant applications and a variety of other proposals in FY2017.

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

In FY2017, a total of 16,020 grant and cooperative agreement applications were submitted to the NCI for funding with appropriated funds (see [Figure 1](#) and [Table 5](#)). Applications and proposals encompassed 75 different types of award mechanisms ([Appendix F](#)), 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), Research Specialist Award (R50), 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 the CSR, the NCI Referral Officers: (1) assign all incoming applications to one of the 54 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 ICs, and even other HHS research funding agencies, such as the Agency

**Figure 1. Receipt and Referral of NCI Grant Applications*
FY2013 – 2017**



*Includes NCI Primary and Secondary applications received and referred.

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 Referral Officer (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. The PCRB also serves as the information and coordinating center at the NCI 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 (PI) 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” through the NIH electronic Research Administration (eRA) ARA system to CSR DRR. ARAs are also used to facilitate requests for assignments from ICs and other information that needs to be connected to specific applications. For additional guidance on this process, the applicants are referred 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, it 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 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 subjected to peer review, including contract-supported projects conducted within the intramural research program.

The NIH peer review process consists of two sequential levels of review mandated by statute and regulation. The first level of review is managed by SROs who serve as the designated Federal officials (DFOs) and is 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 potential scientific impact, 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 Project 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 by SEPs that are conducted within

the DEA. The locus of the peer review, whether at CSR or at 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-managed IRGs and SEPs are selected by DEA review staff with suggestions from NCI Program staff members. 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.

All chartered NCI IRG Subcommittee members are approved by the DEA Director, 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 evaluate specific grant and cooperative agreement applications received in response to RFAs, PAs, PARs and other special 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 D](#) and at <https://deainfo.nci.nih.gov/advisory/irg/irg.htm>, and information about NCI SEPs can be accessed at <https://deainfo.nci.nih.gov/advisory/sep/sep.htm>.

Review Workload

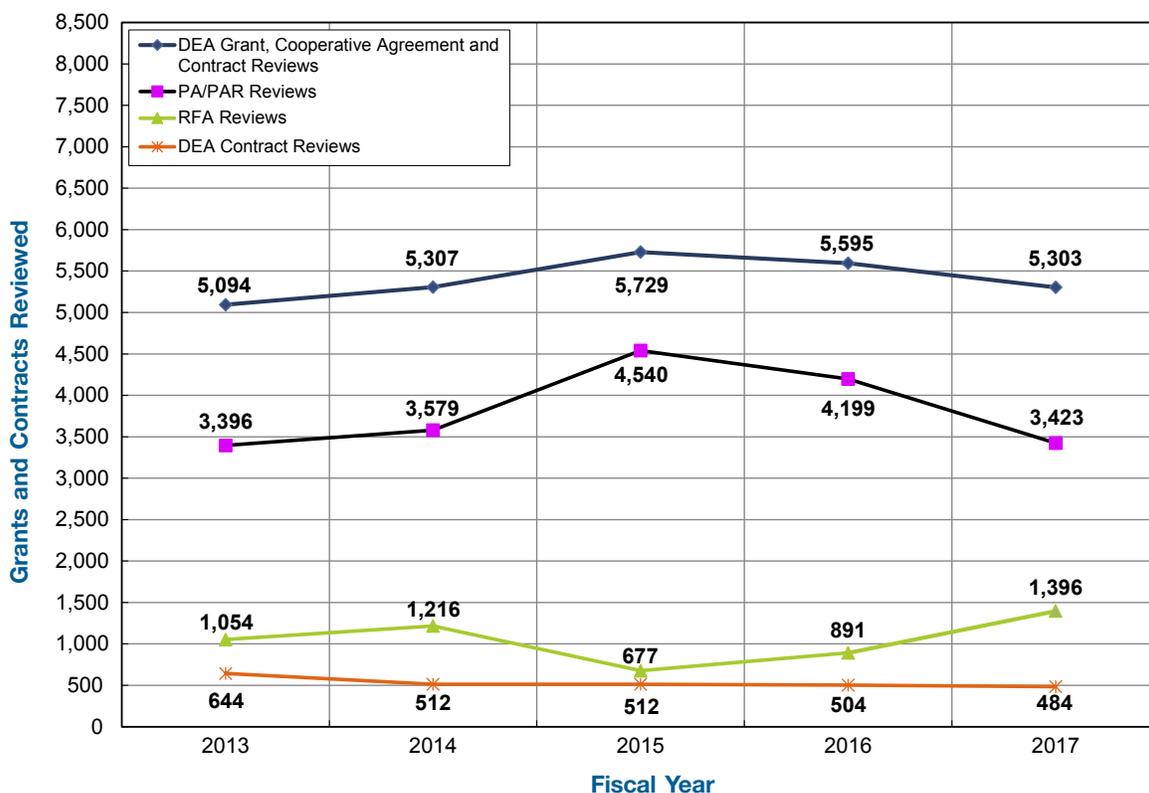
In FY2017, the DEA organized, managed, and reported the review of a total of 4,819 research grant and cooperative agreement applications (Table 6) and 484 contract proposals (Table 12) assigned to the NCI for funding with appropriated dollars of \$2,154,138,333. The total number of grant applications, cooperative agreements, and contract proposals reviewed in FY2017 was 5,303 (Figure 2). In addition, the DEA conducted five Cancer Center site visits, 10 IRG Subcommittee review meetings, 172 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 2,550 peer reviewers served on the NCI DEA-managed IRG Subcommittees, SEPs, and workgroups in FY2017. 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. The 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 grants, cooperative applications and 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

**Figure 2. DEA Review Workload*
FY2013 – 2017**



*Withdrawn applications not included.

Business Innovation Research (SBIR) Special Topics shown in [Table 12](#) are reviewed by Technical Evaluation Panels (TEPs).

The [Resources and Training Review Branch \(RTRB\)](#) is primarily responsible for the peer review of multicomponent Cancer Center Support as well as single component Training, Education, and Career Development grant applications (see [Table 7](#)). The RTRB also has responsibility for the management of the four NCI IRG Subcommittees (see [Appendix E](#)).

The [Research Programs Review Branch \(RPRB\)](#) has primary responsibility for review of unsolicited multicomponent (aka “complex”) 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 Requests for Proposals (RFPs) and R&D Contract Solicitation: SBIR Phase I, Fast-Track Contract Solicitation.

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.

All review meetings managed by RPRB, SRB, RTCRB, and PCRB are conducted using SEPs.

Resources and Training Review Branch (RTRB)

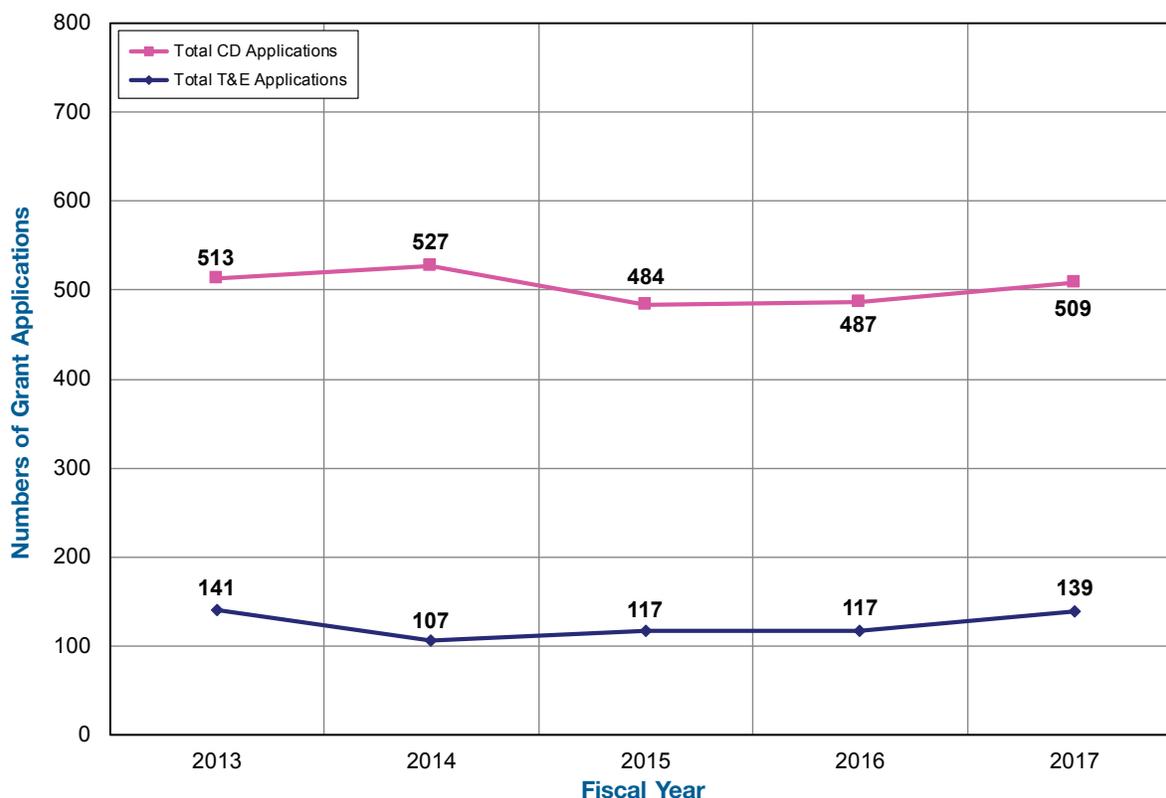
The RTRB has primary responsibility for review of Cancer Center Support, Training and Education, and Career Development applications. RTRB is also responsible for the management of the four NCI IRG Subcommittees: A, F, I, and J ([Appendix E](#)).

The review of Cancer Center Support Grant (CCSG) applications involves a two-tier initial peer review process. The first tier of the review involves a site visit to the applicant’s institution by a non-FACA working group review panel. 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. 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 2014, 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 FY2017, Subcommittee A reviewed five 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 increased to 509 in 2017 from 487 in 2016. The number of Training and Education grant applications increased from 117 applications in 2015 and 2016 to 139 in 2017 ([Figure 3](#)). In addition, 91 applications submitted in response to the NCI Predoctoral to Postdoctoral Fellow Transition Award (F99/K00) were reviewed.

Figure 3. Numbers of Career Development (CD) and Training and Education (T&E) Applications Reviewed FY2013 – 2017*



*CD mechanisms: K01, K05, K07, K08, K22, K23, K24, K25, and K99.
T&E mechanisms: K12, R25, and T32.

Other RTRB Activities

In FY2017, RTRB review staff also reviewed applications received in response to initiatives that were coordinated by the SRB, i.e., the: (1) NCI Provocative Questions Initiative; (2) NCI Omnibus Exploratory Grant (R21) program; and, (3) Small Grant (R03) program.

Research Programs Review Branch (RPRB)

Program Project (P01) Applications

A significant effort of RPRB during FY2017 was the review of unsolicited Program Project (P01) applications. These are multi-project, collaborative programs with a well-defined unifying cancer research theme. For the review of P01s, the applications are grouped based on their scientific focus and typically clustered into 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 *ad hoc* reviewers recruited based on the scientific expertise needed for the applications being reviewed. The SEP review committees evaluate the potential impact of the individual projects and technical merit of the supporting core resources, determine the level of program integration and leadership, and then assign an overall impact score to each application. During FY2017, RPRB managed the review of 95 new, renewal (competing), resubmitted (amended), and revised (competitive supplement) P01 applications (Figure 4 and Table 8). Sixty-eight (72%) of the applications proposed new multidisciplinary research programs, 28 (29%) were competitive renewals, and 27 (28%) of the applications (both Type 1 and 2) were resubmitted applications (Table 8). Forty-one of the 95 P01 applications (43%) included multiple PIs. Thirty-one (33%) of the 95 applications were referred to the NCI's Division of Cancer Biology (DCB), 39 applications (41%) were referred to the Division

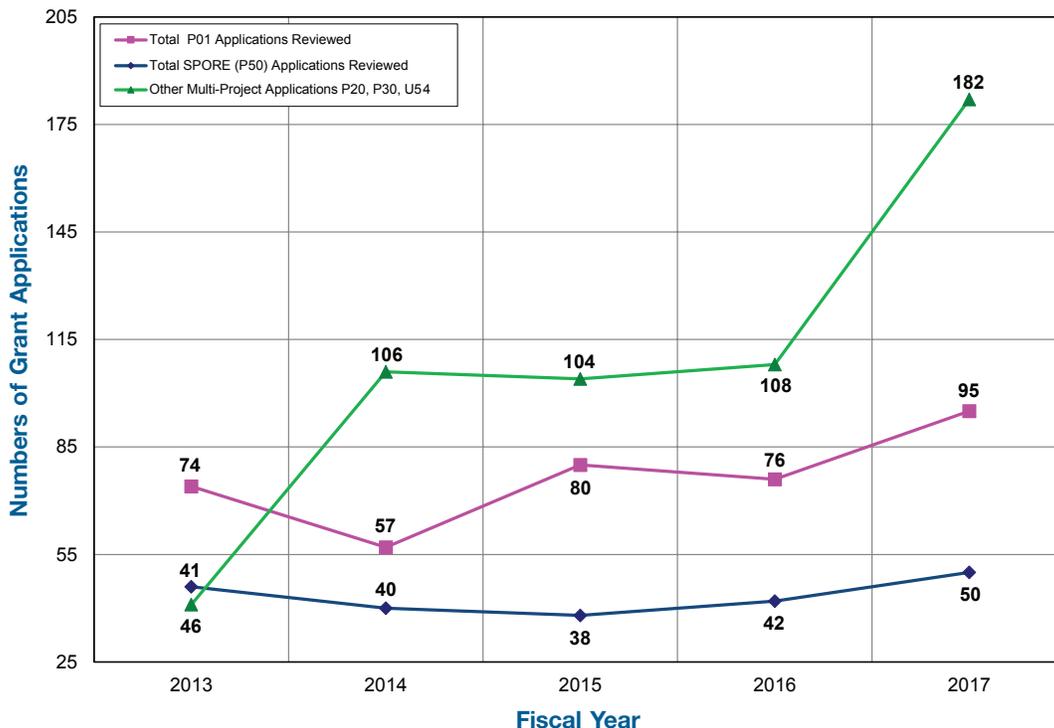
of Cancer Treatment and Diagnosis (DCTD), 20 applications (21%) were referred to the Division of Cancer Control and Population Sciences (DCPPS), and five applications (5%) were referred to the Division of Cancer Prevention (DCP) (see [Table 9](#)). The 95 applications requested \$248,520,081 in total costs for the first year of support (see [Tables 6 and 9](#)) and \$1,255,552,213 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, multi-project, multidisciplinary, translational applications focus on research that is directly applicable to human disease in specific organ sites or that focuses on a common biological mechanism critical for promoting tumorigenesis and/or cancer progression. All SPORE review panels are constituted as SEPs, with reviewers recruited based on the scientific expertise needed for the applications being reviewed. SEP review committees evaluate and

assign scores to the individual components of the applications (projects, cores, and developmental programs), and then assign an overall impact score to the SPORE application as a whole. In FY2017, the RPRB organized and managed six SEPs for the review of 50 SPORE applications ([Figure 4](#)). The applications addressed multiple organ sites with the following distribution of applications: Brain (6); Breast (4); Gastrointestinal (7); Head and Neck (5); Hepatobiliary (2); Leukemia (1); Lung (3); Lymphoma (3); Melanoma (3); Myeloma (2); Ovarian (3); Pancreas (2); Prostate (3); Sarcoma (3); Eye (1); and Immunotherapy (2). Overall, 35 (70%) of the 50 applications were submitted for new SPOREs, and 15 (30%) were competitive renewal applications, with 11 (22%) being resubmitted (revised) applications. The disease sites addressed in the SPORE applications vary from round to round. Fifteen applications addressing 10 different disease sites were reviewed for the October 2016 NCAB cycle; 4 applications addressing 3 disease sites were reviewed for the January 2017 NCAB cycle, and 31 applications addressing 16 disease sites were reviewed for the May 2017 NCAB meeting. The applications

Figure 4. Program Project (P01), SPORE, and Other Multi-Project Research Applications Reviewed FY2013 – 2017



requested \$112,074,860 in total costs for the first year of support (Table 11).

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 the RPRB routinely participate in these pre-submission conferences to assist the applicants in understanding the review process, the special review criteria, and the scoring paradigms for these applications. In FY2017, RPRB SROs attended 70 of these pre-submission meetings. Additionally, the RPRB manages review of investigator-initiated R01 applications proposing multi-center clinical trials. Of the 24 applications reviewed in FY2017, 10 (42%) were referred to the Division of Cancer Prevention (DCP), 7 (29%) were referred to the Division of Cancer Treatment and Diagnosis (DCTD) and 7 (29%) were referred to the Division of Cancer Control and Population Sciences (DCCPS). As needed, RPRB SROs also manage review of applications submitted to the DEA in response to other initiatives. In FY2017, this included coordinating review of U01, U24, U54, UH2/UH3, R03, R21, R25, and SI2/R00 applications.

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), NCI Program staff prepares RFAs for publication in the *NIH Guide for Grants and Contracts*. (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 reviewed by the DEA). During FY2017, the SRB with the assistance of the three other DEA review branches (RPRB, RTCRB, and RTRB) peer reviewed a total of 1,396 applications received in

response to 40 RFAs (Table 10) and 3,423 applications in response to 65 PAs/PARs (Table 11). All the peer review meetings were conducted by 93 SEPs.

Research Answers to NCI's Provocative Questions (PQ)

Following input from the scientific community through focus groups, forums, and online postings, grant applications were solicited to respond to one of the 12 scientific questions designed to solve specific problems and paradoxes in cancer research. Additionally, to advance the understanding of the risks, development, progression, diagnosis, and treatment of malignancies observed in individuals with an underlying HIV infection or Acquired Immune Deficiency Syndrome (AIDS), grant applications were solicited. Also, revision (supplement) applications were solicited to add provocative questions/relevant research to active research projects. Two hundred thirty-four R01 Research Project, 169 R21 Exploratory/Developmental, four P50, two P01, and 13 R01 revision applications were submitted in response to 13 RFAs (Table 10). These applications were peer reviewed in SEP review meetings to assess the overall impact.

Exploratory/Developmental Research

In FY2017, the DEA reviewed 1,000 R21 applications submitted for the NCI Clinical and Translational Exploratory/Developmental Research Grant Program in response to PAR16-176 (Table 11). The applications were initially grouped based on their scientific focus; the groupings varied depending on the number of applications received and the science proposed. The applications represented a continuum of research from basic through translational to preclinical and clinical studies. The applications were reviewed in a total of 55 SEPs over the three review cycles in FY2017.

Small Grant Programs

The small grant (R03) PAR program initiative in the NCI Omnibus R03 for cancer research (PAR14-007 and PAR16-416) stimulated increased

interest in the applicants' community. In FY2017, 692 applications were submitted and reviewed by the DEA in response to these FOAs ([Table 11](#)).

Research and Development (R&D) Contract Proposals

The RTCRB organizes and manages the peer review of technology-related SBIR/STTR grant applications, SBIR Special Topics contract proposals, and R&D contract proposals submitted in response to RFPs. The majority of technology research initiatives use either the R21 Exploratory/Developmental or 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 for which “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 2017, 458 technology applications ([Figure 5](#)) for Exploratory/Developmental Phase I (R21) grants and Exploratory/Developmental Phase II (R33) grants were reviewed: for Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (RFA-CA16-001 and CA17-010 [R21]); Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (RFA-CA16-002 and CA-17-011

[R33]); Innovative Technologies for Cancer-Relevant Biospecimen Science (RFA-CA16-003 and CA-17-012 [R21]); Advanced Development and Validation of Emerging Technologies for Cancer-Relevant Biospecimen Science (RFA-CA16-004 [R33]); Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (RFA-CA-17-013 [R33]); and Integration and Validation of Emerging Technologies to Accelerate Cancer Program (RFA-CA-17-023 [R33]) ([Table 10](#)).

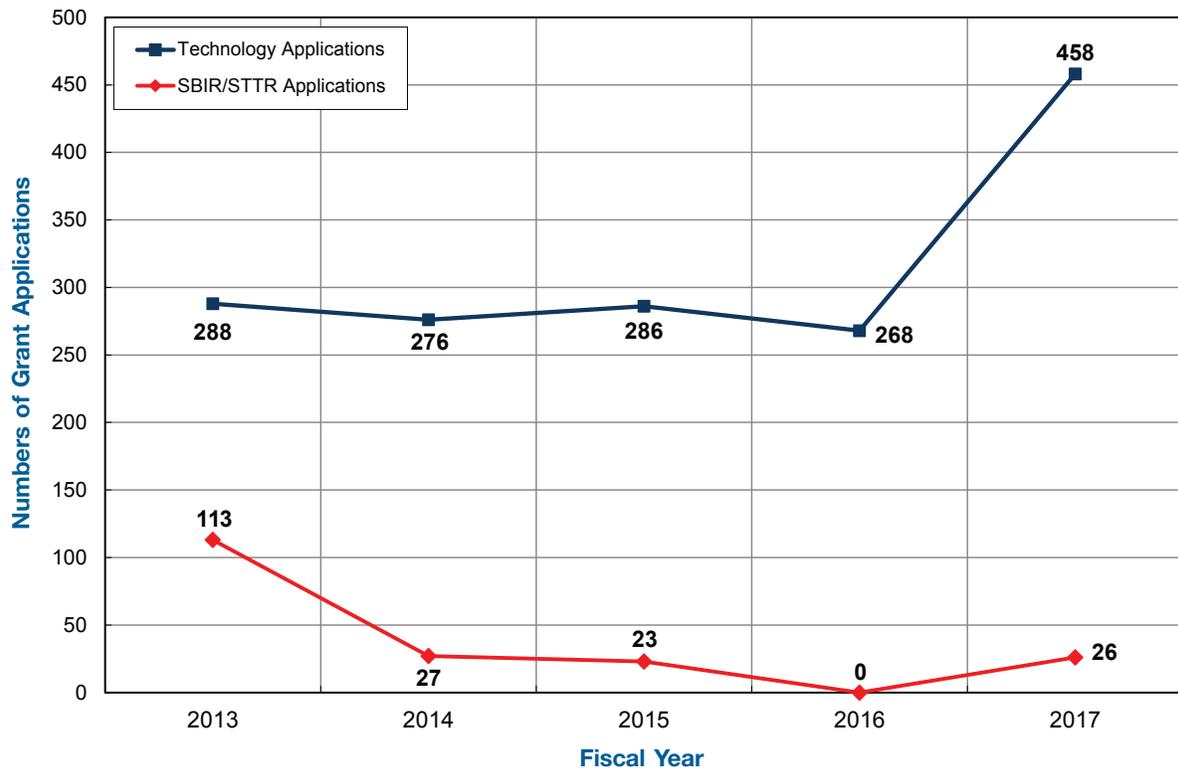
Research and Development (R&D) Contract Proposals

In FY2017, the RTCRB received and reviewed 484 contract proposals, including 359 Loan Repayment L30 and L40 proposals, in response to four 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 specific RFP solicitation. Phase II SBIR proposals are submitted to the Topics and are openly announced in a Broad Agency Agreement Announcement.

Other RTCRB Activities

In FY2017, 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 Grant (R21) program, and the Small Grant (R03) program.

**Figure 5. Technology Initiatives Applications Reviewed*
FY2013 – 2017**



* Withdrawn applications are not included.

NCI Grant and RFA Funding

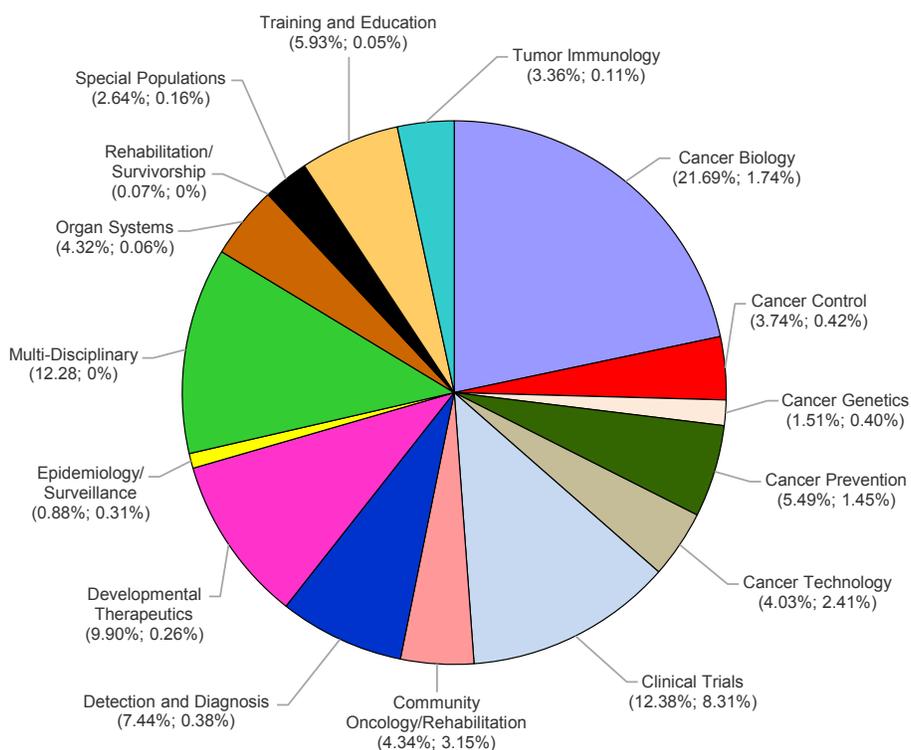
The Board of Scientific Advisors (BSA) is responsible for advising the NCI Director on the extramural program and the future direction and funding of each Division's extramural research. As such, the BSA provides concept review for NCI-sponsored RFAs. **Figures 6 and 7** show total NCI Grant and RFA funding according to scientific concept area in FY2016 and FY2017. **Figure 8** shows RFA concepts that the BSA approved from FY2014 through FY2017 according to the sponsoring NCI Division, Office, or Center.

Table 13 presents a summary of total funding of NCI grant awards by mechanism for FY2017. In **Table 14**, a comparison is made of the average

cost and number of NCI R01, P01, R03, R13, R21, P30, P50, U01/U19, U10, and U54 grants, and cooperative agreements awarded in FY2013 through FY2017, based on information received from the extramural Divisions, Offices, and Centers.

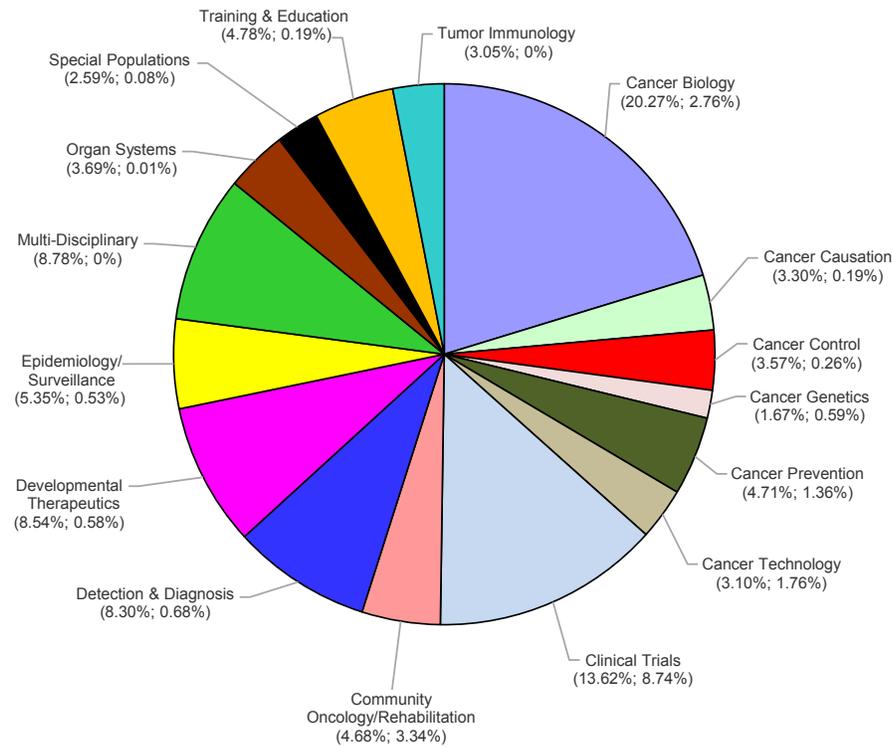
Trends in grant funding according to scientific discipline and organ site are provided in **Tables 15 and 16**. **Table 17** reports NCI's funding of foreign research grants in FY2017, and **Table 18** reports foreign components of U.S. domestic research grants in FY2017. Note: Some grant awards made 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 FY2016



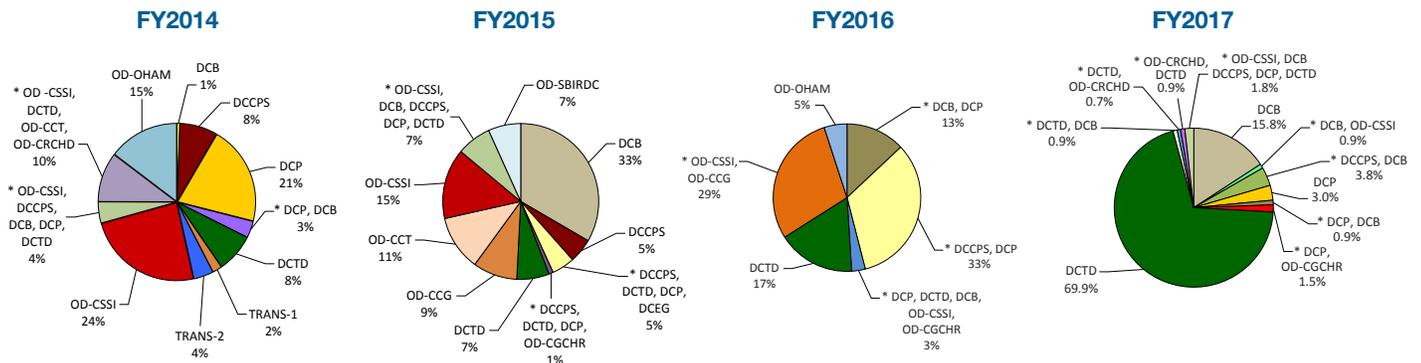
Concept Area (% of Total Funding to Total NCI Grants; % of RFA Funding to Total NCI Grants).
Percentages represent Total Funding and RFA Funding for the Concept Area as a percentage of Total NCI Grants.

Figure 7. NCI Grant and RFA Funding Percentages by Concept Area FY2017



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

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



Legend:

DCB	Division of Cancer Biology
DCCPS	Division of Cancer Control and Population Sciences
DCP	Division of Cancer Prevention
DCEG	Division of Cancer Epidemiology and Genetics
DCTD	Division of Cancer Treatment and Diagnosis
OD-CCG	Office of the Director – Center for Cancer Genomics
OD-CCT	Office of the Director – Center for Cancer Training
OD-CGCHR	Office of the Director – Center for Global Cancer Health Research
OD-CRCHD	Office of the Director – Center to Reduce Cancer Health Disparities
OD-OHAM	Office of the Director – Office of HIV and AIDS Malignancy
OD-CSSI	Office of the Director – Center for Strategic Scientific Initiatives
OD-SBIRDC	Office of the Director – Small Business Innovation Research Development Center
TRANS-1	NCI (DCCPS, DCB), Trans-NIH
TRANS-2	NCI (DCCPS, DCP), Trans-NIH

* Indicates co-funding among NCI Divisions/Offices.

Supporting Peer Review Consultants

Ensuring that highly qualified individuals are available for expert review of grant applications and contract proposals requires an efficient administrative support system. The **DEA's Scientific Review and Evaluation Activities (SREA)** unit, residing within the NCI **Committee Management Office (CMO)**, supports the NCI peer review process by compensating consultants for their services on the NCI IRG subcommittees or SEPs and by reimbursing them for their travel and other expenses (see **Appendices D** and **E**). 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 175 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.

During FY2017, approximately 2,279 consultants were reimbursed honoraria and flat rate payments for serving at more than 175 peer review meetings (**Appendix E**). There were 4,478 instances of honoraria and flat rate payments to NCI peer review consultants. SREA staff work 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 complete their Secure Payee Registration System (SPRS) registration. Due to these proactive efforts by SREA staff, only 14 out of the 4,478 instances of honoraria and flat rate payments to NCI peer review consultants were not paid out in FY2017.

Throughout the year, SREA staff ensure 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 FY2017, 80 hotel contracts were processed by SREA staff. 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 80 hotel invoices and 45 consultant travel invoices were reviewed and submitted for payment in FY2017.

SREA staff collaborate 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 staff were presenters at an NCI DEA review staff Brown Bag session as well as a SRO Retreat, where they discussed the Department of Health and Human Services Waiver Policy and peer review meeting reimbursements. Some of main points of discussion were:

- Policies and Components of a Reviewer's Reimbursement.
- Secure Payee Registration System (SPRS).
- Peer Reviewer Travel Exception Requests.
- Submission of Meeting Attendance Lists.
- SRO Responsibilities in the following areas:
 - Federal Advisory Committee Act (FACA)
 - Meeting Requirements and Waiver Policies SREA

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 the NCI's mission.

DEA's Role in Advisory Activities

Beyond its central role in coordinating the referral of grants and peer review, perhaps the most far-reaching role that the DEA plays across the NCI is the coordination and administration of NCI's nine chartered Federal Advisory Committees. 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 **National Cancer Advisory Board (NCAB)**, whose members are appointed by the U.S. 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 **Board of Scientific Advisors (BSA)**, the body responsible for the oversight and concept review of the extramural programs and initiatives of the NCI, and the **Frederick National Laboratory Advisory Committee (FNLAC)**, which reviews research activities of the **Frederick National Laboratory for Cancer Research (FNLRCR)**. Under the various chartered committees, working groups are formed to address and make recommendations on important areas of cancer research related to basic science, clinical trials, diverse populations, cancer advocacy, treatment, cancer control, drug development, prevention, communication, education, etc. 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 an Executive Secretary to the NCAB and the BSA. (See **Appendices A** and **B** for highlights of the activities of these Boards in FY2017 and **Appendix D** 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 U.S. 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 patient advocate. The Panel monitors the development and execution of the activities of the National Cancer Program and reports directly to the U.S. 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 research. The **BSA**, composed of distinguished scientists from outside the NCI and representatives from the advocacy community, advises NCI leadership on the progress and future direction of the Institute's extramural research program. Importantly, the **BSA** evaluates NCI extramural programs and policies, and 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 NCI leadership on the progress and future direction of NCI's Intramural Research Program residing in the Center for Cancer Research (CCR) and 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.

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-Frederick Cancer Research Center (FCRC) 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 was 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 performed at the Frederick facility ([Appendix C](#)).

NCI Council of Research Advocates (NCRA). The 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 provides 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 advises on the appropriate magnitude for dedicated translational research priorities and recommends allocation of translational research operations across organizational units, programs, disease sites, populations, developmental pathways, and molecular mechanisms. These responsibilities encompass oversight of all clinical trials, both extramural and intramural. In addition, the Committee provides broad scientific and programmatic advice on the investment of taxpayer dollars in clinical trials and related science.

NCI Initial Review Groups (IRGs). The NCI IRGs, composed of four active subcommittees, review grant applications for Cancer Center Support, Training and Education, and Career Development 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 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.

NCI Technical Evaluation Panels (TEPs). The TEPs advise the NCI Director and the DEA Director regarding contract proposals. The TEPs provide an orderly, impartial, timely, yet comprehensive and discriminating technical evaluation of each prospective offeror's technical proposal.

Committee Management Activities

The **NCI Committee Management Office (CMO)** is critical to the continued success of all NCI Federal advisory committee activities, including advisory boards and committees, subcommittees, working groups, blue ribbon panels, and review panels, etc. The CMO is located in the Office of the Director, DEA, 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 CMO is also 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; the Advisory Committee to the Director, NIH (ACD), located in the Office of the Director, NIH; the NIH Recombinant DNA Advisory Committee (RAC), located in the Office of Science Policy, Office of the Director, NIH; 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. In 2017, CMO entered into an additional Intra-Agency agreement to provide support to the Advisory Committee on Research on Women's Health, located in the Office of Research on Women's Health in the Division of Program Coordination, Planning, and Strategic Initiatives, Office of the Director, National Institutes of Health.

The CMO successfully manages 24 federal advisory committees and numerous subcommittees and working groups. The Office is also responsible for providing logistical planning and support for four NCAB meetings, three BSA meetings, three FNLAC 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 and ACRWH meetings each year. Another important responsibility of the Office is the management of 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, the CMO continues 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, ACD, ACRWH, and RAC. Ethics services include analysis and review of Special Government Employee (SGE) OGE-450s and Foreign Activity Questionnaire, 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 FY2017 include the following:

- Continued to serve monthly on the OFACP HHS Venture Working Group to Digitize Human Resource documents for Special Government Employees. Met with NIH HR staff, OPM staff, NCI IT Staff, and ORS IT Staff to provide business rules for SGEs to access the USAJobs website for the completion of their HR paperwork. The testing of these new SGE business rules is almost complete. The idea is to provide a one-stop-shop website for new members to access and complete all the required HR and conflict of interest/ethics paperwork electronically.
- Provided guidance to NCI staff on the creation of the FNLAC NCI/Department of Energy (DOE) Collaborations Working Group.

- Worked with the NCI DEA Director on the establishment of an NCAB *ad hoc* Subcommittee on Population Science, Epidemiology, and Disparities.
- Met with the Executive Secretary, ARCWH and NIH OD staff to provide guidance on FACA rules and regulations.
- Provided guidance to NIH OD Staff assigned to the ECHO Program Working Group of the NIH Council of Councils.
- Continued to provide oversight of the NCI DEA SREA multi-million dollar program and successfully closed out the FY2017 budget.
- Oversaw travel authorizations and vouchering of over 200 SGE travel instances, many of which are complex and require negotiating with the board member.
- Continued to evaluate the current CM IMPAC II database and provide feedback to the Committee Management Users Group Representative on potential modifications to the Module.
- SRO Retreat Presentation on SRO responsibilities, which included FACA meeting requirements, waiver policies, and SREA.
- FACA Training to new Executive Secretary of the FNLAC.
- FACA Training to NCI Staff working on the NCI Council of Research Advocates.
- Working Group Overview and Training to newly assigned DFO of the ECHO Program Working Group of the NIH Council of Councils.
- Responded to requests from senior NCI and Client staff on various non-FACA meetings and working group concerns.

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

- Brown Bag Presentation to SRO and SA staff on policies and components of Peer Reviewer reimbursement; Secure Payee Registration System (SPRS); Peer Reviewer travel exceptions; and the submission of meeting attendance lists, NCI DEA peer review reimbursements policies and procedures, and Department of Health and Human Services (HHS) waiver policies and procedures.

Portfolio Tracking and Analysis

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 the U.S. 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, the U.S. Congress, and the public. A critical characteristic of these data is comparability from one fiscal year to the next.

Trends in funding from FY2013 through FY2017 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 U.S. Congress.

In FY2017, the RAEB provided numerous portfolio analyses, including:

- NIH Interagency Pain Research Portfolio: Coded NCI Pain-related projects using the NIH-wide IPRP taxonomy.
- Center for Research Strategy: FY2016 Angiogenesis, Small Cell Lung Cancer and Pancreatic Cancer projects, and Anatomic Site information for Fusion Oncoproteins.
- NCI Program Directors: FY2017 grant information, including Microbiome and Aging, Colon Cancer prevention, Clinical Trials, and Leukemia and Lymphoma grants.
- NCI Center for Global Health: Supplied information on foreign grants, contracts, and foreign countries collaborating on research with U.S. institutions, FY2017.
- 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 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.
- Served as DEA representative to the NCI Communications Committee.
- Served as DEA representative to the NCI Planning and Evaluation Special Interest Group (SIG).

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

In FY2017, the NCI allocated approximately \$18 million to support 39 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 nine grants and one contract adding up \$6.5 million. R01s were the most common mechanisms funded, with 15 grants receiving \$4.1 million. Disease areas receiving the most NCI funding to foreign institutions were not site-specific (\$3.2 million), and included Breast (\$1.4 million) followed by Lung (\$1.3 million) cancer research.

FY2017 Funding of Foreign Institutions

(See [Table 17](#) for more information.)

Country	Grants & Contracts #	Funding \$
Canada	10	6,501,592
Costa Rica	2	3,768,250
France	4	2,267,142
Australia	2	1,263,599
Argentina	2	656,700
Germany	2	636,376
United Kingdom	2	485,385
Sweden	3	300,660
Poland	1	277,650
Switzerland	2	267,783
Mexico	1	243,098
Botswana	1	236,966
Spain	1	224,100
Israel	1	199,020
Italy	2	167,022
Japan	1	157,967
Netherlands	1	129,294
South Africa	1	74,840
Totals	39	17,857,444

In FY2017, the NCI supported 258 U.S. domestic grants with 393 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 (54 grants), the United Kingdom (30 grants), Germany (28 grants), Netherlands (20 grants), China (18 grants), and Australia (18 grants) were the NCI's most frequent collaborators. R01 is the most common funding mechanism used for collaborations, with 215 grants, followed by U24 (44 grants), and U01 (31 grants).

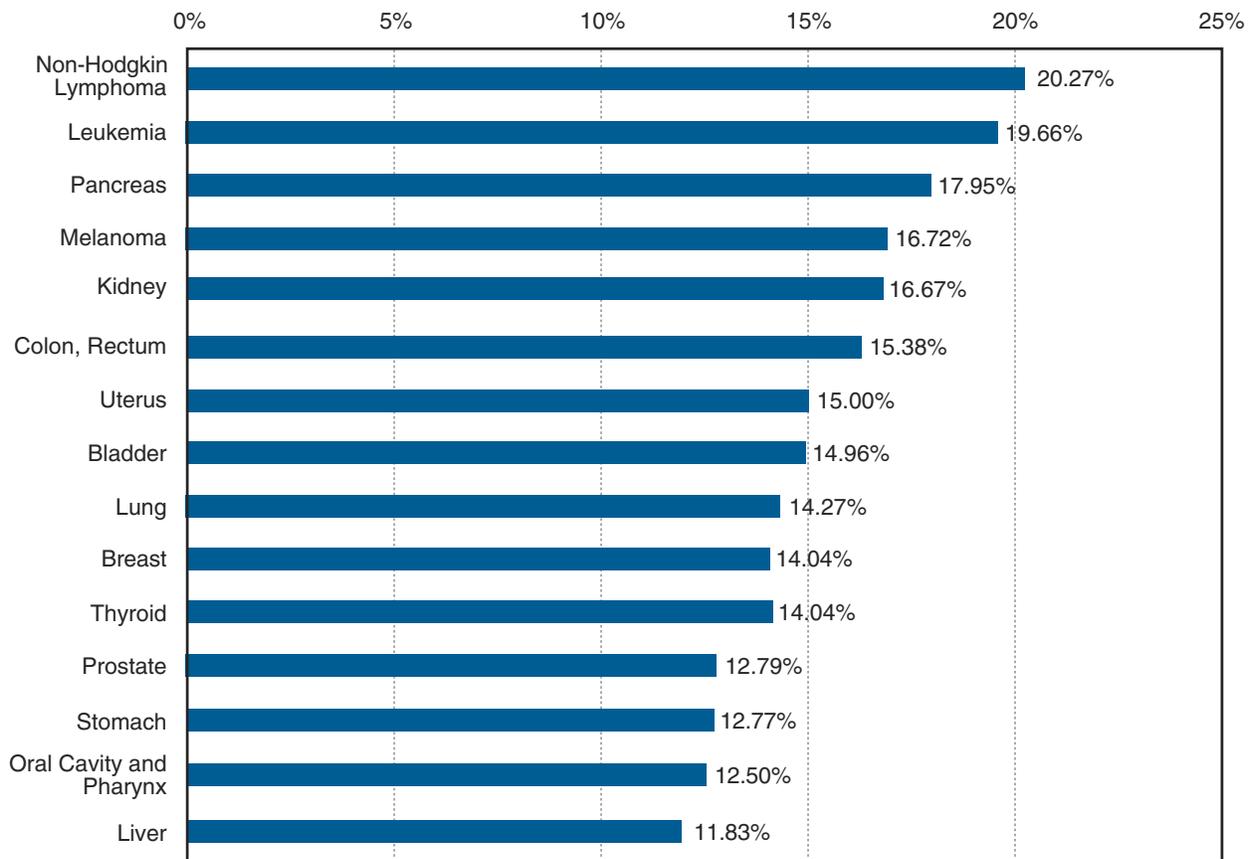
Success Rates of Extramural Science Categories

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 FY2017 success rates for selected Special Interest Categories and for the highest incidence cancers. The highest incidence cancer rankings are from the SEER rank of top 15 cancer sites, 2009–2013, age-adjusted incidence for all races and sexes.

Success rates were calculated by dividing the total number of newly and competing funded applications in 2017 for that research category (SIC or Organ Site) by the total number of applications reviewed for that research category (see [Figures 9](#) and [10](#)).

Figure 9. FY2017 Success Rates for Applications in High Incidence Cancers*

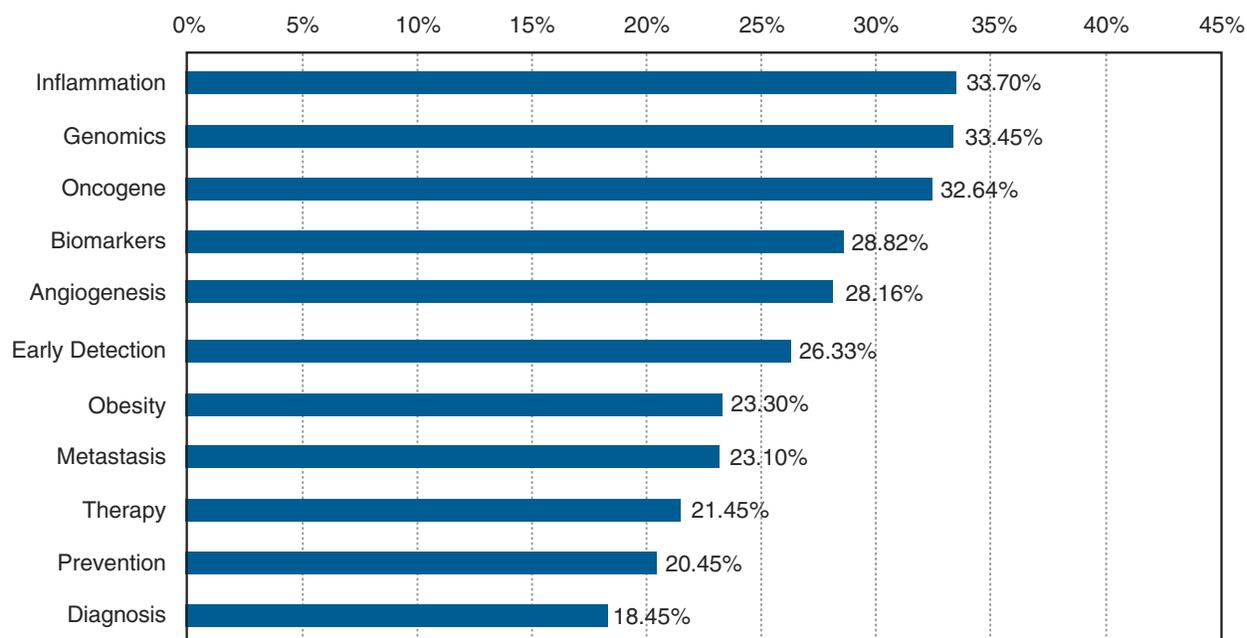
Sorted by Success Rate



Selected Oncology Sites	SEER Rank*	Types 1 & 2 Funded in 2017 for This Site	Total Applications Received in 2017 for This Site	2017 Success Rate (%) for This Site	Total Funding for Types 1 & 2 in 2017 for This Site
Non-Hodgkin Lymphoma	5	61	301	20.27	\$20,197,195
Leukemia	9	126	641	19.66	\$47,795,216
Pancreas	10	129	702	17.95	\$49,878,967
Melanoma	4	103	616	16.72	\$36,387,782
Kidney	7	26	156	16.67	\$8,374,455
Colon, Rectum	3	132	858	15.38	\$45,114,902
Uterus	15	12	80	15.00	\$2,823,044
Bladder	14	19	127	14.96	\$5,326,519
Lung	2	177	1,240	14.27	\$74,307,997
Breast	6	337	2,400	14.04	\$123,980,516
Thyroid	8	8	57	14.04	\$1,464,544
Prostate	1	115	899	12.79	\$41,974,027
Stomach	13	6	47	12.77	\$977,525
Oral cavity & pharynx	11	13	104	12.50	\$3,057,412
Liver	12	46	389	11.83	\$13,509,165

*SEER rank of top 15 cancer sites 2009–2013 age adjusted incidence for all races and sexes.

Figure 10. FY2017 Success Rates for Applications in Selected Special Interest Categories (SIC)
Sorted by Success Rate



Special Interest Category	Types 1 & 2 Funded in 2017 for This SIC	Total Applications Received in 2017 for This SIC	2017 Success Rate (%) for This SIC	Total Funding for Types 1 & 2 in 2017 for This SIC
Inflammation	121	480	33.70	\$29,599,097
Genomics	281	1,121	33.45	\$101,746,301
Oncogene	265	1,077	32.64	\$75,268,732
Biomarkers	362	1,618	28.82	\$12,576,203
Angiogenesis	49	223	28.16	\$12,099,888
Early Detection	134	643	26.33	\$62,663,718
Obesity	48	254	23.30	\$143,121,014
Metastasis	337	1,796	23.10	\$102,337,807
Therapy	1,056	5,979	21.45	\$493,090,775
Prevention	136	801	20.45	\$51,207,875
Diagnosis	327	2,099	18.45	\$158,721,774

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 DEA servers; provides information technology service desk support; provides oversight of hardware and connectivity; coordinates National Board and Committee virtual meetings; 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 an IT service desk 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 FY2017, specific AISB accomplishments are highlighted below.

Systems Infrastructure and Service Support

Security Implementation, Auditing, and Reporting

– Maintained and augmented the real-time security configurations and upkeep of Division IT assets, from mobile and desktop to server and database; performed DEA Information System (DEAIS) and Fiscal Linked Analysis of Research Emphasis (FLARE) Security and Assurance review and annual continuous monitoring exercises, including NIST 800-53(r4) controls update; made

documentation updates for Contingency Plans (CP), CP Testing, and CP Training; Configuration Management Policy; Audit Policy and Procedures; Risk Assessment; Annual Assessment; System Security Plan; and E-Authentication (FIPS-199 Standards for Security Categorization of Federal Information and Information Systems Assessment).

Participated in NCI and NIH meetings, working groups, and forums on cybersecurity. Monitored and incorporated Federal cybersecurity regulations and industry best-practices into standard practices and procedures. Worked with ICs and agency on cybersecurity monitoring, auditing, and reporting.

Infrastructure and Operations – Initiated self-managed virtual server environment into the Shady Grove co-location facility; achieved greater than 95 percent systems availability; completed migration of NIH Federated login into the DEA application environment. Worked with the NCI security team to prepare for the Government Accountability Office (GAO) audit of the Agency's information systems; upgraded FLARE server platform and instantiated services for collaborative development tools; migrated SharePoint service to latest release; reconfigured bridging infrastructure to align to NIH electronic Research Administration (eRA) updates; coordinated with CBIIT on support of teleconferenced national board and committee meeting.

Desktop and Mobile Support – Provided service desk supports for the DEA staff, resolved 1,100 desktop support issues; performed a technology refresh and configuration for 45 percent of the DEA desktops and monitors; migrated division staff to NCI Office Cloud; migrated mobile phone system from legacy devices to more reliable and functionally robust equipment; developed a small, efficient automation system to achieve greater than 98 percent accountability of division technology assets; continued migration of electronic document distribution to replace paper for advisory board and committee meetings.

Application Development Projects

- **CATS** (Concept to Awards Tracking System) – Completed and launched major update to the user interface; incorporated new framework technology; finalized a module for Reviewed Program Announcement (PAR) annual review; developed and implemented special initiative module to accommodate identification and review of concepts in special projects such as the Cancer Moonshot.
- **Peer Review Roster** – Developed a new reporting tool to facilitate the selection and recruitment of reviewers for peer review activities, now in evaluation and acceptance testing.
- **Board Logistics** – Developed a management application to facilitate the logistical coordination for national board and committee meetings.
- **Inventory** – Developed an application to manage the Division’s office supplies. The application will centralize and automate request submission, fulfillment tracking, inventory management, and reporting; currently in pre-release testing.
- **Peer Review Logistics** – Initiated development of an application to automate and improve efficiency in the complex workflow of Peer Review Meeting logistics.
- **Production Releases** – Overall there were 60 production releases of 38 different applications as well as 24 application component updates. Numerous security, infrastructure, and host environment updates were made.

User Training

- Participated in DEA’s Brown Bag forums and presented various IT-related topics
- Co-led or participated in DEA’s Program and Review Extramural Staff Training Office (PRESTO) and provided training for Roster Reports and CATS applications.
- Trained lead users on Board Logistics, Inventory, and Peer Review Roster applications.

DEA Website Development

- Initiated Federal-wide Web-page accessibility (508) refresh. Reviewed audit results and planned and initiated remediation of Web pages.

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

- Initiated migration to Federated login.
- Completed FLARE “bridge” tables for managing grant data from NIH OLTP (On-Line Transaction Processing) to FLARE.
- Completed prototype data analytics and business intelligence application using QlikView prototype and released it for user testing.
- Supported reconciliation of AIDS grants indexing by updating codes and data mapping.
- Performed routine and on-demand customized reporting activities.
- Adjusted reporting and data tools to align to emerging business needs.
- Planned and implemented numerous code and database performance enhancements to reduce processing time and improve data reporting integrity.
- Planned and initiated core database redesign.

AISB Staff Involvement

AISB staff represented the needs and concerns of DEA staff through active participation in the following groups: NCI Research Funding Ecosystem Initiative, Weekly GAO Audit Prep Team, CBIIT Next Gen Hosting Task Force, Software Licensing Management Workgroup, Office 365 Email to the Cloud pilot group, Service Now SIG, NCI Informatics and IT Advisory Group (IITAG), DEA Brown Bag seminars, and the NIH eRA Technical Users Group (eTUG).

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, contract review, referral and program coordination of FOAs.
- Directly coordinates and manages the NCAB, BSA, and FNLAC activities.
- 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.
- Coordinates, develops, and implements extramural policy.
- Implements NCI policies regarding extramural research integrity and serves as the NCI Research Integrity Office.
- 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 genders, minorities, and children.
- Serves as the NCI Research Integrity Office.
- Coordinates, develops, and implements extramural policy.

Paulette Gray, Ph.D.	Director
Vacant	Deputy Director
Wlodek Lopaczynski, M.D., Ph.D.*	Assistant Director
Peter Wirth, Ph.D.†	Assistant Director
Ricardo Rawle	Special Assistant to the Director
Thu Nguyen‡	Program Analyst
Kathy Tiong	Program Analyst

*Joined in January 2017.
 †Retired in January 2017.
 ‡Joined in November 2016.

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.
- Maintains DEA facilities.

Ricardo Rawle	Lead Program Analyst
Clara Murphy	Program Specialist
Adrian Bishop	Staff Specialist
Sanjeeb Choudhry	File Clerk
Robert Kruth	Mail 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 (CoC), Advisory Committee to the Director, NIH (ACD), Advisory Committee on Research on Women’s Health (ACRWH), Recombinant DNA Advisory Committee (RAC) and to seven National Institute on Alcohol Abuse and Alcoholism (NIAAA) advisory committees to ensure that appropriate policies and procedures are in place to conduct the designated mission of each committee.
- Acts as a Service Center to provide advisory committee policy and management services to the Division of Program Coordination, Planning, and Strategic Initiatives; Office of Research on Women’s Health; Office of Science Policy; Office of the Director; National Institutes of Health; and NIAAA.
- 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; develops CM Module business rules; 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, GSA, HHS, and NIH; provides logistical support for the NCAB, FNLAC, and BSA meetings, subcommittees, and work groups; and facilitates NCAB, FNLAC and BSA committee-related travel.
- Researches and evaluates financial interests, covered relationships 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 L. Harris Committee Management Officer
Joy Wiszneaucakas..... Deputy Committee Management Officer
Etsegenet Abebe..... Committee Management Specialist
Ron Livingston..... Senior Committee Management Specialist
Alonda Lord..... Committee Management Specialist
Rosalind Niamke..... Committee Management Specialist
Kenny Nock Committee Management Specialist
Sondra Sheriff Senior Committee Management Specialist
Christine Skeens Program Analyst
Malaika Staff..... Senior Committee Management Specialist
Margaret Vardanian..... Contractor

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**
Sheila Hester **Program Analyst**
Lauren McLaughlin **Program Staff Assistant**

Office of Referral, Review, and Program Coordination

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

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

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 SROs and other support staff to manage 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
Shamala Srinivas, Ph.D.	Acting Chief
Dona Love, Ph.D.†	Scientific Review Officer
Robert Coyne, Ph.D.**	Scientific Review Officer
Hasan Siddiqui, Ph.D.††	Scientific Review Officer
Sage Kim, Ph.D.**	Scientific Review Officer
Ombretta Salvucci, Ph.D.**	Scientific Review Officer
Cliff Schweinfest, Ph.D.	Scientific Review Officer
Jennifer Schiltz, Ph.D.	Scientific Review Officer
Viatcheslav Soldatenkov, Ph.D.‡	Scientific Review Officer
Denise Stredrick, 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
Imela Gradington-Jones	Staff Assistant
Micah Traurig	Staff Assistant

*Branch Chief until May 2017.

†Left in February 2017.

‡Left in December 2016.

§Left in February 2017.

**Joined in January 2017.

††Joined in December 2016.

‡‡Moved from SRB to OD in November 2016.

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 SROs and other support staff for 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.

Shakeel Ahmad, Ph.D.*Chief
Peter J. Wirth, Ph.D.§Acting Chief
Kenneth Bielat, Ph.D.**Scientific Review Officer
Eduardo Chufan, Ph.D.†Scientific Review Officer
Jeffrey DeClue, Ph.D.Scientific Review Officer
Jun Fang, Ph.D.Scientific Review Officer
Yasuko Furumoto, Ph.D.‡Scientific Review Officer
Reed Graves, Ph.D.Scientific Review Officer
Nadeem Khan, Ph.D.Scientific Review Officer
Gerald Lovinger, Ph.D.††Scientific Review Officer
Paul GallourakisProgram Analyst
Alisha CraigStaff Assistant
Stevie DowlingStaff Assistant
Hanh “Julie” HoangStaff Assistant
Kimberly MilnerStaff Assistant

*Joined in January 2017.
†Joined in October 2016.
‡Joined in February 2017.
§Retired in January 2017.
**Retired in March 2017.
††Retired in April 2017.

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.
- Refers all NCI-assigned applications to the appropriate cancer activity area(s) according to the NCI Internal Referral Guidelines that define the program interests of each of the 54 cancer activity areas (which typically represent program branches in the NCI extramural divisions).
- Serves as the primary point of contact and provides assistance at the NCI for applicants who want to apply for Program Project (P01), conference grant (R13), Academic Research Enhancement Award (R15), and most large budget grant applications.
- 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.
- 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.

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
Quynh Tram Chiaramonte Staff Assistant

Research Programs Review Branch

- Plans, coordinates, and manages the scientific 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
Robert Bird, Ph.D.	Special Assistant
Caterina Bianco, M.D., Ph.D.†	Scientific Review Officer
Sanita Bharti, Ph.D.	Scientific Review Officer
Majed Hamawy, Ph.D., M.B.A.	Scientific Review Officer
Wlodek Lopaczynski, M.D., Ph.D.‡	Scientific Review Officer
Klaus Piontek, Ph.D.	Scientific Review Officer
Anita Tandle, Ph.D.§	Scientific Review Officer
Mukesh Kumar, Ph.D.**	Scientific Review Officer
Charles Choi	Program Analyst
Deneen Mattocks	Lead Staff Assistant
Shannon Harley††	Staff Assistant
Stefanie Powell	Staff Assistant
Cameron Stansbury	Staff Assistant

* Moved to RTCRB in January 2017.

† Moved to RTRB in January 2017.

‡ Moved to OD in January 2017.

§ Joined in October 2016.

** Joined in January 2017.

†† Left in March 2017.

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.

Shamala Srinivas, Ph.D.*	Acting Chief
Caterina Bianco Ph.D.†	Acting Chief
Tushar Deb, Ph.D.	Scientific Review Officer
Byeong-Chel Lee, Ph.D.	Scientific Review Officer
Timothy Meeker, M.D.	Scientific Review Officer
David Ransom, Ph.D.	Scientific Review Officer
Adriana Stoica, Ph.D.	Scientific Review Officer
Donnell Wilson	Program Analyst
Gelia Holloway	Lead Staff Assistant
Linda Edwards	Staff Assistant
Leslie Kinney	Staff Assistant
Bridgette Wilson	Staff Assistant

*Left in January 2017.

†Joined in January 2017.

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 provide a basis for budget projections.
- Maintains liaison with other offices within the Institute to ensure consistent reporting of data.
- Monitors the results of NCI’s grant-supported research.
- Assists other NCI organizations by indexing NCI research projects for attributes other than SICs and Sites, for example, Common Scientific Outline (CSO) Codes and AIDS Categories.

Edward Kyle..... Lead Biologist/Team Leader
Beth Buschling Biologist
Me Hei, M.D. Health Specialist
Bernard Whitfield, M.S...... Biologist
Tyrone Wilson..... Biologist
Clarissa Douglas..... Contractor

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 the U.S. 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 (Fiscal Linked Analysis Research Emphasis) 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**
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 and deployment of specialized software and databases systems required for the conduct of review, referral, coding, advisory, and other extramural-related operations.
- 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 the DEA Internet and Intranet websites and applications.
- Establishes, administers, and monitors IT support contracts to provide design, development, maintenance, and support for Division information systems.
- Formulates and establishes the DEA-specific office automation policy.
- Provides desktop support and technology refresh for the Division and conducts training for the DEA IT applications.
- Coordinates general user support and training with NCI and NIH services. Co-leads or participates in Program and Review Extramural Staff Training Office (PRESTO) training sessions.
- Provides Division-specific video teleconferencing, audiovisual services, and application support for review and National Advisory Board and Committee activities.
- Reviews user-created applications and recommends and/or designs changes to improve efficiency and effectiveness.
- Conducts and coordinates security assessment and authorization for the Division's information systems.

Todd Hardin..... Chief

Application Development Team

- Analyzes and coordinates life-cycle software development for the Division.
- Develops and designs applications to support the Division's business processes.
- Develops, administers, and monitors contracts for acquisition, support, and maintenance of the Division's information 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 Acting Team Leader

Teresa Park..... Information Technology Specialist

Vivien Yeh Information Technology Specialist

Information Management Team

- Designs and maintains the Division’s Intranet and Internet websites, and ensures compliance with relevant Federal Web standards, policies, and guidelines.
- Works with DEA staff to ensure accurate and latest information postings and linkages across the DEA websites.
- Coordinates application development and supports the RAEB in the areas of scientific coding and analysis.
- Establishes partnerships and ongoing communications with staff and external customers to foster openness and collaboration in accomplishing the information initiatives of the Division.

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 server infrastructure in support of DEA applications, databases, and websites.
- Conducts configuration management in accordance with Federal cybersecurity policies and regulations.
- Coordinates network connectivity for the Division with CBIIT.
- Researches and recommends IT-related equipment, service, and support for the Division.
- Provides end-to-end technical service and IT service desk support for desktop and laptop computers, mobility solutions, office automation products, and licensed software applications.
- Acquires and administers the Division’s information technology assets—computer hardware, software, IT maintenance contracts, and supplies.
- Maintains and is accountable for IT equipment inventory for the Division.
- Implements and maintains Federal 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 FY2017
Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center
10/3/2016	CA16-018	U54	Collaborative Consortia for the Study of HIV-Associated Cancers: U.S. and Low- and Middle-Income Country Partnerships	OHAM
10/7/2016	CA16-020	U13	BD2K Support for Meetings of Data Science Related Organizations	DCTD
10/24/2016	CA16-016	UM1	Research Centers for Population-Based Research to Optimize Cancer Screening (PROSPR) Initiative	DCCPS
	CA16-017	U24	Coordinating Center for Population-Based Research to Optimize Cancer Screening (PROSPR)	
11/7/2016	CA17-012	R21	Innovative Technologies for Cancer-Relevant Biospecimen Science	CSSI
	CA17-010	R21	Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research	
	CA17-011	R33	Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research	
	CA17-013	R33	Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research	
11/25/2016	CA16-501	UM1	Limited Competition: Cancer Immunotherapy Trials Network (CITN)	DCTD
12/6/2016	CA17-004	U24	PDX Data Commons and Coordinating Center (PDCCC) for the PDX Development and Trial Centers Research Network (PDXNet)	DCTD
	CA17-003	U54	PDX Development and Trial Centers (PDTCs)	
12/8/2016	CA17-009	U54	Mechanisms of Cancer Drug Resistance and Sensitivity	DCTD
	CA17-014	F99, K00	The NCI Predoctoral to Postdoctoral Fellow Transition Award	CCT
12/16/2016	CA17-016	U24	Resource Center for the Consortium for Pancreatic Ductal Adenocarcinoma (PDAC) Translational Studies	DCTD
	CA17-006	U24	Cancer Immunologic Data Commons (CIDC)	
	CA17-005	U24	Cancer Immune Monitoring and Analysis Centers	
	CA17-002	U24	Coordinating Center for Canine Immunotherapy Trials and Correlative Studies	
	CA17-001	U01	Canine Immunotherapy Trials and Correlative Studies	
	CA17-015	U01	Consortium for Pancreatic Ductal Adenocarcinoma (PDAC) Translational Studies on the Tumor Microenvironment	
3/3/2017	CA17-017	R01	Research Answers to NCI's Provocative Questions	CSSI
	CA17-018	R21	Research Answers to NCI's Provocative Questions	
3/13/2017	CA17-022	P50	Revision Applications to National Cancer Institute (NCI)-Supported P50 Awards to Include Research on the NCI's Provocative Questions	CSSI
	CA17-021	P01	Revision Applications to National Cancer Institute (NCI)-Supported P01 Awards to Include Research on the NCI's Provocative Questions	
	CA17-020	U01	Revision Applications to National Cancer Institute (NCI)-Supported U01 Awards to Include Research on the NCI's Provocative Questions	
	CA17-019	R01	Revision Applications to NCI-supported R01 Awards to Include Research on the NCI's Provocative Questions	

continued

Source: Office of Referral, Review and Program Coordination.

Table 1a (cont'd). Requests for Applications (RFAs) Published by the NCI in FY2017
Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center
3/22/2017	CA17-023	R33	Integration and Validation of Emerging Technologies to Accelerate Cancer Research	CSSI
4/12/2017	CA17-024	R44	SBIR Phase II Bridge Awards to Accelerate the Development of Cancer Therapeutics, Imaging Technologies, Interventional Devices, Diagnostics, and Prognostics toward Commercialization	SBIRDC
5/26/2017	CA17-030	R01	HIV/AIDS and the Tumor Niche	DCB
6/9/2017	CA17-027	UM1	Pediatric Early Phase Clinical Trials Network	DCTD
8/2/2017	CA17-029	U01	Precompetitive Collaboration on Liquid Biopsy for Early Cancer Assessment	DCP
8/4/2017	CA17-049	U54	Collaborative Research Network for Fusion Oncoproteins in Childhood Cancers	DCB
8/15/2017	CA17-031	U24	Limited Competition: A Data Resource for Analyzing Blood and Marrow Transplants	DCTD
8/21/2017	CA17-028	U24	Coordinating Center for the Consortium of Translational Research in Early Detection of Liver Cancer	DCP
	CA17-025	U01	Consortium on Translational Research in Early Detection of Liver Cancer (Clinical and Research Centers)	
9/1/2017	CA17-041	U01	Approaches to Identify and Care for Individuals with Inherited Cancer Syndromes	DCCPS
9/25/2017	CA17-052	U01	Analyzing and Interpreting Clinician and Patient Adverse Event Data to Better Understand Tolerability	DCP
9/26/2017	CA17-051	U01	Pediatric Immunotherapy Translational Science Network (PI-TSN)	DCTD
	CA17-050	U54	Pediatric Immunotherapy Translational Science Network (PI-TSN)	DCB

Source: Office of Referral, Review and Program Coordination.

Table 1b. Requests for Applications (RFAs) Published by the NCI in FY2017*Sorted by Division, Office, and Center*

Division, Office, and Center	RFA	Mechanism	Title	Date of Publication
CCT	CA17-014	F99, K00	The NCI Predoctoral to Postdoctoral Fellow Transition Award	12/8/2016
CSSI	CA17-012	R21	Innovative Technologies for Cancer-Relevant Biospecimen Science	11/7/2016
	CA17-010	R21	Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research	11/7/2016
	CA17-011	R33	Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research	11/7/2016
	CA17-013	R33	Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research	11/7/2016
	CA17-017	R01	Research Answers to NCI's Provocative Questions	3/3/2017
	CA17-018	R21	Research Answers to NCI's Provocative Questions	3/3/2017
	CA17-022	P50	Revision Applications to National Cancer Institute (NCI)-Supported P50 Awards to Include Research on the NCI's Provocative Questions	3/13/2017
	CA17-021	P01	Revision Applications to National Cancer Institute (NCI)-Supported P01 Awards to Include Research on the NCI's Provocative Questions	3/13/2017
	CA17-020	U01	Revision Applications to National Cancer Institute (NCI)-Supported U01 Awards to Include Research on the NCI's Provocative Questions	3/13/2017
	CA17-019	R01	Revision Applications to NCI-Supported R01 Awards to Include Research on the NCI's Provocative Questions	3/13/2017
	CA17-023	R33	Integration and Validation of Emerging Technologies to Accelerate Cancer Research	3/22/2017
	CA17-030	R01	HIV/AIDS and the Tumor Niche	5/26/2017
	DCB	CA17-049	U54	Collaborative Research Network for Fusion Oncoproteins in Childhood Cancers
CA17-050		U54	Pediatric Immunotherapy Translational Science Network (PI-TSN)	9/26/2017
DCCPS	CA16-016	UM1	Research Centers for Population-Based Research to Optimize Cancer Screening (PROSPR) Initiative	10/24/2016
	CA16-017	U24	Coordinating Center for Population-Based Research to Optimize Cancer Screening (PROSPR)	10/24/2016
	CA17-041	U01	Approaches to Identify and Care for Individuals with Inherited Cancer Syndromes	9/1/2017
	CA17-029	U01	Precompetitive Collaboration on Liquid Biopsy for Early Cancer Assessment	8/2/2017
	CA17-028	U24	Coordinating Center for the Consortium of Translational Research in Early Detection of Liver Cancer	8/21/2017
CA17-052	U01	Analyzing and Interpreting Clinician and Patient Adverse Event Data to Better Understand Tolerability	9/25/2017	
DCP	CA17-025	U01	Consortium on Translational Research in Early Detection of Liver Cancer (Clinical and Research Centers)	8/21/2017

continued

Source: Office of Referral, Review and Program Coordination.

Table 1b (cont'd). Requests for Applications (RFAs) Published by the NCI in FY2017
Sorted by Division, Office, and Center

Division, Office, and Center	RFA	Mechanism	Title	Date of Publication
	CA16-020	U13	BD2K Support for Meetings of Data Science Related Organizations	10/7/2016
	CA16-501	UM1	Limited Competition: Cancer Immunotherapy Trials Network (CITN)	11/25/2016
	CA17-004	U24	PDX Data Commons and Coordinating Center (PDCCC) for the PDX Development and Trial Centers Research Network (PDXNet)	12/6/2016
	CA17-003	U54	PDX Development and Trial Centers (PDTCs)	12/6/2016
	CA17-009	U54	Mechanisms of Cancer Drug Resistance and Sensitivity	12/8/2016
	CA17-016	U24	Resource Center for the Consortium for Pancreatic Ductal Adenocarcinoma (PDAC) Translational Studies	12/16/2016
	CA17-006	U24	Cancer Immunologic Data Commons (CIDC)	12/16/2016
DCTD	CA17-005	U24	Cancer Immune Monitoring and Analysis Centers	12/16/2016
	CA17-002	U24	Coordinating Center for Canine Immunotherapy Trials and Correlative Studies	12/16/2016
	CA17-001	U01	Canine Immunotherapy Trials and Correlative Studies	12/16/2016
	CA17-015	U01	Consortium for Pancreatic Ductal Adenocarcinoma (PDAC) Translational Studies on the Tumor Microenvironment	12/16/2016
	CA17-027	UM1	Pediatric Early Phase Clinical Trials Network	6/9/2017
	CA17-031	U24	Limited Competition: A Data Resource for Analyzing Blood and Marrow Transplants	8/15/2017
	CA17-051	U01	Pediatric Immunotherapy Translational Science Network (PI-TSN)	9/26/2017
OHAM	CA16-018	U54	Collaborative Consortia for the Study of HIV-Associated Cancers: U.S. and Low- and Middle-Income Country Partnerships	10/3/2016
SBIRDC	CA17-024	R44	SBIR Phase II Bridge Awards to Accelerate the Development of Cancer Therapeutics, Imaging Technologies, Interventional Devices, Diagnostics, and Prognostics toward Commercialization	4/12/2017

Source: Office of Referral, Review and Program Coordination.

Table 2. NCI Participation in Trans-NIH Requests for Applications (RFAs) in FY2017

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
10/19/2016	RM16-027	U18	Stimulating Peripheral Activity to Relieve Conditions (SPARC): Pre-Clinical Development of Existing Market-Approved Devices to Support New Market Indications	ALL DIVISIONS	NIH-RM
11/10/2016	RM16-024	U24	Knowledge Management Center for Illuminating the Druggable Genome	ALL DIVISIONS	NIH-RM
	RM16-026	U24	Data and Resource Generation Centers for Illuminating the Druggable Genome		
	RM16-025	U24	Resource Dissemination and Outreach Center for Illuminating the Druggable Genome		
11/23/2016	RM16-019	UG3 UH3	NIH Health Care Systems Research Collaboratory – Demonstration Projects for Pragmatic Clinical Trials	ALL DIVISIONS	NIH-RM
	RM16-018	U24	Limited Competition: NIH Health Care Systems Research Collaboratory – Coordinating Center		
12/8/2016	AI16-083	U01	Revision Applications for U.S.-South Africa Program for Collaborative Biomedical Research	OHAM	NIH
	AI16-082	R01			
12/12/2016	RM17-001	R03	Novel Analytical Approaches for Metabolomics Data	ALL DIVISIONS	NIH-RM
1/5/2017	RM17-002	U24	National Centers for Cryoelectron Microscopy	ALL DIVISIONS	NIH-RM
1/26/2017	RM17-003	U01	Stimulating Peripheral Activity to Relieve Conditions (SPARC): Foundational Peripheral Neuroanatomy and Functional Neurobiology in Under-Studied Organs	ALL DIVISIONS	NIH-RM
2/13/2017	RM17-004	R25	Research Education Program Grants for CryoEM Curriculum Development	CCT	NIH-RM
3/13/2017	OD17-003	U54	Tobacco Centers of Regulatory Science for Research Relevant to the Family Smoking Prevention and Tobacco Control Act	DCCPS	NIH FDA
3/22/2017	OD17-005	U24	Intensive Longitudinal Analysis of Health Behaviors: Leveraging New Technologies to Understand Health Behaviors	DCCPS	NIH
	OD17-004	U01			
3/24/2017	OD17-006	U54	Tobacco Centers of Regulatory Science for Research Relevant to the Family Smoking Prevention and Tobacco Control Act	DCB	NIH FDA
4/11/2017	RM17-010	OT2	Limited Competition – Stimulating Peripheral Activity to Relieve Conditions (SPARC): Technologies to Understand the Control of Organ Function by the Peripheral Nervous System	ALL DIVISIONS	NIH-RM
4/18/2017	RM17-008	DP5	NIH Director's Early Independence Awards	ALL DIVISIONS	NIH-RM
4/19/2017	RM17-006	DP2	NIH Director's New Innovator Award Program	ALL DIVISIONS	NIH-RM
4/20/2017	RM17-005	DP1	NIH Director's Pioneer Award Program	ALL DIVISIONS	NIH-RM
	RM17-007	R01	NIH Director's Transformative Research Awards		

continued

Source: Office of Referral, Review and Program Coordination.

Table 2 (cont'd). NCI Participation in Trans-NIH Requests for Applications (RFAs) in FY2017

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
	OD17-009	R21	Tobacco Regulatory Science	DCCPS	
5/10/2017	OD17-008	R03	Tobacco Regulatory Science Small Grant Program for New Investigators	CSSI	NIH FDA
	OD17-007	R01	Tobacco Regulatory Science	DCCPS	
6/30/2017	ES17-006	U01	Expanding Genome Integrity Assays to Population Studies	DCCPS	NIH
	OD17-012	R03	Tobacco Regulatory Science Small Grant Program for New Investigators		
7/20/2017	OD17-013	R01	Tobacco Regulatory Science	DCCPS	NIH FDA
	OD17-014	R21			
	RM17-014	U2C	Stakeholder Engagement and Program Coordination Center (SEPCC)	ALL DIVISIONS	NIH-RM
	RM17-013	U2C	Compound Identification Development Cores		
8/1/2017	RM17-012	U01	Metabolomic Data Analysis and Interpretation Tools	DCCPS	NIH-RM
	RM17-011	U2C	National Metabolomics Data Repository (NMDR)		
	HL18-024	R01	Cardiovascular and Pulmonary Research on E-Cigarettes	ALL DIVISIONS	NIH
8/4/2017	RM17-029	U01	Innovative Adaptations to Simplify Existing Technologies for Manipulation and Analysis of Glycans	DCP	NIH-RM
8/4/2017	RM17-030	U01	Novel and Innovative Tools to Facilitate Identification, Tracking, Manipulation, and Analysis of Glycans and their Functions	DCP	NIH-RM
	RM17-018	U01	Coordinating Center for the Undiagnosed Diseases Network (UDN) Phase II		
	RM17-016	U01	Sequencing Core(s) for the Undiagnosed Diseases Network (UDN) Phase II		
8/15/2017	RM17-015	U01	Metabolomics Core for the Undiagnosed Diseases Network (UDN) Phase II	ALL DIVISIONS	NIH-RM
	RM17-019	U01	Clinical Sites for the Undiagnosed Diseases Network (UDN) Phase II		
	RM17-017	U54	Model Organisms Screening Center for the Undiagnosed Diseases Network (UDN) Phase II		
8/23/2017	HL18-023	R38	Stimulating Access to Research in Residency (StARR)	CCT	NIH

continued

Source: Office of Referral, Review and Program Coordination.

Table 2 (cont'd). NCI Participation in Trans-NIH Requests for Applications (RFAs) in FY2017

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
9/18/2017	RM17-023	U01	Science of Behavior Change: Revision Applications for Use-Inspired Research to Optimize Adherence, Behavior Change Interventions, and Outcomes	DCCPS	NIH-RM
	RM17-022	R01			
	RM17-024	R34			
	RM17-028	R21			
9/19/2017	RM17-020	U54	Human Heredity and Health in Africa (H3Africa): Ethical, Legal, and Societal Issues (ELSI) Collaborative Centers	ALL DIVISIONS	NIH-RM
	RM17-021	U01	Human Heredity and Health in Africa (H3Africa): Ethical, Legal, and Societal Issues (ELSI) Research Program		

Source: Office of Referral, Review and Program Coordination.

Table 3a. Program Announcements (PAs) Published by the NCI in FY2017
Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center
10/3/2016	PAR16-457	P01	National Cancer Institute Program Project Applications	ALL DIVISIONS
10/4/2016	PAR17-003	R01	Revision Applications for Validation of Biomarker Assays Developed Through NIH-Supported Research Grants	DCCPS DCTD
11/4/2016	PAR17-049	R50	NCI Research Specialist (Laboratory-Based Scientist) Award	DCB
	PAR17-050	R50	NCI Research Specialist (Core-Based Scientist) Award	
11/25/2016	PAR17-059	R25	National Cancer Institute Youth Enjoy Science Research Education Program	CRCHD
11/28/2016	PA17-061	R21	Oral Anticancer Agents: Utilization, Adherence, and Health Care Delivery	DCCPS
	PA17-060	R01		
12/6/2016	PAR17-069	K22	NCI Transition Career Development Award to Promote Diversity	CRCHD
12/15/2016	PAR17-087	R01	Tobacco Use and HIV in Low and Middle Income Countries	DCCPS
	PAR17-086	R21		
12/21/2016	PAR17-093	R01	Academic-Industrial Partnerships to Translate and Validate <i>In Vivo</i> Cancer Imaging Systems	DCB
	PAR17-095	P30	Cancer Center Support Grants (CCSGs) for NCI-Designated Cancer Centers	
1/9/2017	PA17-110	R01	Reducing Overscreening for Breast, Cervical, and Colorectal Cancers Among Older Adults	DCCPS
	PA17-109	R21		
1/18/2017	PAR17-124	R21	Perception and Cognition Research to Inform Cancer Image Interpretation	DCCPS
	PAR17-125	R01		
1/19/2017	PAR17-128	UG3, UH3	Quantitative Imaging Tools and Methods for Cancer Therapy Response Assessment	DCTD
	PAR17-129	U01	Quantitative Imaging Tools and Methods for Cancer Response Assessment	
1/26/2017	PA17-138	333*	Administrative Supplements to Promote Research Collaborations on Fusion Oncoproteins as Drivers of Childhood Cancer (Admin Supp)	DCB
1/27/2017	PA17-143	333*	Activities to Promote Technology Research Collaborations (APTRC) for Cancer Research (Admin Supp)	CSS1
2/1/2017	PAR17-146	U01	Multilevel Interventions in Cancer Care Delivery: Building From the Problem of Follow-Up to Abnormal Screening Tests	DCCPS
2/14/2017	PAR17-167	R01	Early Phase Clinical Trials in Imaging and Image-Guided Interventions	DCTD
2/21/2017	PAR17-171	R01	Cancer Tissue Engineering Collaborative: Enabling Biomimetic Tissue-Engineered Technologies for Cancer Research	DCP
3/7/2017	PAR17-204	R21	Inter-Organelle Communication in Cancer	DCB
	PAR17-203	R01		
	TPA17-8053	R01		
	TPA17-8054	R21		

continued

*Administrative Supplement
Source: Office of Referral, Review and Program Coordination.

Table 3a (cont'd). Program Announcements (PAs) Published by the NCI in FY2017
Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center
3/8/2017	PAR17-206	U01	Alliance of Glycobiologists for Cancer Research: Translational Tumor Glycomics Laboratories	DCP
	TPA17-8051	U01		
	TPA17-8052	U01	Alliance of Glycobiologists for Cancer Research: Biological Tumor Glycomics Laboratories	DCB
	PAR17-207	U01		
3/14/2017	PA17-222	333*	Supplements for Validating the Use of Automated Sources of Residential Histories in Cancer Epidemiology Cohorts (Admin Supp)	DCCPS
3/15/2017	PA17-223	333*	Supplement Opportunity to Support Population-Based Research Studies of Rare Cancers (Admin Supp)	DCCPS
	PA17-224	333*	Research Supplements to Promote Sharing Data in Cancer Epidemiology Studies (Admin Supp)	
3/29/2017	PAR17-233	U01	Core Infrastructure and Methodological Research for Cancer Epidemiology Cohorts	DCCPS
3/30/2017	PA17-239	R01	Secondary Analysis and Integration of Existing Data to Elucidate the Genetic Architecture of Cancer Risk and Related Outcomes	CRCHD
	PA17-243	R21		
	PA17-241	333*	Fostering Research Training and Education Programs for Native American Students at NCI-designated Cancer Centers (Admin Supp)	DCB
	PAR17-240	R01	Innovative Research in Cancer Nanotechnology (IRCN)	
4/3/2017	PA17-248	333*	Activities to Promote Research Collaborations on Immune-Related Adverse Events (APRC-irAEs) Associated with Cancer Immunotherapy (Admin Supp)	DCB
	PAR17-245	R01	Research Projects to Enhance Applicability of Mammalian Models for Translational Research	
4/4/2017	PAR17-244	R01	Collaborative Research Projects to Enhance Applicability of Mammalian Models for Translational Research (Collaborative R01)	DCB
5/16/2017	PA17-288	R21	Leveraging Population-based Cancer Registry Data to Study Health Disparities	DCCPS
	PA17-289	R01		
5/26/2017	PAR17-217	R01	U.S. Tobacco Control Policies to Reduce Health Disparities	DCCPS
	PAR17-218	R21		
6/22/2017	PA17-295	R21	Integration of Individual Residential Histories into Cancer Research	DCCPS
	PA17-298	R01		
7/20/2017	PAR17-331	R01	Discovery of Small Molecule Immunomodulators for Cancer Therapy	DCTD
7/21/2017	PA17-330	R01	Using Small Molecules and Molecular Genetics to Identify Novel Targets and Mechanisms Contributing to Tumor Immune Evasion	DCB
7/27/2017	PAR17-438	R01	Assay Development and Screening for Discovery of Chemical Probes or Therapeutic Agents	DCTD

continued

*Administrative Supplement
Source: Office of Referral, Review and Program Coordination.

Table 3a (cont'd). Program Announcements (PAs) Published by the NCI in FY2017
Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center
8/4/2017	PA17-440	R01	The Interplay of Cell Death Pathways in Cancer Cell Survival and Resistance to Therapy	DCB
	PA17-449	R21		
8/15/2017	PA17-459	R01	Biology of Lung, and Head and Neck Preneoplasias	DCB
8/16/2017	PA17-460	R01	Biology of Lung, and Head and Neck Preneoplasias (R21 – Clinical Trial Not Allowed)	DCB
9/28/2017	PAR17-494	R35	NCI Outstanding Investigator Award	DCB
	PAR17-496	R01	Intervention Research to Improve Native American Health (R01 Clinical Trial Optional)	
9/29/2017	PAR17-464	R21	Research to Improve Native American Health (R21 Clinical Trial Optional)	DCCPS
	PA17-495	R01	Multilevel Interventions in Cancer Care Delivery: Follow-Up to Abnormal Screening Tests (R01 Clinical Trial Optional)	

*Administrative Supplement

Source: Office of Referral, Review and Program Coordination.

Table 3b. Program Announcements (PAs) Published by the NCI in FY2017
Sorted by Division, Office, and Center

Division, Office, and Center	PA/PAR	Mechanism	Title	Date of Publication
ALL DIVISIONS	PAR16-457	P01	National Cancer Institute Program Project Applications	10/3/2016
CRCHD	PAR17-059	R25	National Cancer Institute Youth Enjoy Science Research Education Program	11/25/2016
	PAR17-069	K22	NCI Transition Career Development Award to Promote Diversity	12/6/2016
	PA17-239	R01		
	PA17-241	333*	Fostering Research Training and Education Programs for Native American Students at NCI-designated Cancer Centers (Admin Supp)	3/30/2017
CSSI	PA17-143	333*	Activities to Promote Technology Research Collaborations (APTRC) for Cancer Research (Admin Supp)	1/27/2017
DCB	PAR17-049	R50	NCI Research Specialist (Laboratory-Based Scientist) Award	11/4/2016
	PAR17-050	R50	NCI Research Specialist (Core-Based Scientist) Award	
	PAR17-093	R01	Academic-Industrial Partnerships to Translate and Validate <i>In Vivo</i> Cancer Imaging Systems	12/21/2016
	PAR17-095	P30	Cancer Center Support Grants (CCSGs) for NCI-Designated Cancer Centers	
	PA17-138	333*	Administrative Supplements to Promote Research Collaborations on Fusion Oncoproteins as Drivers of Childhood Cancer (Admin Supp)	1/26/2017
	PAR17-204	R21	Inter-Organelle Communication in Cancer	3/7/2017
	PAR17-203	R01		
	TPA17-8053	R01		
	TPA17-8054	R21		
	TPA17-8052	U01	Alliance of Glycobiologists for Cancer Research: Biological Tumor Glycomics Laboratories	3/8/2017
	PAR17-240	R01	Innovative Research in Cancer Nanotechnology (IRCN)	3/30/2017
	PA17-248	333*	Activities to Promote Research Collaborations on Immune-Related Adverse Events (APRC-irAEs) Associated with Cancer Immunotherapy (Admin Supp)	4/3/2017
	PAR17-245	R01	Research Projects to Enhance Applicability of Mammalian Models for Translational Research	
	PAR17-244	R01	Collaborative Research Projects to Enhance Applicability of Mammalian Models for Translational Research (Collaborative R01)	4/4/2017
	PA17-330	R01	Using Small Molecules and Molecular Genetics to Identify Novel Targets and Mechanisms Contributing to Tumor Immune Evasion	7/21/2017
	PA17-440	R01	The Interplay of Cell Death Pathways in Cancer Cell Survival and Resistance to Therapy	8/4/2017
	PA17-449	R21		
	PA17-459	R01	Biology of Lung, and Head and Neck Preneoplasias	8/15/2017
	PA17-460	R01	Biology of Lung, and Head and Neck Preneoplasias (R21 – Clinical Trial Not Allowed)	8/16/2017
PAR17-494	R35	NCI Outstanding Investigator Award	9/28/2017	

continued

*Administrative Supplement
Source: Office of Referral, Review and Program Coordination.

Table 3b (cont'd). Program Announcements (PAs) Published by the NCI in FY2017
Sorted by Division, Office, and Center

Division, Office, and Center	PA/PAR	Mechanism	Title	Date of Publication
DCCPS	PAR17-086	R21	Tobacco Use and HIV in Low and Middle Income Countries	12/15/2016
	PA17-061	R21	Oral Anticancer Agents: Utilization, Adherence, and Health Care Delivery	11/28/2016
	PA17-060	R01		
	PAR17-087	R01	Tobacco Use and HIV in Low and Middle Income Countries	12/15/2016
	PA17-110	R01	Reducing Overscreening for Breast, Cervical, and Colorectal Cancers among Older Adults	1/9/2017
	PA17-109	R21		
	PAR17-124	R21	Perception and Cognition Research to Inform Cancer Image Interpretation	1/18/2017
	PAR17-125	R01		
	PAR17-146	U01	Multilevel Interventions in Cancer Care Delivery: Building From the Problem of Follow-Up to Abnormal Screening Tests	2/1/2017
	PA17-222	333*	Supplements for Validating the Use of Automated Sources of Residential Histories in Cancer Epidemiology Cohorts (Admin Supp)	3/14/2017
	PA17-223	333*	Supplement Opportunity to Support Population-Based Research Studies of Rare Cancers (Admin Supp)	3/15/2017
	PA17-224	333*		
	PAR17-233	U01	Core Infrastructure and Methodological Research for Cancer Epidemiology Cohorts	3/29/2017
	PA17-288	R21	Leveraging Population-Based Cancer Registry Data to Study Health Disparities	5/16/2017
	PA17-289	R01		
	PAR17-217	R01	U.S. Tobacco Control Policies to Reduce Health Disparities	5/26/2017
	PAR17-218	R21		
	PA17-295	R21	Integration of Individual Residential Histories Into Cancer Research	6/22/2017
	PA17-298	R01		
	PAR17-496	R01	Intervention Research to Improve Native American Health (R01 Clinical Trial Optional)	9/29/2017
PAR17-464	R21	Research to Improve Native American Health (R21 Clinical Trial Optional)		
PA17-495	R01	Multilevel Interventions in Cancer Care Delivery: Follow-Up to Abnormal Screening Tests (R01 Clinical Trial Optional)		
DCCPS DCTD	PAR17-003	R01	Revision Applications for Validation of Biomarker Assays Developed Through NIH-Supported Research Grants	10/4/2016
DCP	PAR17-171	R01	Cancer Tissue Engineering Collaborative: Enabling Biomimetic Tissue-Engineered Technologies for Cancer Research	2/21/2017
	PAR17-207	U01	Alliance of Glycobiologists for Cancer Research: Biological Tumor Glycomics Laboratories	3/8/2017
	PAR17-206	U01		
	TPA17-8051	U01	Alliance of Glycobiologists for Cancer Research: Translational Tumor Glycomics Laboratories	

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*Administrative Supplement
Source: Office of Referral, Review and Program Coordination.

Table 3b (cont'd). Program Announcements (PAs) Published by the NCI in FY2017
Sorted by Division, Office, and Center

Division, Office, and Center	PA/PAR	Mechanism	Title	Date of Publication
DCTD	PAR17-128	UG3, UH3	Quantitative Imaging Tools and Methods for Cancer Therapy Response Assessment	1/19/2017
	PAR17-129	U01	Quantitative Imaging Tools and Methods for Cancer Response Assessment	
	PAR17-167	R01	Early Phase Clinical Trials in Imaging and Image-Guided Interventions	2/14/2017
	PA17-243	R21	Secondary Analysis and Integration of Existing Data to Elucidate the Genetic Architecture of Cancer Risk and Related Outcomes	3/30/2017
	PAR17-331	R01	Discovery of Small Molecule Immunomodulators for Cancer Therapy	7/20/2017
	PAR17-438	R01	Assay Development and Screening for Discovery of Chemical Probes or Therapeutic Agents	7/27/2017

Source: Office of Referral, Review and Program Coordination.

Table 4. NCI Participation in Trans-NIH Program Announcements (PAs/PARs) in FY2017

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
10/4/2016	PAR17-001	K43	Emerging Global Leader Award	CCT	NIH
	PAR17-002	K01	International Research Scientist Development Award (IRSDA)		
10/18/2016	PA17-017	R21	Palliative Care Needs of Individuals With Rare Advanced Diseases and Their Family Caregivers	DCCPS	NIH
	PA17-018	R01			
11/1/2016	PA17-041	R21	Addressing the Etiology of Health Disparities and Health Advantages Among Immigrant Populations	DCCPS	NIH
	PA17-042	R01			
	PA17-043	R01	Addressing Health Disparities Through Effective Interventions Among Immigrant Populations		
	PA17-044	R21			
12/1/2016	PAR17-063	X01	Discovery of the Genetic Basis of Childhood Cancers and of Structural Birth Defects: Gabriella Miller Kids First Pediatric Research Program	DCTD	NIH
12/9/2016	PA17-073	R01	Potential Effects of Metformin on Aging and Age-Related Conditions: Small-Scale Clinical Studies and Secondary Analysis of Controlled Clinical Studies	DCP	NIH
12/12/2016	PA17-078	333*	Administrative Supplement for Research on Sex/Gender Influences (Admin Supp)	ALL DIVISIONS	NIH
12/16/2016	PA17-090	333*	NLM Administrative Supplements for Informationist Services in NIH-Funded Research Projects (Admin Supp)	ALL DIVISIONS	NIH
12/23/2016	PA17-098	333*	Administrative Supplements for Research on Sexual and Gender Minority (SGM) Populations (Admin Supp)	CRCHD	NIH
1/5/2017	PA17-101	333*	Research on the Health of Women of Underrepresented, Understudied and Underreported Populations – An ORWH FY17 Administrative Supplement (Admin Supp)	CRCHD	NIH
1/25/2017	PA17-135	R01	Public Policy Effects on Alcohol-, Marijuana-, and Other Substance-Related Behaviors and Outcomes	DCCPS	NIH
	PA17-134	R03			
	PA17-132	R21			
2/1/2017	PA17-148	R41, R42	Development of Highly Innovative Tools and Technology for Analysis of Single Cells (STTR)	SBIRDC	NIH
2/1/2017	PA17-147	R43, R44	Development of Highly Innovative Tools and Technology for Analysis of Single Cells (SBIR)	SBIRDC	NIH
2/2/2017	PAR17-150	R21	Mechanisms of Disparities in Chronic Liver Diseases and Cancer	CRCHD DCB DCCPS DCP	NIH
	PAR17-151	R01			
3/13/2017	PA17-220	R01	Mechanisms of Alcohol-Associated Cancers	DCB	NIH
	PA17-219	R21			
3/20/2017	PA17-226	R21	Advancing the Science of Geriatric Palliative Care	ALL DIVISIONS	NIH
	PA17-225	R01			
3/29/2017	PAR17-234	R01	Mechanisms and Consequences of Sleep Disparities in the United States	DCTD	NIH
	PAR17-235	R21			

continued

*Administrative Supplement
Source: Office of Referral, Review and Program Coordination.

Table 4 (cont'd). NCI Participation in Trans-NIH Program Announcements (PAs/PARs) in FY2017

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
3/30/2017	PAR17-238	P30	Developmental Centers for AIDS Research	OHAM	NIH
	PAR17-237	P30	Centers for AIDS Research		
4/11/2017	PAR17-254	R00, SI2	Lasker Clinical Research Scholars Program	OD	NIH
5/8/2017	PAR17-273	U24	Genomic Community Resources	DCCPS	NIH
5/12/2017	PA17-281	R21	<i>In Vitro</i> and Animal Model Studies on HBV/HIV Co-Infection	DCB OHAM	NIH
	PA17-279	R01	HIV and Hepatitis B Co-Infection: Advancing HBV Functional Cure Through Clinical Research	DCCPS OHAM	
	PA17-280	R01	<i>In Vitro</i> and Animal Model Studies on HBV/HIV Co-Infection		
6/5/2017	PA17-303	R41, R42	PHS 2017-02 Omnibus Solicitation of the NIH for Small Business Technology Transfer Grant Applications (Parent STTR)	SBIRDC	NIH
	PA17-302	R43, R44	PHS 2017-02 Omnibus Solicitation of the NIH, CDC, and FDA for Small Business Innovation Research Grant Applications (Parent SBIR)		
6/7/2017	PA17-307	333*	Administrative Supplements for Research on Dietary Supplements (Admin Supp)	DCP	NIH
6/23/2017	PAR17-320	R21	Multidisciplinary Studies of HIV/AIDS and Aging	OHAM	NIH
	PAR17-321	R01			
7/10/2017	PA17-324	R03	Ethical, Legal, and Social Implications (ELSI) of Genomics Small Research Grant Program	DCCPS	NIH
	PA17-325	R01	Ethical, Legal, and Social Implications (ELSI) of Genomics Research Project Grant Program		
	PA17-323	R21	Ethical, Legal, and Social Implications (ELSI) of Genomics Exploratory/Developmental Research Grant Program		
7/24/2017	PAR17-334	R01	Synthetic Biology for Engineering Applications	DCB	NIH
8/1/2017	PA17-446	R21	Ethical, Legal, and Social Implications (ELSI) of Genomics Exploratory/Developmental Research Grant Program	DCCPS	NIH
	PA17-445	R03	Ethical, Legal, and Social Implications (ELSI) of Genomics Small Research Grant Program		
	PA17-447	333*	Administrative Supplements for Validation Studies of Analytical Methods for Dietary Supplements and Natural Products (Admin Suppl)	DCP	
	PA17-444	R01	Ethical, Legal, and Social Implications (ELSI) of Genomics Research Project Grant Program	DCCPS	
8/8/2017	PAR17-450	R00	Limited Competition: Lasker Clinical Research Scholars Transition Award	ALL DIVISIONS	NIH
8/16/2017	PA17-461	R21	Symptom Cluster Characterization in Chronic Conditions	DCP	NIH
	PA17-462	R01			
8/25/2017	PAR17-470	R01	Clinical and Epidemiological Research on Chronic Disease in the Caribbean	DCCPS	NIH

continued

*Administrative Supplement
Source: Office of Referral, Review and Program Coordination.

Table 4 (cont'd). NCI Participation in Trans-NIH Program Announcements (PAs/PARs) in FY2017

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
9/1/2017	PAR17-472	R21	Electronic Nicotine Delivery Systems (ENDS): Population, Clinical and Applied Prevention Research	DCCPS	NIH
	PAR17-473	R01			
	PAR17-474	R21	Reducing Stigma to Improve HIV/AIDS Prevention, Treatment and Care in Low- and Middle-Income Countries	CGH	
9/7/2017	PAR17-475	R21	Electronic Nicotine Delivery Systems (ENDS): Basic Mechanisms of Health Effects (R21 – Clinical Trial Not Allowed)	DCB	NIH
	PAR17-476	R01	Electronic Nicotine Delivery Systems (ENDS): Basic Mechanisms of Health Effects (R01 – Clinical Trial Not Allowed)		
9/8/2017	PA17-478	R01	Research on Transgender Health	CRCHD	NIH
	PA17-477	R21			
9/13/2017	PAR17-483	R21	Collaborative Minority Health and Health Disparities Research With Tribal Epidemiology Centers	DCCPS	NIH
	PAR17-484	R01			
9/19/2017	PAR17-486	K18	Short-Term Mentored Career Enhancement Awards for Mid-Career Investigators to Integrate Basic Behavioral and Social Sciences (K18 Clinical Trial Required)	CCT	NIH

Source: Office of Referral, Review and Program Coordination.

Table 5. Applications Received for Referral by the NCI/DEA in FY2017
Sorted by Activity Code

Applications	Activity Code	Total by Activity	Applications by NCAB			Total Costs Requested First Year
			Feb	June	Sept	
International Training Grants in Epidemiology (FIC)	D43	22	22	0	0	\$6,618,134
NIH Director's Pioneer Award (NDPA)	DP1	2	0	2	0	\$7,000,000
NIH Director's New Innovator Awards	DP2	6	0	6	0	\$9,000,000
Individual Predoctoral NRSA for M.D./Ph.D. Fellowships (ADAMHA)	F30	160	48	43	69	\$0
Predoctoral Individual National Research Service Award	F31	414	122	157	135	\$0
Postdoctoral Individual National Research Service Award	F32	289	78	116	95	\$0
Predoctoral to Postdoctoral Transition Award	F99	90	0	0	90	\$0
Research Scientist Development Award – Research and Training	K01	31	6	12	13	\$4,446,973
Academic/Teacher Award	K07	92	17	30	45	\$13,694,261
Clinical Investigator Award	K08	76	20	26	30	\$12,723,860
Physician Scientist Award (Program)	K12	24	3	21	0	\$12,736,186
Career Transition Award	K22	134	54	43	37	\$22,222,086
Mentored Patient-Oriented Research Development Award	K23	27	5	12	10	\$4,640,142
International Research Career Development Award	K43	0	0	0	0	\$0
Career Transition Award	K99	178	57	65	56	\$21,226,081
Research Program Projects	P01	95	22	43	30	\$248,520,081
Exploratory Grants	P20	77	57	0	20	\$20,634,081
Center Core Grants	P30	11	10	1	0	\$30,341,112
Specialized Center	P50	51	4	33	14	\$113,052,860
Comprehensive Center	P60	1	0	0	1	\$1,965,454
Research Project	R01	7,148	2,395	2,523	2,230	\$3,702,927,347
Small Research Grants	R03	802	238	289	275	\$67,111,120
Conferences	R13	110	57	26	27	\$3,473,592
Academic Research Enhancement Awards (AREA)	R15	329	117	114	98	\$139,012,287
Exploratory/Developmental Grants	R21	2,574	825	947	802	\$572,236,592
Resource-Related Research Projects	R24	28	0	28	0	\$10,802,531
Education Projects	R25	98	35	39	24	\$26,644,582
Exploratory/Developmental Grants — Phase II	R33	290	30	46	214	\$140,879,812
Outstanding Investigator Award	R35	129	0	129	0	\$124,470,500
Method to Extend Research in Time (MERIT) Award	R37	1	1	0	0	\$620,449
Small Business Technology Transfer (STTR) Grants — Phase I	R41	281	111	88	82	\$67,757,738
Small Business Technology Transfer (STTR) Grants — Phase II	R42	39	15	13	11	\$20,368,803
Small Business Innovation Research Grants (SBIR) — Phase I	R43	790	277	248	265	\$186,051,361

continued

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 464 withdrawn applications that have been subtracted from the total count.

Table 5 (cont'd). Applications Received for Referral by the NCI/DEA in FY2017
Sorted by Activity Code

Applications	Activity Code	Total by Activity	Applications by NCAB			Total Costs Requested First Year
			Feb	June	Sept	
Small Business Innovation Research Grants (SBIR) — Phase II	R44	373	161	122	90	\$442,703,500
Research Specialist Award	R50	79	0	0	79	\$11,959,788
High Priority, Short Term Project Award	R56	13	4	9	0	\$2,062,664
Minority Biomedical Research Support (MBRS)	S06	11	11	0	0	\$11,679,956
Commercialization Readiness Program	SB1	4	2	2	0	\$2,234,866
Research Enhancement Award	SC1	17	12	0	5	\$5,754,352
Pilot Research Project	SC2	10	8	0	2	\$1,414,130
Research Continuance Award	SC3	0	0	0	0	\$0
Intramural Clinical Scholar Research Award	S12	3	3	0	0	\$0
Institutional National Research Service Award	T32	92	48	24	20	\$40,635,861
Research Project (Cooperative Agreements)	U01	734	227	341	166	\$603,879,567
Conference (Cooperative Agreement)	U13	13	0	13	0	\$4,688,613
Research Program (Cooperative Agreement)	U19	1	1	0	0	\$3,597,791
Resource-Related Research Project (Cooperative Agreements)	U24	85	24	17	44	\$107,631,127
Resource-Related Research Multi-Component Projects and Centers Cooperative Agreements	U2C	1	0	1	0	\$3,006,224
Biotechnology Resource (Cooperative Agreements)	U41	7	2	4	1	\$17,553,921
Small Business Innovation Research (SBIR) Cooperative Agreements — Phase I	U43	1	0	1	0	\$279,689
Specialized Center (Cooperative Agreements)	U54	94	25	10	59	\$163,689,636
Clinical Research Cooperative Agreements — Single Project	UG1	23	0	23	0	\$4,813,466
Phase 1 Exploratory/Developmental Cooperative Agreement	UG3	12	0	5	7	\$5,321,754
Exploratory/Developmental Cooperative Agreement — Phase I	UH2	13	2	4	7	\$4,340,585
Exploratory/Developmental Cooperative Agreement — Phase II	UH3	3	1	1	1	\$1,259,318
Research Project with Complex Structure Cooperative Agreement	UM1	12	0	0	12	\$45,825,580
Pre-application	X02	20	0	20	0	\$0
Overall Totals		16,020	5,157	5,697	5,166	\$7,075,510,413

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 464 withdrawn applications that have been subtracted from the total count.

Table 6. Grant and Cooperative Agreement Applications Reviewed by the NCI/DEA in FY2017
Sorted by Activity Code

Applications	Activity Code	Totals by Activity	Applications by NCAB			Total Costs Requested First Year
			Feb	June	Sept	
Predocutorial to Postdoctoral Transition Award	F99	90	0	0	90	\$0
Research Scientist Development Award — Research and Training	K01	25	5	12	8	\$3,600,284
Academic/Teacher Award	K07	92	17	30	45	\$13,694,261
Clinical Investigator Award	K08	73	19	25	29	\$12,158,591
Physician Scientist Award (Program)	K12	3	3	0	0	\$1,673,999
Career Transition Award	K22	134	54	43	37	\$22,222,086
Mentored Patient-Oriented Research Development Award	K23	24	3	12	9	\$4,139,230
Career Transition Award	K99	161	53	63	45	\$19,496,081
Research Program Projects	P01	95	22	43	30	\$248,520,081
Exploratory Grants	P20	77	57	0	20	\$20,634,081
Center Core Grants	P30	5	4	1	0	\$17,166,008
Specialized Center	P50	51	4	33	14	\$113,052,860
Research Project	R01	317	132	167	18	\$172,269,480
Small Research Grants	R03	692	199	279	214	\$54,030,908
Conferences	R13	77	38	17	22	\$2,281,663
Exploratory/Developmental Grants	R21	1,462	545	448	469	\$324,902,306
Education Projects	R25	71	30	17	24	\$19,918,498
Exploratory/Developmental Grants — Phase II	R33	289	30	45	214	\$140,151,836
Outstanding Investigator Award	R35	129	0	129	0	\$124,470,500
Small Business Innovation Research Grants (SBIR) — Phase I	R43	1	0	0	1	\$147,243
Small Business Innovation Research Grants (SBIR) — Phase II	R44	26	26	0	0	\$25,382,386
Research Specialist Award	R50	79	0	0	79	\$11,959,788
High Priority, Short-Term Project Award	R56	2	0	2	0	\$1,271,414
Intramural Clinical Scholar Research Award	SI2	2	2	0	0	\$0
Institutional National Research Service Award	T32	65	22	24	19	\$22,072,974
Research Project (Cooperative Agreements)	U01	564	184	253	127	\$455,655,593
Research Program (Cooperative Agreement)	U19	1	1	0	0	\$3,597,791
Resource-Related Research Project (Cooperative Agreements)	U24	82	24	16	42	\$100,177,690
Specialized Center (Cooperative Agreements)	U54	94	25	10	59	\$163,689,636
Phase 1 Exploratory/Developmental Cooperative Agreement	UG3	9	0	2	7	\$4,375,582
Exploratory/Developmental Cooperative Agreement High Priority, Short-Term Project Award — Phase I	UH2	13	2	4	7	\$4,340,585
Exploratory/Developmental Cooperative Agreement — Phase II	UH3	3	1	1	1	\$1,259,318
Research Project with Complex Structure Cooperative Agreement	UM1	12	0	0	12	\$45,825,580
Overall Totals		4,819	1,502	1,676	1,641	\$2,154,138,333

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 188 withdrawn applications that have been subtracted from the total count.

Table 7. Applications Reviewed by NCI IRG Subcommittees and Special Emphasis Panels (SEPs) in FY2017

NCI IRG Subcommittee	Types of Applications Reviewed	Total by Committee	Total Costs Requested First Year
A - Cancer Centers	P30	4	\$14,798,736
F - Institutional Training and Education	K12, R25, T32	122	\$36,548,486
H - Clinical Groups	P20	0	\$0
I - Transition to Independence	K08, K22, K99	283	\$39,789,019
J - Career Development	K01, K07, K08, K22, K23	223	\$35,015,834
Totals - NCI IRG Subcommittees		632	\$126,152,075
Total SEPs	F99, K01, K07, K99, L30, L40, P01, P20, P30, P50, R01, R03, R13, R21, R25, R33, R35, R43, R44, R50, R56, S12, T32, U01, U19, U24, U54, UG3, UH2, UH3, UM1	4,187	\$2,027,986,258
Totals		4,819	\$2,154,138,333

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 23 withdrawn applications that have been subtracted from the total count.

Table 8. Summary of Investigator-Initiated P01 Applications Reviewed for Each NCAB Meeting in FY2017

Type of Application	Applications by Board			
	February	June	September	FY Total
New	13	21	15	49
Resubmitted New	2	9	5	16
Renewal	3	8	6	17
Resubmitted renewal	4	3	4	11
Revisions	0	2	0	2
Total	22	43	30	95

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

Table 9. Summary of Unsolicited P01 Applications Reviewed in FY2017
Sorted by NCI Program Division

Program Division	Number of Applications	Total Costs Requested First Year	Total Costs for Requested Period
Division of Cancer Biology (DCB)	31	\$68,841,684	\$351,615,403
Division of Cancer Control and Population Sciences (DCCPS)	20	\$65,312,512	\$329,625,214
Division of Cancer Prevention (DCP)	5	\$10,926,957	\$55,868,832
Division of Cancer Treatment and Diagnosis (DCTD)	39	\$103,438,928	\$518,442,764
Total	95	\$248,520,081	\$1,255,552,213

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 FY2017

Title of Initiative	RFA Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	June	Sept	
Planning for Regional Centers of Research Excellence in Non-Communicable Diseases in Low and Middle Income Countries	CA15-007	P20	57	57	0	0	\$14,876,501
Research Answers to NCI's Provocative Questions	CA15-008	R01	226	107	119	0	\$125,279,690
	CA15-009	R21	163	82	81	0	\$36,463,533
Provocative Questions (PQ) Initiative; Cancer with an Underlying HIV Infection	CA15-012	R01	8	8	0	0	\$5,611,463
Provocative Questions in Cancer with an Underlying HIV Infection	CA15-013	R21	9	9	0	0	\$1,951,141
Research Centers for Cancer Systems Biology Consortium	CA15-014	U54	39	19	0	20	\$92,734,285
Proteogenomic Translational Research for Clinical Proteomic Tumor Analysis Consortium	CA15-022	U01	15	15	0	0	\$22,337,511
Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research	CA16-001	R21	103	49	54	0	\$23,387,734
Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research	CA16-002	R33	64	26	38	0	\$28,761,405
Innovative Technologies for Cancer-Relevant Biospecimen Science	CA16-003	R21	16	6	10	0	\$4,008,149
Advanced Development and Validation of Emerging Technologies for Cancer-Relevant Biospecimen Science	CA16-004	R33	11	4	7	0	\$4,850,475
Research Centers for Barretts Esophagus Translational Research Network (BETRNet)	CA16-006	U54	6	6	0	0	\$8,750,988
Coordinating Center for Barrett's Esophagus Translational Research Network (BETRNet) (U24A1:C15)	CA16-007	U24	1	1	0	0	\$395,000
SBIR Phase II Bridge Awards to Accelerate the Development of Cancer Therapeutics, Imaging Technologies, Interventional Devices, Diagnostics, and Prognostics Toward Commercialization	CA16-008	R44	26	26	0	0	\$25,382,386
Revision Applications to R01 Awards for Research on the NCI's Provocative Questions	CA16-010	R01	13	7	6	0	\$3,238,646
Revision Applications to P50 Awards for Research on NCI's Provocative Questions	CA16-012	P50	4	0	4	0	\$978,000
Revisions to Add Provocative Question-Relevant Research to Active Research Projects	CA16-013	P01	2	0	2	0	\$515,650
Cancer Target Discovery and Development Network	CA16-014	U01	35	0	35	0	\$39,478,355
U.S.-Russia Bilateral Collaborative Research Partnerships on Cancer	CA16-015	R21	57	0	57	0	\$8,363,336
Research Centers for Population-Based Research to Optimize Cancer Screening (PROSPR) Initiative	CA16-016	UM1	11	0	0	11	\$41,130,429
Coordinating Center for Population-Based Research to Optimize Cancer Screening (PROSPR)	CA16-017	U24	4	0	0	4	\$5,851,646

continued

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 93 withdrawn applications that have been subtracted from the total count.

Table 10 (cont'd). Requests for Applications (RFAs) Reviewed by the NCI/DEA in FY2017

Title of Initiative	RFA Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	June	Sept	
Collaborative Consortia for the Study of HIV Associated Cancers: U.S. and Low- and Middle-Income Country Partnerships	CA16-018	U54	10	0	10	0	\$7,980,852
Limited Competition: Cancer Immunotherapy Trials Network (CITN)	CA16-501	UM1	1	0	0	1	\$4,695,151
Limited Competition: The Chernobyl Tissue Bank - Coordinating Center	CA16-502	U24	1	0	0	1	\$324,000
Canine Immunotherapy Trials and Correlative Studies	CA17-001	U01	27	0	0	27	\$14,904,103
Coordinating Center for Canine Immunotherapy Trials and Correlative Studies	CA17-002	U24	5	0	0	5	\$2,806,647
PDX Development and Trial Centers (PDTCS)	CA17-003	U54	13	0	0	13	\$16,911,617
PDX Data Commons and Coordinating Center (PDCCC) for the PDX Development and Trial Centers Research Network (PDXNet)	CA17-004	U24	2	0	0	2	\$2,079,110
Cancer Immune Monitoring and Analysis Centers	CA17-005	U24	18	0	0	18	\$39,863,172
Cancer Immunologic Data Commons (CIDC)	CA17-006	U24	9	0	0	9	\$12,669,342
Mechanisms of Cancer Drug Resistance and Sensitivity	CA17-009	U54	18	0	0	18	\$22,103,744
Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research	CA17-010	R21	46	0	0	46	\$11,090,549
Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research	CA17-011	R33	27	0	0	27	\$12,425,824
Innovative Technologies for Cancer-Relevant Biospecimen Science	CA17-012	R21	4	0	0	4	\$1,065,681
Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research	CA17-013	R33	4	0	0	4	\$1,849,607
The NCI Predoctoral to Postdoctoral Fellow Transition Award	CA17-014	F99	90	0	0	90	\$0
Consortium for Pancreatic Ductal Adenocarcinoma (PDAC) Translational Studies on the Tumor Microenvironment	CA17-015	U01	31	0	0	31	\$17,442,227
Resource Center for the Consortium for Pancreatic Ductal Adenocarcinoma (PDAC) Translational Studies	CA17-016	U24	3	0	0	3	\$1,593,869
Integration and Validation of Emerging Technologies to Accelerate Cancer Research	CA17-023	R33	183	0	0	183	\$92,264,525
International Tobacco, and Health Research and Capacity Building Program	TW16-003	R01	34	0	34	0	\$11,900,472
Totals			1,396	422	457	517	\$768,316,815

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 93 withdrawn applications that have been subtracted from the total count.

Table 11. Program Announcements (PAs) Reviewed by the NCI/DEA in FY2017

Title of Initiative	PA/PAR Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	Jun	Sept	
End-of-Life and Palliative Needs of Adolescents and Young Adults (AYA) with Serious Illnesses	PA15-324	R01	1	0	0	1	\$704,313
Improving Outcomes in Cancer Treatment-Related Cardiotoxicity	PA16-035	R01	2	1	0	1	\$2,096,915
Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant	PA16-152	T32	65	22	24	19	\$22,072,974
NIH Research Project Grant	PA16-160	R01	32	9	8	15	\$22,701,784
Mentored Clinical Scientist Research Career Development Award	PA16-191	K08	65	17	20	28	\$10,861,645
NIH Pathway to Independence Award	PA16-193	K99	161	53	63	45	\$19,496,081
Mentored Patient-Oriented Research Career Development Award	PA16-198	K23	22	3	12	7	\$3,790,066
NIH Support for Conferences and Scientific Meetings	PA16-294	R13	77	38	17	22	\$2,281,663
PHS 2016-02 Omnibus Solicitation of the NIH, CDC, FDA and ACF for Small Business Innovation Research Grant Applications	PA16-302	R43	1	0	0	1	\$147,243
Palliative Care Needs of Individuals with Advanced Rare Diseases and Their Family Caregivers	PA17-018	R01	1	0	0	1	\$736,197
Cancer Center Support Grants (CCSGs) for NCI-Designated Cancer Centers	PAR13-386	P30	5	4	1	0	\$17,166,008
NCI Small Grants Program for Cancer Research	PAR14-007	R03	199	199	0	0	\$15,424,378
Fundamental Mechanisms of Affective and Decisional Processes in Cancer Control	PAR14-067	U01	21	14	7	0	\$12,436,023
Quantitative Imaging for Evaluation of Response to Cancer Therapies	PAR14-116	U01	33	9	15	9	\$24,068,544
Innovative Research in Cancer Nanotechnology (IRCN)	PAR14-285	R56	2	0	2	0	\$1,271,414
		U01	39	0	39	0	\$25,738,866
Specialized Programs of Research Excellence (SPOREs) in Human Cancers for Years 2015, 2016, and 2017	PAR14-353	P50	47	4	29	14	\$112,074,860
Physical Sciences-Oncology Network (PS-ON): Physical Sciences-Oncology Projects (PS-OP)	PAR15-021	U01	36	20	16	0	\$27,187,797
National Cancer Institute Program Project Applications	PAR15-023	P01	63	22	41	0	\$164,763,244
		U19	1	1	0	0	\$3,597,791
NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity	PAR15-060	K08	2	2	0	0	\$342,792
NCI Transition Career Development Award to Promote Diversity	PAR15-063	K22	5	5	0	0	\$774,895
NCI Mentored Research Scientist Development Award to Promote Diversity	PAR15-064	K01	5	5	0	0	\$741,846
Assay Validation for High Quality Markers For NCI-Supported Clinical Trials	PAR15-095	UH2	13	2	4	7	\$4,340,585
	PAR15-096	UH3	3	1	1	1	\$1,259,318

continued

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 95 withdrawn applications that have been subtracted from the total count.

Table 11 (cont'd). Program Announcements (PAs) Reviewed by the NCI/DEA in FY2017

Title of Initiative	PA/PAR Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	Jun	Sept	
Comprehensive Partnerships to Advance Cancer Health Equity (CPACHE)	PAR15-103	U54	8	0	0	8	\$15,208,150
Core Infrastructure and Methodological Research for Cancer Epidemiology Cohorts	PAR15-104	U01	25	7	8	10	\$66,182,779
Multilevel Interventions in Cancer Care Delivery: Building from the Problem of Follow-Up to Abnormal Screening Tests	PAR15-108	U01	7	2	5	0	\$5,660,211
Cancer Research Education Grants Program – Curriculum or Methods Development	PAR15-150	R25	3	2	1	0	\$244,122
Cancer Research Education Grants Program - Courses for Skills Development	PAR15-151	R25	17	5	9	3	\$4,608,084
Cancer Research Education Grants Program – Research Experiences	PAR15-152	R25	8	6	1	1	\$2,014,086
Oncology Co-Clinical Imaging Research Resources to Encourage Consensus on Quantitative Imaging Methods and Precision Medicine	PAR15-266	U24	2	2	0	0	\$1,434,058
Opportunities for Collaborative Research at the NIH Clinical Center	PAR15-287	U01	11	0	0	11	\$7,474,902
The Pancreatic Cancer Detection Consortium	PAR15-289	U01	13	11	2	0	\$14,959,892
Utilizing the PLCO Biospecimens Resource to Bridge Gaps in Cancer Etiology and Early Detection Research	PAR15-297	U01	23	0	9	14	\$13,239,068
Translational Studies on Adducts for Cancer Risk Identification and Prevention	PAR15-307	U01	3	2	1	0	\$2,124,538
Advanced Development of Informatics Technologies for Cancer Research and Management	PAR15-331	U24	21	16	5	0	\$19,097,031
Early-Stage Development of Informatics Technologies for Cancer Research and Management	PAR15-332	U01	43	26	17	0	\$20,254,324
Sustained Support for Informatics Resources for Cancer Research and Management	PAR15-333	U24	8	4	4	0	\$8,532,252
Development of Innovative Informatics Methods and Algorithms for Cancer Research and Management	PAR15-334	R21	64	26	38	0	\$14,557,424
Small-Cell Lung Cancer (SCLC) Consortium: Therapeutic Development and Mechanisms of Resistance	PAR16-049	U01	14	0	8	6	\$9,324,389
Small-Cell Lung Cancer (SCLC) Consortium: Innovative Approaches to the Prevention and Early Detection of Small Cell Lung Cancer	PAR16-051	U01	9	0	4	5	\$5,987,505
Feasibility Studies to Build Collaborative Partnerships in Cancer Research	PAR16-084	P20	20	0	0	20	\$5,757,580
Cancer Tissue Engineering Collaborative: Enabling Biomimetic Tissue-Engineered Technologies for Cancer Research	PAR16-105	U01	61	36	25	0	\$38,199,306
Cooperative Agreement to Develop Targeted Agents for Use with Systemic Agents Plus Radiotherapy	PAR16-111	U01	33	17	16	0	\$22,816,429
Emerging Questions in Cancer Systems Biology	PAR16-131	U01	48	21	27	0	\$34,267,876

continued

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 95 withdrawn applications that have been subtracted from the total count.

Table 11 (cont'd). Program Announcements (PAs) Reviewed by the NCI/DEA in FY2017

Title of Initiative	PA/PAR Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	Jun	Sept	
Cancer Research Education Grants Program to Promote Diversity – Research Experiences	PAR16-138	R25	22	14	3	5	\$5,179,507
Cancer Research Education Grants Program to Promote Diversity – Courses for Skills Development	PAR16-139	R25	8	3	3	2	\$2,091,719
Integrating Biospecimen Science into Clinical Assay Development	PAR16-166	U01	4	4	0	0	\$1,784,069
NCI Clinical and Translational Exploratory/Developmental Studies	PAR16-176	R21	1,000	373	208	419	\$224,014,759
Paul Calabresi Career Development Award for Clinical Oncology	PAR16-189	K12	3	3	0	0	\$1,673,999
Lasker Clinical Research Scholars Program	PAR16-203	SI2	2	2	0	0	\$0
Cancer Prevention, Control, Behavioral Sciences, and Population Sciences Career Development Award	PAR16-284	K07	92	17	30	45	\$13,694,261
The NCI Transition Career Development Award	PAR16-293	K22	123	49	43	31	\$20,481,074
Biological Comparisons in Patient-Derived Models of Cancer	PAR16-344	U01	33	0	19	14	\$29,786,879
New Informatics Tools and Methods to Enhance U.S. Cancer Surveillance and Research	PAR16-349	UG3	9	0	2	7	\$4,375,582
Oncology Co-Clinical Imaging Research Resources to Encourage Consensus on Quantitative Imaging Methods and Precision Medicine	PAR16-385	U24	7	0	7	0	\$5,492,073
NCI Mentored Patient-Oriented Research Career Development Award to Promote Diversity	PAR16-399	K23	2	0	0	2	\$349,164
NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity	PAR16-400	K08	6	0	5	1	\$954,154
NCI Mentored Research Scientist Development Award to Promote Diversity	PAR16-401	K01	20	0	12	8	\$2,858,438
NCI Outstanding Investigator Award	PAR16-411	R35	129	0	129	0	\$124,470,500
NCI Small Grants Program for Cancer Research (NCI Omnibus R03)	PAR16-416	R03	493	0	279	214	\$38,606,530
National Cancer Institute Program Project Applications	PAR16-457	P01	30	0	0	30	\$83,241,187
NCI Research Specialist (Laboratory-Based Scientist) Award	PAR17-049	R50	46	0	0	46	\$6,387,210
NCI Research Specialist (Core-Based Scientist) Award	PAR17-050	R50	33	0	0	33	\$5,572,578
National Cancer Institute Youth Enjoy Science Research Education Program	PAR17-059	R25	13	0	0	13	\$5,780,980
NCI Transition Career Development Award to Promote Diversity	PAR17-069	K22	6	0	0	6	\$966,117
Totals			3,423	1,079	1,219	1,125	\$1,385,782,028

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 95 withdrawn applications that have been subtracted from the total count.

Table 12. SBIR Topics and Requests for Proposals (RFPs) Reviewed by the NCI/DEA in FY2017*

Announcement/ Topic Number	Announcement Title	Review Round	No. of Proposals
N01RC61005-59 Phase I	Sole Source: Identification, Referral and Follow-Up of Patients with HTLV	Jan-17	1
Topic 355 Phase I and Phase II (Fast Track)	Cell and Animal-Based Models to Advance Cancer Health Disparity Research	May-17	8 (including 1 to Phase II)
Topic 356 Phase I and Phase II (Fast Track)	Tools and Technologies for Monitoring RNA	May-17	7
Topic 357 Phase I and Phase II (Fast Track)	Innovative Tools for Interrogating Tumor Microenvironment Dynamics	May-17	6 (including 1 to Phase II)
Topic 358 Phase I and Phase II (Fast Track)	Modulating the Microbiome to Improve Therapeutic Efficacy of Cancer Therapeutics	May-17	3
Topic 359 Phase I and Phase II (Fast Track)	Technologies for Differential Isolation of Exosomes and Oncosomes	May-17	7
Topic 360 Phase I and Phase II (Fast Track)	Manufacturing Innovation for the Production of Cell-Based Cancer Immunotherapies	May-17	11 (including 1 to Fast Track)
Topic 362 Phase I and Phase II (Fast Track)	Informatics Tools to Measure Cancer Care Coordination	May-17	10 (including 1 to Fast Track)
Topic 363 Phase I and Phase II (Fast Track)	Connecting Cancer Caregivers to Care Teams: Digital Platforms to Support Informal Cancer Caregiving	May-17	21 (including 1 to Fast Track)
Topic 364 Phase I and Phase II (Fast Track)	Methods and Software for Integration of Cancer Metabolomic Data with Other Omic and Imaging Data	May-17	6 (including 1 to Fast Track)
Topic 365 Phase I and Phase II (Fast Track)	Imaging Informatics Tools and Resources for Clinical Cancer Research	May-17	5 (including 1 to Fast Track)
Topic 366 Phase I and Phase II (Fast Track)	Clonogenic High-Throughput Assay for Screening Anti-Cancer Agents and Radiation Modulators	May-17	3
Topic 367 Phase I and Phase II (Fast Track)	Predictive Biomarkers to Improve Radiation Treatment	May-17	2
Topic 368 Phase I and Phase II (Fast Track)	Molecularly Targeted Radiation Therapy for Cancer Treatment	May-17	12
Topic 369 Phase I and Phase II (Fast Track)	Development of Pediatric Cancer Drug Delivery Devices	May-17	6 (including 1 to Fast Track)
N01CP71015-82	Evaluation of Single Dose Protection Afforded by the Prophylactic HPV Vaccines	Oct-17	1

continued

*The NCI reviewed a total of 484 proposals. The proposals were in response to SBIR Contract Solicitations — Phase I (109), Phase II (16), and Loan Repayment (359).

Table 12 (cont'd). SBIR Topics and Requests for Proposals (RFPs) Reviewed by the NCI/DEA in FY2017*

Announcement/ Topic Number	Announcement Title	Review Round	No. of Proposals
Phase II Proposals from Earlier Phase I Awards			
Topic 330 Phase II	Generation of Site-Specific Phospho-Threonine Protein Standards for Use in Cancer Assays	Oct-17	1
Topic 331 Phase II	Development of a Biosensor-Based Core Needle Tumor Biopsy Device	Oct-17	1
Topic 332 Phase II	Development of Radiation Modulators for Use During Radiotherapy	Oct-17	2
Topic 335 Phase II	Development of Advanced Culture Systems for Expansion of Cancer Stem Cells	Oct-17	1
Topic 336 Phase II	Development of Novel Therapeutic Agents That Target Cancer Stem Cells	Oct-17	1
Topic 337 Phase II	Cell-Free Nucleic Acid-Based Assay Development for Cancer Diagnosis	Oct-17	5
Topic 338 Phase II	Predictive Biomarkers of Adverse Reactions to Radiation Treatment	Oct-17	2
Topic 339 Phase II	Systemic Targeted Radionuclide Therapy for Cancer Treatment	Oct-17	3
Other Solicitations Reviewed in the DEA			
L30 (OD-15-122)	Loan Repayment Program for Clinical Researchers	Oct-17	181
L40 (OD-15-121)	Loan Repayment Program for Pediatric Researchers	Oct-17	178
TOTAL			484

*The NCI reviewed a total of 484 proposals. The proposals were in response to SBIR Contract Solicitations — Phase I (109), Phase II (16), and Loan Repayment (359).

Table 13. Summary of NCI Grant Awards by Mechanism in FY2017*

Fund Type: Appropriated Cost Centers Mechanisms	Awards Count	Awards Dollars	Average Cost	% of NCI Total Grants		Fiscal Year: 2017			
				Number	Dollars	Competing Requested	Competing Awarded	Success Rate	
Research Project Grants									
Traditional Research Grants—R01/ RL1	2,913	1,246,891,316	428,044	45.9%	36.7%	5,154	636	12.34%	
Traditional Research Grants—R01/ RL1 – Moonshot	14	11,048,303	789,165	0.22%	0.33%	109	14	12.84%	
Program Projects—P01	86	160,545,319	1,866,806	1.36%	4.73%	84	14	16.67%	
Program Projects—P01 – Moonshot	4	9,207,315	2,301,829	0.06%	0.27%	4	4	100.0%	
Small Grants—R03	138	10,795,647	78,229	2.17%	0.32%	713	90	12.62%	
Small Grants—R03 – Moonshot	0	0	0	0.0%	0.0%	1	0	0.0%	
Exploratory/Developmental Research—R21	369	69,812,192	189,193	5.81%	2.05%	1,482	109	7.35%	
Exploratory/Developmental Research—R21 – Moonshot	0	162,084	162,084	0.0%	0.0%	31	0	0.0%	
Phased Innovation Grant (Phase 2)—R33	0	94,518	94,518	0.0%	0.0%	0	0	0.0%	
Phased Innovation Grant (Phase 2)— R33 – Moonshot	0	76,541	76,541	0.0%	0.0%	0	0	0.0%	
Bridge Award—R56	3	916,879	305,626	0.05%	0.03%	2	2	100.0%	
Pathway to Independence—R00/Si2	109	26,317,849	241,448	1.72%	0.77%	2	0	0.0%	
Exploratory/Development Coop. Agreements—UH2/UH3	7	1,636,647	233,807	0.11%	0.05%	19	5	26.32%	
Exploratory/Developmental Coop. Agreement—UG3	2	703,768	351,884	0.03%	0.02%	5	2	40.0%	
Merit Awards—R37	2	954,536	477,268	0.03%	0.03%	0	0	0.0%	
Pathway to Independence—R00/Si2 – Moonshot	0	233,050	233,050	0.0%	0.01%	0	0	0.0%	
NIH Director Pioneer Award (NDPA)—DP1	3	3,619,500	1,206,500	0.05%	0.11%	0	0	0.0%	
NIH Director New Innovator Awards—DP2	0	174,020	174,020	0.0%	0.01%	0	0	0.0%	
Outstanding Investigators—R35	105	96,337,607	917,501	1.65%	2.84%	141	29	20.57%	
NIH Director's Early Independence Awards—DP5	7	2,882,285	411,755	0.11%	0.08%	0	0	0.0%	
Academic Research Enhancement Awards (AREA)-R15	20	8,559,478	427,974	0.32%	0.25%	271	20	7.38%	
Multi-Component Research Project Coop. Agreements—UM1/RM1	12	19,122,972	1,593,581	0.19%	0.56%	0	0	0.0%	
Research Specialist Award—R50	49	8,430,237	172,046	0.77%	0.25%	80	17	21.25%	
Request for Applications	308	117,926,165	382,877	4.85%	3.47%	801	102	12.73%	

continued

* 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 FY2017*

Fund Type: Appropriated Cost Centers Mechanisms	Awards Count	Awards Dollars	Average Cost	% of NCI Total Grants		Fiscal Year: 2017		
				Number	Dollars	Competing Requested	Competing Awarded	Success Rate
Request for Applications—Moonshot	11	15,864,186	1,442,199	0.17%	0.47%	184	11	5.98%
Cooperative Agreements—RFA-U01/ U19	80	111,714,547	1,396,432	1.26%	3.29%	96	21	21.88%
Cooperative Agreements—RFA-U01/ U19 UM1 – Moonshot	11	21,783,357	1,980,305	0.17%	0.64%	59	11	18.64%
Cooperative Agreements—U01/U19	172	123,676,395	719,049	2.71%	3.64%	466	52	11.16%
Cooperative Agreements—U01/U19 – Moonshot	0	61,948	61,948	0.0%	0.0%	0	0	0.0%
Small Business Innovative Research—R43/R44	184	102,780,394	558,589	2.9%	3.03%	927	129	13.92%
Small Business Innovative Research—R43/R44 – Moonshot	4	3,265,902	816,476	0.06%	0.1%	4	4	100.0%
Small Business Technology Transfer—R41/R42	46	18,283,965	397,478	0.72%	0.54%	254	35	13.78%
Small Business Technology Transfer—R41/R42 – Moonshot	4	1,305,733	326,433	0.06%	0.04%	4	4	100.0%
Program Evaluation—R01	0	83,231,799	83,231,799	0.0%	2.45%	0	0	0.0%
Subtotal Research Project Grants	4,663	2,278,416,454	488,616	73.48%	67.07%	10,893	1,311	12.04%
Other Research								
Clinical Cooperative Groups—U10/ UG1	101	238,640,493	2,362,777	1.59%	7.02%	0	0	0.0%
Clinical Cooperative Groups—CCCT	0	4,903,574	4,903,574	0.0%	0.14%	0	0	0.0%
Cooperative Conference Grants— U13	0	0	0	0.0%	0.0%	12	0	0.0%
Conference Grants—R13/U13	54	666,687	12,346	0.85%	0.02%	77	49	63.64%
International Research Training Grants Conference—D43/U2R	0	1,049,870	1,049,870	0.0%	0.03%	0	0	0.0%
Cancer Education Awards—R25	83	23,629,291	284,690	1.31%	0.7%	52	23	44.23%
Research/Resource Grant—R24/ U24/U2C	71	79,786,938	1,123,760	1.12%	2.35%	46	14	30.43%
Research/Resource Grant—R24/ U24/U2C U24 – Moonshot	8	59,234,334	7,404,292	0.13%	1.74%	37	8	21.62%
Research Enhancement Award— SC1	0	0	0	0.0%	0.0%	3	0	0.0%
Pilot Research Project—SC2	1	157,000	157,000	0.02%	0.0%	0	0	0.0%
Minority Biomedical Research Support—S06	0	97,225	97,225	0.0%	0.0%	0	0	0.0%
Subtotal Other Research	318	408,165,412	1,283,539	5.01%	12.01%	227	94	41.41%

continued

* 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 FY2017*

Fund Type: Appropriated Cost Centers Mechanisms	Awards Count	Awards Dollars	Average Cost	% of NCI Total Grants		Fiscal Year: 2017			
				Number	Dollars	Competing Requested	Competing Awarded	Success Rate	
Centers									
Core/Planning—P20/P30	102	307,657,852	3,016,253	1.61%	9.06%	86	19	22.09%	
Core/Planning—P20/P30 – Moonshot	0	4,028,663	4,028,663	0.0%	0.12%	9	0	0.0%	
Core—CCCT	0	1,324,075	1,324,075	0.0%	0.04%	0	0	0.0%	
Spore Grants—P50	51	111,387,699	2,184,073	0.8%	3.28%	49	7	14.29%	
Other P50/P20	0	47,957	47,957	0.0%	0.0%	0	0	0.0%	
Specialized Center (Cooperative Agreement)—U54/U41	79	109,065,728	1,380,579	1.24%	3.21%	42	15	35.71%	
Specialized Center (Cooperative Agreement)-U54/U41 - Moonshot	9	22,619,831	2,513,315	0.14%	0.67%	22	9	40.91%	
Specialized Center (Cooperative Agreement)—BD2K	2	5,228,312	2,614,156	0.03%	0.15%	0	0	0.0%	
Subtotal Centers	243	561,360,117	2,310,124	3.83%	16.52%	208	50	24.04%	
NRSA									
NRSA Institution—T32/T35	150	53,843,138	358,954	2.36%	1.58%	57	28	49.12%	
NRSA Fellowships—F31/F32	517	21,622,933	41,824	8.15%	0.64%	689	190	27.58%	
NRSA Pre-Doc Fellow Awards—F99	57	2,157,547	37,852	0.9%	0.06%	90	27	30.0%	
Subtotal NRSA	724	77,623,618	107,215	11.41%	2.28%	836	245	29.31%	
Careers									
Mentored Clinical Scientist—K08	89	14,763,262	165,879	1.4%	0.43%	56	19	33.93%	
Preventive Oncology Award—K07	67	10,422,726	155,563	1.06%	0.31%	67	9	13.43%	
Mentored Career Award—K12	18	13,469,603	748,311	0.28%	0.4%	3	2	66.67%	
Mentored Research Scient Devel Awd/Mentored Career Dev.../ Temin—K01/Intl. Career – K43	37	4,978,336	134,550	0.58%	0.15%	22	7	31.82%	
Clinical Research Track—K22	61	10,857,156	177,986	0.96%	0.32%	143	22	15.38%	
Mentored Patient-Oriented Research Career Dev A—K23	19	3,102,974	163,314	0.3%	0.09%	21	3	14.29%	
Mid-Career Investigator in Patient- Oriented Res A—K24	15	2,554,321	170,288	0.24%	0.08%	5	2	40.0%	
Mentored Quantitative Resch. Career Dev. Awd.—K25	7	1,044,759	149,251	0.11%	0.03%	9	1	11.11%	
Established Invest. Award in Ca Prevention & Control—K05	7	619,979	88,568	0.11%	0.02%	0	0	0.0%	
Post-Doctoral Fellow Awards—K00	5	371,854	74,371	0.08%	0.01%	0	0	0.0%	
Pathway to Independence—K99	73	9,541,966	130,712	1.15%	0.28%	160	29	18.13%	
Subtotal Careers	398	71,726,936	180,218	6.27%	2.11%	486	94	19.34%	
Total:	6,346	3,397,292,537	535,344	100.0%	100.0%	12,650	1,794	14.18%	

* 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 FY2013 – FY2017

Budget Mechanism/ Division	FY 2013		FY 2014		FY 2015		FY 2016		FY 2017		Percent Change 2013 - 2017	
	No.	Avg. Cost	No.	Avg. Cost								
R01 Average Cost of Award												
NCI Overall	3,306	358	3,085	378	2,949	398	2,883	414	2,927	430	-11.46%	20.11%
DCB	0	0	0	0	0	0	0	0	6	761	100.0%	100.0%
DCB	1,555	312	1,441	330	1,375	351	1,324	370	1,307	381	-15.9%	22.0%
DCP	0	0	0	0	0	0	0	0	1	940	100.0%	100.0%
DCP	226	389	201	434	199	442	194	452	194	479	-14.2%	23.3%
DCTD	0	0	0	0	0	0	0	0	2	1,239	100.0%	100.0%
DCTD	1,078	342	1,041	362	1,014	390	1,024	407	1,079	422	0.1%	23.4%
DCCPS	0	0	0	0	0	0	0	0	5	613	100.0%	100.0%
DCCPS	436	521	391	542	354	556	336	565	328	578	-24.8%	10.8%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	11	1,221	11	1,343	7	1,703	5	2,043	5	2,301	-54.5%	88.5%
P01 Average Cost of Award												
NCI Overall	124	1,868	109	1,937	100	1,938	94	1,844	90	1,886	-27.42%	0.96%
DCB	0	0	0	0	0	0	0	0	0	48	0.0%	100.0%
DCB	54	1,612	45	1,708	44	1,713	43	1,768	42	1,765	-22.2%	9.5%
DCP	7	1,414	7	1,652	5	1,253	3	1,233	2	1,751	-71.4%	23.8%
DCTD	0	0	0	0	0	0	0	0	4	2,290	100.0%	100.0%
DCTD	53	2,063	48	2,018	42	2,165	40	1,903	33	1,861	-37.7%	-9.8%
DCCPS	10	2,517	9	2,836	9	2,299	8	2,138	9	2,322	-10.0%	-7.7%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	0	155	0	343	0	572	0	392	0	610	0.0%	293.5%
R03 Average Cost of Award												
NCI Overall	199	77	194	78	162	79	114	79	138	78	-30.65%	1.3%
DCB	11	75	22	76	33	79	28	79	56	79	409.1%	5.0%
DCP	63	77	48	78	28	79	8	80	9	78	-85.7%	0.5%
DCTD	15	76	24	78	29	79	24	79	33	78	120.0%	2.4%
DCCPS	110	77	100	78	72	79	54	80	40	78	-63.6%	1.7%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	0	0	0	0	0	68	0	0	0	0	0.0%	0.0%

continued

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† In thousands.

Source: Office of Extramural Finance and Information Analysis.

Table 14 (cont'd). Average Total Cost*† and Number of Research Project Grant Awards Sorted by Division, Office, Center, and Mechanism From FY2013 – FY2017

Budget Mechanism/ Division	FY 2013		FY 2014		FY 2015		FY 2016		FY 2017		Percent Change 2013 - 2017	
	No.	Avg. Cost	No.	Avg. Cost								
R21 Average Cost of Award												
NCI Overall	441	188	551	187	639	193	585	194	369	190	-16.33%	1.06%
DCB	0	0	0	0	0	0	0	0	0	80	0.0%	100.0%
DCB	90	185	138	188	196	193	201	190	102	186	13.3%	0.6%
DCP	54	181	44	172	55	188	61	191	32	186	-40.7%	2.9%
DCTD	190	194	242	194	266	196	220	192	144	193	-24.2%	-0.6%
DCCPS	0	0	0	0	0	0	0	0	0	82	0.0%	100.0%
DCCPS	78	179	93	174	93	185	82	202	67	184	-14.1%	2.9%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	29	195	34	182	29	208	21	219	24	202	-17.2%	3.7%
U01/U19 Average Cost of Award												
NCI Overall	115	1,093	79	988	53	1,141	65	912	68	1,243	-40.87%	13.72%
DCB	0	0	0	0	0	0	0	0	2	1,672	100.0%	100.0%
DCB	28	665	1	1,065	6	753	6	690	5	1,120	-82.1%	68.6%
DCP	36	674	35	546	11	975	34	778	26	976	-27.8%	44.7%
DCTD	0	0	0	0	0	0	0	0	8	1,718	100.0%	100.0%
DCTD	5	3,621	1	3,820	7	780	6	462	6	809	20.0%	-77.7%
DCCPS	22	1,593	16	1,570	16	1,570	6	1,912	6	2,037	-72.7%	27.9%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	24	1,235	26	1,113	13	1,129	13	1,113	15	1,292	-37.5%	4.6%
R13 Average Cost of Award												
NCI Overall	57	15	54	14	54	14	51	14	53	13	-7.02%	-13.33%
DCB	24	5	22	6	29	4	22	6	30	4	25.0%	-19.4%
DCP	6	18	3	34	6	17	4	22	4	24	-33.3%	34.6%
DCTD	15	8	18	6	11	10	12	7	8	7	-46.7%	-14.5%
DCCPS	7	19	8	21	5	26	8	19	6	22	-14.3%	15.8%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	5	69	3	84	3	93	5	50	5	51	0.0%	-26.5%

continued

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† In thousands.

Source: Office of Extramural Finance and Information Analysis.

Table 14 (cont'd). Average Total Cost*† and Number of Research Project Grant Awards Sorted by Division, Office, Center, and Mechanism From FY2013 – FY2017

Budget Mechanism/ Division	FY 2013		FY 2014		FY 2015		FY 2016		FY 2017		Percent Change 2013 - 2017	
	No.	Avg. Cost	No.	Avg. Cost								
U10 Average Cost of Award												
NCI Overall	120	1,958	49	3,637	49	3,130	48	2,852	48	2,919	-60.0%	49.08%
DCP	75	1,130	0	11,012	0	1,009	0	0	0	0	-100.0%	-100.0%
DCTD	45	3,337	49	3,412	49	3,110	48	2,852	48	2,919	6.7%	-12.5%
P30 Average Cost of Award												
NCI Overall	68	3,823	68	4,098	69	4,110	69	4,761	69	4,426	1.47%	15.77%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	68	3,823	68	4,098	69	4,110	69	4,761	69	4,426	1.5%	15.8%
P50 Average Cost of Award												
NCI Overall	66	1,895	61	2,012	53	2,046	54	2,056	51	2,185	-22.73%	15.3%
DCP	0	388	0	388	0	0	0	0	0	0	0.0%	-100.0%
DCTD	59	1,907	56	2,032	53	2,042	51	2,142	51	2,177	-13.6%	14.2%
DCCPS	7	1,651	5	1,676	0	0	3	464	0	0	-100.0%	-100.0%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	0	600	0	138	0	220	0	402	0	385	0.0%	-35.8%
SBIR Average Cost of Award												
NCI Overall	132	444	171	391	162	479	151	554	188	564	42.42%	27.03%
DCTD	0	0	0	66	0	0	0	0	0	0	0.0%	0.0%
DCCPS	0	0	0	0	0	77	0	0	0	0	0.0%	0.0%
SBIRDC	0	0	0	0	0	0	0	0	4	817	100.0%	100.0%
SBIRDC	132	444	171	391	162	479	151	554	183	556	38.6%	25.3%
STTR Average Cost of Award												
NCI Overall	27	469	46	325	32	469	51	349	50	392	85.19%	-16.42%
SBIRDC	0	0	0	0	0	0	0	0	4	327	100.0%	100.0%
SBIRDC	27	469	46	325	32	469	51	349	46	397	70.4%	-15.3%
U54 Average Cost of Award												
NCI Overall	106	1,316	99	1,268	90	1,073	55	1,602	66	1,534	-37.74%	16.57%
CRCHD	50	940	49	978	51	818	30	1,268	31	1,238	-38.0%	31.7%
CSSI	21	2,155	9	2,343	6	2,116	6	2,234	6	2,206	-71.4%	2.4%
DCB	24	1,343	30	1,288	22	1,110	17	2,080	22	2,040	-8.3%	51.9%
DCCPS	11	1,365	11	1,626	11	1,611	2	651	7	675	-36.4%	-50.5%

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† In thousands.

Source: Office of Extramural Finance and Information Analysis.

**Table 15. NCI Organ and Related Site-Specific Dollars for
FY2013 – FY2017 – Annual Percent Change***

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

Anatomical Site	Counts and Relevant Dollars [†]	2013	2014	2015	2016	2017	Average Percent Change/Year
Adrenal	Number of Grants	3	3	2	1	1	
	Relevant Grant Dollars	334,332	440,344	255,563	202,275	‡	
	Total Count	3	3	2	1	1	
	Total Relevant Dollars	334,332	440,344	255,563	202,275	‡	-17.32
Anus	Number of Grants	19	19	17	21	27	
	Relevant Grant Dollars	3,730,597	3,860,964	3,142,985	3,368,804	4,894,934	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	19	19	17	21	27	
Total Relevant Dollars	3,730,597	3,860,964	3,142,985	3,368,804	4,894,934	9.35	
Bladder	Number of Grants	124	147	129	127	124	
	Relevant Grant Dollars	15,767,632	23,221,839	23,038,302	21,648,984	21,066,346	
	Number of Contracts	1	‡	3	13	15	
	Relevant Contract Dollars	561,614	‡	2,845,018	5,856,681	8,205,875	
	Total Count	125	147	132	140	139	
Total Relevant Dollars	16,329,246	23,221,839	25,883,320	27,505,665	29,272,221	16.59	
Bone Marrow	Number of Grants	67	40	21	13	13	
	Relevant Grant Dollars	8,109,194	6,186,065	5,101,356	4,425,573	3,539,567	
	Total Count	67	40	21	13	13	
	Total Relevant Dollars	8,109,194	6,186,065	5,101,356	4,425,573	3,539,567	-18.63
Bone, Cartilage	Number of Grants	68	54	19	13	11	
	Relevant Grant Dollars	7,034,582	4,313,783	2,011,240	3,340,737	3,299,530	
	Total Count	68	54	19	13	11	
	Total Relevant Dollars	7,034,582	4,313,783	2,011,240	3,340,737	3,299,530	-6.80
Brain	Number of Grants	544	557	538	536	534	
	Relevant Grant Dollars	152,082,930	162,133,244	184,919,655	177,269,529	196,218,129	
	Number of Contracts	2	2	2	‡	3	
	Relevant Contract Dollars	1,639,630	422,895	968,489	‡	606,179	
	Total Count	546	559	540	536	537	
Total Relevant Dollars	153,722,560	162,556,139	185,888,144	177,269,529	196,824,308	6.62	
Breast	Number of Grants	1,792	1,811	1,729	1,673	1,619	
	Relevant Grant Dollars	501,581,607	478,792,611	491,214,544	470,476,822	494,020,790	
	Number of Contracts	20	10	11	22	17	
	Relevant Contract Dollars	11,117,661	5,422,635	9,929,929	14,699,628	13,538,368	
	Total Count	1,812	1,821	1,740	1,695	1,636	
Total Relevant Dollars	512,699,268	483,879,269	501,144,473	485,176,451	507,559,159	-0.16	

continued

* Not Site Specific = research which 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)

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

‡ Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Anatomical Site	Counts and Relevant Dollars [†]	2013	2014	2015	2016	2017	Average Percent Change/Year
Central Nervous System	Number of Grants	59	48	13	9	13	
	Relevant Grant Dollars	3,630,469	1,739,620	1,300,559	784,790	1,347,811	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	59	48	13	9	13	
	Total Relevant Dollars	3,630,469	1,739,620	1,300,559	784,790	1,347,811	-11.31
Cervix	Number of Grants	283	305	227	207	183	
	Relevant Grant Dollars	50,597,621	52,183,192	45,275,628	51,244,770	51,639,739	
	Number of Contracts	1	1	‡	3	5	
	Relevant Contract Dollars	2,280,313	740,476	‡	5,125,766	3,846,974	
	Total Count	284	306	227	210	188	
	Total Relevant Dollars	52,877,934	52,923,668	45,275,628	56,370,536	55,486,713	2.14
Childhood Leukemia	Number of Grants	151	159	143	177	174	
	Relevant Grant Dollars	51,230,678	36,743,720	36,439,553	55,857,941	56,840,658	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	151	160	143	177	174	
	Total Relevant Dollars	51,230,678	36,788,720	36,439,553	55,857,941	56,840,658	6.48
Colon, Rectum	Number of Grants	916	866	754	698	668	
	Relevant Grant Dollars	213,714,476	198,038,574	186,582,220	185,327,068	182,797,070	
	Number of Contracts	9	6	9	16	16	
	Relevant Contract Dollars	4,230,994	3,024,309	4,627,427	9,412,567	8,004,223	
	Total Count	925	872	763	714	684	
	Total Relevant Dollars	217,945,470	201,062,883	191,209,647	194,739,634	190,801,293	-3.21
Connective Tissue	Number of Grants	21	13	9	5	3	
	Relevant Grant Dollars	3,310,900	3,141,987	1,224,585	191,253	245,793	
	Total Count	21	13	9	5	3	
	Total Relevant Dollars	3,310,900	3,141,987	1,224,585	191,253	245,793	-30.50
Embryonic Tissue, Cells	Number of Grants	3	2	2	1	‡	
	Relevant Grant Dollars	340,919	145,522	‡	‡	‡	
	Total Count	3	2	2	1	‡	
	Total Relevant Dollars	340,919	145,522	‡	‡	‡	-57.31
Esophagus	Number of Grants	175	117	116	109	101	
	Relevant Grant Dollars	23,146,386	24,631,620	26,634,006	22,479,745	27,239,377	
	Number of Contracts	1	‡	‡	‡	‡	
	Relevant Contract Dollars	12,726	‡	‡	‡	‡	
	Total Count	176	117	116	109	101	
	Total Relevant Dollars	23,159,112	24,631,620	26,634,006	22,479,745	27,239,377	5.02

continued

* Not Site Specific = research which 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)

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

‡ Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Anatomical Site	Counts and Relevant Dollars [†]	2013	2014	2015	2016	2017	Average Percent Change/Year
Eye	Number of Grants	16	17	23	26	30	
	Relevant Grant Dollars	2,362,025	2,855,615	4,363,108	3,817,344	5,252,252	
	Number of Contracts	‡	‡	‡	‡	1	
	Relevant Contract Dollars	‡	‡	‡	‡	1,999,987	
	Total Count	16	17	23	26	31	
	Total Relevant Dollars	2,362,025	2,855,615	4,363,108	3,817,344	7,252,239	37.79
Gall Bladder	Number of Grants	2	2	1	4	4	
	Relevant Grant Dollars	146,805	‡	‡	579,237	476,722	
	Total Count	2	2	1	4	4	
	Total Relevant Dollars	146,805	‡	‡	579,237	476,722	138.43
Gastrointestinal Tract	Number of Grants	45	35	33	33	30	
	Relevant Grant Dollars	7,398,956	5,831,855	5,873,156	6,074,796	5,074,964	
	Number of Contracts	‡	‡	2	4	1	
	Relevant Contract Dollars	‡	‡	1,663,052	2,858,139	627,879	
	Total Count	45	35	35	37	31	
Total Relevant Dollars	7,398,956	5,831,855	7,536,208	8,932,935	5,702,843	-2.40	
Genital System, Female	Number of Grants	43	74	14	11	7	
	Relevant Grant Dollars	2,875,521	1,800,605	1,458,230	1,310,107	466,994	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	43	74	14	11	7	
Total Relevant Dollars	2,875,521	1,800,605	1,458,230	1,310,107	466,994	-32.73	
Genital System, Male	Number of Grants	2	2	2	2	2	
	Relevant Grant Dollars	237,891	241,644	233,577	319,939	222,396	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	2	2	2	2	2	
Total Relevant Dollars	237,891	241,644	233,577	319,939	222,396	1.18	
Head and Neck	Number of Grants	248	226	205	191	198	
	Relevant Grant Dollars	33,677,355	33,439,973	35,246,846	35,221,524	38,974,882	
	Number of Contracts	5	3	3	3	2	
	Relevant Contract Dollars	717,810	1,733,390	1,713,852	1,814,999	312,604	
	Total Count	253	229	208	194	200	
Total Relevant Dollars	34,395,165	35,173,363	36,960,698	37,036,523	39,287,486	3.41	
Heart	Number of Grants	10	7	3	2	1	
	Relevant Grant Dollars	1,792,289	1,344,822	929,886	834,401	723,348	
	Total Count	10	7	3	2	1	
	Total Relevant Dollars	1,792,289	1,344,822	929,886	834,401	723,348	-19.85

continued

* Not Site Specific = research which 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)

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

[‡] Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Anatomical Site	Counts and Relevant Dollars†	2013	2014	2015	2016	2017	Average Percent Change/Year
Hodgkin Lymphoma	Number of Grants	83	51	39	35	32	
	Relevant Grant Dollars	9,563,149	10,262,763	8,519,854	8,217,911	8,282,621	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	83	51	39	35	32	
	Total Relevant Dollars	9,563,149	10,262,763	8,519,854	8,217,911	8,282,621	-3.11
Kaposi Sarcoma	Number of Grants	77	76	77	63	66	
	Relevant Grant Dollars	18,354,076	20,860,705	21,864,767	24,537,356	27,418,524	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	77	76	77	63	66	
	Total Relevant Dollars	18,354,076	20,860,705	21,864,767	24,537,356	27,418,524	10.61
Kidney	Number of Grants	250	237	160	154	146	
	Relevant Grant Dollars	31,320,199	21,146,275	23,745,801	27,200,468	29,737,839	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	250	237	160	154	146	
	Total Relevant Dollars	31,320,199	21,146,275	23,745,801	27,200,468	29,737,839	0.92
Larynx	Number of Grants	6	7	5	5	3	
	Relevant Grant Dollars	1,259,413	1,535,331	671,024	575,873	473,788	
	Total Count	6	7	5	5	3	
	Total Relevant Dollars	1,259,413	1,535,331	671,024	575,873	473,788	-16.57
Leukemia	Number of Grants	755	781	702	675	670	
	Relevant Grant Dollars	209,330,335	212,414,621	218,460,707	217,864,508	225,848,786	
	Number of Contracts	7	4	5	1	2	
	Relevant Contract Dollars	3,612,561	1,775,197	3,259,086	1,496,276	1,547,327	
	Total Count	762	785	707	676	672	
	Total Relevant Dollars	212,942,896	214,189,818	221,719,793	219,360,784	227,396,114	1.68
Liver	Number of Grants	321	306	294	259	256	
	Relevant Grant Dollars	48,910,887	49,666,458	59,175,493	62,124,234	62,046,177	
	Number of Contracts	8	‡	2	2	3	
	Relevant Contract Dollars	4,653,688	‡	1,488,511	353,600	1,674,216	
	Total Count	329	306	296	261	259	
	Total Relevant Dollars	53,564,575	49,666,458	60,664,004	62,477,834	63,720,393	4.96
Lung	Number of Grants	1,003	977	898	891	875	
	Relevant Grant Dollars	243,708,636	219,322,515	220,913,549	242,571,606	267,051,228	
	Number of Contracts	21	11	9	23	25	
	Relevant Contract Dollars	11,323,702	6,163,921	5,231,560	15,848,869	21,302,044	
	Total Count	1,024	988	907	914	900	
	Total Relevant Dollars	255,032,338	225,486,436	226,145,109	258,420,475	288,353,271	3.64

continued

* Not Site Specific = research which 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)

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

‡ Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Anatomical Site	Counts and Relevant Dollars†	2013	2014	2015	2016	2017	Average Percent Change/Year
Lymph Node	Number of Grants	9	4	4	1	3	
	Relevant Grant Dollars	608,275	316,561	273,875	94,613	425,733	
	Total Count	9	4	4	1	3	
	Total Relevant Dollars	608,275	316,561	273,875	94,613	425,733	55.77
Lymphatic System	Number of Grants	3	3	5	3	2	
	Relevant Grant Dollars	489,999	397,376	704,373	261,544	218,028	
	Total Count	3	3	5	3	2	
	Total Relevant Dollars	489,999	397,376	704,373	261,544	218,028	-5.29
Melanoma	Number of Grants	474	502	461	462	481	
	Relevant Grant Dollars	101,678,996	106,822,745	114,263,178	119,244,182	132,231,623	
	Number of Contracts	2	‡	2	1	2	
	Relevant Contract Dollars	1,764,768	‡	597,520	295,782	3,499,958	
	Total Count	476	502	463	463	483	
	Total Relevant Dollars	103,443,764	106,822,745	114,860,698	119,539,964	135,731,581	7.10
Mesothelioma	Number of Grants	19	25	25	26	20	
	Relevant Grant Dollars	4,452,535	7,157,480	5,376,051	6,939,730	6,037,260	
	Total Count	19	25	25	26	20	
	Total Relevant Dollars	4,452,535	7,157,480	5,376,051	6,939,730	6,037,260	12.99
Muscle	Number of Grants	41	10	5	4	4	
	Relevant Grant Dollars	3,361,305	862,759	384,442	342,916	496,492	
	Total Count	41	10	3	4	4	
	Total Relevant Dollars	3,361,305	862,759	384,442	342,916	496,492	-23.95
Myeloma	Number of Grants	160	174	184	190	199	
	Relevant Grant Dollars	37,120,602	37,800,248	40,799,287	45,263,432	53,362,826	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	160	174	184	190	199	
	Total Relevant Dollars	37,120,602	37,800,248	40,799,287	45,263,432	53,362,826	9.65
Nervous System	Number of Grants	24	24	25	24	26	
	Relevant Grant Dollars	4,163,832	4,421,874	6,108,596	6,153,043	6,585,936	
	Number of Contracts	‡	‡	‡	‡	1	
	Relevant Contract Dollars	‡	‡	‡	‡	1,499,991	
	Total Count	24	24	25	24	27	
	Total Relevant Dollars	4,163,832	4,421,874	6,108,596	6,153,043	8,085,927	19.12
Neuroblastoma	Number of Grants	99	104	75	64	64	
	Relevant Grant Dollars	16,492,753	21,130,521	16,233,598	17,024,278	20,384,541	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	99	104	75	64	64	
	Total Relevant Dollars	16,492,753	21,130,521	16,233,598	17,024,278	20,384,541	7.39

continued

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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.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Anatomical Site	Counts and Relevant Dollars [†]	2013	2014	2015	2016	2017	Average Percent Change/Year
Non-Hodgkin Lymphoma	Number of Grants	480	452	413	387	353	
	Relevant Grant Dollars	89,044,122	93,955,405	96,633,382	98,315,810	96,233,763	
	Number of Contracts	1	‡	‡	‡	‡	
	Relevant Contract Dollars	749,986	‡	‡	‡	‡	
	Total Count	481	452	413	387	353	
	Total Relevant Dollars	89,794,108	93,955,405	96,633,382	98,315,810	96,233,763	1.78
Nose, Nasal Passages	Number of Grants	10	9	8	6	5	
	Relevant Grant Dollars	987,215	890,916	699,843	691,610	682,285	
	Total Count	10	9	8	6	5	
	Total Relevant Dollars	987,215	890,916	699,843	691,610	682,285	-8.43
Not Site Specific*	Number of Grants	1,727	1,747	1,668	1,629	1,645	
	Relevant Grant Dollars	495,343,572	621,155,734	580,506,330	613,729,313	697,160,768	
	Number of Contracts	201	181	152	154	135	
	Relevant Contract Dollars	205,498,650	212,411,501	442,411,300	555,664,493	583,258,480	
	Total Count	1,928	1,928	1,820	1,783	1,780	
	Total Relevant Dollars	700,842,222	833,567,235	1,022,917,630	1,169,393,806	1,280,419,248	16.37
Oral Cavity	Number of Grants	66	66	66	68	70	
	Relevant Grant Dollars	10,151,964	8,835,614	12,635,411	13,714,954	13,533,375	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	66	66	66	68	70	
	Total Relevant Dollars	10,151,964	8,835,614	12,635,411	13,714,954	13,533,375	9.31
Ovary	Number of Grants	384	380	382	373	375	
	Relevant Grant Dollars	85,110,664	79,194,763	77,297,410	83,576,854	95,963,310	
	Number of Contracts	5	2	5	3	4	
	Relevant Contract Dollars	3,421,603	1,182,604	3,363,895	1,470,356	1,535,829	
	Total Count	389	382	387	376	379	
	Total Relevant Dollars	88,532,267	80,377,367	80,661,305	85,047,209	97,499,140	2.81
Pancreas	Number of Grants	465	494	499	502	527	
	Relevant Grant Dollars	93,541,191	109,038,628	113,151,301	138,490,101	163,371,849	
	Number of Contracts	2	5	4	13	13	
	Relevant Contract Dollars	1,249,838	6,483,207	3,791,916	5,378,661	4,908,116	
	Total Count	467	499	503	515	540	
	Total Relevant Dollars	94,791,029	115,521,835	116,943,217	143,868,761	168,279,965	15.77
Parathyroid	Number of Grants	2	3	3	3	4	
	Relevant Grant Dollars	199,513	401,380	391,973	219,722	676,030	
	Total Count	2	3	3	3	4	
	Total Relevant Dollars	199,513	401,380	391,973	219,722	676,030	65.64

continued

* Not Site Specific = research which 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)

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

‡ Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Anatomical Site	Counts and Relevant Dollars [†]	2013	2014	2015	2016	2017	Average Percent Change/Year
Penis	Number of Grants	6	8	6	4	3	
	Relevant Grant Dollars	2,435,008	2,652,760	191,911	341,656	341,693	
	Total Count	6	8	6	4	3	
	Total Relevant Dollars	2,435,008	2,652,760	191,911	341,656	341,693	-1.45
Pharynx	Number of Grants	63	25	21	17	16	
	Relevant Grant Dollars	4,442,944	1,881,045	2,704,917	2,017,103	2,045,454	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	63	25	21	17	16	
	Total Relevant Dollars	4,442,944	1,881,045	2,704,917	2,017,103	2,045,454	-9.47
Pituitary	Number of Grants	6	4	5	8	5	
	Relevant Grant Dollars	649,567	458,773	821,132	1,419,108	1,222,742	
	Total Count	6	4	5	8	5	
	Total Relevant Dollars	649,567	458,773	821,132	1,419,108	1,222,742	27.15
Prostate	Number of Grants	923	866	774	734	681	
	Relevant Grant Dollars	223,571,212	187,129,390	198,462,848	202,049,473	194,381,794	
	Number of Contracts	12	5	9	23	21	
	Relevant Contract Dollars	6,244,033	6,350,291	6,069,471	15,201,920	13,540,995	
	Total Count	935	871	783	757	702	
	Total Relevant Dollars	229,815,245	193,479,681	204,532,319	217,251,393	207,922,789	-2.04
Reticuloendothelial System	Number of Grants	9	8	7	5	4	
	Relevant Grant Dollars	1,097,687	1,318,507	1,188,247	747,436	712,344	
	Total Count	9	8	7	5	4	
	Total Relevant Dollars	1,097,687	1,318,507	1,188,247	747,436	712,344	-7.89
Retinoblastoma	Number of Grants	14	16	14	12	9	
	Relevant Grant Dollars	2,225,018	3,538,181	3,475,408	2,740,929	1,629,496	
	Total Count	14	16	12	12	9	
	Total Relevant Dollars	2,225,018	3,538,181	3,475,408	2,740,929	1,629,496	-1.11
Salivary Glands	Number of Grants	3	2	1	‡	‡	
	Relevant Grant Dollars	515,075	45,316	‡	‡	‡	
	Total Count	3	2	1	‡	‡	
	Total Relevant Dollars	515,075	45,316	‡	‡	‡	-91.20
Skin	Number of Grants	205	192	170	163	153	
	Relevant Grant Dollars	36,075,772	35,045,052	34,254,082	31,543,713	34,846,957	
	Number of Contracts	1	‡	1	‡	2	
	Relevant Contract Dollars	608,798	‡	35,000	‡	1,576,506	
	Total Count	206	192	171	163	155	
	Total Relevant Dollars	36,684,570	35,045,052	34,289,082	31,543,713	36,423,463	0.21

continued

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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.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Anatomical Site	Counts and Relevant Dollars†	2013	2014	2015	2016	2017	Average Percent Change/Year
Small Intestine	Number of Grants	19	13	10	9	11	
	Relevant Grant Dollars	2,440,030	1,954,527	2,085,838	2,085,715	3,030,339	
	Total Count	19	13	10	9	11	
	Total Relevant Dollars	2,440,030	1,954,527	2,085,838	2,085,715	3,030,339	8.03
Spleen	Number of Grants	‡	2	2	2	1	
	Relevant Grant Dollars	‡	136,258	141,998	143,352	‡	
	Total Count	‡	2	2	2	1	
	Total Relevant Dollars	‡	136,258	141,998	143,352	‡	2.58
Stomach	Number of Grants	43	63	66	63	62	
	Relevant Grant Dollars	8,064,193	8,597,660	9,547,109	11,180,211	11,244,817	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	43	63	66	63	62	
Total Relevant Dollars	8,064,193	8,597,660	9,547,109	11,180,211	11,244,817	8.84	
Testis	Number of Grants	8	8	10	9	8	
	Relevant Grant Dollars	3,850,005	3,880,838	3,143,451	730,983	1,741,733	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	8	8	10	9	8	
Total Relevant Dollars	3,850,005	3,880,838	3,143,451	730,983	1,741,733	10.83	
Thymus	Number of Grants	5	5	4	3	2	
	Relevant Grant Dollars	609,747	449,070	239,742	260,988	116,127	
	Total Count	5	5	4	3	2	
	Total Relevant Dollars	609,747	449,070	239,742	260,988	116,127	-29.90
Thyroid	Number of Grants	52	61	62	54	55	
	Relevant Grant Dollars	14,641,877	17,516,816	19,137,599	17,604,744	17,778,628	
	Number of Contracts	1	‡	‡	‡	‡	
	Relevant Contract Dollars	95,313	‡	‡	‡	‡	
	Total Count	53	61	62	54	55	
Total Relevant Dollars	14,737,190	17,516,816	19,137,599	17,604,744	17,778,628	5.27	
Trachea, Bronchus	Number of Grants	3	3	2	2	1	
	Relevant Grant Dollars	523,065	279,944	26,998	314,082	‡	
	Total Count	3	3	2	2	1	
	Total Relevant Dollars	523,065	279,944	26,998	314,082	‡	308.84
Uterus	Number of Grants	104	101	88	90	90	
	Relevant Grant Dollars	15,653,222	13,467,035	10,947,265	15,043,375	15,803,076	
	Number of Contracts	1	‡	‡	‡	‡	
	Relevant Contract Dollars	142,712	‡	‡	‡	‡	
	Total Count	105	101	88	90	90	
Total Relevant Dollars	15,795,934	13,467,035	10,947,265	15,043,375	15,803,076	2.25	

continued

* Not Site Specific = research which 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)

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

‡ Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Anatomical Site	Counts and Relevant Dollars†	2013	2014	2015	2016	2017	Average Percent Change/Year
Vagina	Number of Grants	4	4	4	2	1	
	Relevant Grant Dollars	317,026	286,298	86,493	‡	383,925	
	Total Count	4	4	4	2	1	
	Total Relevant Dollars	317,026	286,298	86,493	‡	383,925	88.13
Vascular	Number of Grants	30	19	14	6	7	
	Relevant Grant Dollars	3,990,351	2,310,811	1,745,884	668,887	1,118,191	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	30	19	14	6	7	
	Total Relevant Dollars	3,990,351	2,310,811	1,745,884	668,887	1,118,191	-15.26
Wilms Tumor	Number of Grants	7	9	10	12	12	
	Relevant Grant Dollars	1,341,539	3,843,112	3,548,011	3,831,667	4,241,898	
	Total Count	7	9	10	12	12	
	Total Relevant Dollars	1,341,539	3,843,112	3,548,011	3,831,667	4,241,898	49.37

* Not Site Specific = research which 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)

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

‡ Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

Table 16. NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2013	2014	2015	2016	2017	Average Percent Change/Year
Adolescent and Young Adults Cancer	Number of Grants			9	106	160	
	Relevant Grant Dollars			2,606,149	28,390,821	39,158,375	
	Number of Contracts			1	‡	1	
	Relevant Contract Dollars			140,000	‡	37,500	
	Total Count			10	106	161	
	Total Relevant Dollars			2,746,149	28,390,821	39,195,875	485.95
Adoptive Cell Immunotherapy	Number of Grants	216	211	210	200	203	
	Relevant Grant Dollars	55,186,231	52,024,707	45,245,708	43,690,082	50,677,796	
	Number of Contracts	1	‡	‡	‡	2	
	Relevant Contract Dollars	1,499,971	‡	‡	‡	539,847	
	Total Count	217	211	210	200	205	
	Total Relevant Dollars	56,686,202	52,024,707	45,245,708	43,690,082	51,217,643	-1.87
Advanced Manufacturing Technology	Number of Grants	7	8	9	4	2	
	Relevant Grant Dollars	2,460,945	2,295,195	1,939,427	900,771	560,239	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	7	8	9	4	2.00	
	Total Relevant Dollars	2,460,945	2,295,195	1,939,427	900,771	560,239	-28.40
Aging	Number of Grants	577	420	319	292	268	
	Relevant Grant Dollars	69,649,282	57,171,560	53,143,671	54,936,453	49,797,772	
	Number of Contracts	1	1	3	4	5	
	Relevant Contract Dollars	27,250	31,046	230,807	343,283	462,276	
	Total Count	578	421	322	296	273	
	Total Relevant Dollars	69,676,532	57,202,606	53,374,478	55,279,736	50,260,048	-7.53
AIDS	Number of Grants	45	35	27	32	42	
	Relevant Grant Dollars	10,917,513	10,442,198	8,158,469	11,352,233	12,844,562	
	Total Count	45	35	27	32	42	
	Total Relevant Dollars	10,917,513	10,442,198	8,158,469	11,352,233	12,844,562	6.52
Alternative Medicine, Direct	Number of Grants	304	317	229	190	154	
	Relevant Grant Dollars	57,639,318	52,792,542	47,270,448	42,068,505	35,660,834	
	Number of Contracts	‡	2	2	2	2	
	Relevant Contract Dollars	‡	3,552,516	4,201,607	6,035,840	4,872,052	
	Total Count	304	319	231	192	156	
	Total Relevant Dollars	57,639,318	56,345,058	51,472,055	48,104,345	40,532,886	-8.29
Alternative Medicine, Indirect	Number of Grants	23	24	23	18	20	
	Relevant Grant Dollars	4,798,508	4,098,399	3,769,298	3,160,728	2,578,072	
	Total Count	23	24	23	18	20	
	Total Relevant Dollars	4,798,508	4,098,399	3,769,298	3,160,728	2,578,072	-14.30

continued

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‡ Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars [†]	2013	2014	2015	2016	2017	Average Percent Change/Year
Alzheimers Dementia	Number of Grants	3	2	3	6	4	
	Relevant Grant Dollars	186,357	294,069	386,427	643,489	514,839	
	Total Count	3	2	3	6	4	
	Total Relevant Dollars	186,357	294,069	386,427	643,489	514,839	33.93
Arctic Research	Number of Grants	7	8	5	5	5	
	Relevant Grant Dollars	1,048,649	1,141,359	562,755	730,070	1,387,435	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	7	8	5	5	5	
Total Relevant Dollars	1,048,649	1,141,359	562,755	730,070	1,387,435	19.48	
Arthritis	Number of Grants	6	6	4	1	‡	
	Relevant Grant Dollars	881,952	864,304	672,293	‡	‡	
	Total Count	6	6	4	1	‡	
	Total Relevant Dollars	881,952	864,304	672,293	‡	‡	-12.11
Asbestos	Number of Grants	13	12	13	13	9	
	Relevant Grant Dollars	2,872,753	2,937,531	3,365,262	3,619,815	3,146,506	
	Total Count	13	12	13	13	9	
	Total Relevant Dollars	2,872,753	2,937,531	3,365,262	3,619,815	3,146,506	2.83
Ataxia Telangiectasia	Number of Grants	7	6	5	5	5	
	Relevant Grant Dollars	1,238,529	309,072	749,775	786,560	971,104	
	Total Count	7	6	5	5	5	
Total Relevant Dollars	1,238,529	309,072	749,775	786,560	971,104	23.98	
Autoimmune Diseases	Number of Grants	28	22	14	9	7	
	Relevant Grant Dollars	2,747,501	1,403,677	630,151	832,994	922,027	
	Total Count	28	22	14	9	7	
	Total Relevant Dollars	2,747,501	1,403,677	630,151	832,994	922,027	-15.29
Behavior Research	Number of Grants	1,093	1,032	920	888	806	
	Relevant Grant Dollars	288,411,741	239,765,778	222,068,908	212,741,824	214,939,253	
	Number of Contracts	19	5	9	11	8	
	Relevant Contract Dollars	11,278,961	30,189,200	8,316,984	8,642,050	3,674,886	
	Total Count	1,112	1,037	929	899	814	
Total Relevant Dollars	299,690,702	242,784,698	230,385,892	221,383,874	218,614,139	-7.31	
Bioengineering	Number of Grants	438	551	525	478	467	
	Relevant Grant Dollars	116,606,055	139,804,609	135,770,178	132,443,598	134,136,385	
	Number of Contracts	14	9	10	7	4	
	Relevant Contract Dollars	6,142,128	3,567,443	1,910,970	2,478,606	2,254,856	
	Total Count	452	560	535	485	471	
Total Relevant Dollars	122,748,183	143,372,052	137,681,148	134,922,204	136,391,241	2.98	

continued

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‡ Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2013	2014	2015	2016	2017	Average Percent Change/Year
Bioinformatics	Number of Grants	655	649	645	661	675	
	Relevant Grant Dollars	188,164,686	183,215,139	162,383,424	179,136,458	225,131,784	
	Number of Contracts	31	29	18	28	43	
	Relevant Contract Dollars	24,968,039	24,606,810	33,425,767	58,667,710	37,237,753	
	Total Count	686	678	663	689	718	
	Total Relevant Dollars	213,132,725	207,821,949	195,809,191	237,804,168	262,369,537	5.88
Biological Carcinogenesis, Non-Viral	Number of Grants	77	78	83	77	78	
	Relevant Grant Dollars	14,300,282	15,804,902	18,764,027	20,074,390	20,826,379	
	Total Count	77	78	83	77	78	
	Total Relevant Dollars	14,300,282	15,804,902	18,764,027	20,074,390	20,826,379	9.99
Biologics/Biological Response Modifiers	Number of Grants	1,353	1,188	1,031	946	976	
	Relevant Grant Dollars	477,320,267	289,423,470	271,992,850	279,698,693	318,168,448	
	Number of Contracts	10	5	7	14	13	
	Relevant Contract Dollars	9,671,661	5,894,582	28,016,244	44,277,523	43,053,952	
	Total Count	1,363	1,193	1,038	960	989	
	Total Relevant Dollars	486,991,928	295,318,052	300,009,094	323,976,215	361,222,400	-4.57
Biomaterials Research	Number of Grants	94	84	78	63	64	
	Relevant Grant Dollars	12,137,705	14,254,502	13,939,654	11,643,768	14,118,242	
	Number of Contracts	3	‡	‡	‡	‡	
	Relevant Contract Dollars	797,035	‡	‡	‡	‡	
	Total Count	97	84	78	63	64	
	Total Relevant Dollars	12,934,740	14,254,502	13,939,654	11,643,768	14,118,242	3.19
Biomedical Computing	Number of Grants	588	595	617	653	661	
	Relevant Grant Dollars	161,506,346	190,278,426	185,096,312	206,729,157	251,923,719	
	Number of Contracts	35	24	23	34	46	
	Relevant Contract Dollars	37,914,467	24,933,240	24,023,855	31,453,540	40,076,260	
	Total Count	623	619	640	687	707	
	Total Relevant Dollars	199,420,813	215,211,666	209,120,167	238,182,697	291,999,979	10.40
Birth Defects	Number of Grants	33	30	35	30	27	
	Relevant Grant Dollars	5,021,213	4,403,949	8,435,172	8,432,758	6,952,868	
	Total Count	33	30	35	30	27	
	Total Relevant Dollars	5,021,213	4,403,949	8,435,172	8,432,758	6,952,868	15.42
Bone Marrow Transplantation	Number of Grants	130	115	104	99	85	
	Relevant Grant Dollars	39,871,538	35,750,541	34,316,819	34,979,933	29,173,660	
	Number of Contracts	‡	‡	‡	1	‡	
	Relevant Contract Dollars	‡	‡	‡	728,795	‡	
	Total Count	130	115	104	100	85	
	Total Relevant Dollars	39,871,538	35,750,541	34,316,819	35,708,727	29,173,660	-7.15

continued

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Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for
FY2013 – FY2017 – Annual Percent Change***

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

Special Interest Categories	Counts and Relevant Dollars [†]	2013	2014	2015	2016	2017	Average Percent Change/Year
Breast Cancer Detection	Number of Grants	411	385	344	322	309	
	Relevant Grant Dollars	81,666,201	75,065,760	82,711,296	72,103,576	81,227,274	
	Number of Contracts	4	1	1	4	‡	
	Relevant Contract Dollars	3,543,475	1,100,000	750,000	874,929	‡	
	Total Count	415	386	345	326	309	
	Total Relevant Dollars	85,209,676	76,165,760	83,461,296	72,978,505	81,227,274	-0.57
Breast Cancer Early Detection	Number of Grants	180	180	189	170	174	
	Relevant Grant Dollars	43,528,756	43,117,642	41,884,877	33,480,855	41,613,302	
	Number of Contracts	2	1	1	1	‡	
	Relevant Contract Dollars	2,295,819	1,100,000	750,000	149,669	‡	
	Total Count	182	181	190	171	174	
	Total Relevant Dollars	45,824,575	44,217,642	42,634,877	33,630,524	41,613,302	-1.12
Breast Cancer Education	Number of Grants	106	102	41	38	37	
	Relevant Grant Dollars	9,550,272	4,699,015	4,270,107	4,685,670	5,272,981	
	Total Count	106	102	41	38	37	
	Total Relevant Dollars	9,550,272	4,699,015	4,270,107	4,685,670	5,272,981	-9.41
Breast Cancer Epidemiology	Number of Grants	219	210	192	147	130	
	Relevant Grant Dollars	74,082,885	65,139,979	55,393,919	39,840,647	34,190,668	
	Number of Contracts	6	1	3	12	11	
	Relevant Contract Dollars	3,348,609	125,000	1,469,411	6,203,333	5,829,361	
	Total Count	225	211	195	159	141	
	Total Relevant Dollars	77,431,494	65,264,979	56,863,330	46,043,980	40,020,029	-15.17
Breast Cancer Genetics	Number of Grants	509	498	462	398	336	
	Relevant Grant Dollars	116,592,352	107,994,765	96,024,839	81,070,422	70,149,087	
	Number of Contracts	4	‡	‡	1	‡	
	Relevant Contract Dollars	2,739,232	‡	‡	49,931	‡	
	Total Count	513	498	462	399	336	
	Total Relevant Dollars	119,331,584	107,994,765	96,024,839	81,120,353	70,149,087	-12.41
Breast Cancer Prevention	Number of Grants	182	180	110	99	92	
	Relevant Grant Dollars	18,639,346	16,628,036	18,681,211	19,111,915	19,450,769	
	Number of Contracts	1	1	1	2	2	
	Relevant Contract Dollars	68,000	1,478,927	3,163,159	3,146,728	4,001,575	
	Total Count	183	181	111	101	94	
	Total Relevant Dollars	18,707,346	18,106,963	21,844,370	22,258,643	23,452,344	6.17

continued

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‡ Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2013	2014	2015	2016	2017	Average Percent Change/Year
Breast Cancer Rehabilitation	Number of Grants	160	130	92	86	77	
	Relevant Grant Dollars	19,304,588	16,034,148	16,436,183	15,759,809	16,481,786	
	Number of Contracts	1	‡	‡	‡	‡	
	Relevant Contract Dollars	200,000	‡	‡	‡	‡	
	Total Count	161	130	92	86	77	
	Total Relevant Dollars	19,504,588	16,034,148	16,436,183	15,759,809	16,481,786	-3.70
Breast Cancer Screening	Number of Grants	170	142	91	70	66	
	Relevant Grant Dollars	24,889,715	20,751,155	17,485,192	10,475,206	14,653,679	
	Number of Contracts	1	1	1	‡	‡	
	Relevant Contract Dollars	1,300,000	1,100,000	750,000	‡	‡	
	Total Count	171	143	92	70	66	
	Total Relevant Dollars	26,189,715	21,851,155	18,235,192	10,475,206	14,653,679	-8.94
Breast Cancer Treatment	Number of Grants	664	687	644	650	669	
	Relevant Grant Dollars	142,815,791	138,560,818	152,387,067	154,489,026	176,349,237	
	Number of Contracts	5	4	3	3	2	
	Relevant Contract Dollars	2,525,833	2,065,223	892,527	4,424,708	3,485,914	
	Total Count	669	691	647	653	671	
	Total Relevant Dollars	145,341,624	140,626,041	153,279,594	158,913,734	179,835,151	5.65
Breast Cancer—Basic	Number of Grants	767	855	763	745	697	
	Relevant Grant Dollars	164,833,399	167,569,592	165,644,820	169,080,913	166,218,155	
	Number of Contracts	3	3	3	1	5	
	Relevant Contract Dollars	1,431,744	653,485	3,654,832	49,931	3,530,301	
	Total Count	770	858	766	746	702	
	Total Relevant Dollars	166,265,143	168,223,077	169,299,652	169,130,844	169,748,456	0.52
Cancer Survivorship	Number of Grants	628	568	476	465	430	
	Relevant Grant Dollars	245,984,817	169,414,751	171,526,613	162,069,466	167,262,525	
	Number of Contracts	15	1	7	7	3	
	Relevant Contract Dollars	11,019,708	997,190	9,847,866	2,679,641	6,505,519	
	Total Count	643	569	483	472	433	
	Total Relevant Dollars	257,004,525	170,411,941	181,374,479	164,749,107	173,768,044	-7.74
Carcinogenesis, Environmental	Number of Grants	1,116	1,041	943	892	821	
	Relevant Grant Dollars	313,980,620	273,042,396	260,061,824	255,935,050	258,785,860	
	Number of Contracts	17	11	9	19	20	
	Relevant Contract Dollars	5,565,513	3,879,202	3,465,524	13,046,648	11,050,342	
	Total Count	1,133	1,052	952	911	841	
	Total Relevant Dollars	319,546,133	276,921,598	263,527,348	268,981,698	269,836,202	-3.95

continued

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Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2013	2014	2015	2016	2017	Average Percent Change/Year
	Number of Grants	30	34	38	37	27	
Cervical Cancer	Relevant Grant Dollars	4,529,757	6,077,658	6,221,573	5,869,483	5,584,906	
Education	Total Count	30	34	38	37	27	
	Total Relevant Dollars	4,529,757	6,077,658	6,221,573	5,869,483	5,584,906	6.51
	Number of Grants	490	429	342	295	262	
	Relevant Grant Dollars	97,428,457	84,243,372	80,022,566	71,829,951	70,023,623	
Chemoprevention	Number of Contracts	6	6	11	9	8	
	Relevant Contract Dollars	8,399,689	15,066,511	20,758,658	16,414,527	15,912,399	
	Total Count	496	435	353	304	270	
	Total Relevant Dollars	105,828,146	99,309,883	100,781,224	88,244,478	85,936,022	-4.93
	Number of Grants	118	91	36	24	18	
	Relevant Grant Dollars	24,973,361	14,722,116	12,015,435	9,361,402	8,971,425	
Chemoprevention, Clinical	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	118	91	36	24	18	
	Total Relevant Dollars	24,973,361	14,722,116	12,015,435	9,361,402	8,971,425	-21.42
	Number of Grants	1,232	1,087	930	872	904	
	Relevant Grant Dollars	439,082,427	250,373,415	246,109,305	260,723,356	287,462,997	
Chemotherapy	Number of Contracts	18	12	7	20	17	
	Relevant Contract Dollars	10,450,686	9,970,324	5,413,456	13,695,854	14,902,930	
	Total Count	1,250	1,099	937	892	921	
	Total Relevant Dollars	449,533,113	260,343,739	251,522,761	274,419,210	302,365,927	-6.55
	Number of Grants	123	122	102	100	89	
	Relevant Grant Dollars	23,265,126	24,830,888	20,762,243	16,163,223	15,020,069	
Child Health	Number of Contracts	5	2	3	‡	‡	
	Relevant Contract Dollars	2,181,318	177,670	195,000	‡	‡	
	Total Count	128	124	105	100	89	
	Total Relevant Dollars	25,446,444	25,008,558	20,957,243	16,163,223	15,020,069	-11.97
	Number of Grants	525	493	448	453	460	
	Relevant Grant Dollars	155,945,246	173,785,934	178,242,101	181,711,926	189,628,119	
Childhood Cancers	Number of Contracts	3	2	‡	‡	2	
	Relevant Contract Dollars	4,212,177	3,007,558	‡	‡	589,442	
	Total Count	528	495	448	453	462	
	Total Relevant Dollars	160,157,423	176,793,492	178,242,101	181,711,926	190,217,561	4.46
	Number of Grants	143	132	113	91	77	
	Relevant Grant Dollars	36,692,865	36,189,051	30,632,366	20,846,554	15,967,470	
Chronic Myeloproliferative Disorders	Number of Contracts	‡	‡	1	‡	‡	
	Relevant Contract Dollars	‡	‡	1,489,494	‡	‡	
	Total Count	143	132	114	91	77	
	Total Relevant Dollars	36,692,865	36,189,051	32,121,860	20,846,554	15,967,470	-17.78

continued

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Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2013	2014	2015	2016	2017	Average Percent Change/Year
Clinical Trials, Diagnosis	Number of Grants	136	146	187	194	184	
	Relevant Grant Dollars	30,815,744	45,889,734	53,037,657	60,433,953	61,783,602	
	Number of Contracts	3	1	‡	1	1	
	Relevant Contract Dollars	1,651,880	1,728,293	‡	166,395	2,125,347	
	Total Count	139	147	187	195	185	
	Total Relevant Dollars	32,467,624	47,618,027	53,037,657	60,600,348	63,908,948	19.44
Clinical Trials, Other	Number of Grants	115	279	250	283	266	
	Relevant Grant Dollars	40,042,677	149,612,281	133,237,216	120,494,908	147,623,023	
	Number of Contracts	‡	3	5	6	8	
	Relevant Contract Dollars	‡	7,962,288	27,271,204	42,312,294	32,688,151	
	Total Count	115	282	255	289	274	
	Total Relevant Dollars	40,042,677	157,574,569	160,508,420	162,807,202	180,311,174	76.89
Clinical Trials, Prevention	Number of Grants	115	114	119	109	105	
	Relevant Grant Dollars	40,042,677	35,417,115	31,032,388	30,908,463	33,917,834	
	Number of Contracts	‡	4	5	4	5	
	Relevant Contract Dollars	‡	7,423,381	10,710,985	9,803,442	9,563,835	
	Total Count	115	118	124	113	110	
	Total Relevant Dollars	40,042,677	42,840,496	41,743,373	40,711,905	43,481,669	2.19
Clinical Trials, Therapy	Number of Grants	532	546	501	498	517	
	Relevant Grant Dollars	323,103,308	315,511,818	334,042,999	334,329,251	345,754,242	
	Number of Contracts	14	11	15	8	10	
	Relevant Contract Dollars	22,662,279	18,485,764	60,380,409	100,254,859	100,543,132	
	Total Count	546	557	516	506	527	
	Total Relevant Dollars	345,765,587	333,997,582	394,423,408	434,584,110	446,297,374	6.89
Combined Treatment Modalities	Number of Grants	1,022	1,056	1,084	1,148	1,294	
	Relevant Grant Dollars	412,395,044	241,467,906	266,541,656	301,911,203	361,206,359	
	Number of Contracts	8	6	7	2	3	
	Relevant Contract Dollars	7,259,529	7,488,672	3,420,624	671,778	2,834,416	
	Total Count	1,030	1,062	1,091	1,150	1,297	
	Total Relevant Dollars	419,654,573	248,956,578	269,962,280	302,582,981	364,040,775	0.04
Cost Effectiveness	Number of Grants	155	139	131	137	136	
	Relevant Grant Dollars	23,509,038	22,816,491	24,073,416	27,207,714	27,980,143	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	155	139	131	137	136	
	Total Relevant Dollars	23,509,038	22,816,491	24,073,416	27,207,714	27,980,143	4.61

continued

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‡ Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars [†]	2013	2014	2015	2016	2017	Average Percent Change/Year
Diabetes	Number of Grants	68	77	77	75	74	
	Relevant Grant Dollars	9,846,534	8,622,303	10,029,759	10,282,028	11,766,492	
	Number of Contracts	1	‡	‡	‡	‡	
	Relevant Contract Dollars	207,952	‡	‡	‡	‡	
	Total Count	69	77	77	75	74	
	Total Relevant Dollars	10,054,486	8,622,303	10,029,759	10,282,028	11,766,492	4.76
Diagnosis	Number of Grants	1,695	1,686	1,631	1,576	1,519	
	Relevant Grant Dollars	492,426,013	529,392,958	539,541,884	530,211,572	595,266,675	
	Number of Contracts	54	39	31	43	37	
	Relevant Contract Dollars	40,112,891	30,979,563	49,265,219	54,014,496	61,672,252	
	Total Count	1,749	1,725	1,662	1,619	1,556	
	Total Relevant Dollars	532,538,904	560,372,521	588,807,103	584,226,068	656,938,926	5.49
Diethylstilbestrol	Number of Grants	3	2	2	1	1	
	Relevant Grant Dollars	308,506	263,724	121,734	28,088	‡	
	Total Count	3	2	2	1	1	
	Total Relevant Dollars	308,506	263,724	121,734	28,088	‡	-48.43
Dioxin	Number of Grants	8	7	9	7	4	
	Relevant Grant Dollars	612,850	631,714	383,261	369,498	226,792	
	Total Count	8	7	9	7	4	
	Total Relevant Dollars	612,850	631,714	383,261	369,498	226,792	-19.62
DNA Repair	Number of Grants	512	494	507	473	478	
	Relevant Grant Dollars	102,121,375	99,797,181	100,671,223	100,897,948	107,893,903	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	512	494	507	473	478	
	Total Relevant Dollars	102,121,375	99,797,181	100,671,223	100,897,948	107,893,903	1.44
Drug Development	Number of Grants	2,310	2,393	2,284	2,130	2,144	
	Relevant Grant Dollars	583,484,075	604,291,255	617,108,394	647,645,213	680,118,152	
	Number of Contracts	64	39	47	44	31	
	Relevant Contract Dollars	43,062,404	36,749,532	84,307,830	95,203,326	106,973,228	
	Total Count	2,374	2,432	2,331	2,174	2,175	
	Total Relevant Dollars	626,546,479	641,040,787	701,416,224	742,848,539	787,091,380	5.90
Drug Discovery	Number of Grants	423	432	422	366	377	
	Relevant Grant Dollars	76,661,475	83,662,149	80,704,643	79,153,198	86,983,505	
	Number of Contracts	14	3	4	10	10	
	Relevant Contract Dollars	5,018,328	298,072	2,349,989	4,433,398	3,522,708	
	Total Count	437	435	426	376	387	
	Total Relevant Dollars	81,679,803	83,960,221	83,054,632	83,586,595	90,506,212	2.66

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.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2013	2014	2015	2016	2017	Average Percent Change/Year
Drug Resistance	Number of Grants	712	785	852	898	981	
	Relevant Contract Dollars	133,575,885	148,056,783	177,796,465	214,729,058	261,870,733	
	Number of Contracts	3	1	3	2	‡	
	Relevant Contract Dollars	3,198,559	1,000,000	824,798	646,029	‡	
	Total Count	715	786	855	900	981	
	Total Relevant Dollars	136,774,444	149,056,783	178,621,263	215,375,087	261,870,733	17.74
Drugs—Natural Products	Number of Grants	556	490	371	300	272	
	Relevant Grant Dollars	109,888,176	71,095,657	57,656,190	54,297,012	54,246,698	
	Number of Contracts	‡	‡	‡	2	1	
	Relevant Contract Dollars	‡	‡	‡	2,574,718	2,136,305	
	Total Count	556	490	371	302	273	
	Total Relevant Dollars	109,888,176	71,095,657	57,656,190	56,871,730	56,383,003	-14.11
Early Detection	Number of Grants	755	748	714	694	677	
	Relevant Grant Dollars	204,867,734	225,248,442	220,102,816	229,998,056	256,283,853	
	Number of Contracts	14	9	14	7	6	
	Relevant Contract Dollars	13,803,863	8,393,779	8,686,400	4,028,068	5,328,789	
	Total Count	769	757	728	701	683	
	Total Relevant Dollars	218,671,597	233,642,221	228,789,216	234,026,124	261,612,642	4.71
Effectiveness Research	Number of Grants	318	296	264	223	184	
	Relevant Grant Dollars	90,764,479	80,220,580	69,440,936	47,442,385	41,402,394	
	Number of Contracts	8	1	2	11	11	
	Relevant Contract Dollars	12,172,772	10,500	4,377,973	30,894,764	29,146,805	
	Total Count	326	297	266	234	195	
	Total Relevant Dollars	102,937,251	80,231,080	73,818,909	78,337,149	70,549,199	-8.47
Endocrinology	Number of Grants	572	539	512	469	440	
	Relevant Grant Dollars	111,913,229	107,069,679	104,762,093	96,691,678	97,228,106	
	Number of Contracts	1	1	‡	‡	‡	
	Relevant Contract Dollars	1,307,520	1,478,552	‡	‡	‡	
	Total Count	573	540	512	469	440	
	Total Relevant Dollars	113,220,749	108,548,231	104,762,093	96,691,678	97,228,106	-3.69
Energy Balance	Number of Grants	91	86	68	51	33	
	Relevant Grant Dollars	27,758,787	23,971,943	20,847,429	7,628,220	6,286,953	
	Number of Contracts	1	‡	‡	‡	‡	
	Relevant Contract Dollars	31,250	‡	‡	‡	‡	
	Total Count	92	86	68	51	33	
	Total Relevant Dollars	27,790,037	23,971,943	20,847,429	7,628,220	6,286,953	-26.94

continued

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Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars [†]	2013	2014	2015	2016	2017	Average Percent Change/Year
Epidemiology— Biochemical	Number of Grants	516	495	457	385	326	
	Relevant Grant Dollars	183,330,345	169,955,392	164,276,738	146,920,161	124,682,337	
	Number of Contracts	4	1	1	1	‡	
	Relevant Contract Dollars	12,320,111	2,160,252	1,716,430	24,966	‡	
	Total Count	520	496	458	386	326	
	Total Relevant Dollars	195,650,456	172,115,644	165,993,168	146,945,127	124,682,337	-10.55
Epidemiology	Number of Grants	245	233	210	188	186	
	Relevant Grant Dollars	76,193,758	81,439,737	76,666,541	75,587,379	85,439,631	
	Number of Contracts	42	33	27	31	30	
	Relevant Contract Dollars	42,219,232	38,502,206	91,178,576	111,330,516	121,666,411	
	Total Count	287	266	237	219	216	
	Total Relevant Dollars	118,412,990	119,941,943	167,845,117	186,917,895	207,106,043	15.85
Epidemiology, Environmental	Number of Grants	380	336	303	250	215	
	Relevant Grant Dollars	117,386,653	107,915,202	93,061,131	74,257,282	68,678,162	
	Number of Contracts	6	5	4	2	4	
	Relevant Contract Dollars	13,262,667	3,754,701	3,257,460	1,417,866	1,684,591	
	Total Count	386	341	307	252	219	
	Total Relevant Dollars	130,649,320	111,669,903	96,318,591	75,675,148	70,362,753	-14.18
Epigenetics	Number of Grants	901	943	917	928	911	
	Relevant Grant Dollars	183,377,930	187,566,016	185,757,320	203,722,809	230,130,230	
	Number of Contracts	1	‡	1	2	2	
	Relevant Contract Dollars	80,000	‡	80,000	147,571	329,946	
	Total Count	902	943	918	930	913	
	Total Relevant Dollars	183,457,930	187,566,016	185,837,320	203,870,380	230,460,176	6.02
Gene Mapping, Human	Number of Grants	283	237	197	153	127	
	Relevant Grant Dollars	75,989,190	61,585,479	48,294,930	46,905,132	37,032,434	
	Total Count	283	237	197	153	127	
	Total Relevant Dollars	75,989,190	61,585,479	48,294,930	46,905,132	37,032,434	-16.12
Gene Mapping, Non-Human	Number of Grants	157	130	82	59	46	
	Relevant Grant Dollars	24,907,163	14,858,944	9,387,204	9,836,690	8,912,665	
	Total Count	157	130	82	59	46	
	Total Relevant Dollars	24,907,163	14,858,944	9,387,204	9,836,690	8,912,665	-20.44
Gene Transfer, Clinical	Number of Grants	23	22	20	20	16	
	Relevant Grant Dollars	5,731,303	4,272,656	4,512,499	4,853,792	2,673,354	
	Total Count	23	22	20	20	16	
	Total Relevant Dollars	5,731,303	4,272,656	4,512,499	4,853,792	2,673,354	-14.30

continued

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Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2013	2014	2015	2016	2017	Average Percent Change/Year
Genetic Testing Research, Human	Number of Grants	195	154	131	104	89	
	Relevant Grant Dollars	60,583,797	42,299,385	38,489,954	29,475,413	23,204,606	
	Number of Contracts	‡	1	‡	1	‡	
	Relevant Contract Dollars	‡	660,000	‡	75,000	‡	
	Total Count	195	155	131	105	89	
	Total Relevant Dollars	60,583,797	42,959,385	38,489,954	29,550,408	23,204,606	-21.05
Genomics	Number of Grants	1,113	1,182	1,203	1,266	1,294	
	Relevant Grant Dollars	315,909,113	323,758,372	341,321,721	389,134,110	405,076,761	
	Number of Contracts	8	2	9	12	8	
	Relevant Contract Dollars	3,463,628	972,912	55,539,001	83,510,228	81,580,679	
	Total Count	1,121	1,184	1,212	1,278	1,302	
	Total Relevant Dollars	319,372,741	324,731,284	396,860,722	472,644,337	486,657,439	11.49
Health Literacy	Number of Grants	106	98	100	97	82	
	Relevant Grant Dollars	20,195,573	18,558,771	18,398,631	15,279,155	14,215,534	
	Number of Contracts	1	‡	‡	‡	1	
	Relevant Contract Dollars	2,298,614	‡	‡	‡	1,200,000	
	Total Count	107	98	100	97	83	
	Total Relevant Dollars	22,494,187	18,558,771	18,398,631	15,279,155	15,415,534	-8.61
Health Promotion	Number of Grants	434	378	338	309	263	
	Relevant Grant Dollars	125,530,387	107,111,437	92,700,255	69,278,601	64,108,503	
	Number of Contracts	6	7	3	3	3	
	Relevant Contract Dollars	7,193,454	4,712,166	1,673,149	2,081,656	582,324	
	Total Count	440	385	341	312	266	
	Total Relevant Dollars	132,723,841	111,823,603	94,373,404	71,360,257	64,690,827	-16.27
Health Care Delivery	Number of Grants	360	398	378	377	349	
	Relevant Grant Dollars	108,978,920	218,923,687	200,905,989	178,992,169	187,497,187	
	Number of Contracts	14	3	5	17	20	
	Relevant Contract Dollars	12,762,591	2,221,373	5,400,399	32,071,822	31,462,158	
	Total Count	374	401	383	394	369	
	Total Relevant Dollars	121,741,511	221,145,060	206,306,388	211,063,992	218,959,344	20.25
Helicobacter	Number of Grants	31	29	29	22	16	
	Relevant Grant Dollars	6,972,140	6,799,315	8,287,809	7,837,594	6,687,868	
	Total Count	31	29	29	22	16	
	Total Relevant Dollars	6,972,140	6,799,315	8,287,809	7,837,594	6,687,868	-0.17
Hematology	Number of Grants	1,411	1,336	1,283	1,208	1,178	
	Relevant Grant Dollars	428,144,424	432,281,168	443,608,933	449,886,880	458,813,154	
	Number of Contracts	9	4	5	3	2	
	Relevant Contract Dollars	5,851,583	1,775,197	3,259,086	2,262,571	1,547,327	
	Total Count	1,420	1,340	1,288	1,211	1,180	
	Total Relevant Dollars	433,996,007	434,056,365	446,868,019	452,149,451	460,360,481	1.49

continued

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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.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars [†]	2013	2014	2015	2016	2017	Average Percent Change/Year
Hematopoietic Stem Cell Research	Number of Grants	431	397	306	291	270	
	Relevant Grant Dollars	101,488,276	87,079,722	88,073,334	84,627,744	98,480,686	
	Number of Contracts	‡	‡	‡	1	‡	
	Relevant Contract Dollars	‡	‡	‡	728,795	‡	
	Total Count	431	397	306	292	270	
	Total Relevant Dollars	101,488,276	87,079,722	88,073,334	85,356,538	98,480,686	-0.19
Hormone Replacement Therapy	Number of Grants	21	17	10	13	13	
	Relevant Grant Dollars	2,396,798	1,621,562	420,973	2,574,377	2,570,173	
	Total Count	21	17	10	13	13	
	Total Relevant Dollars	2,396,798	1,621,562	420,973	2,574,377	2,570,173	101.25
Hospice	Number of Grants	31	26	21	26	27	
	Relevant Grant Dollars	5,960,311	6,718,944	5,068,406	6,571,656	6,543,607	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	31	26	21	26	27	
Total Relevant Dollars	5,960,311	6,718,944	5,068,406	6,571,656	6,543,607	4.35	
Human Genome	Number of Grants	831	889	893	889	827	
	Relevant Grant Dollars	285,048,104	288,232,403	270,053,324	291,591,849	277,508,890	
	Number of Contracts	6	2	‡	6	6	
	Relevant Contract Dollars	2,922,371	972,912	‡	20,797,623	1,278,048	
	Total Count	837	891	893	895	833	
Total Relevant Dollars	287,970,475	289,205,315	270,053,324	312,389,472	278,786,937	-0.32	
Iatrogenesis	Number of Grants	240	255	234	240	259	
	Relevant Grant Dollars	63,359,024	62,665,069	65,666,762	73,902,588	83,792,361	
	Number of Contracts	15	16	9	15	12	
	Relevant Contract Dollars	9,252,324	11,590,700	7,954,033	10,094,584	8,942,518	
	Total Count	255	271	243	255	271	
Total Relevant Dollars	72,611,348	74,255,769	73,620,795	83,997,172	92,734,879	6.48	
Imaging	Number of Grants	977	1,020	1,004	1,005	1,013	
	Relevant Grant Dollars	262,826,270	303,333,609	328,599,329	333,313,090	389,735,661	
	Number of Contracts	18	15	3	10	13	
	Relevant Contract Dollars	13,479,943	9,601,975	22,477,850	31,629,404	37,758,418	
	Total Count	995	1,035	1,007	1,015	1,026	
Total Relevant Dollars	276,306,213	312,935,584	351,077,179	364,942,494	427,494,079	11.63	
Immunization	Number of Grants	443	432	411	398	403	
	Relevant Grant Dollars	108,339,472	104,548,325	102,651,388	108,683,779	124,310,103	
	Number of Contracts	5	4	7	11	13	
	Relevant Contract Dollars	8,810,556	4,894,582	28,016,244	40,549,330	43,053,952	
	Total Count	448	436	418	409	416	
Total Relevant Dollars	117,150,028	109,442,907	130,667,632	149,233,109	167,364,055	9.79	

continued

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[‡]Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2013	2014	2015	2016	2017	Average Percent Change/Year
Inflammation	Number of Grants	594	611	580	561	575	
	Relevant Grant Dollars	107,278,269	109,966,955	112,167,081	112,244,989	116,025,025	
	Number of Contracts	1	3	3	3	3	
	Relevant Contract Dollars	318,141	3,652,516	14,497,899	18,472,380	20,833,026	
	Total Count	595	614	583	564	578	
	Total Relevant Dollars	107,596,410	113,619,471	126,664,980	130,717,368	136,858,051	6.24
Information Dissemination	Number of Grants	755	739	681	652	624	
	Relevant Grant Dollars	224,368,430	217,876,571	210,348,487	213,783,646	215,896,290	
	Number of Contracts	22	8	10	18	25	
	Relevant Contract Dollars	19,915,843	14,567,395	3,998,692	7,900,187	17,915,927	
	Total Count	777	747	691	670	649	
	Total Relevant Dollars	244,284,273	232,443,966	214,347,179	221,683,833	233,812,217	-0.93
Metastasis	Number of Grants	1,550	1,545	1,604	1,605	1,578	
	Relevant Grant Dollars	339,242,680	340,009,556	358,876,606	380,888,828	398,062,542	
	Number of Contracts	6	3	4	3	2	
	Relevant Contract Dollars	2,322,483	961,421	1,108,062	2,899,297	2,999,993	
	Total Count	1,556	1,548	1,608	1,608	1,580	
	Total Relevant Dollars	341,565,163	340,970,977	359,984,668	383,788,124	401,062,535	4.13
Mind/Body Research	Number of Grants	78	59	52	41	33	
	Relevant Grant Dollars	13,881,407	11,783,092	10,026,196	9,007,115	7,780,748	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	78	59	52	41	33	
	Total Relevant Dollars	13,881,407	11,783,092	10,026,196	9,007,115	7,780,748	-13.45
Molecular Disease	Number of Grants	5,158	5,466	5,602	5,473	5,307	
	Relevant Grant Dollars	1,611,962,239	1,679,313,384	1,782,526,277	1,679,313,384	1,931,925,940	
	Number of Contracts	49	45	41	59	53	
	Relevant Contract Dollars	30,025,697	30,765,834	79,018,098	153,297,602	136,964,093	
	Total Count	5,207	5,511	5,643	5,532	5,360	
	Total Relevant Dollars	1,641,987,936	1,710,079,218	1,861,544,375	2,036,010,028	2,068,890,033	6.00
Molecular Imaging	Number of Grants	672	620	609	539	495	
	Relevant Grant Dollars	160,435,399	152,907,543	156,307,861	141,492,077	143,199,846	
	Number of Contracts	5	3	1	‡	‡	
	Relevant Contract Dollars	2,940,739	1,942,675	118,783	‡	‡	
	Total Count	677	623	610	539	495	
	Total Relevant Dollars	163,376,138	154,850,218	156,426,644	141,492,077	143,199,846	-3.14

continued

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‡ Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars [†]	2013	2014	2015	2016	2017	Average Percent Change/Year
	Number of Grants	260	232	208	185	155	
	Relevant Grant Dollars	48,209,422	44,556,081	46,590,174	43,516,697	40,249,335	
Molecular Targeted Prevention	Number of Contracts	2	2	1	1	1	
	Relevant Contract Dollars	1,647,216	2,979,162	790,790	547,510	509,347	
	Total Count	262	234	209	186	156	
	Total Relevant Dollars	49,856,638	47,535,243	47,380,964	44,064,207	40,758,682	-4.87
	Number of Grants	1,888	2,044	2,148	2,232	2,373	
	Relevant Grant Dollars	470,992,018	523,857,998	581,779,389	656,567,963	742,802,310	
Molecular Targeted Therapy	Number of Contracts	12	12	16	6	5	
	Relevant Contract Dollars	8,499,344	8,863,954	53,873,784	90,988,532	92,251,110	
	Total Count	1,900	2,056	2,164	2,238	2,378	
	Total Relevant Dollars	479,491,362	532,721,952	635,653,173	747,556,494	835,053,420	14.93
	Number of Grants	476	455	481	455	493	
	Relevant Grant Dollars	109,920,780	111,516,643	106,197,770	114,941,122	130,016,571	
Nanotechnology	Number of Contracts	6	5	9	5	5	
	Relevant Contract Dollars	2,045,407	5,326,115	56,177,120	64,879,438	80,950,539	
	Total Count	482	460	490	460	498	
	Total Relevant Dollars	111,966,187	116,842,758	162,374,890	179,820,560	210,967,110	17.85
	Number of Grants	11	8	10	12	12	
	Relevant Grant Dollars	1,584,767	1,376,362	3,686,798	3,936,995	3,556,637	
Neurofibromatosis	Total Count	11	8	10	12	12	
	Total Relevant Dollars	1,584,767	1,376,362	3,686,798	3,936,995	3,556,637	37.96
	Number of Grants	37	35	36	33	30	
	Relevant Grant Dollars	9,407,781	8,475,918	8,132,143	8,044,965	7,943,679	
Nursing Research	Total Count	37	35	36	33	30	
	Total Relevant Dollars	9,407,781	8,475,918	8,132,143	8,044,965	7,943,679	-4.07
	Number of Grants	10	7	7	3	7	
	Relevant Grant Dollars	1,147,521	1,084,354	1,214,524	354,168	1,580,908	
Nutrition—Fiber	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	10	7	7	3	7	
	Total Relevant Dollars	1,147,521	1,084,354	1,214,524	354,168	1,580,908	70.51
	Number of Grants	698	638	513	441	393	
	Relevant Grant Dollars	152,339,204	131,807,340	117,756,071	102,564,615	90,773,169	
Nutrition	Number of Contracts	9	9	10	7	6	
	Relevant Contract Dollars	11,924,668	4,372,361	4,220,813	3,452,083	3,005,520	
	Total Count	707	647	523	448	399	
	Total Relevant Dollars	164,263,872	136,179,701	121,976,884	106,016,699	93,778,689	-13.04

continued

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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.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2013	2014	2015	2016	2017	Average Percent Change/Year
Nutrition Monitoring	Number of Grants	30	30	33	26	24	
	Relevant Grant Dollars	10,354,902	8,955,163	9,882,676	5,485,202	6,478,782	
	Number of Contracts	2	3	1	1	2	
	Relevant Contract Dollars	1,277,146	2,210,544	323,154	435,711	456,632	
	Total Count	32	33	34	27	26	
	Total Relevant Dollars	11,632,048	11,165,707	10,205,830	5,920,913	6,935,414	-9.36
Obesity	Number of Grants	283	290	281	262	249	
	Relevant Grant Dollars	62,423,989	63,637,392	64,004,183	55,081,497	52,003,841	
	Number of Contracts	‡	1	3	1	1	
	Relevant Contract Dollars	‡	1,478,927	3,323,159	2,190,039	2,037,388	
	Total Count	283	291	284	263	250	
	Total Relevant Dollars	62,423,989	65,116,319	67,327,342	57,271,546	54,041,229	-3.22
Occupational Cancer	Number of Grants	36	27	30	27	19	
	Relevant Grant Dollars	6,712,701	6,625,987	6,560,117	5,893,989	3,931,219	
	Total Count	36	27	30	27	19	
	Total Relevant Dollars	6,712,701	6,625,987	6,560,117	5,893,989	3,931,219	-11.44
Oncogenes	Number of Grants	1,828	1,784	1,693	1,573	1,440	
	Relevant Grant Dollars	413,130,527	404,601,468	402,124,198	403,153,878	378,546,779	
	Number of Contracts	6	1	3	3	3	
	Relevant Contract Dollars	5,307,498	111,706	1,510,068	1,968,626	1,711,492	
	Total Count	1,834	1,785	1,696	1,576	1,443	
	Total Relevant Dollars	418,438,025	404,713,174	403,634,266	405,122,504	380,258,271	-2.33
Organ Transplant Research	Number of Grants	175	151	132	129	117	
	Relevant Grant Dollars	55,542,375	48,657,932	45,618,921	47,946,930	43,054,531	
	Number of Contracts	‡	‡	‡	1	‡	
	Relevant Contract Dollars	‡	‡	‡	728,795	‡	
	Total Count	175	151	132	130	117	
	Total Relevant Dollars	55,542,375	48,657,932	45,618,921	48,675,724	43,054,531	-5.87
Osteoporosis	Number of Grants	5	7	6	6	4	
	Relevant Grant Dollars	722,771	1,471,815	1,557,646	768,584	144,894	
	Total Count	5	7	6	6	4	
	Total Relevant Dollars	722,771	1,471,815	1,557,646	768,584	144,894	-5.58
Pain	Number of Grants	159	132	75	65	67	
	Relevant Grant Dollars	17,703,099	12,405,393	9,313,288	11,455,185	12,594,778	
	Number of Contracts	1	‡	‡	‡	1	
	Relevant Contract Dollars	100,000	‡	‡	‡	99,932	
	Total Count	160	132	75	65	68	
	Total Relevant Dollars	17,803,099	12,405,393	9,313,288	11,455,185	12,694,710	-5.36

continued

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Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars [†]	2013	2014	2015	2016	2017	Average Percent Change/Year
Palliative Care	Number of Grants	152	129	68	64	56	
	Relevant Grant Dollars	18,689,924	15,149,837	10,957,597	13,862,941	14,389,798	
	Number of Contracts	1	1	‡	‡	‡	
	Relevant Contract Dollars	53,991	10,500	‡	‡	‡	
	Total Count	153	130	68	64	56	
	Total Relevant Dollars	18,743,915	15,160,337	10,957,597	13,862,941	14,389,798	-4.13
Pap Testing	Number of Grants	98	81	34	27	24	
	Relevant Grant Dollars	10,168,380	5,542,465	4,772,033	5,776,068	5,476,069	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	98	81	34	27	24	
	Total Relevant Dollars	10,168,380	5,542,465	4,772,033	5,776,068	5,476,069	-10.89
Pediatric Research	Number of Grants	681	623	583	580	564	
	Relevant Grant Dollars	193,100,899	209,529,822	216,588,476	220,383,334	227,499,715	
	Number of Contracts	8	4	3	‡	2	
	Relevant Contract Dollars	6,488,808	3,185,228	195,000	‡	589,442	
	Total Count	689	627	586	580	566	
	Total Relevant Dollars	199,589,707	212,715,050	216,783,476	220,383,334	228,089,157	3.41
Personalized Health Care	Number of Grants	661	664	635	597	583	
	Relevant Grant Dollars	164,974,350	155,335,886	153,442,074	144,856,624	170,929,897	
	Number of Contracts	12	1	3	4	5	
	Relevant Contract Dollars	8,158,581	224,999	25,437,656	49,185,985	44,910,814	
	Total Count	673	665	638	601	588	
	Total Relevant Dollars	173,132,931	155,560,885	178,879,730	194,042,608	215,840,711	6.14
Pesticides	Number of Grants	4	1	4	5	2	
	Relevant Grant Dollars	59,725	‡	610,640	663,084	66,155	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	4	1	4	5	2	
	Total Relevant Dollars	59,725	‡	610,640	663,084	66,155	9.56
Pharmacogenetics	Number of Grants	248	226	183	176	162	
	Relevant Grant Dollars	49,570,728	41,541,959	37,555,190	41,108,745	35,728,605	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	248	226	183	176	162	
	Total Relevant Dollars	49,570,728	41,541,959	37,555,190	41,108,745	35,728,605	-7.35

continued

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Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2013	2014	2015	2016	2017	Average Percent Change/Year
Prevention	Number of Grants	1,240	1,221	1,067	1,001	916	
	Relevant Grant Dollars	324,824,552	366,837,607	339,430,238	318,281,486	333,968,556	
	Number of Contracts	27	23	33	29	29	
	Relevant Contract Dollars	30,875,471	32,958,496	51,922,887	54,150,632	48,177,764	
	Total Count	1,267	1,244	1,100	1,030	945	
	Total Relevant Dollars	355,700,023	399,796,103	391,353,125	372,432,118	382,146,320	2.01
Proteomics	Number of Grants	700	680	664	673	652	
	Relevant Grant Dollars	133,187,112	132,200,036	134,218,056	140,643,812	140,517,434	
	Number of Contracts	14	3	3	1	4	
	Relevant Contract Dollars	5,364,611	465,439	5,348,146	62,182,698	81,234,900	
	Total Count	714	683	667	674	656	
	Total Relevant Dollars	138,551,723	132,665,475	187,699,518	202,826,510	221,752,334	13.66
Radiation, Electromagnetic Fields	Number of Grants	1	1	3	4	4	
	Relevant Grant Dollars	195,214	207,149	1,015,296	1,291,914	811,428	
	Total Count	1	1	3	4	4	
	Total Relevant Dollars	195,214	207,149	1,015,296	1,291,914	811,428	96.57
Radiation, Ionizing	Number of Grants	99	91	87	70	67	
	Relevant Grant Dollars	15,415,636	13,527,344	16,375,603	14,849,251	16,498,303	
	Number of Contracts	1	1	1	1	2	
	Relevant Contract Dollars	95,313	209,449	291,030	157,967	455,571	
	Total Count	100	92	88	71	69	
	Total Relevant Dollars	15,510,949	13,736,793	16,666,633	15,007,218	16,953,874	3.23
Radiation, Ionizing Diagnosis	Number of Grants	291	301	292	286	255	
	Relevant Grant Dollars	69,835,784	67,671,200	71,896,359	72,895,969	71,819,401	
	Number of Contracts	6	3	1	1	2	
	Relevant Contract Dollars	4,565,381	4,153,185	750,000	149,751	343,950	
	Total Count	297	304	293	287	257	
	Total Relevant Dollars	74,401,165	71,824,385	72,646,359	73,045,720	72,163,351	-0.74
Radiation, Ionizing Radiotherapy	Number of Grants	578	510	459	457	455	
	Relevant Grant Dollars	168,829,680	105,995,072	113,662,465	120,584,371	122,782,173	
	Number of Contracts	14	1	14	10	8	
	Relevant Contract Dollars	7,299,204	1,499,978	5,521,043	8,940,664	6,518,356	
	Total Count	592	511	473	467	463	
	Total Relevant Dollars	176,128,884	107,495,050	119,183,508	129,525,035	129,300,529	-4.90
Radiation, Low-Level Ionizing	Number of Grants	8	7	5	3	2	
	Relevant Grant Dollars	1,703,359	760,210	489,579	523,999	25,740	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	8	7	5	3	2	
	Total Relevant Dollars	1,703,359	760,210	489,579	523,999	25,740	-44.76

continued

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Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2013	2014	2015	2016	2017	Average Percent Change/Year
	Number of Grants	302	322	339	316	302	
	Relevant Grant Dollars	71,059,404	83,520,731	91,673,750	78,728,770	86,855,863	
Radiation, Magnetic Resonance Imaging	Number of Contracts	3	‡	‡	1	1	
	Relevant Contract Dollars	813,452	‡	‡	225,000	277,650	
	Total Count	305	322	339	317	303	
	Total Relevant Dollars	71,872,856	83,520,731	91,673,750	78,953,770	87,133,513	5.61
	Number of Grants	173	153	95	83	73	
	Relevant Grant Dollars	27,564,637	23,148,908	20,990,452	14,435,131	15,339,130	
Radiation, Mammography	Number of Contracts	1	1	1	‡	‡	
	Relevant Contract Dollars	1,300,000	1,100,000	750,000	‡	‡	
	Total Count	174	154	96	83	73	
	Total Relevant Dollars	28,864,637	24,248,908	21,740,452	14,435,131	15,339,130	-13.42
	Number of Grants	129	130	129	125	118	
	Relevant Grant Dollars	21,566,717	24,739,055	25,836,973	23,741,839	25,569,233	
Radiation, Non-Ionizing	Number of Contracts	‡	‡	1	‡	2	
	Relevant Contract Dollars	‡	‡	35,000	‡	1,791,728	
	Total Count	129	130	130	125	120	
	Total Relevant Dollars	21,566,717	24,739,055	25,871,973	23,741,839	27,360,961	6.57
	Number of Grants	469	474	470	438	401	
	Relevant Grant Dollars	114,249,805	130,723,063	134,607,297	120,965,607	124,041,475	
Radiation, Non-Ionizing Diagnosis	Number of Contracts	6	3	‡	2	4	
	Relevant Contract Dollars	4,045,191	679,250	‡	1,724,725	1,949,613	
	Total Count	475	477	470	440	405	
	Total Relevant Dollars	118,294,996	131,402,313	134,607,297	122,690,332	125,991,087	1.84
	Number of Grants	187	193	190	183	169	
	Relevant Grant Dollars	42,314,931	51,128,011	53,934,953	52,954,709	53,900,397	
Radiation, Non-Ionizing Radiotherapy	Number of Contracts	2	5	2	‡	3	
	Relevant Contract Dollars	1,573,324	1,044,592	1,798,842	‡	4,206,536	
	Total Count	189	198	192	183	172	
	Total Relevant Dollars	43,888,255	52,172,603	55,733,795	52,954,709	58,106,933	7.61
	Number of Grants	121	114	98	88	82	
	Relevant Grant Dollars	20,530,426	22,589,958	18,726,175	15,072,662	16,146,542	
Radiation, UV	Number of Contracts	‡	‡	1	‡	1	
	Relevant Contract Dollars	‡	‡	35,000	‡	1,494,124	
	Total Count	121	114	99	88	83	
	Total Relevant Dollars	20,530,426	22,589,958	18,761,175	15,072,662	17,640,666	-2.39
	Number of Grants	4	4	4	2	1	
	Relevant Grant Dollars	399,608	417,728	422,972	61,643	‡	
Radon	Total Count	4	4	4	2	1	
	Total Relevant Dollars	399,608	417,728	422,972	61,643	‡	-26.55

continued

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Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars [†]	2013	2014	2015	2016	2017	Average Percent Change/Year
Rare Diseases	Number of Grants	73	62	61	57	52	
	Relevant Grant Dollars	12,159,075	10,866,928	14,081,488	13,348,150	10,726,359	
	Number of Contracts	1	1	‡	‡	1	
	Relevant Contract Dollars	74,592	312,912	‡	‡	49,950	
	Total Count	74	63	61	57	53	
	Total Relevant Dollars	12,233,667	11,179,840	14,081,488	13,348,150	10,776,309	-1.78
Rehabilitation	Number of Grants	229	210	168	173	156	
	Relevant Grant Dollars	40,076,940	47,474,572	51,747,174	54,957,761	56,664,104	
	Number of Contracts	4	2	1	3	‡	
	Relevant Contract Dollars	475,141	1,007,690	149,925	1,694,020	‡	
	Total Count	233	212	169	176	156	
	Total Relevant Dollars	40,552,081	48,482,262	51,897,099	56,651,781	56,664,104	8.95
Rural Populations	Number of Grants	91	118	103	103	95	
	Relevant Grant Dollars	28,293,909	51,131,320	45,918,623	39,972,778	47,225,578	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	91	118	103	103	95	
	Total Relevant Dollars	28,293,909	51,131,320	45,918,623	39,972,778	47,225,578	18.93
Sexually Transmitted Diseases	Number of Grants	154	130	69	52	42	
	Relevant Grant Dollars	21,439,368	17,283,985	12,192,170	11,054,662	11,261,006	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	154	130	69	52	42	
	Total Relevant Dollars	21,439,368	17,283,985	12,192,170	11,054,662	11,261,006	-14.08
Sleep Disorders	Number of Grants	46	48	49	59	60	
	Relevant Grant Dollars	5,420,968	6,930,386	7,520,997	9,575,112	10,817,251	
	Number of Contracts	3	1	1	‡	‡	
	Relevant Contract Dollars	550,000	78,195	35,000	‡	‡	
	Total Count	49	49	50	59	60	
	Total Relevant Dollars	5,970,968	7,008,581	7,555,997	9,575,112	10,817,251	16.22
Small Molecules	Number of Grants	556	609	648	649	660	
	Relevant Grant Dollars	95,910,356	109,485,605	112,555,106	116,837,379	128,242,096	
	Number of Contracts	6	4	2	4	5	
	Relevant Contract Dollars	1,140,627	1,389,150	846,672	2,932,872	3,629,428	
	Total Count	562	613	650	653	665	
	Total Relevant Dollars	97,050,983	110,874,755	113,401,778	119,770,251	131,871,523	8.06

continued

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‡Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars [†]	2013	2014	2015	2016	2017	Average Percent Change/Year
Smokeless Tobacco	Number of Grants	33	29	25	27	26	
	Relevant Grant Dollars	4,087,588	1,359,152	1,961,730	1,686,491	1,827,449	
	Number of Contracts	1	1	1	1	‡	
	Relevant Contract Dollars	332,500	420,000	420,000	440,965	‡	
	Total Count	34	30	26	28	26	
	Total Relevant Dollars	4,420,088	1,779,152	2,381,730	2,127,455	1,827,449	-12.66
Smoking, Passive	Number of Grants	18	20	20	20	22	
	Relevant Grant Dollars	3,160,590	3,771,941	4,153,475	3,389,404	5,075,259	
	Number of Contracts	1	1	1	2	‡	
	Relevant Contract Dollars	332,500	420,000	420,000	456,715	‡	
	Total Count	19	21	21	22	22	
	Total Relevant Dollars	3,493,090	4,191,941	4,573,475	3,846,118	5,075,259	11.29
Structural Biology	Number of Grants	1,103	1,048	944	856	761	
	Relevant Grant Dollars	206,932,623	196,164,921	180,943,953	165,245,966	160,205,655	
	Number of Contracts	4	‡	2	2	1	
	Relevant Contract Dollars	1,595,591	‡	52,481,360	62,705,109	79,804,870	
	Total Count	1,107	1,048	946	858	762	
	Total Relevant Dollars	208,528,214	196,164,921	233,425,313	227,951,075	240,010,526	4.00
Surgery	Number of Grants	326	300	208	210	214	
	Relevant Grant Dollars	77,598,007	48,740,495	47,266,013	50,662,032	58,892,413	
	Number of Contracts	5	‡	2	‡	2	
	Relevant Contract Dollars	2,527,184	‡	1,094,494	‡	1,172,218	
	Total Count	331	300	210	210	216	
	Total Relevant Dollars	80,125,191	48,740,495	48,360,507	50,662,032	60,064,630	-4.16
Taxol	Number of Grants	270	222	149	127	130	
	Relevant Grant Dollars	52,963,267	17,879,201	14,735,085	15,870,045	21,162,390	
	Number of Contracts	‡	‡	‡	1	‡	
	Relevant Contract Dollars	‡	‡	‡	496,154	‡	
	Total Count	270	222	149	128	130	
	Total Relevant Dollars	52,963,267	17,879,201	14,735,085	16,366,199	21,162,390	-10.86
Telehealth	Number of Grants	288	283	270	291	304	
	Relevant Grant Dollars	65,169,688	64,593,337	64,342,929	68,485,679	79,769,242	
	Number of Contracts	7	6	6	10	8	
	Relevant Contract Dollars	9,541,363	10,473,269	6,161,456	3,584,009	4,389,571	
	Total Count	295	289	276	301	312	
	Total Relevant Dollars	74,711,051	75,066,606	70,504,385	72,069,688	84,158,813	3.35

continued

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[‡]Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2013	2014	2015	2016	2017	Average Percent Change/Year
Therapy	Number of Grants	3,838	4,057	4,079	4,107	4,293	
	Relevant Grant Dollars	1,246,559,964	1366836549	1430619450	1527523958	1754215108	
	Number of Contracts	104	67	81	78	64	
	Relevant Contract Dollars	71,823,475	80,749,732	137,502,906	179,514,139	157,222,822	
	Total Count	3,942	4,124	4,160	4,185	4,357	
	Total Relevant Dollars	1,318,383,439	1,447,586,281	1,568,122,356	1,707,038,096	1,911,437,930	9.74
Tobacco	Number of Grants	417	381	354	344	324	
	Relevant Grant Dollars	98,441,413	80,787,427	79736310	85,531,663	90,945,385	
	Number of Contracts	8	5	5	6	6	
	Relevant Contract Dollars	2,268,519	1,335,500	1960000	5,099,990	2,086,550	
	Total Count	425	386	359	350	330	
	Total Relevant Dollars	100,709,932	82,122,927	81696310	90,631,653	93,031,935	-1.35
Tobacco Use Behavior	Number of Grants	276	274	269	267	248	
	Relevant Grant Dollars	73,128,257	64,136,938	63,391,848	65,022,529	68,496,317	
	Number of Contracts	6	5	3	4	5	
	Relevant Contract Dollars	2,066,485	1,335,500	1,285,000	4,424,240	2,070,000	
	Total Count	282	279	272	271	253	
	Total Relevant Dollars	75,194,742	65,472,438	64,676,848	69,446,769	70,566,317	-1.29
Tropical Diseases	Number of Grants	16	15	15	11	10	
	Relevant Grant Dollars	2,226,158	2,968,168	3,731,760	3,628,078	3,155,736	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	16	15	15	11	10	
	Total Relevant Dollars	2,226,158	2,968,168	3,731,760	3,628,078	3,155,736	10.82
Tumor Markers	Number of Grants	393	298	214	147	110	
	Relevant Grant Dollars	88,015,396	59,605,975	49,088,453	35,214,792	28,002,108	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	393	298	214	147	110	
	Total Relevant Dollars	88,015,396	59,605,975	49,088,453	35,214,792	28,002,108	-24.67
Underserved Populations	Number of Grants	556	610	595	605	578	
	Relevant Grant Dollars	189,290,919	245,809,745	230,676,876	228,862,603	247,578,399	
	Number of Contracts	2	‡	4	7	9	
	Relevant Contract Dollars	2,354,483	‡	5,952,032	1,906,103	5,404,861	
	Total Count	558	610	599	612	587	
	Total Relevant Dollars	191,645,402	245,809,745	236,628,908	230,768,706	252,983,260	7.92

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.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2013	2014	2015	2016	2017	Average Percent Change/Year
Vaccine Development	Number of Grants	130	112	109	100	87	
	Relevant Grant Dollars	17,452,232	15,119,199	17,882,191	18,841,587	18,665,405	
	Number of Contracts	1	1	1	2	1	
	Relevant Contract Dollars	739,425	458,635	318,481	2,719,056	589,266	
	Total Count	131	113	110	102	88	2.56
Vaccine Production	Number of Grants	2	1	1	1	1	
	Relevant Grant Dollars	152,239	‡	41,056	40,677	40,677	
	Number of Contracts	1	‡	‡	‡	‡	
	Relevant Contract Dollars	739,425	‡	‡	‡	‡	
	Total Count	3	1	1	1	1	-32.11
Vaccine Research	Number of Grants	167	149	129	113	121	
	Relevant Grant Dollars	25,866,062	25,518,109	22,248,751	23,660,428	27,073,893	
	Number of Contracts	3	‡	6	10	10	
	Relevant Contract Dollars	5,831,735	‡	24,951,052	34,643,738	39,618,958	
	Total Count	170	149	135	123	131	25.85
Vaccine Testing	Number of Grants	82	70	72	63	58	
	Relevant Grant Dollars	13,797,753	14,265,015	14,360,299	14,750,690	13,896,826	
	Number of Contracts	‡	3	1	1	2	
	Relevant Contract Dollars	‡	4,435,947	2,746,712	3,186,536	2,305,882	
	Total Count	82	73	73	64	60	5.55
Virus Cancer Research	Number of Grants	458	442	419	370	356	
	Relevant Grant Dollars	123,611,800	124,977,046	121,319,532	130,243,171	133,714,813	
	Number of Contracts	2	1	2	4	2	
	Relevant Contract Dollars	2,478,454	740,476	21,920,290	30,559,118	34,560,327	
	Total Count	460	443	421	374	358	7.64
Virus—Epstein-Barr	Number of Grants	81	75	69	57	55	
	Relevant Grant Dollars	20,096,683	17,304,516	16,834,173	18,001,207	18,317,870	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	81	75	69	57	55	-1.98
Virus—Hepatitis B	Number of Grants	39	39	33	22	19	
	Relevant Grant Dollars	3,929,183	4,816,519	3,855,582	2,835,408	1,682,116	
	Total Count	39	39	33	22	19	
	Total Relevant Dollars	3,929,183	4,816,519	3,855,582	2,835,408	1,682,116	-16.13

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.

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

‡Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2013 – FY2017 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2013	2014	2015	2016	2017	Average Percent Change/Year
Virus—Hepatitis C	Number of Grants	39	34	34	25	24	
	Relevant Grant Dollars	3,990,130	3,507,767	6,172,959	4,925,341	3,352,826	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	39	34	34	25	24	
	Total Relevant Dollars	3,990,130	3,507,767	6,172,959	4,925,341	3,352,826	2.94
Virus—Herpes	Number of Grants	163	157	148	127	123	
	Relevant Grant Dollars	41,683,291	42,315,552	41,959,685	44,516,965	47,186,600	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	163	157	148	127	123	
	Total Relevant Dollars	41,683,291	42,315,552	41,959,685	44,516,965	47,186,600	3.19
Virus—HHV8	Number of Grants	66	65	63	57	60	
	Relevant Grant Dollars	18,719,752	19,671,059	19,794,001	25,216,563	27,737,808	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	66	65	63	57	60	
	Total Relevant Dollars	18,719,752	19,671,059	19,794,001	25,216,563	27,737,808	10.78
Virus—HTLV-I	Number of Grants	20	22	18	14	14	
	Relevant Grant Dollars	3,679,947	4,627,662	3,629,925	4,142,547	3,899,447	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	20	22	18	14	14	
	Total Relevant Dollars	3,679,947	4,627,662	3,629,925	4,142,547	3,899,447	3.11
Virus—HTLV-II	Number of Grants	1	1	1	1	1	
	Relevant Grant Dollars	160,325	151,718	171,471	154,324	‡	
	Total Count	1	1	1	1	1	
	Total Relevant Dollars	160,325	151,718	171,471	154,324	‡	-0.78
Virus—Papilloma	Number of Grants	162	176	167	171	165	
	Relevant Grant Dollars	40,445,208	43,808,063	43,027,935	48,797,503	52,490,929	
	Number of Contracts	2	1	1	3	1	
	Relevant Contract Dollars	2,478,454	740,476	1,327,705	5,686,039	2,638,379	
	Total Count	164	177	168	174	166	
	Total Relevant Dollars	42,923,662	44,548,539	44,355,640	54,483,542	55,129,308	6.84
Virus—Papova	Number of Grants	185	196	188	187	178	
	Relevant Grant Dollars	49,217,700	50,340,929	49,604,921	52,682,779	56,177,300	
	Number of Contracts	2	1	1	3	1	
	Relevant Contract Dollars	2,478,454	740,476	1,327,705	5,686,039	2,638,379	
	Total Count	187	197	189	190	179	
	Total Relevant Dollars	51,696,154	51,081,405	50,932,626	58,368,818	58,815,679	3.47

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.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2012 – FY2016 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars [†]	2013	2014	2015	2016	2017	Average Percent Change/Year
Virus—SV40	Number of Grants	15	7	2	2	2	
	Relevant Grant Dollars	3,313,239	356,763	361,950	155,700	720,567	
	Total Count	15	7	2	2	2	
	Total Relevant Dollars	3,313,239	356,763	361,950	155,700	720,567	54.51
Vitamin A	Number of Grants	40	31	24	18	14	
	Relevant Grant Dollars	6,714,906	4,342,551	2,458,147	2,452,760	2,771,355	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	40	31	‡	18	14	
	Total Relevant Dollars	6,714,906	4,342,551	2,458,147	2,452,760	2,771,355	-16.49
Vitamin C	Number of Grants	11	7	6	6	5	
	Relevant Grant Dollars	1,327,243	993,313	1,569,644	1,443,333	1,262,997	
	Total Count	11	7	6	6	5	
	Total Relevant Dollars	1,327,243	993,313	1,569,644	1,443,333	1,262,997	3.08
Vitamin D	Number of Grants	70	81	68	46	44	
	Relevant Grant Dollars	17,759,137	17,167,368	16,217,405	10,749,178	12,254,831	
	Number of Contracts	1	‡	‡	‡	‡	
	Relevant Contract Dollars	918,685	‡	‡	‡	‡	
	Total Count	71	81	68	46	44	
	Total Relevant Dollars	18,677,822	17,167,368	16,217,405	10,749,178	12,254,831	-8.33
Vitamins, Other	Number of Grants	15	8	7	4	4	
	Relevant Grant Dollars	4,252,163	3,199,595	3,184,755	403,368	20,764	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	15	8	7	4	4	
	Total Relevant Dollars	4,252,163	3,199,595	3,184,755	403,368	20,764	-51.85

*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.

Table 17. NCI Funding of Foreign Research Grants and Contracts in FY2017*(This table reports extramural grants and contracts only; intramural grants and contracts are excluded.)*

Country/ Cancer Site	Mechanism															Totals	
	F31	F32	N01	N02	N03	P20	R01	R03	R21	R33	U01	U10	U24	UH2	UM1		
Argentina																	
Grants #						1	1										2
Funding \$						249,500	407,200										656,700
Bladder						124,750											124,750
Cervix							407,200										407,200
Stomach						124,750											124,750
Australia																	
Grants #							1				1						2
Funding \$							483,257				780,342						1,263,599
Childhood Leukemia											390,171						390,171
Leukemia											390,171						390,171
Ovary							483,257										483,257
Botswana																	
Grants #						1											1
Funding \$						236,966											236,966
Breast						118,483											118,483
Vascular						118,483											118,483
Canada																	
Grants #			1				6			1		1	1				10
Funding \$			900,185				1,977,491			258,952		2,966,562	398,402				6,501,592
Bladder							25,772					148,328					174,100
Brain												148,328					148,328
Breast									129,476			1,186,625					1,316,101
Cervix												74,164					74,164
Childhood Leukemia							162,328										162,328
Colon, Rectum												118,663					118,663
Esophagus												59,331					59,331
Head and Neck												148,328					148,328
Kidney												148,328					148,328
Leukemia							791,824					111,246					903,070
Liver												29,666					29,666
Lung							489,670					148,328					637,998
Melanoma							123,525										123,525
Myeloma												74,164					74,164
Non-Hodgkin Lymphoma							123,525					111,246					234,771
Not Site Specific*			900,185										398,402				1,298,587
Ovary												148,328					148,328
Pancreas												59,331					59,331
Prostate							260,847		129,476			148,328					538,651
Stomach												29,666					29,666
Uterus												74,164					74,164
Costa Rica																	
Grants #			2														2
Funding \$			3,768,250														3,768,250
Cervix			3,768,250														3,768,250
France																	
Grants #											2			2			4
Funding \$											1,291,410			975,732			2,267,142
Anus											233,437						233,437
Cervix														975,732			975,732
Not Site Specific*											824,536						824,536
Pharynx											233,437						233,437
Germany																	
Grants #							1							1			2
Funding \$							224,100							412,276			636,376
Not Site Specific*														412,276			412,276
Sarcoma, Soft Tissue							224,100										224,100

continued

*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 FY2017*(This table reports extramural grants and contracts only; intramural grants and contracts are excluded.)*

Country/ Cancer Site	Mechanism															Totals
	F31	F32	N01	N02	N03	P20	R01	R03	R21	R33	U01	U10	U24	UH2	UM1	
Italy																
Grants #				1					1							2
Funding \$				49,950					117,072							167,022
Prostate									117,072							117,072
Not Site Specific*				49,950												49,950
Israel																
Grants #								1								1
Funding \$								199,020								199,020
Breast								49,755								49,755
Colon, Rectum								49,755								49,755
Lung								49,755								49,755
Skin								49,755								49,755
Japan																
Grants #				1												1
Funding \$				157,967												157,967
Not Site Specific*				157,967												157,967
Mexico																
Grants #							1									1
Funding \$							243,098									243,098
Not Site Specific*							243,098									243,098
Netherlands																
Grants #							1									1
Funding \$							129,294									129,294
Breast							129,294									129,294
Poland																
Grants #				1												1
Funding \$				277,650												277,650
Not Site Specific*				277,650												277,650
South Africa																
Grants #							1									1
Funding \$							74,840									74,840
Breast							74,840									74,840
Spain																
Grants #							1									1
Funding \$							224,100									224,100
Non-Hodgkin Lymphoma							224,100									224,100
Sweden																
Grants #	1	1					1									3
Funding \$	23,844	52,716					224,100									300,660
Colon, Rectum							224,100									224,100
Lung	11,922															11,922
Melanoma	11,922															11,922
Not Site Specific*		52,716														52,716
Switzerland																
Grants #				1					1							2
Funding \$				48,216					219,567							267,783
Brain									219,567							219,567
Breast				48,216												48,216
United Kingdom																
Grants #											1		1			2
Funding \$											161,385		324,000			485,385
Not Site Specific*											161,385					161,385
Thyroid													324,000			324,000
Total Grants & Contracts	1	2	4	2		3	15		1	1	4	1	3	2		39
Total \$ Per Grant & Contract type	23,844	100,932	4,826,402	327,600		729,564	4,162,969		117,072	258,952	2,233,137	2,966,562	1,134,678	975,732		17,857,444

*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 FY2017

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

Country	Funding Mechanism																				Sub-total						
	F30	F31	K01	K07	K22	K99	N01	R00	R01	R03	R13	R21	R25	R33	R35	R41	R43	R44	U01	U24		UG1	UG3	UH2	UH3	UM1	
Argentina									1												1						2
Australia					1			2	11							1				1	1				1		18
Austria																			3		1						4
Bahamas													1							1							2
Belgium						1			2													2					5
Botswana																									1		1
Brazil													1								1			1	1		4
Canada									41			1	1			1		3	3	1	1	1			1	54	
China							1		11			1								1			1			3	18
Colombia									1													1			1		3
Costa Rica																				1							1
Cyprus													1														1
Czechia																						1					1
Denmark									4			1										1					6
Egypt									1				1									1					3
El Salvador									1																		1
Finland									2													1					3
France									7			3									2	1					13
Germany						1		1	20			2					1			2	1						28
Ghana									1				1								1						3
Greece									1			1															2
Hong Kong																						1					1
Hungary																						1					1
Iceland									1																		1
India									3													1		2	1		7
Iran																						1					1
Ireland									3													1					4
Israel									6			2						1	1	1							11
Italy	1								8		1	2								2	1						15
Japan							1		4					1						1	1						8
Jordan													1														1
Kenya			1						2																1	1	5
Kuwait																						1					1
Malawi												1												1			2
Malaysia																						1					1
Mexico			1	1					4													1			1		8
Mongolia																								1			1
Morocco													1														1
Netherlands									13									1	5	1							20
New Zealand									1													1					2
Nigeria									1			1									1			1			4
Norway									3																		3
Pakistan																						1					1
Panama																						1					1

continued

* Because many grants have multiple foreign contributors, the total count (393) is greater than the total number of grants and contracts (258).

Source: Research Analysis and Evaluation Branch.

Table 18. (cont'd). Foreign Components of U.S. Domestic Research Grants and Contracts in FY2017

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

Country	Funding Mechanism																				Sub-total						
	F30	F31	K01	K07	K22	K99	N01	R00	R01	R03	R13	R21	R25	R33	R35	R41	R43	R44	U01	U24		UG1	UG3	UH2	UH3	UM1	
Peru									2																1		3
Philippines																								1	1		2
Poland									2												1						3
Portugal									1												1						2
Qatar										1																	1
Russia									1			7													1		9
Saudi Arabia																									1		1
Senegal																					1						1
Singapore								1	4						1							1				1	8
South Korea																					1	1					2
South Africa																					1	1			1	1	5
Spain			1						10			1										1					13
Sweden									4			1									1	1					7
Switzerland									2										1	2	1						6
Taiwan									4			2										1		1			8
Tanzania									3				1														4
Tunisia													1														1
Turkey									1													1					2
Uganda									2															2	1		5
United Kingdom									24				2								3	1					30
Uruguay																						1					1
Venezuela																						1					1
Vietnam									1			1															2
Zambia									1				1														2
Zimbabwe																										1	1
Totals	1	1	2	1	1	2	2	4	215	1	1	23	17	1	1	2	1	9	31	44	1	10	6	7	9	393*	

* Because many grants have multiple foreign contributors, the total count (393) is greater than the total number of grants and contracts (258).

Source: Research Analysis and Evaluation Branch.

Appendix A: Activities of the National Cancer Advisory Board (NCAB)

Originally established as the National Advisory Cancer Council in 1937, the NCAB consists of 18 members who are appointed by the U.S. President and 12 nonvoting *ex officio* members. The NCAB advises, assists, consults with, and makes recommendations to the Secretary of 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. The NCAB is authorized to recommend support for grants and cooperative agreements following technical and scientific peer review. The DEA Director serves as the 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 14,987 applications in FY2017 requesting \$4,779,914,291 in direct costs with appropriated funds. Additionally, the Board reviewed two FDA applications in FY2017.

The Board heard presentations, discussed, and provided advice on a variety of topics and NCI activities in FY2017, such as:

- NCI Acting Director's Report
- President's Cancer Panel Report
- Legislative Report
- Annual Delegations of Authority
- Treatment of Lymphoma Inspired by Functional and Structural Genomics
- BSA/NCAB Specialized Programs of Research Excellence (SPORE) Working Group Report

- Tomosynthesis Mammography Imaging Screening Trial (TMIST)
- Clinical Investigations Subcommittee Report
- Proposed Organizational Change: Center for Cancer Research
- Enhancing Stewardship: Next Generation of Researchers Initiative
- Cancer Centers Subcommittee Report
- *Ad Hoc* Subcommittee on Population Science, Epidemiology and Disparities Report

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

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

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

Appendix B: Activities of the Board of Scientific Advisors (BSA)

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 FY2017:

- NCI Acting Director's Report
- Legislative Report
- President's Cancer Panel Report
- Treatment of Lymphoma Inspired by Functional and Structural Genomics
- BSA/NCAB Specialized Programs of Research Excellence (SPORE) Working Group Report
- Tomosynthesis Mammography Imaging Screening Trial (TMIST)
- Clinical Investigations Subcommittee Report
- Enhancing Stewardship: Next Generation of Researchers Initiative
- Cancer Centers Subcommittee Report
- *Ad Hoc* Subcommittee on Population Science, Epidemiology and Disparities Report

RFA Concepts Approved

Office of the Director and Division of Cancer Biology

- Advancing New Enabling Technologies Aligned with the Beau Biden Cancer MoonshotSM Initiative
- Role of HIV Infection, Sequelae Associated with HIV Infection, or Antiretroviral Therapy in Modulating the Tumor Niche in Cancer

RFA/Cooperative Agreements Approved

Office of the Director

- Minority-Patient Derived Xenograft (PDX) Development and Trial Center (PDTC) Network
- Feasibility and Planning Studies (P20) for Development of Specialized Programs of Research Excellence (SPOREs) to Investigate Cancer Health Disparities
- Assessing the Tolerability of Anti-Cancer Treatment Using Clinician and Patient-Reported Outcomes: Methods for Analyzing and Interpreting CTCAE and PRO-CTCAETM Data
- Collaborative Research Network for Fusion Oncoproteins in Childhood Cancers
- Immuno-Oncology Translational Network (IOTN)
- Human Tumor Atlas Network
- Approaches to Identify and Care for Individuals with Inherited Cancer Syndromes
- Pediatric Immunotherapy Translational Science Network (PI-TSN)
- Moonshot Coordination Center for Mechanisms of Cancer Drug Resistance and Sensitivity Network
- Improving Management of Symptoms Across Cancer Treatments (IMPACT)
- Accelerating Colorectal Cancer Screening and Follow-up Through Implementation Science (ACCSIS)

Division of Cancer Prevention

- Consortium on Translational Research in Early Detection of Liver Cancer
- Precompetitive Collaboration on Liquid Biopsy for Early Cancer Assessment
- U.S.-Latin American-Caribbean HIV/HPV Prevention Clinical Trials Consortium

Division of Cancer Treatment and Diagnosis

- Canine Immunotherapy Trials and Correlative Studies in Collaboration with the Comparative Oncology Trials Consortium
- Consortium for Pancreatic Ductal Adenocarcinoma (PDAC) Translational Studies on the Tumor Microenvironment
- Patient Derived Xenograft (PDX) Development and Trials Centers (PDTCs) Network (U54) and PDX Data Commons (PDC) (U24) for the PDTCRNet
- Development and Clinical Application of Approaches to Identify and Treat Cancer Sensitivity or Resistance to Anticancer Therapy
- Cancer Immune Monitoring and Analysis Centers (CIMACs) Network and Cancer Immunologic Data Commons (CIDC) for the CIMAC Network

RFA Re-Issuance Approved

Office of the Director

- Innovative Molecular Analysis Technologies (IMAT)

RFA/Cooperative Agreements Re-Issuances Approved

Division of Cancer Treatment and Diagnosis

- A Data Resource for Analyzing Blood and Marrow Transplants
- Pediatric Early Phase Clinical Trial Network
- NCI Clinical Trials Network (NCTN)

Appendix C: Activities of the Frederick National Laboratory Advisory Committee to the NCI (FNLAC)

Originally established as the NCI-Frederick Advisory Committee in 2011, the FNLAC consists of up to 16 members, including the Chair, appointed by the Director of NCI; nonvoting representatives from the National Cancer Advisory Board, the NCI Board of Scientific Advisors, and the NCI Board of Scientific Counselors (Basic Sciences and Clinical Sciences and Epidemiology); and nonvoting *ex officio* members, including NCI Deputy Directors, selected NCI Division Directors, and the Associate Director of the Frederick National Laboratory for Cancer Research (FNLCR). The NCI-Frederick Cancer Research Center (FCRC) in Frederick, Maryland, was established in 1972 as a Government-owned Contractor-operated (GOCO) facility. In 1975, the FCRC was designated as a Federally Funded Research and Development Center (FFRDC) to provide a unique national resource within the biomedical research community 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. In 2012, the FCRC was renamed the FNLCR. The FNLAC reviews the state of research (extramural and intramural) at the FNLCR and makes recommendations for the best use of its capabilities and infrastructure. Specifically, the committee reviews major new projects proposed to be performed at the FNLCR and advises the Director, NCI, and Associate Director, FNLCR, about the intrinsic merit of the projects and about whether they should be performed at the FNLCR. In addition, the Committee periodically reviews the existing portfolio of projects at the FNLCR, evaluates their productivity, helps determine which of these projects should be transitioned to more conventional mechanisms of support (i.e., grants, contracts, cooperative agreements), and which should be considered for termination.

The Committee heard presentations, discussed, and provided advice on a variety of topics and NCI activities in FY2017, such as:

- NCI Acting Director's Report
- RAS Working Group Report
- Site Visit and Review of the FNLCR and RAS Initiative
- National Cryo-EM Facility, Implementation and Community Dissemination
- Three Departments of Energy (DOE) and FNLCR Collaborations:
 - Joint Design of Advanced Computing Solutions for Cancer (JDACS4C)
 - RAS Pilot
 - Accelerating Therapeutics for Opportunities in Medicine (ATOM)
- FNLCR Update: Progress and Programs
- Implementation of the Cancer MoonshotSM Blue Ribbon Panel Recommendations
- Review of FNLCR Research Portfolio: Intramural and Extramural
- Review of Newly Initiated Research Projects at the FNLCR

Another major role of the Committee is to monitor and evaluate contractor-initiated research within the span of a contract period. The Committee considers proposed research and provides advice as to whether the FNLCR is the best mechanism for carrying out these projects that it deems to be of merit and to be consistent with the mission of the National Cancer Institute and the FNLCR.

The full text of recent FNLAC meeting summaries is available on the NCI website at: <https://deainfo.nci.nih.gov/advisory/fac/fac.htm>.

Appendix D: List of Chartered Boards, Councils, and Committees

President's Cancer Panel

Chair

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

Members

Hill Harper, J.D. Author, Actor, Philanthropist
Owen N. Witte, M.D. University of California, Los Angeles

Executive Secretary

Abby B. Sandler, Ph.D. National Cancer Institute, NIH

National Cancer Advisory Board

Current Chair

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Francis Ali-Osman, D.Sc. Duke University Medical Center
Deborah Watkins Bruner, R.N., Ph.D., F.A.A.N. Emory University
Yuan Chang, M.D. University of Pittsburgh Cancer Institute
David C. Christiani, M.D., M.P.H. Harvard Medical School
Judy E. Garber, M.D., M.P.H. Harvard Medical School
Lawrence O. Gostin, J.D. Georgetown University
Scott W. Hiebert, Ph.D. Vanderbilt University
Beth Y. Karlan, M.D. University of California, Los Angeles
Timothy J. Ley, M.D. Washington University School of Medicine in St. Louis
Electra D. Paskett, Ph.D. The Ohio State University
Nancy J. Raab-Traub, Ph.D. The University of North Carolina at Chapel Hill
Mack Roach III, M.D., F.A.C.R. University of California, San Francisco
Charles L. Sawyers, M.D. Weill Cornell Medical College
Margaret R. Spitz, M.D. Baylor College of Medicine
Max S. Wicha, M.D. University of Michigan

Ex Officio Members of the National Cancer Advisory Board

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Linda S. Birnbaum, Ph.D., D.A.B.T., A.T.S. National Institute of Environmental Health Sciences, NIH
Ann Marie Buerkle, J.D. U.S. Consumer Product Safety Commission
Francis S. Collins, M.D., Ph.D. National Institutes of Health
Scott Gottlieb, M.D. U.S. Food and Drug Administration

John Howard, M.D., M.P.H., J.D., LL.M.	National Institute for Occupational Safety and Health
The Honorable James Mattis, M.A.	U.S. Department of Defense
The Honorable Rick Perry	U.S. Department of Energy
The Honorable Thomas E. Price, M.D.	U.S. Department Health and Human Services
Scott Pruitt, J.D.	U.S. Environmental Protection Agency
The Honorable David J. Shulkin, M.D.	U.S. Department of Veterans Affairs

Alternates to *Ex Officio* Members of the National Cancer Advisory Board

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Michael A. Babich, Ph.D.	U.S. Consumer Product Safety Commission
Roberto J. Barbero, Ph.D.	Office of Science and Technology Policy
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
Lawrence A. Tabak, D.D.S., Ph.D.	National Institutes of Health
Richard J. Thomas, M.D., M.P.H.	U.S. Department of Labor

Executive Secretary

Paulette S. Gray, Ph.D.	National Cancer Institute, NIH
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NCI Board of Scientific Advisors

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Chi V. Dang, M.D., Ph.D.	University of Pennsylvania
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Appendix D: List of Chartered Boards, Councils, and Committees

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Sylvia Katina Plevritis, Ph.D.	Stanford University
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Martine F. Roussel (Sherr), Ph.D.	St. Jude Children’s Research Hospital
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Victoria L. Seewaldt, M.D.	Beckman Research Institute of City of Hope
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Cheryl L. Walker, Ph.D., A.T.S., F.A.A.A.S.	Baylor College of Medicine
Eileen P. White, Ph.D.	Rutgers, The State University of New Jersey
Kevin P. White, Ph.D.	The University of Chicago
Cheryl L. Willman, M.D.	The University of New Mexico

Executive Secretary

Paulette S. Gray, Ph.D.	National Cancer Institute, NIH
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Executive Secretary

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Jedd D. Wolchok, M.D., Ph.D. Memorial Sloan Kettering Cancer Center

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Paulette S. Gray, Ph.D. National Cancer Institute, NIH
Anthony R. Kerlavage, Ph.D. National Cancer Institute, NIH
Warren A. Kibbe, Ph.D. National Cancer Institute, NIH
Kristin Komschlies McConville, Ph.D. National Cancer Institute, NIH
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Craig W. Reynolds, Ph.D. National Cancer Institute, NIH
Donna Siegle National Cancer Institute, NIH
Dinah S. Singer, Ph.D. National Cancer Institute, NIH

Executive Secretary

Caron A. Lyman, Ph.D. National Cancer Institute, NIH

Past Executive Secretary

Peter J. Wirth, Ph.D. National Cancer Institute, NIH

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 Louis M. Weiner, M.D. Georgetown University

Ex Officio Members

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 James H. Doroshow, M.D. National Cancer Institute, NIH
 Paulette S. Gray, Ph.D. National Cancer Institute, NIH
 Rosemarie B. Hakim, Ph.D. U.S. Centers for Medicare and Medicaid Services

* pending appointment

Appendix D: List of Chartered Boards, Councils, and Committees

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Anthony Kerlavage, Ph.D.	National Cancer Institute, NIH
Warren A. Kibbe, Ph.D.	National Cancer Institute, NIH
Richard Pazdur, M.D., F.A.C.P.	U.S. Food and Drug Administration

Executive Secretary

Sheila A. Prindiville, M.D., M.P.H.	National Cancer Institute, NIH
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NCI Council of Research Advocates

Chair

David F. Arons, J.D.	National Brain Tumor Society
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Members

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Sue J. Friedman, D.V.M.	Facing Our Risk of Cancer Empowered
Shelley Fuld Nasso, M.A.	National Coalition for Cancer Survivorship
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Roberto A. Vargas, M.P.H.	University of California, San Francisco
Regina M. Vidaver, Ph.D.	University of Wisconsin-Madison

Executive Secretary

Amy Williams	National Cancer Institute, NIH
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NCI Initial Review Group Scientific Review Committees

Subcommittee A—Cancer Centers

Chair

Robert S. DiPaola, M.D.	University of Kentucky
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Members

Lucile L. Adams-Campbell, Ph.D.	Georgetown University
Alex A. Adjei, M.D., Ph.D., F.A.C.P.	Mayo Clinic, Rochester

* pending appointment

Howard H. Bailey, M.D.	University of Wisconsin-Madison
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Margie L. Clapper, Ph.D.	Fox Chase Cancer Center
Kathleen A. Cooney, M.D.	The University of Utah
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Helen E. Heslop, M.D.	Baylor College of Medicine
Roy A. Jensen, M.D.	University of Kansas Medical Center
Judy A. Jones, M.A.	Cutaneous Lymphoma Foundation
Karen E. Knudsen, Ph.D.	Thomas Jefferson University
Molly F. Kulesz-Martin, Ph.D.	Oregon Health & Science University
Cheryl T. Lee, M.D.	The Ohio State University
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Beverly S. Mitchell, M.D.	Stanford University
Kunle O. Odunsi, M.D., Ph.D.	Roswell Park Cancer Institute
Frank G. Ondrey, M.D., Ph.D.	University of Minnesota
Sharina D. Person, Ph.D.	University of Massachusetts Medical School, Worcester
Leonidas C. Plataniias, M.D., Ph.D.	Northwestern University
Victor M. Santana, M.D.	St. Jude Children’s Research Hospital
Eric J. Small, M.D.	University of California, San Francisco
Eduardo M. Sotomayor, M.D.	The George Washington University
David R. Spriggs, M.D.	Memorial Sloan Kettering Cancer Center
Joann B. Sweasy, Ph.D.	Yale University
Ian M. Thompson, Jr., M.D.	The University of Texas Health Science Center at San Antonio
Richard A. Van Etten, M.D., Ph.D.	University of California, Irvine
Paula M. Vertino, Ph.D.	Emory University
Patti Wiley, M.B.A.	On the Wings of Angels Pediatric Cancer Foundation

Scientific Review Officer

Shamala K. Srinivas, Ph.D.	National Cancer Institute, NIH
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Chair

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Subbarao Bondada, Ph.D.	University of Kentucky
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Jennifer J. Hu, Ph.D.	University of Miami Miller School of Medicine
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Kathleen H. Mooney, Ph.D., R.N., F.A.A.N.	The University of Utah
Polly A. Newcomb, Ph.D., M.P.H.	University of Washington
Fiemu E. Nwariaku, M.D.	The University of Texas Southwestern Medical Center
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Erle S. Robertson, Ph.D.	University of Pennsylvania
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Kathryn H. Schmitz, Ph.D., M.P.H.	University of Pennsylvania
Brian Joseph Smith, Ph.D.	The University of Iowa College of Public Health
Tor D. Tosteson, Sc.D.	Geisel School of Medicine at Dartmouth

Scientific Review Officer

Timothy C. Meeker, M.D.	National Cancer Institute, NIH
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Subcommittee I—Career Development

Chair

Amy H. Bouton, Ph.D.	University of Virginia
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Members

Emmanuel T. Akporiaye, Ph.D.	Providence Portland Medical Center
Ali Syed Arbab, M.D., Ph.D.	Augusta University
Jennifer D. Black, Ph.D.	University of Nebraska Medical Center
Lawrence H. Boise, Ph.D.	Emory University
Rebecca J. Chan, M.D., Ph.D.	Indiana University School of Medicine
Jennifer P. Clarke, Ph.D.	University of Nebraska-Lincoln
Paul Dent, Ph.D.	Virginia Commonwealth University
Rachel L. Flynn, Ph.D.	Boston University
Andrei Goga, M.D., Ph.D.	University of California, San Francisco
Jacqueline S. Jeruss, M.D., Ph.D.	University of Michigan
Steven J. Kridel, Ph.D.	Wake Forest University
Kenneth A. Krohn, Ph.D.	Oregon Health & Science University
Douglas F. Lake, Ph.D.	Arizona State University
Sophie A. Lelievre, D.V.M., Ph.D., LL.M.P.H.	Purdue University, West Lafayette
Jun Luo, Ph.D.	John Hopkins University
Upender Manne, Ph.D.	The University of Alabama at Birmingham
Danny Manor, Ph.D.	Case Western Reserve University
W. Keith Miskimins, Ph.D.	Sanford Research
Brian W. Pogue, Ph.D.	Dartmouth College
Mauricio J. Reginato, Ph.D.	Drexel University College of Medicine
Edward A. Sausville, M.D., Ph.D., F.A.C.P.	University of Maryland, Baltimore
Stephen C. Schmenchel, M.D., Ph.D.	University of Washington

Charles H. Spruck, III, Ph.D. Sanford Burnham Prebys Medical Discovery Institute
Janet Stein, Ph.D. University of Vermont
Bakhos A. Tannous, Ph.D. Massachusetts General Hospital
E. Aubrey Thompson, Ph.D. Mayo Clinic, Jacksonville
Ashani T. Weeraratna, Ph.D. Wistar Institute
Helmut Zarbl, Ph.D. Rutgers, The State University of New Jersey

Scientific Review Officer

Delia Tang, M.D. National Cancer Institute, NIH

Subcommittee J – Career Development

Current Chair

Kristi D. Graves, Ph.D. Georgetown University

Past Chair

Virginia F. Borges, M.D., M.M.Sc. University of Colorado, Denver

Members

Rajesh Agarwal, Ph.D. University of Colorado Cancer Center
Marinela Capanu, Ph.D. Memorial Sloan Kettering Cancer Center
Dan A. Dixon, Ph.D. University of Kansas Medical Center
Meira Epplein, Ph.D. Duke University
Erica A. Golemis, Ph.D. Fox Chase Cancer Center
James S. Goodwin, M.D. The University of Texas Medical Branch at Galveston
Jennifer Hatcher, Ph.D., M.P.H., M.S.N. University of Kentucky
Michelle C. Janelins, Ph.D., M.P.H. University of Rochester Medical Center
Heather S.L. Jim, Ph.D. Moffitt Cancer Center
Lisa Schum Kahalley, Ph.D. Baylor College of Medicine
Santosh Kesari, M.D., Ph.D. John Wayne Cancer Institute at St. Johns Health Center
Justin P. Kline, M.D. The University of Chicago
Alexander S. Krupnick, M.D. University of Virginia
Hui-Wen Lo, Ph.D. Wake Forest University
John M. Pagel, M.D., Ph.D. Swedish Medical Center
Li Tang, M.D., Ph.D. Roswell Park Cancer Institute
Jie Wu, Ph.D. University of Oklahoma Health Sciences Center
Lei Zheng, M.D. Johns Hopkins University

Scientific Review Officer

Tushar Deb, Ph.D. National Cancer Institute, NIH

Appendix E: NCI Initial Review Group Consultants

1. Consultants Serving as Temporary Members on IRG Subcommittees in FY2017

A

Adler, Adam J., Ph.D. University of Connecticut School of Dental Medicine
Agarwal, Rajesh, Ph.D. University of Colorado, Denver
Agazie, Yehenew M., D.V.M., Ph.D. Marshall University
Ahmad, Nihal, Ph.D. University of Wisconsin-Madison
Asmann, Yan W., Ph.D. Mayo Clinic, Jacksonville

B

Bahary, Nathan, M.D., Ph.D. University of Pittsburgh
Bakkenist, Christopher J., Ph.D. University of Pittsburgh
Bar, Eli E., Ph.D. Case Western Reserve University
Baranova, Anna V., Ph.D. George Mason University
Bhagwat, Ashok S., Ph.D. Wayne State University
Bhaskara, Srividya, Ph.D. The University of Utah
Bloom, Joan R., Ph.D. University of California, Berkeley
Bondada, Subbarao, Ph.D. University of Kentucky
Bondy, Melissa L., Ph.D. Baylor College of Medicine
Bose, Ron, M.D., Ph.D. Washington University in St. Louis
Brown, Patrick A., M.D. Johns Hopkins University
Burma, Sandeep, Ph.D. The University of Texas Southwestern Medical Center, Dallas
Burns, Kathleen H., M.D., Ph.D. Johns Hopkins University
Busch, Theresa M., Ph.D. University of Pennsylvania
Butterfield, Lisa H., Ph.D. University of Pittsburgh

C

Calvi, Laura M., M.D. University of Rochester
Chen, Jiandong, Ph.D. Moffitt Cancer Center
Chen, Moon Shao-Chuang, Ph.D., M.P.H. University of California, Davis
Chiriva-Internati, Maurizio, Ph.D. Kiromic, Inc.
Chu, Edward, M.D. University of Pittsburgh
Ciecierski, Christina, Ph.D. Northeastern Illinois University
Cui, Rutao, M.D. Boston University Medical Campus

D

Daskalakis, Constantine, Sc.D. Thomas Jefferson University
Datta, Kaustubh, Ph.D. University of Nebraska Medical Center
Demple, Bruce F., Ph.D. The State University of New York at Stony Brook
Dent, Paul, Ph.D. Virginia Commonwealth University

Appendix E-1: Consultants Serving as Temporary Members on IRG Subcommittees in FY2017

Dorsey, Jay F., M.D., Ph.D.University of Pennsylvania
Dowlati, Afshin, M.D. Case Western Reserve University

E

Elkin, Elena B., Ph.D. Memorial Sloan Kettering Cancer Center
Evans, Sydney M., V.M.D.University of Pennsylvania

F

Fleming, William H., M.D., Ph.D. Oregon Health & Science University
Flynn, Rachel L., Ph.D. Boston University Medical Campus
Ford, James M., M.D. Stanford University

G

Ganem, Neil J., Ph.D. Boston University Medical Campus
Garza, Mary A., Ph.D., M.P.H. University of Maryland, College Park
Ghoshal, Kalpana, Ph.D. The Ohio State University
Graubert, Timothy A., M.D.Massachusetts General Hospital
Gritsman, Kira, M.D., Ph.D. Albert Einstein College of Medicine
Guerrero-Cazares, Hugo, M.D., Ph.D. Mayo Clinic, Jacksonville

H

Hanakahi, Leslyn A., Ph.D. University of Illinois at Chicago
Handel, Mary A., Ph.D.Jackson Laboratory
Harrison, Lynn, Ph.D.Louisiana State University Health Science Center, Shreveport
Hebert, James R., Sc.D. University of South Carolina at Columbia
Hein, David W., Ph.D. University of Louisville
Hollenbeck, Brent K., M.D.University of Michigan
Hu, Ye, Ph.D. Arizona State University, Tempe
Huang, Tim H.-M., Ph.D. The University of Texas Health Science Center at San Antonio

J

Jackson, Mark W., Ph.D. Case Western Reserve University
Jain, Maneesh, Ph.D.University of Nebraska Medical Center

K

Kapadia, Farzana, Ph.D., M.P.H. New York University
Karan, Dev, Ph.D. University of South Carolina, Columbia
Kim, Karen E., M.D. The University of Chicago
Kobayashi, Susumu, M.D., Ph.D. Beth Israel Deaconess Medical Center
Kridel, Steven J., Ph.D.The Wake Forest University Health Sciences Center
Kumar, Addanki P., Ph.D. The University of Texas Health Science Center at San Antonio
Kumar, Ashish, M.D., Ph.D.Cincinnati Children's Hospital Medical Center

L

Lacorazza, Daniel, Ph.D. Baylor College of Medicine
 Lai, Albert, M.D., Ph.D. University of California, Los Angeles
 Lee, Sean B., Ph.D. Tulane University of Louisiana
 Levy, David E., Ph.D. New York University School of Medicine
 Linkov, Faina Y., Ph.D., M.P.H. University of Pittsburgh
 Lo, Hui-Wen, Ph.D. The Wake Forest University Health Sciences Center
 Loescher, Lois J., Ph.D., R.N., F.A.A.N. The University of Arizona
 Luo, Jun, Ph.D. Johns Hopkins University

M

Ma, Grace X., Ph.D. Temple University
 Manfredi, James J., Ph.D. Icahn School of Medicine at Mount Sinai
 Manor, Danny, Ph.D. Case Western Reserve University
 Meade, Cathy D., Ph.D., R.N., F.A.A.N. Moffitt Cancer Center
 Meroueh, Samy, Ph.D. Indiana University-Purdue University at Indianapolis
 Miao, Yubin, Ph.D. University of Colorado, Denver
 Mishra, Manoj K., Ph.D. Alabama State University
 Mortimer, Joanne E., M.D. Beckman Research Institute of City of Hope
 Murphy, Elizabeth A., Ph.D. University of South Carolina at Columbia

N

Nabors, Louis B., M.D. The University of Alabama at Birmingham
 Nakshatri, Harikrishna, Ph.D. Indiana University-Purdue University at Indianapolis
 Natarajan, Mohan, Ph.D. The University of Texas Health Science Center at San Antonio
 Nimmagadda, Sridhar, Ph.D. Johns Hopkins University

P

Peng, Guang, M.D., Ph.D. The University of Texas MD Anderson Cancer Center
 Pomerantz, Richard T., Ph.D. Temple University

Q

Quarles, Christopher C., Ph.D. St. Joseph's Hospital and Medical Center
 Quinn, Gwendolyn P., Ph.D. New York University School of Medicine

R

Rall, Glenn F., Ph.D. Fox Chase Cancer Center
 Rao, Jianghong, Ph.D. Stanford University
 Rao, Jianyu, M.D. University of California, Los Angeles
 Rathmell, Wendy K., M.D., Ph.D. Vanderbilt University
 Rosenthal, Eben L., M.D. Stanford University
 Rosenzweig, Margaret Q., Ph.D., M.S.N. University of Pittsburgh

S

Schluns, Kimberly S., Ph.D. The University of Texas MD Anderson Cancer Center
 Schmechel, Stephen C., M.D., Ph.D. University of Washington, Seattle
 Setiawan, Veronica W., Ph.D. University of Southern California
 Shen, Zhiyuan, M.D., Ph.D. Rutgers Cancer Institute of New Jersey
 Simpson, Kit N., M.P.H., Dr.P.H. Medical University of South Carolina
 Sordella, Raffaella, Ph.D. Cold Spring Harbor Laboratory
 Spitz, Douglas R., Ph.D. The University of Iowa
 Sun, Luzhe, Ph.D. The University of Texas Health Science Center at San Antonio

T

Tang, Li, M.D., Ph.D. Roswell Park Cancer Institute
 Tannous, Bakhos A., Ph.D. Massachusetts General Hospital
 Tosteson, Tor D., Sc.D. Dartmouth College

V

Villagra, Alejandro V., Ph.D. The George Washington University

W

Wang, Zhenghe, Ph.D. Case Western Reserve University
 Webb, Tonya J., Ph.D. University of Maryland, Baltimore
 Weissman, Bernard E., Ph.D. The University of North Carolina at Chapel Hill
 Whitehurst, Angeliqne W., Ph.D. The University of Texas Southwestern
 Medical Center at Dallas
 Woodward, Wendy A., M.D., Ph.D. The University of Texas MD Anderson Cancer Center

X

Xi, Yaguang, M.D., Ph.D. Louisiana State University Health Sciences Center
 Xie, Jingwu, Ph.D. Indiana University-Purdue University at Indianapolis
 Xu, Yan, Ph.D. Indiana University-Purdue University at Indianapolis

Z

Zhang, Zuo-Feng, M.D., Ph.D. University of California, Los Angeles
 Zheng, Siyang, Ph.D. The Pennsylvania State University-University Park
 Zhou, Gang, Ph.D. Augusta University
 Zu, Youli, M.D., Ph.D. Methodist Hospital Research Institute

Total Number of Reviewers: 143*

* Approximately 27 reviewers served more than once.

2. Consultants Serving as *Ad Hoc* Committee Members on IRG Site Visit Teams in FY2017

A

Ambrosone, Christine B., Ph.D. Roswell Park Cancer Institute
 Anant, Shrikant, Ph.D. University of Kansas Medical Center

B

Bepler, Gerold, M.D., Ph.D. Wayne State University
 Bernstein, Jonine L., Ph.D. Memorial Sloan Kettering Cancer Center
 Blackstock, Arthur W., M.D. Wake Forest University Health Sciences
 Buatti, John M., M.D. The University of Iowa
 Bult, Carol J., Ph.D. Jackson Laboratory

C

Choy, Hak, M.D. The University of Texas Southwestern Medical Center at Dallas
 Ciccarella, Annemarie Dr. Susan Love Research Foundation
 Cinciripini, Paul M., Ph.D. The University of Texas MD Anderson Cancer Center
 Cody, Vivian, Ph.D. Hauptman-Woodward Medical Research Institute
 Cuttell, Douglas G., M.B.A. Purdue University, West Lafayette

D

Davisson, Vincent J., Ph.D. Purdue University, West Lafayette
 Djeu, Julie Y., Ph.D. Moffitt Cancer Center

E

El-Deiry, Wafik S., M.D., Ph.D. Fox Chase Cancer Center
 Emanuel, Peter D., M.D. University of Arkansas for Medical Sciences

F

Ford, James M., M.D. Stanford University

G

Gillespie, G. Yancey, Ph.D. The University of Alabama at Birmingham
 Glickson, Jerry D., Ph.D. University of Pennsylvania

H

Hanash, Samir M., M.D., Ph.D. The University of Texas MD Anderson Cancer Center
 Harrison, Anita L., M.P.A. Eastern Virginia Medical School
 Hoopes, Jack, Ph.D., D.V.M. Dartmouth College
 Hyslop, Terry, Ph.D. Duke University

K

Kane, Madeleine A., M.D., Ph.D. University of Colorado, Denver
Kung, Hsing-Jien, Ph.D. University of California, Davis

L

Li, Li, M.D., Ph.D. Case Western Reserve University
Loffredo, Christopher A., Ph.D. Georgetown University
Lorusso, Patricia M., D.O. Yale University

M

Manne, Sharon L., Ph.D. Rutgers Cancer Institute of New Jersey
McCarthy, James B., Ph.D. University of Minnesota
Moore, Malcolm J., M.D. British Columbia Cancer Agency
Mori, Motomi, Ph.D. Oregon Health & Science University

N

Nishimura, Michael I., Ph.D. Loyola University Chicago

O

Okada, Hideho, M.D., Ph.D. University of California, San Francisco
Ostrowski, Michael C., Ph.D. Medical University of South Carolina
Ota, David M., M.D. Duke University

P

Powis, Garth, D.Phil. The University of Texas MD Anderson Cancer Center

R

Reid, Mary E., Ph.D. Roswell Park Cancer Institute
Renne, Rolf F., Ph.D. University of Florida
Roberts, Charles, M.D., Ph.D. St. Jude Children's Research Hospital
Rosenfeld, Steven S., M.D., Ph.D. Mayo Clinic, Jacksonville

S

Saltz, Joel H., M.D., Ph.D. Stony Brook University
Seither, Richard L., Ph.D., M.B.A. Albert Einstein College of Medicine
Shields, Anthony F., M.D., Ph.D. Wayne State University
Shyr, Yu, Ph.D. Vanderbilt University
Swaminathan, Sankar, M.D. The University of Utah

T

Tew, Kenneth D., D.Sc., Ph.D. Medical University of South Carolina
Thompson, Beti, Ph.D. Fred Hutchinson Cancer Research Center

W

Washington, Mary K., M.D., Ph.D. Vanderbilt University
Weiner, George J., M.D. The University of Iowa

Total Number of Reviewers: 51*

* Approximately one reviewer served more than once.

3. Consultants Serving on Special Emphasis Panels (SEPs) in FY 2017

A

Abboud, Camille, M.D.	Washington University in St. Louis
Abdi, Salahadin, M.D., Ph.D.	The University of Texas MD Anderson Cancer Center
Abdulkadir, Sarki A., M.D., Ph.D.	Northwestern University at Chicago
Abounader, Roger, M.D., Ph.D.	University of Virginia
Abrams, John M., Ph.D.	The University of Texas Southwestern Medical Center at Dallas
Abrams, Judith, Ph.D.	Wayne State University
Achenie, Luke, Ph.D.	Virginia Polytechnic Institute and State University
Ackerman, Joseph J., Ph.D.	Gordon Research Conferences
Adams, Swann A., Ph.D.	University of South Carolina at Columbia
Adams-Campbell, Lucile, Ph.D.	Georgetown University
Adusumilli, Prasad S., M.D.	Memorial Sloan Kettering Cancer Center
Afshin, Ashkan, M.D., M.P.H., Sc.D.	University of Washington
Aft, Rebecca L., M.D., Ph.D.	Washington University in St. Louis
Agarwal, Banke, M.D.	Saint Louis University
Agarwal, Rajesh, Ph.D.	University of Colorado, Denver
Agazie, Yehenew M., D.V.M., Ph.D.	Marshall University
Aghi, Manish, M.D., Ph.D.	University of California, San Francisco
Agoulnik, Irina, Ph.D.	Florida International University
Agrawal, Anshu, Ph.D.	University of California, Irvine
Ahmed, Khalil, Ph.D.	University of Minnesota
Ahn, Chul W., Ph.D.	The University of Texas Southwestern Medical Center at Houston
Ahn, Erin, Ph.D.	University of South Alabama
Ahuja, Nita, M.D.	Johns Hopkins University
Aifantis, Katerina E., Ph.D.	The University of Arizona
Aitchison, John D., Ph.D.	Seattle Biomedical Research Institute
Ajani, Jaffer A., M.D.	The University of Texas MD Anderson Cancer Center
Akabani, Gamal, Ph.D.	Texas Engineering Experiment Station
Akala, Emmanuel O., Ph.D.	The University of Utah
Akbari, Omid, Ph.D.	University of Southern California
Akinyemiju, Tomi F., Ph.D.	University of Kentucky
Akporiaye, Emmanuel T., Ph.D.	Providence Portland Medical Center
Aksan, Alptekin, Ph.D.	University of Minnesota
Alarid, Elaine T., Ph.D.	University of Wisconsin-Madison
Albers, Kathryn, Ph.D.	University of Pittsburgh
Albertson, Donna G., Ph.D.	New York University
Aldape, Kenneth D., M.D.	University Health Network
Alexandrow, Mark G., Ph.D.	Moffitt Cancer Center
Alizad, Azra, M.D.	Mayo Clinic, Rochester
Allen, Jennifer, D.Sc., M.P.H.	Tufts University, Boston
Almasan, Alexandru, Ph.D.	Cleveland Clinic Lerner College of Medicine of Case Western Reserve University
Almeida, Jonas S., Ph.D.	Stony Brook University
Almutairi, Adah, Ph.D.	University of California, San Diego

Alpini, Gianfranco D., Ph.D.	Texas A&M University Health Science Center
Alter, Orly, Ph.D.	The University of Utah
Altieri, Dario C., M.D.	Wistar Institute
Altomare, Deborah A., Ph.D.	University of Central Florida
Alton, Gordon, Ph.D.	Visionary Pharmaceuticals, Inc.
Amos, Christopher I., Ph.D.	Dartmouth College
Anant, Shrikant, Ph.D.	University of Kansas Medical Center
Anchordoquy, Thomas, Ph.D.	University of Colorado, Denver
Andersen, Bogi, M.D.	University of California, Irvine
Anderson, Carolyn J., Ph.D.	University of Pittsburgh
Anderson, Jon P., Ph.D.	Li-Cor Biosciences, Inc.
Andreassen, Paul R., Ph.D.	Cincinnati Children's Hospital Medical Center
Andrew, Angeline S., Ph.D.	Dartmouth College
Andronesi, Ovidiu C., M.D., Ph.D.	Massachusetts General Hospital
Aplin, Andrew E., Ph.D.	Thomas Jefferson University
Applegate, Brian E., Ph.D.	Texas Engineering Experiment Station
Apte, Udayan, Ph.D.	University of Kansas Medical Center
Aragones, Abraham, M.D.	Memorial Sloan Kettering Cancer Center
Arbab, Ali Syed, M.D., Ph.D.	Augusta University
Arcaro, Kathleen F., Ph.D.	University of Massachusetts Amherst
Arcoleo, Kimberly J., Ph.D., M.P.H.	University of Rochester
Armitage, Bruce A., Ph.D.	Carnegie-Mellon University
Arnold, Connie L., Ph.D.	Louisiana State University Health Science Center, Shreveport
Arredondo, Elva M., Ph.D.	San Diego State University
Artemov, Dmitri, Ph.D.	Johns Hopkins University
Arya, Dev Pryia, Ph.D.	Clemson University
Aschebrook-Kilfoy, Briseis A., Ph.D.	The University of Chicago
Ashare, Rebecca, Ph.D.	University of Pennsylvania
Ashendel, Curtis L., Ph.D.	Purdue University
Ashikaga, Takamaru, Ph.D.	The University of Vermont and State Agricultural College
Ashktorab, Hassan, Ph.D.	Howard University
Asthagiri, Anand R., Ph.D.	Northeastern University
Attardi, Laura D., Ph.D.	Stanford University
Atwood, James A., Ph.D.	Omni International, Inc.
Augenlicht, Leonard H., Ph.D.	Albert Einstein College of Medicine
Avantaggiati, Maria L., M.D., Ph.D.	Georgetown University
Avis, Nancy E., Ph.D.	The Wake Forest University Health Sciences Center
Ayoob, Joseph C., Ph.D.	University of Pittsburgh
Azorsa, David, Ph.D.	The University of Arizona

B

Babich, John W., Ph.D.	Weill Cornell Medical College of Cornell University
Babnigg, Gyorgy, Ph.D.	The University of Chicago
Babu, Sabarish, Ph.D.	Clemson University, South Carolina
Bachoo, Robert M., M.D., Ph.D.	The University of Texas Southwestern Medical Center at Dallas
Backer, Joseph M., Ph.D.	Sibtech, Inc.

Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY 2017

Badger, Terry A., Ph.D., R.N.	The University of Arizona
Badie, Behnam, M.D.	Beckman Research Institute of City of Hope
Badr, Hoda J., Ph.D.	Baylor College of Medicine
Badve, Sunil S., M.B.B.S., M.D.	Indiana University-Purdue University Indianapolis
Bai, Wenlong, Ph.D.	University of South Florida
Bai, Xue-Feng, M.D., Ph.D.	The Ohio State University
Bai, Yidong, Ph.D.	The University of Texas Health Science Center at San Antonio
Bailey, Ryan C., Ph.D.	University of Michigan
Bakas, Tamilyn, Ph.D., R.N., F.A.A.N.	University of Cincinnati
Baker, Aaron B., Ph.D.	The University of Texas, Austin
Baker, Erin S., Ph.D.	Battelle Pacific Northwest Laboratories
Bakken, Suzanne, Ph.D., R.N., F.A.A.N.	Columbia University Health Sciences
Bakkenist, Christopher J., Ph.D.	University of Pittsburgh
Balachandran, Vinod P., M.D.	Memorial Sloan Kettering Cancer Center
Baladandayuthapani, Veerabhadran, Ph.D....	The University of Texas MD Anderson Cancer Center
Balagurunathan, Yoganand, Ph.D.	Moffitt Cancer Center
Balas, Michele C., Ph.D.	The Ohio State University
Balasubramanian, Bijal A., Ph.D., M.P.H., M.B.B.S.	The University of Texas Health Science Center at Houston
Baldwin, Albert S., Ph.D.	The University of North Carolina at Chapel Hill
Balgley, Brian M., Ph.D.	Bioproximity, LLC
Balk, Steven P., M.D., Ph.D.	Beth Israel Deaconess Medical Center
Balkrishnan, Rajesh, Ph.D.	University of Virginia
Ball, Lauren E., Ph.D.	Medical University of South Carolina
Ballman, Karla V., Ph.D.	Weill Medical College of Cornell University
Balyasnikova, Irina V., Ph.D.	Northwestern University at Chicago
Bambot, Shabbir B., Ph.D.	Fischer Imaging, Inc.
Band, Hamid, M.D., Ph. D.	University of Nebraska Medical Center
Band, Vimla, Ph.D.	University of Nebraska Medical Center
Bandera, Elisa V., M.D., Ph.D.	Rutgers, The State University of New Jersey
Baranova, Anna V., Ph.D.	George Mason University
Baranowska-Kortylewicz, Janina, Ph.D.	University of Nebraska Medical Center
Barbolina, Maria V., Ph.D.	University of Illinois at Chicago
Barboriak, Daniel P., M.D.	Duke University
Barcellos-Hoff, Mary H., Ph.D.	University of California, San Francisco
Barcelo, Alberto, M.D., Ph.D.	Pan American Health Organization
Bardeesy, Nabeel, Ph.D.	Massachusetts General Hospital
Bareli, Menashe, Ph.D.	The University of Texas MD Anderson Cancer Center
Bar-Or, Yuval A., Ph.D.	Py International Inc.
Barrett, John, M.D.	National Institutes of Health
Barrett, Michael T., Ph.D.	Mayo Clinic, Arizona
Barroso, Margarida, Ph.D.	Albany Medical College
Barrows, Louis R., Ph.D.	The University of Utah
Bartlett, David L., M.D.	University of Pittsburgh
Barton, Jennifer K., Ph.D.	The University of Arizona
Bass, Sarah B., Ph.D., M.P.H.	Temple University of The Commonwealth
Bastani, Roshan, Ph.D.	University of California, Los Angeles
Basu, Alakananda, Ph.D.	University of North Texas Health Science Center at Fort Worth

Basu, Arnab, Ph.D.	Southern Research Institute
Batra, Surinder K., Ph.D.	University of Nebraska Medical Center
Batrakova, Elena, Ph.D.	The University of North Carolina at Chapel Hill
Bauer, Joshua A., Ph.D.	Vanderbilt University
Baumgartner, Kathy B., Ph.D.	University of Louisville
Bautista, Leonelo E., M.D., Dr.P.H., M.P.H.	University of Wisconsin-Madison
Baxter, Nancy N., M.D., Ph.D.	St. Michael's Hospital
Baylin, Ana B., M.D., Dr.P.H., M.P.H.	University of Michigan
Bazzano, Alessandra, Ph.D.	Tulane University of Louisiana
Bear, James E., Ph.D.	The University of North Carolina at Chapel Hill
Beauchamp, Robert D., M.D.	Vanderbilt University Medical Center
Beck, John R., M.D.	Fox Chase Cancer Center
Bednarz, Bryan P., Ph.D.	University of Wisconsin-Madison
Bedrosian, Isabelle, M.D.	The University of Texas MD Anderson Cancer Center
Beebe-Dimmer, Jennifer L., Ph.D., M.P.H.	Wayne State University
Beer, David G., Ph.D.	University of Michigan
Behbod, Fariba, Pharm.D., Ph.D.	University of Kansas Medical Center
Belbin, Thomas J., Ph.D.	Memorial University of Newfoundland
Belinsky, Steven A., Ph.D.	Lovelace Biomedical & Environmental Research Institute
Bellgrau, Donald, Ph.D.	University of Colorado, Denver
Beltzer, James P., Ph.D.	Terumo BCT Biotechnologies, LLC
Belue, Rhonda, Ph.D.	Pennsylvania State University, University Park
Benbrook, Doris M., Ph.D.	University of Oklahoma Health Sciences Center
Benencia, Fabian, Ph.D.	The Ohio University, Athens
Beningo, Karen A., Ph.D.	Wayne State University
Bennett, Gary J., Ph.D.	McGill University
Benowitz, Neal L., M.D.	University of California, San Francisco
Benson, Charlese G., Ph.D.	Georgia State University
Bentzen, Soren M., D.Sc, Ph.D.	University of Maryland, Baltimore
Beppler, Gerold, M.D., Ph.D.	Wayne State University
Berbeco, Ross I., Ph.D.	Brigham and Women's Hospital
Berens, Michael E., Ph.D.	Translational Genomics Research Institute
Berezney, Ronald, Ph.D.	The State University of New York at Buffalo
Berg, Carla J., Ph.D.	Emory University
Bergan, Raymond C., M.D.	Oregon Health & Science University
Bergen, Harold R., Ph.D.	Mayo Clinic, Rochester
Berger, Nathan A., M.D.	Case Western Reserve University
Berlin, Jacob M., Ph.D.	Beckman Research Institute of City of Hope
Bertagnolli, Monica M., M.D.	Brigham and Women's Hospital
Betts, Brian C., M.D.	Moffitt Cancer Center
Bhakat, Kishor K., Ph.D.	University of Nebraska Medical Center
Bhargava, Rohit, Ph.D.	University of Illinois at Urbana-Champaign
Bhattacharya, Resham, Ph.D.	University of Oklahoma Health Sciences Center
Bi, Lanrong, Ph.D.	Michigan Technological University
Bialous, Stella A., Dr.P.H.	University of California, San Francisco
Bielas, Jason H., Ph.D.	Fred Hutchinson Cancer Research Center
Bies, Robert R., Pharm.D., Ph.D.	The State University of New York at Buffalo
Bifulco, Carlo B., M.D.	Providence Portland Medical Center

Bigatti, Silvia M., Ph.D.	Indiana University-Purdue University Indianapolis
Bild, Andrea H., Ph.D.	City of Hope National Medical Center
Billingsley, Melvin L., Ph.D.	Pennsylvania State University, University Park
Bisoffi, Marco, Ph.D.	Chapman University
Bjornsti, Mary-Ann, Ph.D.	The University of Alabama at Birmingham
Black, Jennifer D., Ph.D.	University of Nebraska Medical Center
Blankenberg, Francis G., M.D.	Stanford University
Bleakley, Marie, M.B.B.S.	Fred Hutchinson Cancer Research Center
Blekhman, Ran, Ph.D.	University of Minnesota
Bleris, Leonidas, Ph.D.	The University of Texas at Dallas
Boada, Fernando E., Ph.D.	New York University School of Medicine
Bock, Beth C., Ph.D.	Brown University
Bock, Cathryn H., Ph.D., M.P.H.	Wayne State University
Boffetta, Paolo, M.D., M.P.H.	Icahn School of Medicine at Mount Sinai
Bogdanov, Alexei A., D.Sc., Ph.D.	University of Massachusetts Medical School, Worcester
Boise, Lawrence H., Ph.D.	Emory University
Boland, Clement R., M.D.	Baylor University Medical Center
Bold, Richard J., M.D.	University of California, Davis
Bonavida, Benjamin, Ph.D.	University of California, Los Angeles
Bondy, Melissa L., Ph.D.	Baylor College of Medicine
Boone, David, Ph.D.	University of Pittsburgh
Booth, Robert E., Ph.D.	University of Colorado, Denver
Boothman, David A., Ph.D.	Indiana University-Purdue University Indianapolis
Borad, Mitesh, M.D.	Mayo Clinic, Arizona
Borchers, Christoph H., Ph.D.	University of Victoria
Borges, Chad R., Ph.D.	Arizona State University, Tempe
Borowsky, Alexander D., M.D.	University of California, Davis
Bosenberg, Marcus W., M.D., Ph.D.	Yale University
Boss, Michael, Ph.D.	National Institute of Standards & Technology
Bouchard, Michael J., Ph.D.	Drexel University
Bouton, Amy H., Ph.D.	University of Virginia
Bouvet, Michael, M.D.	University of California, San Diego
Bowen, Stephen R., Ph.D.	University of Washington in St. Louis
Boxer, Richard J., M.D.	University of California, Los Angeles
Boxwala, Aziz A., Ph.D.	Elimu Informatics, Inc.
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Boysen, Gunnar, Ph.D.	University of Arkansas for Medical Sciences, Little Rock
Bradbury, Angela R., M.D.	University of Pennsylvania
Bradley, Margaret M., Ph.D.	University of Florida
Bradshaw, Tyler J., Ph.D.	University of Wisconsin-Madison
Brady-Kalnay, Susann M., Ph.D.	Case Western Reserve University
Brandt, Cynthia A., M.D., M.P.H.	Yale University
Brandt, Heather M., Ph.D.	University of South Carolina, Columbia
Brash, Douglas E., Ph.D.	Yale University
Brat, Daniel J., M.D., Ph.D.	Emory University
Bratslavsky, Gennady, M.D.	Upstate Medical University
Braun, Jonathan, M.D., Ph.D.	University of California, Los Angeles
Brekken, Rolf A., Ph.D.	The University of Texas Southwestern Medical Center at Dallas

Brem, Steven, M.D.	University of Pennsylvania
Brent, Roger, Ph.D.	Fred Hutchinson Cancer Research Center
Brentjens, Renier J., M.D., Ph.D.	Memorial Sloan Kettering Cancer Center
Brieva, Thomas, Ph.D.	Celgene Corporation
Bright, Robert K., Ph.D.	Texas Tech University Health Sciences Center
Broach, James R., Ph.D.	Penn State Health, Milton S. Hershey Medical Center
Broadus, William C., M.D., Ph.D.	Virginia Commonwealth University
Brody, Jonathan, Ph.D.	Thomas Jefferson University
Bromberg, Jacqueline F., M.D., Ph.D.	Memorial Sloan Kettering Cancer Center
Brooks, Angela N., Ph.D.	University of California, Santa Cruz
Broome, Ann-Marie, Ph.D., M.B.A.	Medical University of South Carolina
Brown, Brian D., Ph.D.	Icahn School of Medicine at Mount Sinai
Brown, Edward B., Ph.D.	University of Rochester
Brown, Jennifer R., M.D., Ph.D.	Dana-Farber Cancer Institute
Brown, Jonathan Q., Ph.D.	Tulane University of Louisiana
Brown, Myles A., M.D.	Dana-Farber Cancer Institute
Brown, Powel H., M.D., Ph.D.	The University of Texas MD Anderson Cancer Center
Bruick, Richard K., Ph.D.	The University of Texas Southwestern Medical Center at Dallas
Bryan, Angela, Ph.D.	University of Colorado, Boulder
Buatti, John M., M.D.	The University of Iowa
Buchsbaum, Donald J., Ph.D.	The University of Alabama at Birmingham
Buckanovich, Ronald J., M.D., Ph.D.	University of Pittsburgh Medical Center
Buckhaults, Phillip J., Ph.D.	University of South Carolina, Columbia
Buehrer, Benjamin M., Ph.D.	Zen-Bio, Inc.
Bueno, Raphael, M.D.	Brigham and Women's Hospital
Buetow, Kenneth H., Ph.D.	Arizona State University, Tempe
Bullock, Timothy N., Ph.D.	University of Virginia
Bulte, Jeff W., Ph.D.	Johns Hopkins University
Bunn, Paul A., M.D.	University of Colorado, Denver
Buolamwini, John K., Ph.D.	Rosalind Franklin University of Medicine & Science
Burd, Craig J., Ph.D.	The Ohio State University
Burdette, Everette C., Ph.D.	Acoustic Medical Systems, LLC
Burdette, Joanna E., Ph.D.	University of Illinois at Chicago
Burdick, Monica M., Ph.D.	The Ohio University, Athens
Burma, Sandeep, Ph.D.	The University of Texas Southwestern Medical Center at Dallas
Burns, Kathleen H., M.D., Ph.D.	Johns Hopkins University
Burridge, Paul W., Ph.D.	Northwestern University
Burstein, Deborah, Ph.D.	Beth Israel Deaconess Medical Center
Burtness, Barbara, M.D.	Yale University
Butterfield, Lisa H., Ph.D.	University of Pittsburgh
Buttyan, Ralph, Ph.D.	University of British Columbia
Byrd, John C., M.D.	The Ohio State University
Byrne, Margaret M., Ph.D.	Moffitt Cancer Center
Byzova, Tatiana V., Ph.D.	Cleveland Clinic Lerner College of Medicine

C

Cai, Qiuyin, M.D., Ph.D.	Vanderbilt University Medical Center
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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY 2017

Cairo, Mitchell S., M.D.	New York Medical College
Calderwood, David A., Ph.D.	Yale University
Calhoun, Elizabeth A., Ph.D.	The University of Arizona
Calin, George A., M.D., Ph.D.	The University of Texas MD Anderson Cancer Center
Calvi, Laura M., M.D.	University of Rochester
Campbell, Moray J., Ph.D.	The Ohio State University
Cancelas, Jose A., M.D., Ph.D.	University of Cincinnati
Cannon, Judy L., Ph.D.	The University of New Mexico Health Sciences Center
Cannon, William R., Ph.D.	Pacific Northwest National Laboratories, Battelle
Canoll, Peter, M.D., Ph.D.	Columbia University Health Sciences Campus
Cao, Yue, Ph.D.	University of Michigan
Capobianco, Anthony J., Ph.D.	University of Miami Miller School of Medicine
Carbone, David P., M.D., Ph.D.	The Ohio State University
Carew, Jennifer S., Ph.D.	The University of Arizona
Carlesso, Nadia, M.D., Ph.D.	Beckman Research Institute of City of Hope
Carlin, Bradley P., Ph.D.	University of Minnesota
Carmichael, Gordon G., Ph.D.	University of Connecticut School of Dental Medicine
Carroll, William L., M.D.	New York University School of Medicine
Carson, William E., M.D.	The Ohio State University
Casak, Sandra J., M.D.	U.S. Food and Drug Administration
Castor, Trevor P., Ph.D.	Aphios Corporation
Castrillon, Diego, M.D., Ph.D.	The University of Texas Southwestern Medical Center at Dallas
Celebi, Julide T., M.D.	Icahn School of Medicine at Mount Sinai
Celli, Jonathan P., Ph.D.	University of Massachusetts, Boston
Ceol, Craig J., Ph.D.	University of Massachusetts Medical School, Worcester
Cha, Jennifer N., Ph.D.	University of Colorado, Boulder
Cha, Soonmee, M.D.	University of California, San Francisco
Chakravarti, Debabrata, Ph.D.	Northwestern University
Chalfant, Charles E., Ph.D.	University of South Florida
Chalmers, Jeffrey J., Ph.D.	The Ohio State University
Chambers, Setsuko K., M.D.	The University of Arizona
Champion, Victoria L., Ph.D.	Indiana University-Purdue University, Indianapolis
Chan, Christina, Ph.D.	Michigan State University
Chan, Keith S., Ph.D.	Baylor College of Medicine
Chan, Patricia, Ph.D.	University of California, Santa Cruz
Chandra, Dhyan, Ph.D.	Roswell Park Cancer Institute
Chandra, Joya, Ph.D.	The University of Texas MD Anderson Cancer Center
Chang, Jenny C., M.D.	Houston Methodist Research Institute
Chapkin, Robert S., Ph.D.	Texas A&M College of Agriculture and Life Sciences
Chaplin, David D., M.D., Ph.D.	The University of Alabama at Birmingham
Chauhan, Subhash C., Ph.D.	The University of Tennessee Health Science Center
Chaurand, Pierre, Ph.D.	University of Montreal
Cheema, Amrita K., Ph.D.	Georgetown University
Chekmenev, Eduard Y., Ph.D.	Vanderbilt University
Chellappan, Srikumar P., Ph.D.	Moffitt Cancer Center
Chen, Changyi, M.D., Ph.D.	Baylor College of Medicine
Chen, Clark C., M.D., Ph.D.	University of California, San Diego

Chen, Fei, Ph.D.	Wayne State University
Chen, Grace Y., M.D., Ph.D.	University of Michigan
Chen, Jake Y., Ph.D.	The University of Alabama at Birmingham
Chen, Jiandong, Ph.D.	Moffitt Cancer Center
Chen, Jinbo, Ph.D.	University of Pennsylvania
Chen, Jing, Ph.D.	Emory University
Chen, Ken, Ph.D.	The University of Texas MD Anderson Cancer Center
Chen, Liaohai, Ph.D.	University of Illinois at Chicago
Chen, Moon S., Ph.D., M.P.H.	University of California, Davis
Chen, Ru, Ph.D.	University of Washington in Seattle
Chen, Shaochen, Ph.D.	University of California, San Diego
Chen, Shu-Hsia, Ph.D.	Houston Methodist Research Institute
Chen, Songhai, M.D., Ph.D.	The University of Iowa
Chen, Suzie, Ph.D.	Rutgers, The State University of New Jersey
Chen, Wei, Ph.D.	Wayne State University
Chen, Wenying, Ph.D.	Beckman Research Institute of City of Hope
Chen, Xian, Ph.D.	The University of North Carolina at Chapel Hill
Chen, Xin, Ph.D.	University of California, San Francisco
Chen, Xinbin, D.V.M, Ph.D.	University of California, Davis
Chen, Yu, M.D., Ph.D.	Memorial Sloan Kettering Cancer Center
Chen, Yu, Ph.D.	University of Maryland, College Park
Chen, Yuan, Ph.D.	Beckman Research Institute of City of Hope
Chen, Zheng W., M.D., Ph.D.	University of Illinois at Chicago
Chen, Zhuo G., Ph.D.	Emory University
Cheng, Chonghui, M.D., Ph.D.	Baylor College of Medicine
Cheng, Ji-Xin, Ph.D.	Boston University, Charles River Campus
Cheng, Leo L., Ph.D.	Massachusetts General Hospital
Cheng, Liang, M.D.	Indiana University School of Medicine
Cheng, Nikki, Ph.D.	University of Kansas Medical Center
Cheng, Yung-Chi, Ph.D.	Yale University
Chennubhotla, Srinivas C., Ph.D.	University of Pittsburgh
Chesney, Jason A., M.D., Ph.D.	University of Louisville
Chester, Ann L., Ph.D.	West Virginia University
Cheung, Nai-Kong, M.D., Ph.D.	Memorial Sloan Kettering Cancer Center
Chi, Benjamin H., M.D.	The University of North Carolina at Chapel Hill
Chi, Jen-Tsan A., M.D., Ph.D.	Duke University
Chia, David S., Ph.D.	University of California, Los Angeles
Chia, Nicholas, Ph.D.	Mayo Clinic, Rochester
Chiang, Cheng-Ming, Ph.D.	The University of Texas Southwestern Medical Center at Dallas
Chiang, Michael, M.D.	Oregon Health & Science University
Chiao, Elizabeth, M.D., M.P.H.	Baylor College of Medicine
Chiao, Paul J., Ph.D.	The University of Texas MD Anderson Cancer Center
Chien, Jeremy, Ph.D.	The University of New Mexico Health Sciences Center
Chiles, Thomas C., Ph.D.	Boston College
Chilton, Beverly S., Ph.D.	Texas Tech University Health Sciences Center
Chiocca, E. Antonio, M.D., Ph.D.	Brigham and Women's Hospital
Chipuk, Jerry E., Ph.D.	Icahn School of Medicine at Mount Sinai
Chiriva-Internati, Maurizio, Ph.D.	Kiromic, Inc.

Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY 2017

Cho, Bongsup P., Ph.D.	University of Rhode Island
Cho, Clifford, M.D.	University of Michigan
Choi, Changho, Ph.D.	The University of Texas Southwestern Medical Center at Dallas
Choi, Hak S., Ph.D.	Massachusetts General Hospital
Chong, Hyun-Soon, Ph.D.	Illinois Institute of Technology
Chougule, Mahavir B., Ph.D.	The University of Mississippi
Christofk, Heather R., Ph.D.	University of California, Los Angeles
Chu, Edward, M.D.	University of Pittsburgh
Chuang, Jeffrey H., Ph.D.	University of Connecticut Health Center
Chung, Dai H., M.D.	Vanderbilt University
Churchill, Mair E., Ph.D.	University of Colorado, Denver
Cima, Michael J., Ph.D.	Massachusetts Institute of Technology
Clapper, Margie L., Ph.D.	Fox Chase Cancer Center
Claret, Francois X., Ph.D.	The University of Texas MD Anderson Cancer Center
Clark, Pamela I., Ph.D., M.P.H.	University of Maryland
Clarke, Robert R., D.Sc., Ph.D.	Georgetown University
Clawson, Gary A., M.D., Ph.D.	Penn State Health, Milton S. Hershey Medical Center
Cleary, Paul D., Ph.D.	Yale University
Cleeland, Charles S., Ph.D.	The University of Texas MD Anderson Cancer Center
Cleghorn, Farley R., M.D., M.P.H.	Palladium International, LLC
Clem, Brian F., Ph.D.	University of Louisville
Coakley, Fergus V., M.D.	Oregon Health & Science University
Cobrinik, David, M.D., Ph.D.	Children’s Hospital of Los Angeles
Coe, Christopher L., Ph.D.	University of Wisconsin-Madison
Coffin, John M., Ph.D.	Tufts University
Cohen, Edward P., M.D.	University of Illinois at Chicago
Cohen, Kevin B., Ph.D.	University of Colorado, Denver
Cohen, Lindsey L., Ph.D.	Georgia State University
Cohn, Barbara A., Ph.D., M.P.H.	Public Health Institute
Cole, Peter D., M.D.	Albert Einstein College of Medicine
Coller, Hilary A., Ph.D.	University of California, Los Angeles
Collinge, William B., Ph.D., M.P.H.	Collinge and Associates
Collisson, Eric, M.D.	University of California, San Francisco
Conklin, Douglas S., Ph.D.	The State University of New York at Albany
Conrads, Thomas P., Ph.D.	Inova Health System Foundation
Contessa, Joseph N., M.D., Ph.D.	Yale University
Conti, Peter S., M.D., Ph.D.	University of Southern California
Cook, Linda S., Ph.D.	The University of New Mexico Health Sciences Center
Cook, Rebecca S., Ph.D.	Vanderbilt University
Cooper, Jonathan A., Ph.D.	Fred Hutchinson Cancer Research Center
Cooper, Priscilla K., Ph.D.	Lawrence Berkeley National Laboratory
Copelan, Edward A., M.D.	Carolinas Healthcare System
Copland, John A., Ph.D.	Mayo Clinic, Jacksonville
Corey, Seth J., M.D., M.P.H.	Virginia Commonwealth University
Cormier, Robert T., Ph.D.	University of Minnesota Duluth
Cortopassi, Gino A., Ph.D.	University of California, Davis
Costello, James C., Ph.D.	University of Colorado, Denver
Cote, Michele L., Ph.D., M.P.H.	Wayne State University

Cote, Richard J., M.D.	University of Miami Miller School of Medicine
Courtney, Karen L., Ph.D., R.N., M.S.N.	University of Victoria
Cowell, John K., D.Sc., Ph.D.	Augusta University
Cox, Adrienne D., Ph.D.	The University of North Carolina at Chapel Hill
Craighead, Harold G., Ph.D.	Cornell University
Creek, Kim E., Ph.D.	University of South Carolina, Columbia
Creighton, Chad, Ph.D.	Baylor College of Medicine
Cress, Anne E., Ph.D.	The University of Arizona
Critchley-Thorne, Rebecca, Ph.D.	Cernostics, Inc.
Crittenden, Marka, M.D., Ph.D.	Providence Portland Medical Center
Croce, Carlo M., M.D.	The Ohio State University
Crosby, Seth D., M.D.	Washington University in St. Louis
Crump, Casey, M.D., Ph.D., M.P.H.	Icahn School of Medicine at Mount Sinai
Cui, Rutao, M.D.	Boston University Medical Campus
Cui, Yan, Ph.D.	Augusta University
Cukierman, Edna, Ph.D.	Fox Chase Cancer Center
Cummings, Kenneth M., Ph.D., M.P.H.	Medical University of South Carolina
Cutcliffe, Colleen, Ph.D.	Whole Biome, Inc.

D

D’Cruz, Louise M., Ph.D.	University of Pittsburgh
Daaka, Yehia, Ph.D.	University of Florida
Dadachova, Ekaterina, Ph.D.	University of Saskatchewan
Dagogo-Jack, Samuel, M.D.	The University of Tennessee Health Science Center
Dagostino, Ralph B., Ph.D.	The Wake Forest University Health Sciences Center
Dahiya, Rajvir, Ph.D.	Northern California Institute of Research & Education
Dai, Guohao, Ph.D.	Northeastern University
Dai, Wei, Ph.D.	New York University School of Medicine
Daldrup-Link, Heike E., M.D., Ph.D.	Stanford University
Dalton, William S., M.D., Ph.D.	Moffitt Cancer Center
Damodaran, Chendil, Ph.D.	University of Louisville
Danhauer, Suzanne C., Ph.D.	The Wake Forest University Health Sciences Center
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Dash, Srikanta, Ph.D.	Tulane University of Louisiana
Davatzikos, Christos, Ph.D.	University of Pennsylvania
Dave, Amita, Ph.D.	Memorial Sloan Kettering Cancer Center
Dave, Sandeep, M.D.	Duke University
Dave, Utpal P., M. D.	Richard L. Roudebush VA Medical Center
David, Gregory, Ph.D.	New York University School of Medicine
Davila, Eduardo, Ph.D.	University of Maryland, Baltimore
Davis, Ian J., M.D., Ph.D.	The University of North Carolina at Chapel Hill
Davis, Michael E., Ph.D.	Emory University
Davis, Scott C., Ph.D.	Dartmouth College
Davisson, Vincent J., Ph.D.	Purdue University
Davuluri, Ramana V., Ph.D.	Northwestern University
Davydova, Julia, M.D., Ph.D.	University of Minnesota
Daynard, Richard A., J.D., Ph.D.	Northeastern University

Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY 2017

Deasy, Joseph O., Ph.D.	Memorial Sloan Kettering Cancer Center
Debinski, Waldemar, M.D., Ph.D.	The Wake Forest University Health Sciences Center
Declerck, Yves A., M.D.	Children’s Hospital of Los Angeles
Dees, Elizabeth C., M.D.	The University of North Carolina at Chapel Hill
Delikatny, Edward J., Ph.D.	University of Pennsylvania
Demayo, Francesco J., Ph.D.	National Institute of Environmental Health Sciences
Demirci, Utkan, Ph.D.	Stanford University
Denardo, David G., Ph.D.	Washington University in St. Louis
Deng, Cheri X., Ph.D.	University of Michigan
Deng, Jun, Ph.D.	Yale University
Deng, Yibin, M.D., Ph.D.	University of Minnesota
Deng, Youping, Ph.D.	University of Hawaii at Manoa
Denning, Mitchell F., Ph.D.	Loyola University, Chicago
Denny, Christopher T., M.D.	University of California, Los Angeles
Dent, Paul, Ph.D.	Virginia Commonwealth University
Deustachio, Peter G., Ph.D.	New York University School of Medicine
De Villiers, Melgardt M., Ph.D.	University of Wisconsin-Madison
Devries, Anne C., Ph.D.	The Ohio State University
Dhar, Animesh, Ph.D.	University of Kansas Medical Center
Dhasarathy, Archana, Ph.D.	University of North Dakota
Diasio, Robert B., M.D.	Mayo Clinic, Rochester
Dicker, Adam P., M.D., Ph.D.	Thomas Jefferson University
Di Cristofano, Antonio, Ph.D.	Albert Einstein College of Medicine
Diefenbach, Michael A., Ph.D.	Icahn School of Medicine at Mount Sinai
Diehl, John A., Ph.D.	University of Nebraska Medical Center
Diergaarde, Brenda B., Ph.D.	University of Pittsburgh
Difeo, Analisa, Ph.D.	Case Western Reserve University
Digiovanni, John, Ph.D.	The University of Texas at Austin
Dignan, Mark B., Ph.D., M.P.H.	University of Kentucky
Dilmanian, F. Avraham, Ph.D.	State University New York Stony Brook
Dimagno, Stephen, Ph.D.	University of Illinois at Chicago
Ding, George X., Ph.D.	Vanderbilt University
Ding, Han-Fei, M.D., Ph.D.	Augusta University
Ding, Wei-Qun, Ph.D.	University of Oklahoma Health Sciences Center
Dingli, David J., M.D., Ph.D.	Mayo Clinic, Rochester
Discher, Dennis E., Ph.D.	University of Pennsylvania
Djeu, Julie Y., Ph.D.	Moffitt Cancer Center
Djuric, Zora, Ph.D.	University of Michigan
Dobbin, Kevin K., Ph.D.	The University of Georgia
Doebele, Robert C., M.D., Ph.D.	University of Colorado, Denver
Doetsch, Paul W., Ph.D.	Emory University
Dohlman, Henrik G., Ph.D.	The University of North Carolina at Chapel Hill
Donahue, Timothy R., M.D.	University of California, Los Angeles
Dong, Haidong, M.D., Ph.D.	Mayo Clinic, Rochester
Dong, Jin-Tang, Ph.D.	Emory University
Dong, Zheng, Ph.D.	Augusta University
Donoghue, Daniel J., Ph.D.	University of California, San Diego
Donovan, Heidi, Ph.D., M.S.N.	University of Pittsburgh

Dooley, William C., M.D.	University of Oklahoma Health Sciences Center
Dorgan, Joanne F., Ph.D., M.P.H.	University of Maryland, Baltimore
Dorsey, Jay F., M.D., Ph.D.	University of Pennsylvania
Dorsey, Susan G., Ph.D. R.N., F.A.A.N.	University of Maryland, Baltimore
Dou, Yali, Ph.D.	University of Michigan
Dougherty, Patrick M., Ph.D.	The University of Texas MD Anderson Cancer Center
Dovat, Sinisa, M.D., D.Sc.	Penn State Health, Milton S. Hershey Medical Center
Dowdy, Steven F., Ph.D.	University of California, San Diego
Dowlati, Afshin, M.D.	Case Western Reserve University
Drabkin, Harry A., M.D.	Medical University of South Carolina
Drake, Richard R., Ph.D.	Medical University of South Carolina
Dubeau, Louis, M.D., Ph.D.	University of Southern California
Dubinet, Steven M., M.D.	University of California, Los Angeles
Duckett, Derek R., Ph.D.	Scripps Research Institute
Duda, Dan G., Ph.D., D.M.D.	Massachusetts General Hospital
Dumoulin, Charles L., Ph.D.	Cincinnati Children's Hospital Medical Center
Dvorak, Katerina, Ph.D.	Ventana Medical Systems, Inc.
Dwyer, Kathleen A., Ph.D., R.N., M.S.N.	University of Oklahoma Health Sciences Center
Dy, Sydney M., M.D.	Johns Hopkins University

E

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Eckert, Richard L., Ph.D.	University of Maryland, Baltimore
Eckhart, Walter, Ph.D.	Salk Institute for Biological Studies
Eckmann, David M., M.D., Ph.D.	University of Pennsylvania
Edgerton, Mary E., M.D., Ph.D.	The University of Texas MD Anderson Cancer Center
Edwards, James L., Ph.D.	Saint Louis University
Edwards, Jeremy S., Ph.D.	The University of New Mexico
Edwards, Nathan J., Ph.D.	Georgetown University
Egan, Kathleen M., Sc.D., M.P.H.	Moffitt Cancer Center
Egeblad, Mikala, Ph.D.	Cold Spring Harbor Laboratory
Eischen, Christine M., Ph.D.	Thomas Jefferson University
Ekundayo, Olugbemiga T., M.D., Dr.P.H., M.P.H.	Eastern Washington University
Elashoff, David, Ph.D.	University of California, Los Angeles
El-Deiry, Wafik S., M.D., Ph.D.	Fox Chase Cancer Center
Elemento, Olivier, Ph.D.	Weill Cornell Medical College of Cornell University
Elhadad, Noemie, Ph.D.	Columbia University Health Sciences Campus
Eliceiri, Brian P., Ph.D.	University of California, San Diego
Elisseeff, Jennifer H., Ph.D.	Johns Hopkins University
Elkin, Elena B., Ph.D.	Memorial Sloan Kettering Cancer Center
Ellen, Jonathan M., M.D.	Johns Hopkins University
Ellenson, Lora H., M.D.	Weill Cornell Medical College of Cornell University
Elliott, Hunter L., Ph.D.	Harvard Medical School
Ellis, Matthew J., Ph.D.	College of Medicine
El-Rifai, Wael, M.D., Ph.D.	University of Miami School of Medicine
Elsinger, Catherine L., Ph.D.	Neurognostics, Inc.

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Emerson, Jane, M.D., Ph.D.	University of Southern California
Engler, Adam J., Ph.D.	University of California, San Diego
Entenberg, David, M.Sc.	Albert Einstein College of Medicine
Erdman, Susan E., D.V.M, M.P.H.	Massachusetts Institute of Technology
Erickson, Bradley J., M.D., Ph.D.	Mayo Clinic, Rochester
Ernstoff, Marc S., M.D.	Roswell Park Cancer Institute
Eterovic, Agda K, Ph.D.	The University of Texas MD Anderson Cancer Center
Etzioni, Ruth D., Ph.D.	Fred Hutchinson Cancer Research Center
Evans, Conor L., Ph.D.	Massachusetts General Hospital
Evans, Sharon S., Ph.D.	Roswell Park Cancer Institute
Evans, W. Douglas, Ph.D.	The George Washington University
Evans, William E., Pharm.D.	St. Jude Children's Research Hospital
Ewald, Andrew J., Ph.D.	Johns Hopkins University
Eward, William, D.V.M., M.D.	Duke University

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Facciabene, Andrea, Ph.D.	University of Pennsylvania
Faeder, James, Ph.D.	University of Pittsburgh
Fahs, Marianne C., Ph.D., M.P.H.	Hunter College
Faith, Jeremiah J., Ph.D.	Icahn School of Medicine at Mount Sinai
Fan, Rong, Ph.D.	Yale University
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Fan, Xing, M.D., Ph.D.	University of Michigan
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Ferris, Robert L., M.D., Ph.D.	University of Pittsburgh

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Fisher, Richard I., M.D.	Fox Chase Cancer Center
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Heath, James R., Ph.D.	California Institute of Technology
Hei, Tom K., Ph.D.	Columbia University Health Sciences
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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY 2017

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Herlyn, Meenhard F., D.V.M., D.Sc.	Wistar Institute
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Hess, Sonja, Ph.D.	California Institute of Technology
Hettich, Robert L., Ph.D.	Oak Ridge National Laboratory
Hickey, Robert J., Ph.D.	City of Hope National Medical Center
Hicks, Chindo, Ph.D.	The University of Mississippi Medical Center
Higgins, Paul J., Ph.D.	Albany Medical College
Hilakivi-Clarke, Leena A., Ph.D.	Georgetown University
Hinds, Philip W., Ph.D.	Tufts University, Boston
Hingorani, Sunil R., M.D., Ph.D.	Fred Hutchinson Cancer Research Center
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Holiday, David B., Ph.D.	Research Triangle Institute
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Hundley, William G., M.D.	The Wake Forest University Health Sciences Center
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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY 2017

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Jahnke, Frank, Ph.D.	Sonata Biosciences, Inc.
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James, Charles D., Ph.D.	Northwestern University
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Johnson, David G., Ph.D.	The University of Texas MD Anderson Cancer Center
Johnson, Jacqueline A., Ph.D.	University of Tennessee Space Institute
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 Kao, Gary D., M.D., Ph.D. University of Pennsylvania
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 Kassis, Amin I., Ph.D. OncoCell MDX, Inc.
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 Katz, Jonathan P., M.D. University of Pennsylvania
 Kaufman, Brett A., Ph.D. University of Pittsburgh
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 Kaufmann, Daniel E., M.D. University of Montreal
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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY 2017

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Kelley, Robin K., M.D.	University of California, San Francisco
Kelly, Kimberly A., Ph.D.	University of Virginia
Kelly, Theresa K., Ph.D.	Active Motif, Inc.
Kemp, Melissa L., Ph.D.	Georgia Institute of Technology
Kenfield, Stacey, Sc.D.	University of California, San Francisco
Kennedy, David N., Ph.D.	University of Massachusetts Medical School, Worcester
Kenney, Shannon C., M.D.	University of Wisconsin-Madison
Kensler, Thomas W., Ph.D.	University of Pittsburgh
Kerwin, Sean M., Ph.D.	The University of Texas at Austin
Kesari, Santosh, M.D., Ph.D.	John Wayne Cancer Institute at St. Johns Health Center
Kessel, David H., Ph.D.	Wayne State University
Keyomarsi, Khandan, Ph.D.	The University of Texas MD Anderson Cancer Center
Khaled, Annette R., Ph.D.	University of Central Florida
Khalili, Kamel, Ph.D.	Temple University
Khan, Seema A., M.D.	Northwestern University
Khan, Shafiq A., Ph.D.	Clark Atlanta University
Khare, Sharad, Ph.D.	Harry S. Truman Memorial VA Hospital
Khazaie, Khashayarsha, Ph.D., D.Sc.	Mayo Clinic, Rochester
Khrapko, Konstantin, Ph.D.	Northeastern University
Kikinis, Ron, M.D.	Brigham and Women's Hospital
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Kilian, Kristopher A., Ph.D.	University of Illinois at Urbana-Champaign
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Kim, Jae-Sung, Ph.D.	University of Florida
Kim, Tae H., Ph.D.	The University of Texas at Dallas
Kim, Young J., M.D., Ph.D.	Vanderbilt University
Kim, Youngmee, Ph.D.	University of Miami
Kimler, Bruce F., Ph.D.	University of Kansas Medical Center
Kimmel, Marek, Ph.D., Sc.D.	Rice University
Kinahan, Paul E., Ph.D.	University of Washington, Seattle
King, Michael R., Ph.D.	Vanderbilt University
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Klassen, Ann C., Ph.D.	Drexel University
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Kleiman, Frida E., Ph.D.	Hunter College
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Klesges, Robert C., Ph.D.	University of Virginia

Kline, Justin P., M.D.	The University of Chicago
Klingemann, Hans, M.D., Ph.D.	Tufts Medical Center
Klinke, David J., Ph.D.	West Virginia University
Knipe, David M., Ph.D.	Harvard Medical School
Knipp, Gregory T., Ph.D.	Purdue University
Knobf, M. Tish, Ph.D., M.S.N.	Yale University
Knopp, Michael V., M.D., Ph.D.	The Ohio State University
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Knutson, Keith L., Ph.D.	Mayo Clinic, Jacksonville
Kobetz, Erin N., Ph.D., M.P.H.	University of Miami School of Medicine
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Koper, Olga B., Ph.D.	Battelle Memorial Institute
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Koshinsky, Heather, Ph.D., M.B.A.	Investigen, Inc.
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Krolewski, John J., M.D., Ph.D.	Roswell Park Cancer Institute
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Krupinski, Elizabeth A., Ph.D.	Emory University
Krymskaya, Vera P., Ph.D., M.B.A.	University of Pennsylvania
Kuate Defo, Barthelemy, Ph.D.	University of Montreal
Kufe, Donald W., M.D.	Dana-Farber Cancer Institute
Kukafka, Rita, Dr.Ph.	Columbia University Health Sciences
Kukreja, Rakesh C., Ph.D.	Virginia Commonwealth University
Kulasingam, Shalini L., Ph.D., M.P.H.	University of Minnesota
Kumar, Deepak, Ph.D.	North Carolina Central University
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Lee, John H., M.D.	Sanford University of South Dakota
Lee, Kelley, M.P.A.	Simon Fraser University
Lee, Marion M., Ph.D., M.P.H.	University of California, San Francisco
Lee, Michael J., Ph.D.	University of Massachusetts Medical School, Worcester
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Lesinski, Gregory B., Ph.D., M.P.H.	Emory University
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Lewis, Michael T., Ph.D.	Baylor College of Medicine
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Linehan, David C., M.D.	University of Rochester
Liotta, Lance A., M.D., Ph.D.	George Mason University
Lis, John T., Ph.D.	Cornell University
Liu, Brent J., Ph.D.	University of Southern California
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Liu, Fang, Ph.D.	Rutgers, The State University of New Jersey
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Liu, Glenn, M.D.	University of Wisconsin-Madison
Liu, Huiping, M.D., Ph.D.	Northwestern University
Liu, Kebin, Ph.D.	Augusta University
Liu, Tian, Ph.D.	Emory University
Liu, Xiaoqi, Ph.D.	Purdue University
Liu, Xiaowen, Ph.D.	Indiana University-Purdue University Indianapolis
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Liu, Yang, Ph.D.	University of Pittsburgh
Liu, Yunlong, Ph.D.	Indiana University School of Medicine
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Lodes, Michael J., Ph.D.	Lucigen Corporation
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Longley, B. Jack, M.D.	University of Wisconsin-Madison
Lonial, Sagar, M.D.	Emory University
Losert, Wolfgang, Ph.D.	University of Maryland, College Park
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Lowenstein, Pedro R., M.D., Ph.D.	University of Michigan
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Lowery, Thomas J., Ph.D.	T2 Biosystems
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Lu, Hang, Ph.D.	Georgia Institute of Technology
Lu, Zheng-Rong, Ph.D.	Case Western Reserve University

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Macdonald-Dickinson, Valerie, D.V.M.	University of Saskatchewan
Mac Gabhann, Feilim C., Ph.D.	Johns Hopkins University
Machtay, Mitchell, M.D.	Thomas Jefferson University
Maciejewski, Paul K., Ph.D.	Weill Cornell Medical College of Cornell University
Mackeigan, Jeffrey P., Ph.D.	Michigan State University
Mackenzie, Gerardo G., Ph.D.	University of California, Davis
Mackinnon, Jill A., Ph.D.	University of Miami Miller School of Medicine
Macleod, Kay F., Ph.D.	The University of Chicago
Macpherson, Laura, Ph.D.	University of Baltimore
Madabhushi, Anant, Ph.D.	Case Western Reserve University
Madden, Kelley S., Ph.D.	University of Rochester
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Mahato, Ram I., Ph.D.	University of Nebraska Medical Center
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Makale, Milan T., Ph.D.	University of California, San Diego
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Maley, Carlo, Ph.D.	Arizona State University, Tempe
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Mallick, Parag K., Ph.D.	Stanford University
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Manne, Upender, Ph.D.	The University of Alabama at Birmingham
Manor, Danny, Ph.D.	Case Western Reserve University
Mansour, Heidi M., Ph.D.	The University of Arizona
Mao, Li, M.D.	Johnson and Johnson
Marchionni, Luigi, M.D., Ph.D.	Johns Hopkins University
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Marcus, Adam I., Ph.D.	Emory University
Marini, Frank C., Ph.D.	Wake Forest University Health Sciences
Markey, Sanford P., Ph.D.	National Institute of Mental Health
Marks, Jeffrey R., Ph.D.	Duke University
Marriott, Lisa K., Ph.D.	Oregon Health & Science University
Marshall, James, Ph.D.	Roswell Park Cancer Institute
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Martin, Michelle Y., Ph.D.	The University of Tennessee Health Science Center
Martinez, Jennifer S., Ph.D.	Los Alamos National Laboratory
Martinez, Jesse D., Ph.D.	The University of Arizona
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Matei, Daniela E., M.D.	Northwestern University
Matherly, Larry H., Ph.D.	Wayne State University
Matsuyama, Robin K., Ph.D.	Virginia Commonwealth University
Matthews, Dwight E., Ph.D.	The University of Vermont and State Agricultural College
Mattrey, Robert F., M.D.	University of California, San Diego
Maurer, Barry J., M.D., Ph.D.	Texas Tech University Health Sciences Center
May, William A., M.D.	University of California, Los Angeles
Mayer, Dirk, Ph.D.	University of Maryland, Baltimore
Mays, Darren M., Ph.D., M.P.H.	Georgetown University
McAdams, Todd A., Ph.D.	Resodyn Corporation
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McCarthy, James B., Ph.D.	University of Minnesota
Mccombie, William R., Ph.D.	Cold Spring Harbor Laboratory
MccConkey, David J., Ph.D.	Johns Hopkins University
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Mcinnis, Campbell, Ph.D.	University of South Carolina, Columbia
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Mehnert, Janice, M.D.	Rutgers Biomedical Health Sciences
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Melonakos, John, Ph.D.	Accelereyes, LLC
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Mitchell, Jean M., Ph.D.	Georgetown University
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Murphy, William J., Ph.D.	University of California, Davis
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 Myers, Valerie H., Ph.D. Klein Buendel, Inc.

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 Njar, Vincent C., Ph.D. University of Maryland, Baltimore
 Nolan, John P., Ph.D. Scintillon Institute for Photobiology
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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY 2017

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O'Bryan, John P., Ph.D. University of Illinois at Chicago
O'Connell, Mary A., Ph.D. New Mexico State University, Las Cruces
O'Donnell, Matthew, Ph.D. University of Washington in Seattle
O'Hara, Ruth M., Ph.D. Stanford University
O'Neal, Dennis P., Ph.D. Louisiana Tech University
O'Neil, Karyn T., Ph.D. Aro Biotherapeutics
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Odedina, Folakemi T., Ph.D. Florida Agricultural and Mechanical University
Oesterreich, Steffi, Ph.D. University of Pittsburgh
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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY 2017

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Pai-Scherf, Lee, M.D.	U.S. Food and Drug Administration
Pajonk, Frank, M.D., Ph.D.	University of California, Los Angeles
Pal, Soumitro, Ph.D.	Boston Children’s Hospital
Palakurthi, Srinath, Ph.D.	Texas A&M University Health Science Center
Palmeri, Mark L., M.D., Ph.D.	Duke University
Palta, Jatinder R., Ph.D.	Virginia Commonwealth University
Palumbo, Joseph S., M.D.	Cincinnati Children’s Hospital Medical Center
Pan, Xiaochuan, Ph.D.	The University of Chicago
Pandey, Dilip K., Ph.D., M.B.B.S.	University of Illinois at Chicago
Pandita, Tej K., Ph.D.	Methodist Hospital Research Institute
Pandurangi, Raghu S., Ph.D.	Sci-Engi-Medco Solutions, Inc.
Pannell, Lewis K., Ph.D.	University of South Alabama
Panning, Barbara, Ph.D.	University of California, San Francisco
Pappas, Dimitri, Ph.D.	Texas Tech University
Parangi, Sareh, M.D.	Massachusetts General Hospital
Parette, Mylisa, Ph.D.	Keystone Nano, Inc.
Park, Kwon-Sik, Ph.D.	University of Virginia
Park, Susanna S., M.D., Ph.D.	University of California, Davis
Parker, Laurie L., Ph.D.	University of Minnesota
Paschal, Bryce, Ph.D.	University of Virginia
Pasick, Rena J., Dr.P.H., M.P.H.	University of California, San Francisco
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Patel, Tushar, M.B., Ch.B.	Mayo Clinic, Jacksonville
Patierno, Steven R., Ph.D.	Duke University
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Pauly, John M., Ph.D.	Stanford University
Payne, Christine K., Ph.D.	Georgia Institute of Technology
Payne, Kimberly J., Ph.D.	Loma Linda University
Payne, Philip R., Ph.D.	Washington University in St. Louis
Pearse, Roger N., M.D., Ph.D.	Weill Medical College of Cornell University
Pearson, Gray W., Ph.D.	Georgetown University
Peiper, Stephen, M.D.	Thomas Jefferson University
Pejovic, Tanja, M.D., Ph.D.	Oregon Health & Science University
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Perentesis, John P., M.D.	Cincinnati Children’s Hospital Medical Center
Perkins, Susan M., Ph.D.	Indiana University School of Medicine
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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY 2017

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Piazza, Gary A., Ph.D.	University of South Alabama
Pickhardt, Perry, M.D.	University of Wisconsin-Madison
Pieper, Russell O., Ph.D.	University of California, San Francisco
Pierce, J. Michael, Ph.D.	The University of Georgia
Pili, Roberto, M.D.	Indiana University School of Medicine
Pillai, Asha B., M.D.	University of Miami School of Medicine
Pirisi-Creek, Lucia A., M.D.	University of South Carolina at Columbia
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Pledger, Warren J., Ph.D.	Virginia College of Osteopathic Medicine
Plevritis, Sylvia K., Ph.D.	Stanford University
Pogue, Brian W., Ph.D.	Dartmouth College
Polf, Jerimy C., Ph.D.	University of Maryland, Baltimore
Politi, Katerina A., Ph.D.	Yale University
Pollok, Karen E., Ph.D.	Indiana University School of Medicine
Polsky, David, M.D., Ph.D.	New York University School of Medicine
Popplewell, Leslie, M.D.	City of Hope National Medical Center
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Price, Richard J., Ph.D.	University of Virginia
Prigerson, Holly G., Ph.D.	Weill Medical College of Cornell University
Prins, Robert M., Ph.D.	University of California, Los Angeles
Pryma, Daniel A., M.D.	University of Pennsylvania
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Saini, Sameer, M.D.	University of Michigan
Sallan, Stephen E., M.D.	Dana-Farber Cancer Institute
Saltz, Joel H., M.D., Ph.D.	Stony Brook University
Saluja, Ashok K., Ph.D.	University of Miami, Miller School of Medicine
Salvesen, Guy S., Ph.D.	Sanford-Burnham Medical Research Institute
Salvino, Joseph M., Ph.D.	Wistar Institute
Samant, Rajeev S., Ph.D.	The University of Alabama at Birmingham
Sambucetti, Lidia C., Ph.D.	SRI International
Samet, Jonathan M., M.D.	University of Southern California
Sampson, John H., M.D., Ph.D.	Duke University
Sanderson, Maureen, Ph.D., M.P.H.	Meharry Medical College
Sandri-Goldin, Rozanne M., Ph.D.	University of California, Irvine
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Santana, Victor M., M.D.	St. Jude Children’s Research Hospital
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Saraf, Ravi F., Ph.D.	University of Nebraska-Lincoln
Sarkaria, Jann N., M.D.	Mayo Clinic, Rochester
Sasinowski, Maciek, Ph.D.	Incogen, Inc.
Satagopan, Jaya M., Ph.D.	Memorial Sloan Kettering Cancer Center
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Sausville, Edward A., M.D., Ph.D.	University of Maryland, Baltimore
Sauter, Edward R., M.D., Ph.D.	Hartford Hospital
Saxena, Deepak, Ph.D.	New York University
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Scarpinato, Karin D., Ph.D.	Florida Atlantic University
Schabath, Matthew B., Ph.D.	Moffitt Cancer Center
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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY 2017

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Schoenberger, Stephen P., Ph.D.	La Jolla Institute for Allergy & Immunology
Scholler, Nathalie, M.D., Ph.D.	SRI International
Scholtens, Denise M., Ph.D.	Northwestern University
Schonbrunn, Ernst, Ph.D.	Moffitt Cancer Center
Schootman, Mario, Ph.D.	Saint Louis University
Schriml, Lynn M., Ph.D., D.Sc.	University of Maryland, Baltimore
Schultz, Zachary, Ph.D.	University of Notre Dame
Schumacker, Paul T., Ph.D.	Northwestern University
Schwartz, Edward L., Ph.D.	Albert Einstein College of Medicine
Schwartz, Gary K., M.D.	Columbia University Health Sciences Campus
Schwartz, Jeremy I., M.D.	Yale University
Schwartz, Marc D., Ph.D.	Georgetown University
Schwartz, Randy H., M.S.P.H.	Maine State Department of Health and Human Services
Schwertfeger, Kathryn L., Ph.D.	University of Minnesota
Scott, Kenneth L., Ph.D.	Baylor College of Medicine
Searson, Peter C., Ph.D.	Johns Hopkins University
Sebti, Said M., Ph.D.	Moffitt Cancer Center
Seeger, Robert C., M.D.	University of Southern California
Segal, David J., Ph.D.	University of California, Davis
Segal, Richard, Ph.D.	University of Florida
Segall, Jeffrey E., Ph.D.	Albert Einstein College of Medicine
Seki, Ekihiro, M.D., Ph.D.	Cedars-Sinai Medical Center
Seley-Radtke, Katherine L., Ph.D.	University of Maryland, Baltimore
Seligmann, Bruce E., Ph.D.	Biospyder Technologies, Inc.
Semmes, Oliver J., Ph.D.	Eastern Virginia Medical School
Sen, Subrata, Ph.D.	The University of Texas MD Anderson Cancer Center
Sentman, Charles L., Ph.D.	Dartmouth College
Serda, Rita E., Ph.D.	The University of New Mexico
Serkova, Natalie J., Ph.D.	University of Colorado, Denver
Servoss, Shannon L., Ph.D.	University of Arkansas, Fayetteville
Setaluri, Vijayasradhi, Ph.D.	University of Wisconsin-Madison
Seto, Edward, Ph.D.	The George Washington University
Seybold, Virginia S., Ph.D.	University of Minnesota
Shah, Nilay, M.D.	Research Institute Nationwide Children's Hospital
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Shenoy, Vivek, Ph.D.	University of Pennsylvania
Shepherd, Virginia L., Ph.D.	Vanderbilt University
Sherman, Scott E., M.D., M.P.H.	VA Medical Center
Sherman, Simon, Ph.D.	University of Nebraska Medical Center
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Shi, Huidong, Ph.D.	Augusta University
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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY 2017

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Smith, Todd M., Ph.D.	Digital World Biology
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Sondak, Vernon K., M.D.	Moffitt Cancer Center
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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY 2017

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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY 2017

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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY 2017

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Zhu, Xiaoshan, Ph.D.	University of Nevada Reno
Zhu, Yong, Ph.D.	Yale University
Zipfel, Warren R., Ph.D.	Cornell University
Zlotnik, Albert, Ph.D.	University of California, Irvine
Zoellner, Sebastian, Ph.D.	University of Michigan
Zong, Hui, Ph.D.	University of Virginia
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Total Number of Reviewers: 3,221*

* Approximately 942 reviewers served more than once.

Appendix F: 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 Descriptions at <https://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.

F99/ K00	The NCI Predoctoral to Postdoctoral Fellow Transition Award To encourage and retain outstanding graduate students who have demonstrated potential and interest in pursuing careers as independent cancer researchers.
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.
K05	Established Investigator Award in Cancer Prevention, Control, Behavioral, and Population Research To support scientists qualified to pursue independent research that would extend the research program of the sponsoring institution, or to direct an essential part of this program.
K07	Cancer Prevention, Control, Behavioral, and Population Sciences Career Development Award To support the postdoctoral career development of investigators who are committed to academic research careers in cancer prevention, control, behavioral, epidemiological, and/or the population sciences. It supports up to 5 years of combined didactic and supervised (i.e., mentored) research experiences to acquire the methodological and theoretical research skills needed to become an independent scientist. The very broad nature of the prevention, control, and population sciences makes it applicable to those individuals doctorally trained in the basic sciences, medicine, behavioral sciences, and/or public health. The K07 award has been expanded from a scope limited to "preventive oncology" to include the entire spectrum of fields that are of vital importance to cancer prevention and control such as nutrition, epidemiology, and behavioral sciences.
K08	Mentored Clinical Scientists Development Award To provide the opportunity for promising medical scientists with demonstrated aptitude to develop into independent investigators, or for faculty members to pursue research in categorical areas applicable to the awarding unit, and to aid in filling the academic faculty gap in specific shortage areas within U.S. health professions institutions.

K08	<p>Mentored Clinical Scientists Development Award—Minorities in Clinical Oncology</p> <p>A specialized type of Mentored Clinical Scientist Developmental Award (K08) that supports the development of outstanding clinical research scientists, with this type being reserved for qualified individuals from underrepresented minority groups. Both types of K08 awards support periods of specialized study for clinically trained professionals who are committed to careers in research and who have the potential to develop into independent investigators. The K08 awards for Minorities in Clinical Oncology are distinct and important because they provide opportunities for promising medical scientists with demonstrated aptitudes who belong to underrepresented minority groups to develop into independent investigators, or for faculty members who belong to underrepresented minority groups to pursue research aspects of categorical areas applicable to the awarding unit(s), and aid in filling the academic faculty gaps in these shortage areas within U.S. health professions institutions.</p>
K12	<p>Institutional Clinical Oncology Research Career Development Award</p> <p>To support a newly trained clinician appointed by an institution for development of independent research skills and experience in a fundamental science within the framework of an interdisciplinary research and development program.</p>
K18	<p>The Career Enhancement Award</p> <p>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.</p>
K22	<p>The NCI Transition Career Development Award for Underrepresented Minorities</p> <p>To provide support to outstanding newly trained basic or clinical investigators to develop their independent research skills through a two-phase program: an initial period involving an intramural appointment at the NIH and a final period of support at an extramural institution. The award is intended to facilitate the establishment of a record of independent research by the investigator to sustain or promote a successful research career.</p>
K22	<p>The NCI Scholars Program</p> <p>To provide an opportunity for outstanding new investigators to begin their independent research careers, first within the special environment of the NCI and then at an institution of their choice. Specifically, this program provides necessary resources to initiate an independent research program of 3 to 4 years at the NCI, followed by an extramural funding mechanism (K22) to support their research program for 2 years at the extramural institution to which they are recruited.</p>
K23	<p>Mentored Patient-Oriented Research Career Development Award</p> <p>To provide support for the career development of investigators who have made a commitment to focus their research endeavors on patient-oriented research. This mechanism provides support for a 3-year minimum up to a 5-year period of supervised study and research for clinically trained professionals who have the potential to develop into productive clinical investigators.</p>

K23	<p>Mentored Patient-Oriented Research Career Development Award for Underrepresented Minorities</p> <p>To support the career development of investigators who have made a commitment to focus their research on patient-oriented research. This mechanism provides support for a period of supervised study and research for clinically trained professionals who have the potential to develop into productive clinical investigators in patient-oriented research.</p>
K24	<p>Mid-Career Investigator Award in Patient-Oriented Research</p> <p>To provide support for clinicians to allow them protected time to devote to patient-oriented research and to act as mentors for beginning clinical investigators. The target candidates are outstanding clinical scientists engaged in patient-oriented research who are within 15 years of their specialty training, who can demonstrate the need for a period of intensive research focus as a means of enhancing their clinical research careers, and who are committed to mentoring the next generation of clinical investigators in patient-oriented research.</p>
K25	<p>Mentored Quantitative Research Career Development Award</p> <p>This award allows an independent scientist in a highly technical field of research to identify an appropriate mentor with extensive experience in cancer research and to receive the necessary training and career development required to become involved in multidisciplinary cancer research.</p>
K99/ R00	<p>NIH Pathway to Independence (PI) Award</p> <p>The Pathway to Independence Award, which is part of the NIH Roadmap Initiative but is known as the Howard Temin Award within the NCI, will provide up to 5 years of support consisting of two phases. The initial phase will provide 1 to 2 years of mentored support for highly promising postdoctoral research scientists. This phase will be followed by up to 3 years of independent support contingent on securing an independent research position. Award recipients will be expected to compete successfully for independent R01 support from the NIH during the career transition award period. The PI Award is limited to postdoctoral trainees within 5 years of completion of their training who propose research relevant to the mission of one or more of the participating NIH Institutes and Centers.</p>
L Series: Loan Repayment Program	
L30	<p>Loan Repayment Program for Clinical Researchers</p> <p>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.</p>
L32	<p>Loan Repayment Program for Clinical Researchers From Disadvantaged Backgrounds</p> <p>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.</p>

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	<p>Cancer Education Grant Program (CEGP)</p> <p>A flexible, curriculum-driven program aimed at developing and sustaining innovative educational approaches that ultimately will have an impact on reducing cancer incidence, mortality, and morbidity, as well as on improving the quality of life of cancer patients. The CEGP accepts investigator-initiated grant applications that pursue a wide spectrum of objectives ranging from short courses to the development of new curricula in academic institutions; to national forums and seminar series; to hands-on workshop experiences for the continuing education of health care professionals, biomedical researchers, and the lay community; to structured short-term research experiences designed to motivate high school, college, medical, dental, and other health professional students to pursue careers in cancer research. Education grants can focus on education activities before, during, and after the completion of a doctoral-level degree, as long as they address a need that is not fulfilled adequately by any other grant mechanism available at the NIH and are dedicated to areas of particular concern to the National Cancer Program.</p>
R25T	<p>Cancer Education and Career Development Program</p> <p>To support the development and implementation of curriculum-dependent, team-oriented programs to train predoctoral and postdoctoral candidates in cancer research team settings that are highly interdisciplinary and collaborative. This specialized program is particularly applicable to the behavioral, prevention, control, nutrition, and population sciences but should also be considered by other areas of research (e.g., imaging, pathology) that will require sustained leadership, dedicated faculty time, specialized curriculum development and implementation, interdisciplinary research environments, and more than one mentor per program participant to achieve their education and research career development objectives.</p>
R33	<p>Exploratory/Developmental Grants, Phase II</p> <p>To provide a second phase for support of innovative exploratory and developmental research activities initiated under the R21 mechanism. Although only R21 awardees are generally eligible to apply for R33 support, specific program initiatives may establish eligibility criteria under which applications could be accepted from applicants who demonstrate program competency equivalent to that expected under R33.</p>
R35	<p>Outstanding Investigator Award (OIA)</p> <p>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.</p>
R37	<p>Method to Extend Research in Time (MERIT) Award</p> <p>To provide long-term grant support to investigators whose research competence and productivity are distinctly superior and who are highly likely to continue to perform in an outstanding manner. Investigators may not apply for a MERIT Award. Program staff and/or members of the cognizant National Advisory Council/Board will identify candidates for the MERIT Award during the course of reviewing competing research grant applications prepared and submitted in accordance with regular Public Health Service (PHS) requirements.</p>

R50	Research Specialist Award To encourage the development of stable research career opportunities for exceptional scientists who want to pursue research within the context of an existing cancer research program, but not serve as independent investigators. These scientists, such as researchers within a research program, core facility managers, and data scientists, are vital to sustaining the biomedical research enterprise. The award is intended to provide desirable salaries and sufficient autonomy so that individuals are not solely dependent on grants held by Principal Investigators for career continuity.
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.
RL1	Linked Research Project Grant To support a discrete, specified, circumscribed project that is administratively linked to another project or projects, and to be performed by the named investigator(s) in an area representing his or her specific interest and competencies. An RL1 award may only be disaggregated from U54 applications, and organizations may not apply for an RL1, Linked Research Project Grant. The RL1 activity code is used in lieu of the R01 for those programs that offer linked awards.

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 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 MSIs to generate preliminary data for a more ambitious research project.
Si2/ R00	Lasker Clinical Research Scholar Program This program will support the research activities during the early stage careers of independent clinical researchers.
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	<p>Biomedical Research Support Grants (NCRR BRSB)</p> <p>As an example of this funding mechanism, the NIH issued a Request for Applications (RFA) in FY2004 to provide short-term interim support for institutional activities that will strengthen oversight of human subjects research at institutions that receive significant NIH support for clinical research. Although there is considerable flexibility in the types of activities that could be supported under the BRSB program, that RFA emphasized the importance of efforts to enhance the protection of research subjects by means that would be sustained by the recipient institution after the award period ends. Awardees also are required to collaborate with other institutions conducting human subjects research and are not currently funded under this program, and to share educational resources, computer technologies, best practices, etc. Although all NIH components supporting clinical research (including the NCI) are providing support for this program, it is administered by the National Center for Research Resources (NCRR).</p>
S10	<p>Biomedical Research Support Shared Instrumentation Grants (NCRR SIG)</p> <p>The National Center for Research Resources (NCRR) initiated its competitive Shared Instrumentation Grant (SIG) Program in FY1982. Shared Instrumentation Grants provide support for expensive state-of-the-art instruments utilized in both basic and clinical research. This program is designed to meet the special problems of acquisition and updating of expensive shared-use instruments that are not generally available through other NIH funding mechanisms, such as the regular research project, program project, or center grant programs. Applications for funds to design or to advance the design of new instruments are not accepted. The objective of the program is to make available to institutions with a high concentration of NIH-supported biomedical investigators expensive research instruments that can only be justified on a shared-use basis and for which meritorious research projects are described.</p>
S21	<p>Research and Institutional Resources Health Disparities Endowment Grants—Capacity Building</p> <p>To strengthen the research and training infrastructure of the institution, while addressing current and emerging needs in minority health and other health disparities research.</p>
T Series: Training Programs	
T15	<p>Continuing Education Training Grants</p> <p>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.</p>
T32	<p>NIH National Research Service Award—Institutional Research Training Grants</p> <p>To enable institutions to make National Research Service Awards to individuals selected by them for predoctoral and postdoctoral research training in specified shortage areas.</p>
T34	<p>Undergraduate NRSA Institutional Research Training Grants</p> <p>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.</p>

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.
U2C	Resource-Related Research Multi-Component Projects and Centers Cooperative Agreements To support multi-component research resource projects and centers that will enhance the capability of resources to serve biomedical research. 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.
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	<p>Specialized Center—Cooperative Agreements</p> <p>To support any part of the full range of research and development from very basic to clinical; may involve ancillary supportive activities such as protracted patient care necessary to the primary research or R&D effort. 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.</p>
U56	<p>Exploratory Grants—Cooperative Agreements</p> <p>To support planning for new programs, expansion, or modification of existing resources, and feasibility studies to explore various approaches to the development of interdisciplinary programs that offer potential solutions to problems of special significance to the mission of the NIH. These exploratory studies may lead to specialized or comprehensive centers. 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.</p>
UG1	<p>Clinical Research Cooperative Agreements — Single Project</p> <p>To support single project applications conducting clinical evaluation of various methods of therapy and/or prevention (in specific disease areas). 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. NOTE: The UG1 is the single-component companion to the U10, which is used for multi-project applications only.</p>
UG3	<p>Phase 1 Exploratory/Developmental Cooperative Agreement</p> <p>As part of a bi-phasic approach to funding exploratory and/or developmental research, the UG3 provides support for the first phase of the award. This activity code is used in lieu of the UH2 activity code when larger budgets and/or project periods are required to establish feasibility for the project.</p>
UH2/ UH3	<p>Exploratory/Developmental Cooperative Agreement Phase I/II</p> <p>To support the development of new research activities in categorical program areas. (Support generally is restricted in level of support and in time.)</p> <p>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.</p>
UM1	<p>Research Project With Complex Structure Cooperative Agreement</p> <p>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.</p>

Appendix G: Glossary of Acronyms

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

Appendix G: Glossary of Acronyms

IRM	Information Resources Management	PCP	President's Cancer Panel
IT	Information Technology	PCRB	Program Coordination and Referral Branch
LOI	Letter of Intent	PD	Pharmacodynamics
LRP	Loan Repayment Program	PHS	Public Health Service (HHS)
MBRS	Minority Biomedical Research 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 Program	PRESTO	Program Review and Extramural Staff Training Office
NCI	National Cancer Institute	RAEB	Research Analysis and Evaluation Branch
NCORP	NCI Community Oncology Research Program	R&D	Research and Development
NCRA	NCI Council of Research Advocates (replaces DCLG)	RFA	Request for Applications
NCRR	National Center for Research Resources	RFP	Request for Proposals
NCTN	National Clinical Trials Network	RIO	Research Integrity Officer
NDPA	NIH Director Pioneer Award	RM	Road Map
NED	NIH Electronic Directory	RO	Referral Officer
Next	NCI Experimental Therapeutics	RPG	Research Project Grant
NFRP	NCI Funded Research Portfolio	RPRB	Research Programs Review Branch
NGRAD	NCI Grant-Related Directory	RTCRB	Research Technology and Contract Review Branch
NHLBI	National Heart, Lung, and Blood Institute	RTRB	Resources and Training Review Branch
NIAAA	National Institute on Alcohol Abuse and Alcoholism	SA	Staff Assistant
NIAID	National Institute of Allergy and Infectious Diseases	SA&A	Security Assessment and Authorization
NIEHS	National Institute of Environmental Health Sciences	SBIR	Small Business Innovation Research
NIH	National Institutes of Health	SBIRDC	SBIR Development Center
NLM	National Library of Medicine	SEER	Surveillance, Epidemiology, and End Results
NRSA	National Research Service Award	SEP	Special Emphasis Panel
OBRR	Office of Biorepositories and Biospecimen Research	SGE	Special Government Employee
OBF	Office of Budget and Finance	SIC	Special Interest Category
OCG	Office of Cancer Genomics	SIG	Shared Instrumentation Grant
OD	Office of the Director	SMW	Science Management Workspace
OEA	Office of Extramural Applications	SPL	Scientific Program Leader
OER	Office of Extramural Research	SPORE	Specialized Program of Research Excellence
OFACP	Office of Federal Advisory Committee Policy	SPRS	Secure Payee Reimbursement System
OHAM	Office of HIV and AIDS Malignancies	SRB	Special Review Branch
OIA	Outstanding Investigator Award	SREA	Scientific Review and Evaluation Activities
OPERA	Office of Policy for Extramural Research Administration	SRLB	Special Review and Logistics Branch
ORRPC	Office of Referral, Review, and Program Coordination	SRO	Scientific Review Officer (formerly Scientific Review Administrator)
OSP	Office of Scientific Programs	STTR	Small Business Technology Transfer Research
PA	Program Announcement	T&E	Training and Education
PAR	Reviewed Program Announcement	TMEN	Tumor Microenvironment Network

Appendix H: 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 <https://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 Advisory Boards and groups. Links to the individual DEA Web pages via the DEA home page are listed below.

Funding Opportunities/Policies

<https://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.

<https://deais.nci.nih.gov/foastatus/?nt=P>

Active PAs, with links to detailed descriptions.

<https://deais.nci.nih.gov/foastatus>

Active RFAs, with links to detailed descriptions.

<https://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).

<https://grants.nih.gov/policy/early-investigators/index.htm>

New and Early Stage Investigator Policies.

<https://www.cancer.gov/grants-training/training>
The Center for Cancer Training (CCT).

<https://www.cancer.gov/about-nci/organization/oga>
Office of Grants Administration (OGA) manages all NCI business-related activities associated with negotiation, award, and administration of NCI grants and cooperative agreements.

Advisory Boards and Groups

<https://deainfo.nci.nih.gov/advisory/index.htm>

Links to the home page of each NCI Advisory Board, Committee, Group, etc.

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

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

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

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

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

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

<https://deainfo.nci.nih.gov/advisory/bsa/bsachr.pdf>

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

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

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

<https://deainfo.nci.nih.gov/advisory/fac/fac.htm>

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

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

Board of Scientific Counselors (Basic Sciences) Charter; functional statement, and members.

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

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

<https://deainfo.nci.nih.gov/advisory/ctac/ctac.htm>

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

<https://deainfo.nci.nih.gov/advisory/ncra/ncra.htm>

NCI Council of Research Advocates (NCRA) Charter, functional statement, members, and meeting information.

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

NCI Initial Review Group (IRG) Charter, functional statement, and members.

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

Special Emphasis Panel Charter, functional statement, and rosters of most recent review meetings.

<https://gsspubssl.nci.nih.gov/presentations>

NCI Advisory Board Presentations since 2011.

Other NIH Websites

<https://www.nih.gov>

NIH Homepage

<https://grants.nih.gov/grants/how-to-apply-application-guide.html>

Grants & Funding – Applying electronically

<https://grants.nih.gov/policy/index.htm>

Grants & Funding – Grants policies and guidance

<https://grants.nih.gov/funding/index.htm>

Grants & Funding – Funding opportunities and notices

<https://researchtraining.nih.gov/>

Extramural training mechanisms

<https://projectreporter.nih.gov/reporter.cfm>

Research Portfolio Online Reporting Tools

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



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