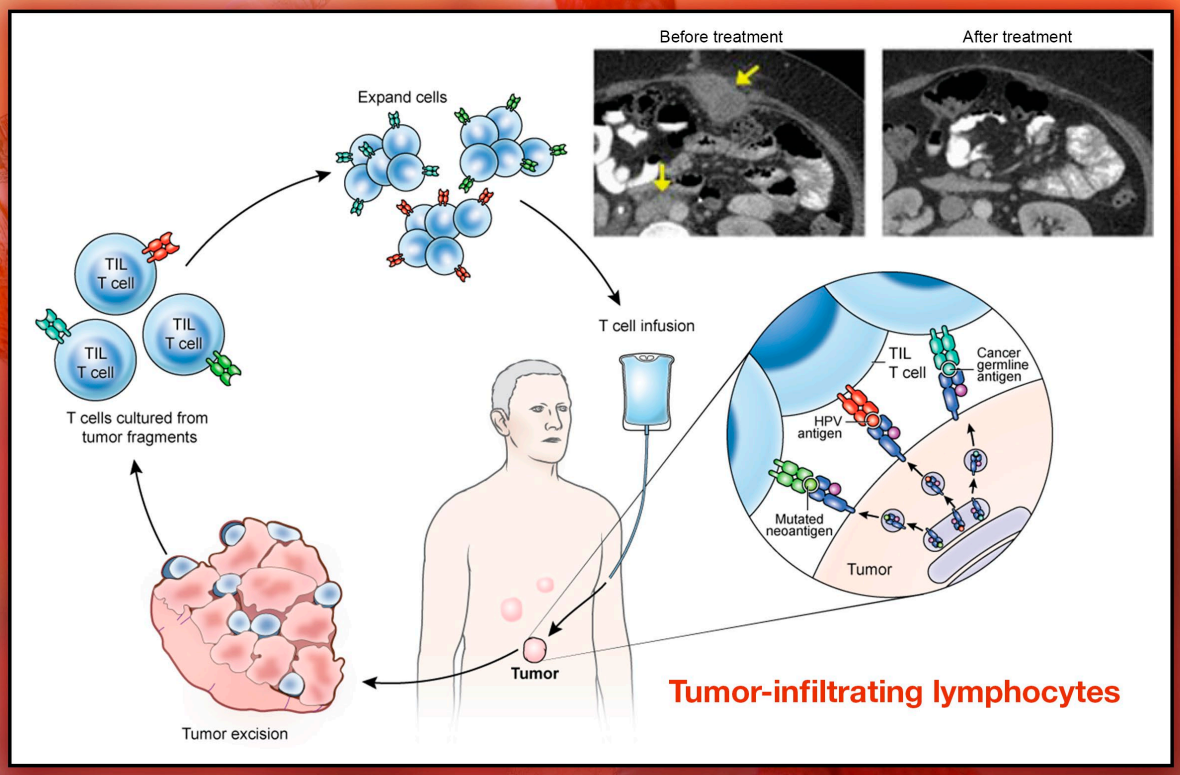
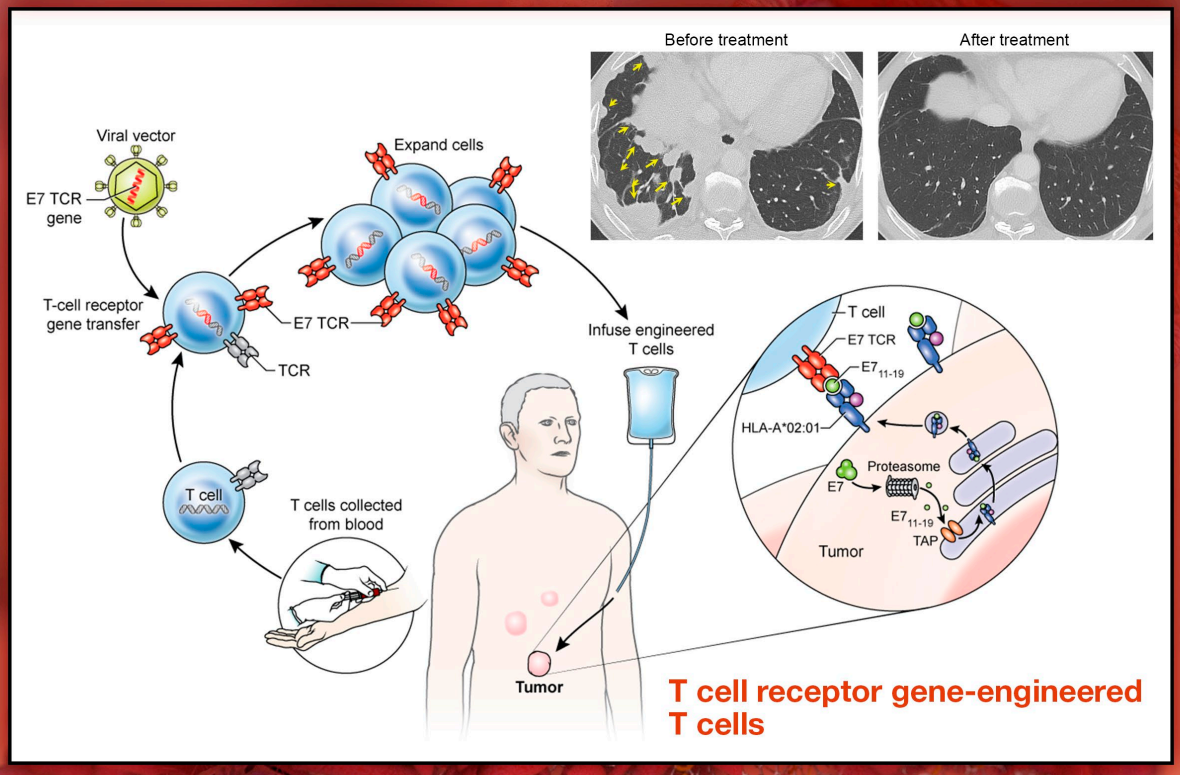
National Cancer Institute

Division of Extramural Activities

Annual Report 2018





U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institutes of Health

T-Cell Receptor Gene Therapy for Epithelial Cancers

T-cell receptor (TCR) gene therapy is an emerging class of cancer treatment that is based on the infusion of autologous T cells genetically engineered to express a tumor antigen-targeting TCR.[1] This treatment strategy permits high-avidity T cell-targeting of a defined tumor antigen with numerous T cells. It also permits targeting of the full range of cell membrane and intracellular antigens—in contrast with antibodies and chimeric antigen receptor T cells (CAR-Ts), which can only target cell membrane antigens. Finally, the extracorporeal generation of therapeutic T cells enables host conditioning to improve engraftment and function of the infused T cells.

The first clinical trial to demonstrate that a single infusion of therapeutic T cells could mediate durable, complete regression of (i.e., apparently cure) a metastatic epithelial cancer involved treatment of human papillomavirus (HPV)-associated cervical cancer with tumor-infiltrating lymphocytes (TILs; T cells grown *ex vivo* from a resected tumor deposit; top panel of the figure).[2] Tumor responses occurred in three of nine patients, and two were durable, complete responses (i.e., the patients appeared to be cured). In an expansion of this treatment, patients with HPV-associated oropharyngeal cancer and anal cancer also showed tumor responses.[3] This novel type of cancer treatment is now being developed by Iovance Biotherapeutics.

A study of patients whose metastatic cervical cancer appeared to be cured by TIL therapy revealed therapeutic T-cell targeting of diverse tumor antigens, including HPV oncoproteins, a cancer germline antigen, and "private" neoantigens.[4] HPV oncoproteins and cancer germline antigens are shared between the tumors of different patients and inconsistently targeted by TILs. However, they can be consistently targeted by TCR-engineered T cells (TCR-Ts; bottom panel of the figure). One cancer germline antigen, Kita-Kyushu lung cancer antigen 1 (KK-LC-1), was highly targeted by a TCR from the TILs of a patient with cervical cancer who appeared to be cured by TIL therapy. TCR-Ts expressing this TCR show targeting of diverse types of cancer that express KK-LC-1.[4] Similarly, TCR-Ts expressing TCRs against the E6 or E7 HPV oncoproteins can target diverse types of HPV16-associated cancer.[5,6]

Recent clinical trials have demonstrated proof of principle that TCR-Ts can mediate regression of epithelial cancers in humans. A clinical trial of HPV16 E6-targeting TCR-Ts (E6 TCR-T cells) showed tumor responses in some patients and identified antigen processing and presentation defects in tumors that did not respond to treatment, thereby suggesting possible mechanisms of treatment resistance.[7] Subsequently, a TCR that targets HPV16 E7 was identified; T cells expressing this TCR (E7 TCR T cells) displayed higher avidity targeting of HPV-associated tumors than E6 TCR T cells.[6] A phase I clinical trial of E7 TCR T cells for metastatic HPV-associated cancers showed no targeting of healthy tissues, and cell dose was not limited by toxicity. Tumor responses occurred in 6/12 patients and included marked regression of extensive disease.[8] This treatment is now being developed by Kite, a Gilead company.

These findings lay the foundation for the development of cellular therapy for a wide range of epithelial cancers. Ongoing work is focused on the discovery of new TCRs to extend this class of treatment to new types of cancer, and also is seeking to discover new technologies to enhance the efficacy of the therapeutic T cells. Finally, new research is defining the tumor-intrinsic molecular defects that may contribute to treatment resistance, work that is important to delineate and overcome tumor resistance to achieve more effective treatments.

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National Cancer Institute

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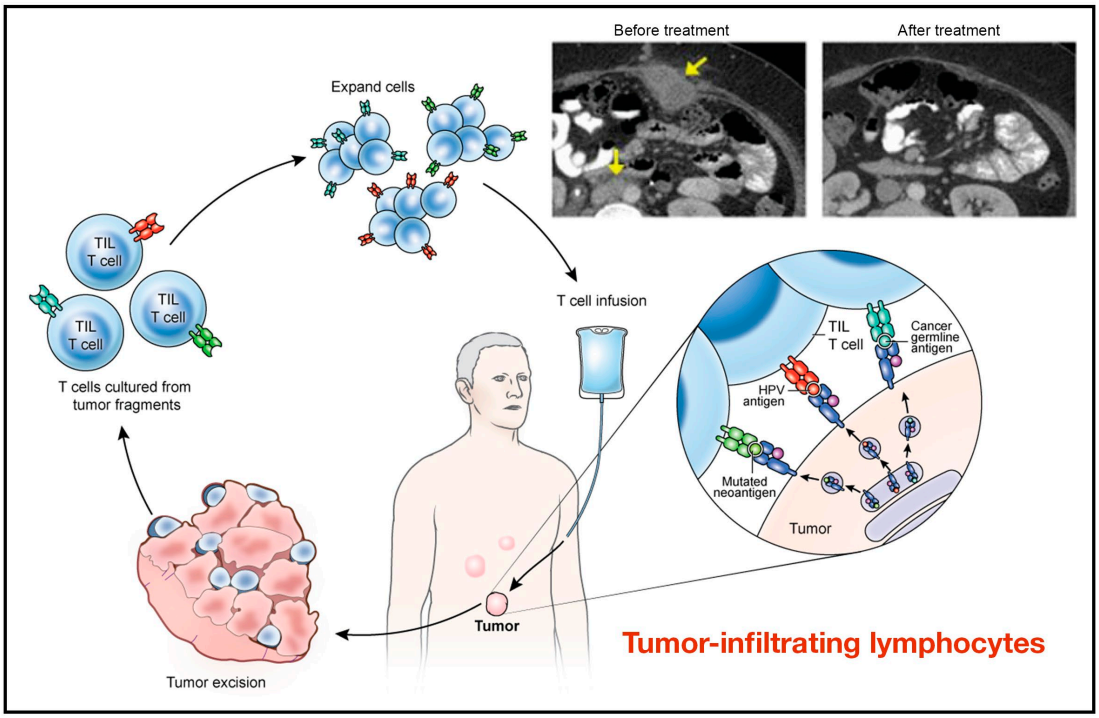

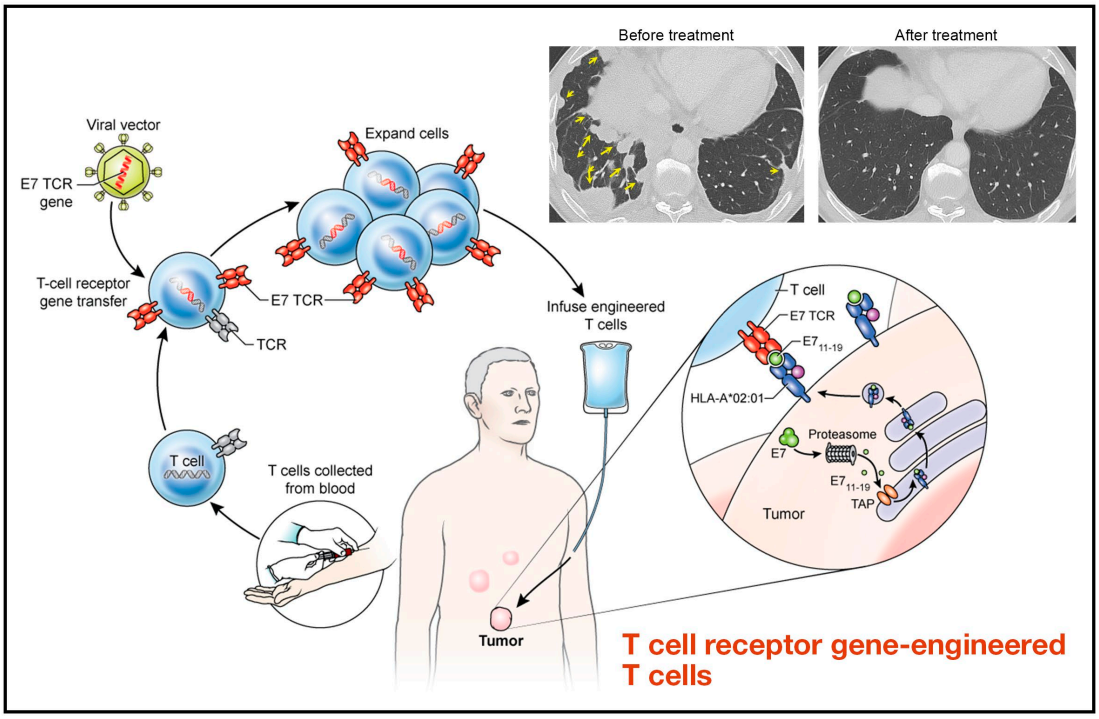

Images and narrative are the courtesy of Dr. Christian Hinrichs, Lasker Clinical Research Scholar, Experimental Transplantation and Immunology Branch, Center for Cancer Research, NCI.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
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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 peer review of extramural research proposed before funding and for conducting systematic surveillance of that research after funding. A major responsibility of the DEA is the solicitation of advice from individuals and/or committees of experts on the technical and scientific merit of grants, cooperative agreements, and contracts.The peer review process is critically important to science in that it allows good ideas to surface and to be evaluated based on their merit and promise of the proposed research effort. This 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 (FNLCR); and (4) extramural training opportunities for NCI Program and Review staff.

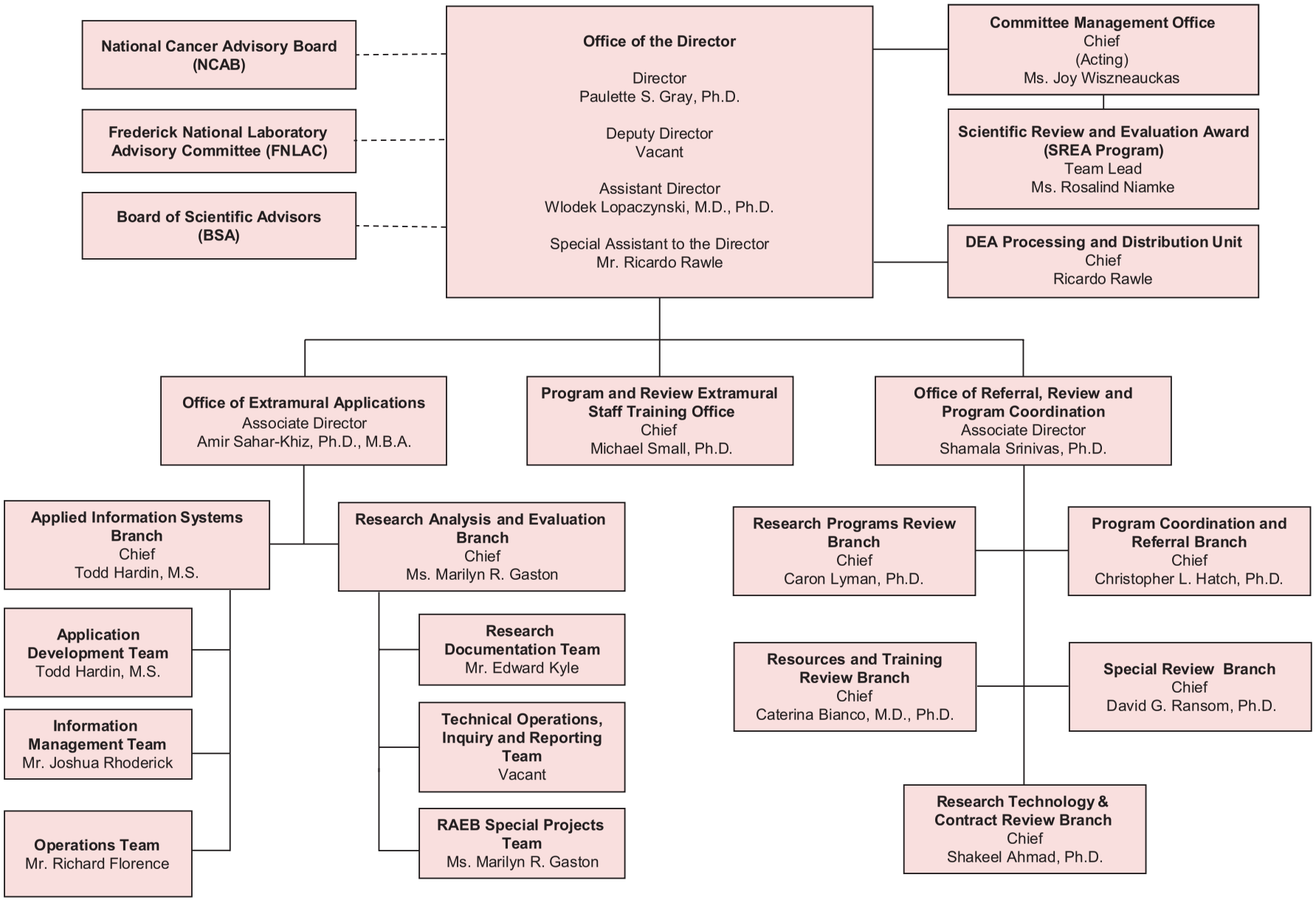
The DEA evaluates the content of all extramural research funded by the NCI and annually tracks the NCI research portfolio of more than 9,000 research and training awards by: using consistent budget-linked scientific information to provide a basis for budget projections; maintaining extensive records of this research; providing specialized analyses of the costs, goals, and accomplishments of the research; and serving 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. Additionally, 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. It also 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) 2018 (1 October 2017 – 30 September 2018) 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. A sincere thanks to the more than 2,500 researchers, clinicians, and advocates who gave unselfishly of their time in FY2018. Their contribution to the continuing success of NCI's peer review and advisory activities is most appreciated.

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

Division of Extramural Activities



Overview of the Division of Extramural Activities

The paramount goal of the National Cancer Institute (NCI) is to develop the knowledge base that will ultimately lessen the impact of cancer. Among the most important contributors to this base are the outstanding extramurally funded scientists supported by the NCI through grants, contracts, and cooperative agreements. The DEA was established within the NCI to provide the Institute and the scientific community with expert scientific review of the merits of extramural research. An important function of the DEA's mission is to manage and coordinate: the second level grant review by the National Cancer Advisory Board (NCAB); concept review of new and reissue requests for applications (RFAs), research and development (R&D) requests for proposals (RFPs), and program announcements with special receipt (PARs), referral, or review considerations 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 (FNLCR).

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, PARs, multi-component grant and cooperative agreement initiatives, and R&D requests for proposals. 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. This system includes information on approved concepts, listings of active PARs, recently published RFAs, and policies related to the clearance of new program initiatives. As such, information is accessible to the public at **https://deainfo.nci.nih.gov/funding.htm** and to staff via NCI limited access Intranet sites.

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 FY2018, 17 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 FY2018, 30 cases of alleged research misconduct involving NCI funding were opened and referred to the DEA Director, and they are under investigation by the Office of Research Integrity, HHS. Nine cases were closed, and one case was found to involve research misconduct.*

In addition, the *Standard Operating Practice Guide for DEA Scientific Review Officers* (SROs) was initiated in FY2018. The intent of this document is to guide SROs who manage the review of grant applications, cooperative agreements, and contracts. It is expected that the SOPs will ensure SRO uniformity in managing peer review.

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

*Cases found to involve research misconduct are published in the *Federal Register* and *DHHS Office of Research Integrity*.

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 FY2018, **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, including the Query, View and Report (QVR) system, NCI FOA Report, and Greensheets.
- A Time Mastery workshop organized in collaboration with the NCI Office of Workforce Planning and Development (OWPD).
- PRESTO-sponsored training focused on administrative, scientific, and research resource topics, including Clinical Trials Stewardship, Vertebrate Animal Welfare, Technology Development and Commercialization, and Immuno-Oncology in the context of Precision Medicine.
- A half-day Project Management Seminar featuring project management professionals addressing various issues of interest to NCI extramural staff, including team building and conflict resolution.
- 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.
- Participation as faculty in the NCI Office of Grants Administration (OGA) "Intro to the Grants Lifecycle."

During FY2019, PRESTO will continue to offer a variety of training opportunities with focus on new and emerging topics of broad interest to NCI extramural staff. Various information technology tools will be employed to enhance the effectiveness of PRESTO-sponsored training activities. In addition, PRESTO will support the NCI Clinical Trials Stewardship Committee in developing and implementing training on new Standard Operating Procedures for post-award management of grants involving clinical trials.

DEA Processing and Distribution Unit (DPDU)

Established in 2014, the **DEA Processing and Distribution Unit** (DPDU) maintains DEA facilities and provides services to DEA staff, including the coordination, consolidation, and purchasing of supplies; tracking of expenditures; and preparation of meeting folders, advisory board and committee books, orientation documents, and the division's annual report. In conjunction with the establishment of this unit, the number of DEA Purchase Cards was reduced, minimizing the hoarding of office supplies with an overall reduction in dollar costs associated with their use.

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 FY2018 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 FY2018, and **Table 4** lists PAs/PARs issued by other NIH ICs that the NCI has joined as a participating partner.

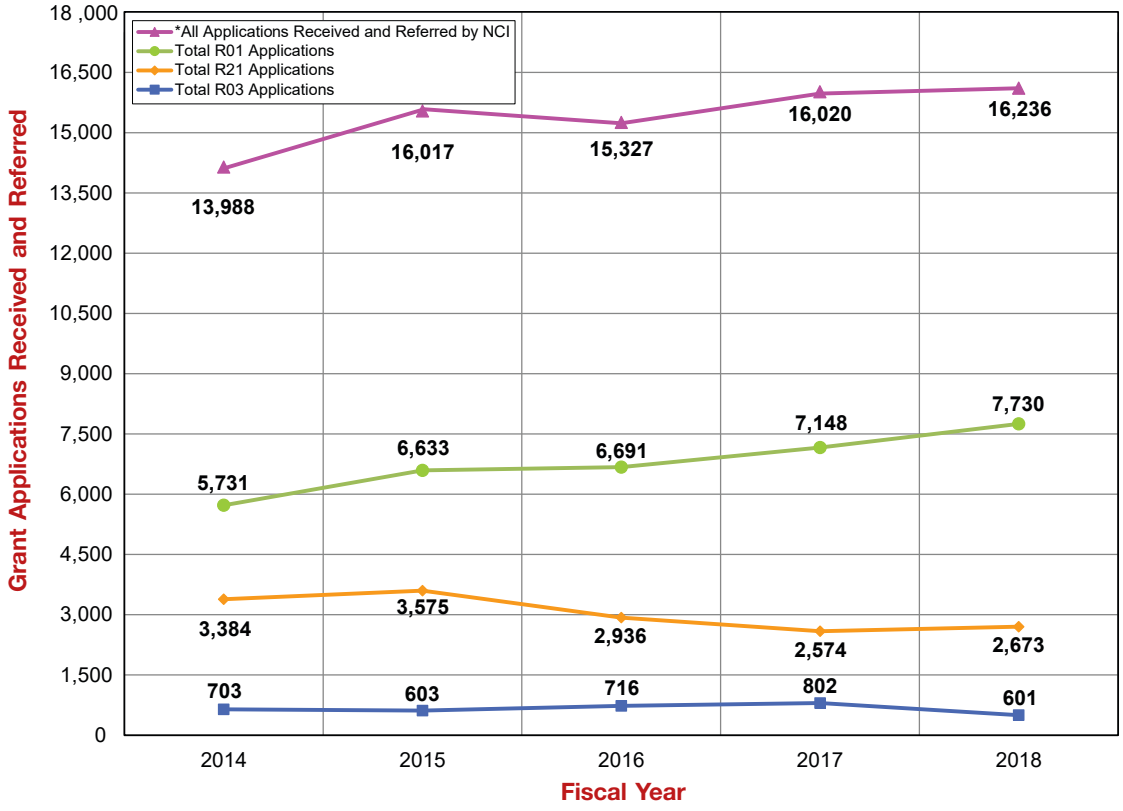
PCRB staff members continue to provide relevant information and timely updates to all NCI extramural staff members on activities and results related to the requirements for and uses of electronic grant applications. The Branch also serves as a direct source of guidance on this topic for program officials 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 504 student loan repayment program (LRP) contract proposals as well as of 74 R13 conference grant applications and a variety of other proposals in FY2018.

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

In FY2018, a total of 16,236 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*
FY2014 – 2018



*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, but no later than 6 weeks before submission for prior approval. 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) 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," and NOT-OD-17-005, "Optional Electronic Submission Method to Request to Submit an Unsolicited Application That Will Exceed $500,000 in Direct Costs."

Peer Review—The Next Step

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

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

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

The NCI has no direct input into the selection of peer reviewers who serve on CSR study sections. In contrast, members on NCI IRGs and SEPs are selected by DEA review staff, with suggestions from NCI program staff. All chartered NCI IRG Subcommittee members are approved by the DEA Director, based on their knowledge in various disciplines and fields related to cancer. The NCI 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. (The membership of NCI-chartered subcommittees may be found in **Appendix D** and at **https://deainfo.nci.nih.gov/advisory/irg/irg.htm**.) IRG members are appointed for varying terms of service, which may be up to 6 years. DEA SEPs may be formed to review grant and cooperative agreement applications received in response to RFAs, PAs, PARs, other special applications, or R&D contract proposals received in response to RFPs. Members of each panel are selected, on a one-time as-needed basis, to review specific grant and cooperative agreement applications, or contract proposals. Additional information about NCI SEPs can be accessed at **https://deainfo.nci.nih.gov/advisory/sep/sep.htm**.

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

Review Workload

In FY2018, the DEA organized, managed, and reviewed a total of 4,222 research grant and cooperative agreement applications (Table 6) **and 666 contract proposals** (Table 12) **assigned to the NCI for funding with appropriated dollars of $2,094,421,873.** The total number of grant applications, cooperative agreements, and contract

proposals reviewed in FY2018 was **4,888** (Figure 2). In addition, the DEA conducted 18 Cancer Center site visits, 12 IRG Subcommittee review meetings, 165 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 2,500 peer reviewers served on the NCI DEA-managed IRG Subcommittees, SEPs, and workgroups in FY2018. 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

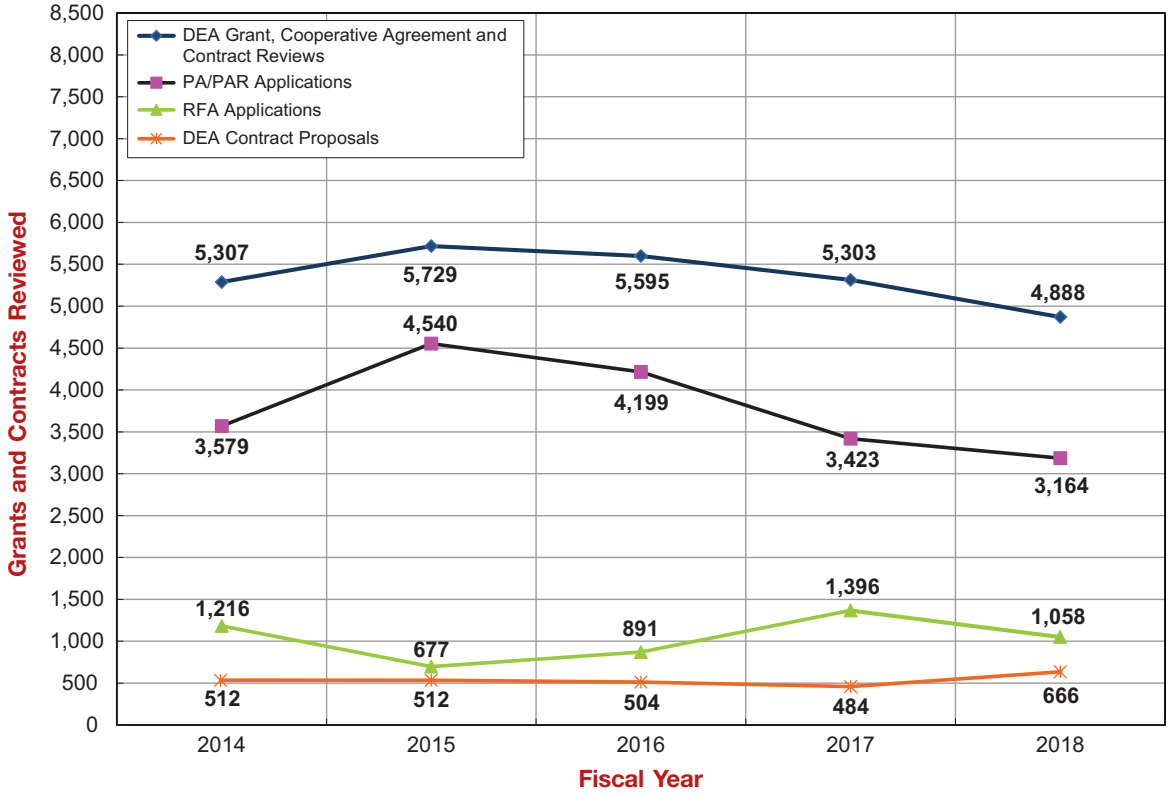
The **Office of Referral, Review, and Program Coordination** (ORRPC) is responsible for the coordination and management of the review of NCI grant applications, cooperative agreements, and contract proposals. The ORRPC is composed of four review branches, a coordination and referral branch, and the Office 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 Business Innovation Research (SBIR) Special Topics shown in Table 12 are reviewed by Technical Evaluation Panels (TEPs).

Research Programs Review Branch (RPRB)

Program Project (P01) Applications

A significant effort of RPRB during FY2018 was the review of unsolicited Program Project (P01) applications. These are multi-project, collaborative programs with a well-defined unifying cancer

Figure 2. DEA Review Workload*
Grants and Contracts Reviewed FY2014 – 2018



*Withdrawn applications not included.

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.

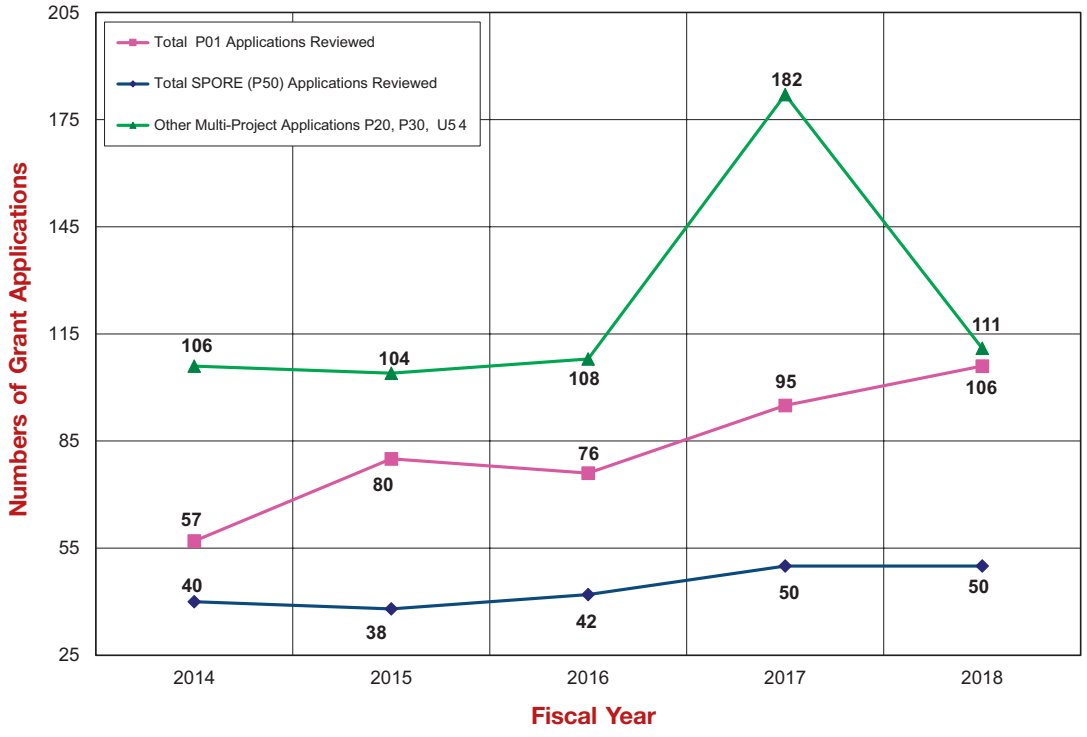
All P01 review panels are constituted as SEPs, with *ad hoc* reviewers recruited based on the scientific expertise needed for the applications being reviewed. The SEP review committees evaluate the potential impact of the individual projects and technical merit of the supporting core resources, determine the level of program integration and leadership, and then assign an overall impact score to each application.

During FY2018, RPRB managed the review of 106 new, renewal (competing), resubmitted (amended), and revised (competitive supplement) P01 applications (Figure 3 and Table 8). Seventy-seven (73%) of the applications proposed new multidisciplinary research programs, 25 (24%) were competitive renewals, and 33 (31%) of the applications (both Type 1 and 2) were resubmitted applications (Table 8). Thirty-four of the 106 P01 applications (32%) included multiple PIs. Forty (38%) of the 106 applications were referred to the NCI's Division of Cancer Biology (DCB), 42 applications (40%) were referred to the Division of Cancer Treatment and Diagnosis (DCTD), 21 applications (20%) were referred to the Division of Cancer Control and Population Sciences (DCCPS), and three applications (3%) were referred to the Division of Cancer Prevention (DCP) (see Table 9). The 106 applications requested $265,773,603 in total costs for the first year of support (see Tables 6 and 9) and $1,337,656,706 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

Figure 3. Program Project (P01), SPORE, and Other Multi-Project Research Applications Reviewed FY2014 – 2018*



*Withdrawn applications not included.

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 FY2018, the RPRB organized and managed eight SEPs for the review of 50 SPORE applications (**Figure 3** and **Table 11**). The applications addressed multiple organ sites, with the following distribution and numbers of applications: Brain (7); Breast (6); Gastrointestinal (7); Pancreas (2); Head and Neck (4); Thyroid (1); Hepatobiliary (1); Leukemia (2); Lymphoma (1); Skin (5); Myeloma (1); Ovarian (2); Prostate (5); Genitourinary (4); Sarcoma (1); and Eye (1). Overall, 27 (54%) of the 50 applications were submitted for new SPOREs, and 23 (46%) were competitive renewal applications, with 18 (36%) being resubmitted applications.

The disease sites addressed in the SPORE applications vary from round to round. For example, 15 applications addressing 10 different disease sites were reviewed for the October 2017 NCAB cycle; 10 applications addressing nine disease sites were reviewed for the January 2018 NCAB cycle, and 25 applications addressing 11 disease sites were reviewed for the May 2018 NCAB meeting. The applications requested $117,914,855 in total costs for the first year of support (**Table 11**).

Additionally, 24 Feasibility and Planning P20 applications for the Development of SPOREs in Cancer Health Disparities were reviewed for the August 2018 NCAB cycle. These applications requested $30,343,592 in total costs for the first year of support.

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 FY2018, RPRB SROs attended 74 of these pre-submission meetings.

The RPRB also manages review of investigator-initiated R01 applications proposing multi-center clinical trials. Of the 44 applications reviewed in FY2018, 12 (27%) were referred to the Division of Cancer Prevention (DCP), 21 (48%) were referred to the Division of Cancer Treatment and Diagnosis (DCTD), 10 (23%) were referred to the Division of Cancer Control and Population Sciences (DCCPS), and one (2%) was referred to the Division of Cancer Biology (DCB).

As needed, RPRB SROs also manage review of applications submitted to the DEA in response to other initiatives. In FY2018, this included coordinating review of U01, U24, U54, UH2/UH3, R03, R21, R25, R35, and SI2/R00 applications.

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**).

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, guidelines were implemented in which Cancer Centers may elect not to have a site visit. In this case, the review is 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 FY2018 Subcommittee A reviewed 18 CCSG applications.

Training and Career Development

Career Development, and Training and Education grant applications are reviewed by IRG Subcommittees Institutional Training and Education (F), and Career Development (I and J). The number of Career Development applications increased to 553 in 2018 from 509 in 2017. The number of Training and Education grant applications increased from 139 applications in 2017 to 143 in 2018 (Figure 4). In addition, 73 applications submitted in response to the NCI Predoctoral to Postdoctoral Fellow Transition Award (F99) were reviewed.

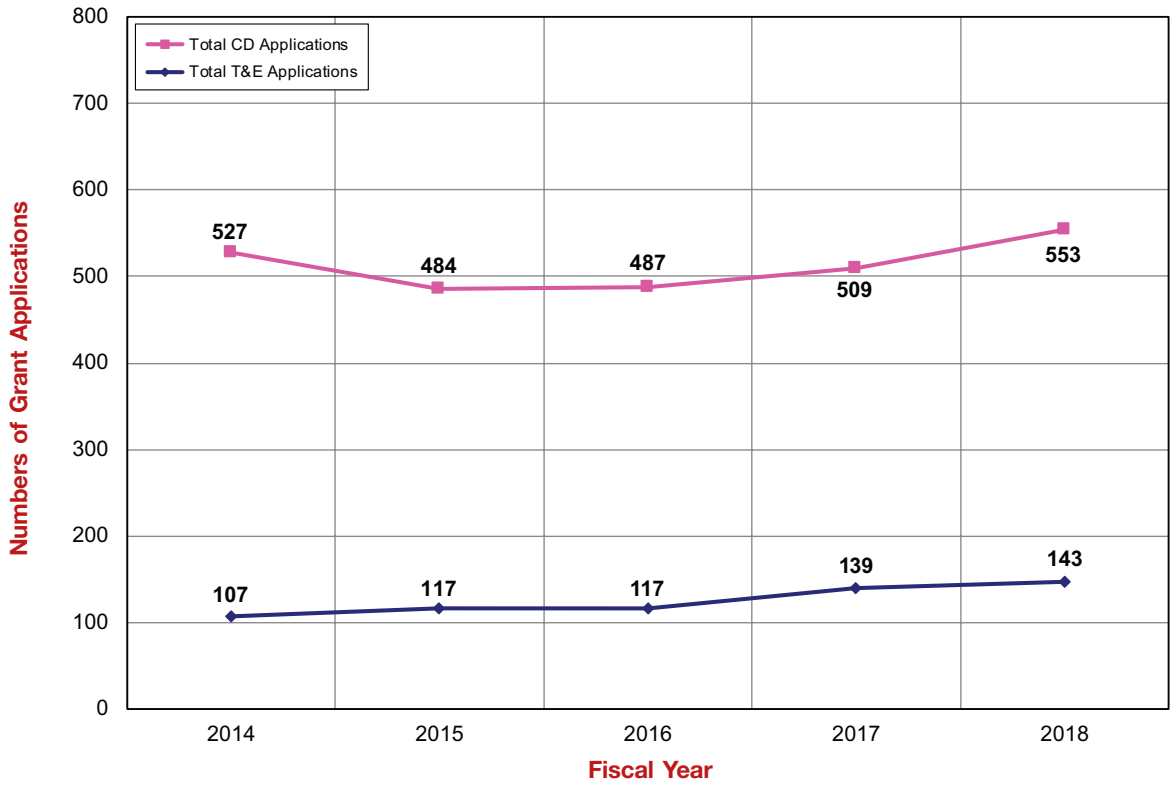
Other RTRB Activities

In FY2018, 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 (PQ); (2) Exploratory/Developmental Grant (R21); (3) Program Project (P01); (4) Research Project (R01); (5) Small Grant (R03); (6) Outstanding Investigator Award (R35); (7) Research Projects – Cooperative Agreements (U01); and (8) Specialized Center – Cooperative Agreements (U54).

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

Figure 4. Numbers of Career Development (CD) and Training and Education (T&E) Applications Reviewed FY2014 – 2018*



*CD activity codes: K01, K07, K08, K22, and K99.
T&E activity codes: K12, R25, and T32.

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 FY2018, the SRB, with the assistance of the three other DEA review branches (RPRB, RTCRB, and RTRB), peer reviewed a total of 1,058 applications received in response to 39 RFAs (Table 10) and 3,163 applications in response to 85 PAs/PARs (Table 11). All the peer review meetings were conducted by 93 SEPs.

Moonshot Research Initiative

In December 2016, the U.S. Congress passed the 21st Century Cures Act, authorizing $1.8 billion in funding for the Cancer Moonshot over 7 years. The Congress appropriated $300 million to the NCI for FY2017, $300 million for FY2018, and $400 million for FY2019. A Blue Ribbon Panel of experts was established as a working group of the NCAB to ensure that the Cancer Moonshot's approaches are grounded in the best science. The Panel's report outlines recommendations to accelerate progress against cancer. Initiatives established to address the goals of the recommendations are as follows:

- Establish a Network for Direct Patient Engagement
- Create an Adult Immunotherapy Network
- Create a Pediatric Immunotherapy Discovery and Development Network (PI-DDN)
- Develop Ways to Overcome Cancer's Resistance to Therapy
- Build a National Cancer Data Ecosystem
- Intensify Research on the Major Drivers of Childhood Cancers
- Minimize Cancer Treatment's Debilitating Side Effects
- Prevention and Early Detection of Hereditary Cancers
- Expand Use of Proven Cancer Prevention and Early Detection Strategies
- Analyze Patient Data and Biospecimens from Past Clinical Trials to Predict Future Patient Outcomes
- Generation of Human Tumor Atlases
- Develop New Cancer Technologies

In FY2018, the DEA reviewed a total of 184 submitted applications in response to eight Moonshot Initiative RFAs (Table 10) and six RFPs (Table 12). The activity codes included the following mechanisms: U01 (103 applications), U24 (10 applications), U54 (11 applications), UM1 (10 applications), and R43/44 (50 proposals).

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. Also, revision (supplement) applications were solicited to add provocative questions/relevant research to active research projects. Two-hundred and fourteen R01 Research Project, 144 R21 Exploratory/Development, three P50, two P01, and five R01 revision applications were submitted and reviewed in response to five RFAs (Table 10). These applications were peer reviewed in SEP meetings to assess the overall impact.

Exploratory/Developmental Research

In FY2018, the DEA reviewed 958 R21 applications submitted for the NCI Clinical and Translational Exploratory/Developmental Research Grant Program in response to PAR16-176 and PAR18-020 (Table 11). 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 28 SEPs over the three review cycles in FY2018.

Small Grant Programs

The small grant (R03) PAR program initiative in the NCI Omnibus R03 for cancer research

(PAR16-416 and PAR 18-021) stimulated increased interest in the applicants' community. In FY2018, 562 applications were submitted and reviewed by the DEA in response to these FOAs (Table 11).

Other SRB Activities

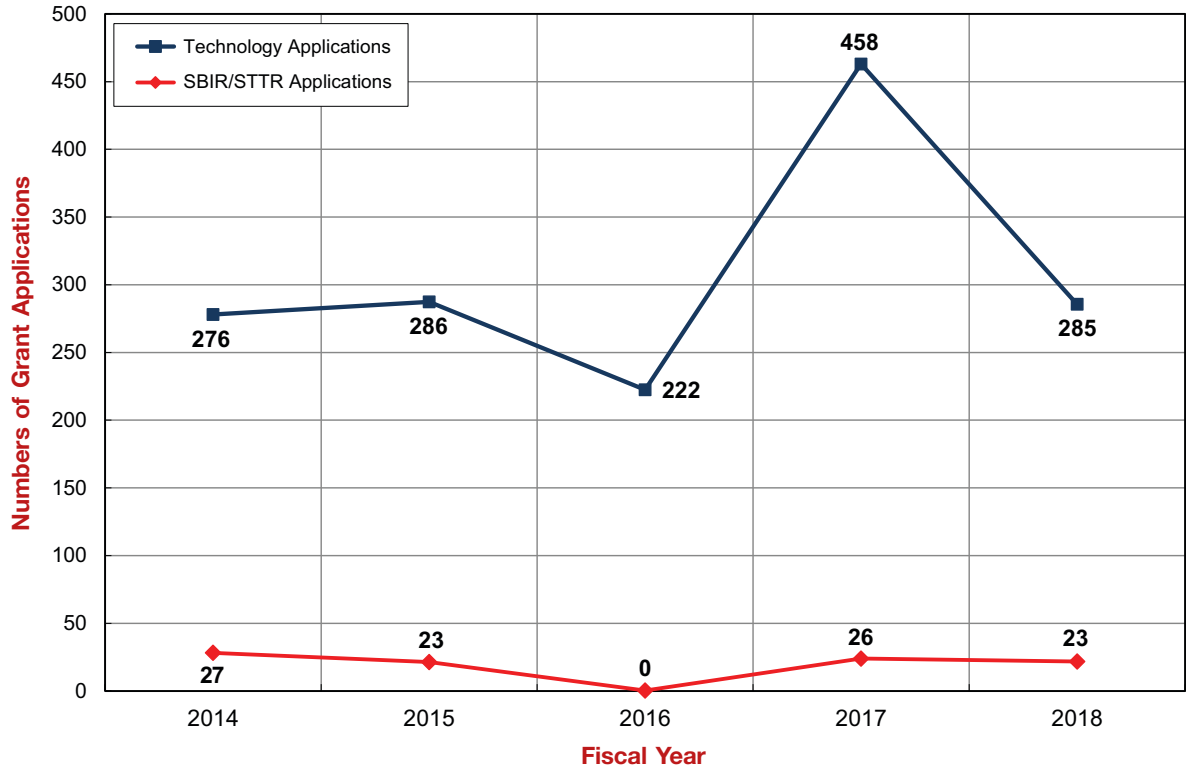
As needed, SRB SROs also manage review of applications submitted to the DEA in response to other initiatives. In FY2018, this included coordinating review of F99/K00, P01, P20, R03, R21, R50, U01, U24, U54, UG3, and UH2/UH3 applications.

Research Technology and Contracts Review Branch (RTCRB)

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. In most instances, 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; whereas, 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. These two mechanisms are well suited for technology development.

In 2018, 285 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 CA17-010 [R21]); Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research

Figure 5. Technology Initiatives Applications Reviewed*
FY2014 – 2018



* Withdrawn applications are not included.

(RFA CA-17-011 [R33]); Innovative Technologies for Cancer-Relevant Biospecimen Science (RFA CA-17-012 [R21]); Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (RFA CA-17-013 [R33]); Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (RFA CA18-002 [R21]); Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (RFA CA18-003 [R33]); Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (RFA CA-18-004 [R21]); and, Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (RFA CA18-005 [R33]) (**Table 10**).

Research and Development (R&D) Contract Proposals

In FY2018, the RTCRB received and reviewed 162 contract proposals in response to two 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 announced in a Broad Agency Agreement Announcement.

Other RTCRB Activities

In FY2018, 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. In FY2018, the RTCRB also managed reviews of P01, U01, U24, U54, UG3, and UH2/UH3 applications.

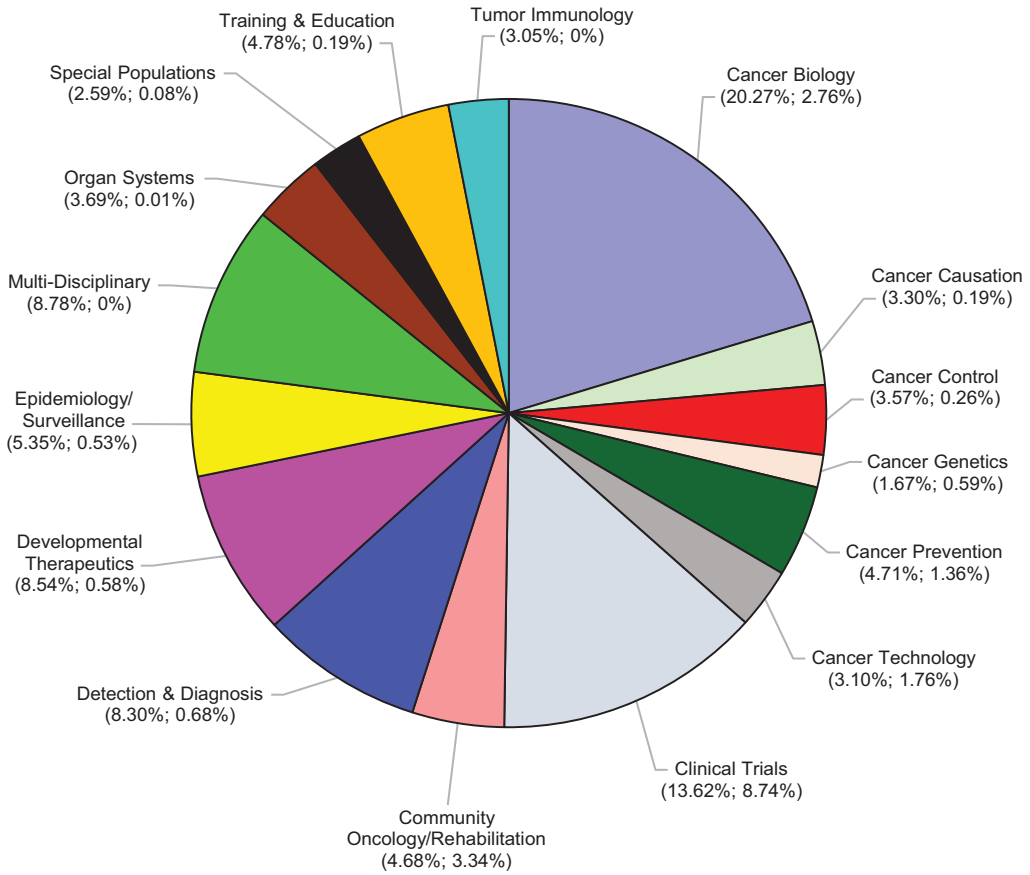
NCI Grant and RFA Funding

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, Office's, and Center's (DOCs) 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 FY2017 and FY2018. Figure 8 shows RFA concepts that the BSA approved from FY2015 through FY2018 according to the sponsoring NCI Division, Office, or Center.

Table 13 presents a summary of total funding of NCI grant awards by mechanism for FY2018. 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 FY2014 through FY2018, based on information received from the extramural Divisions, Offices, and Centers.

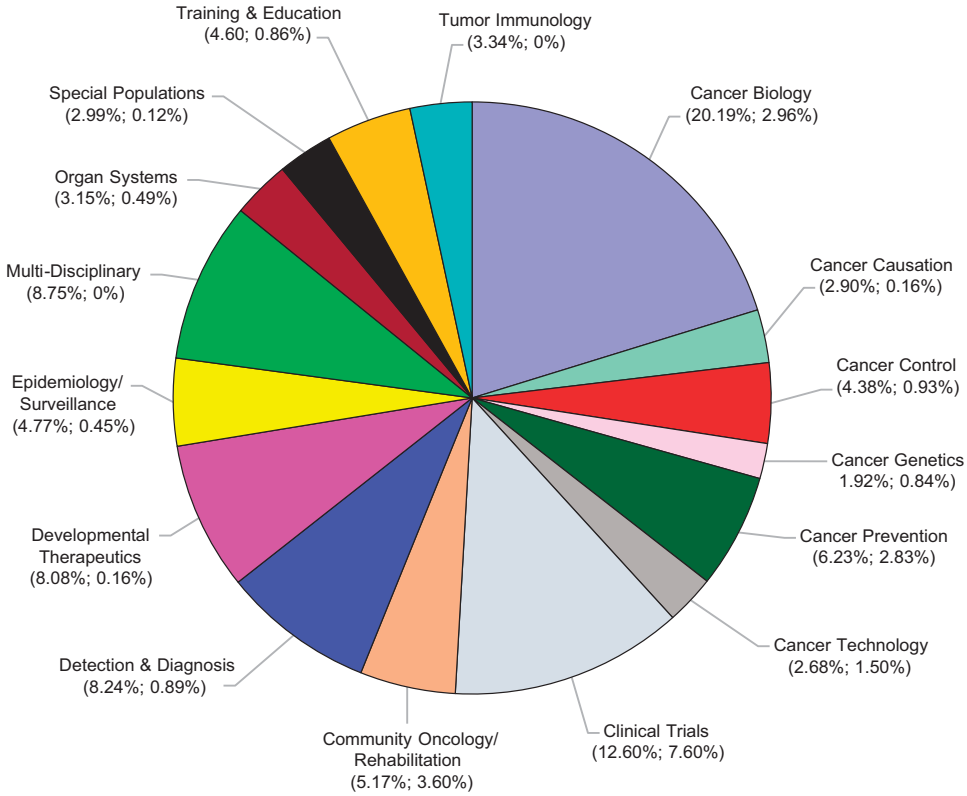
Trends in grant funding according to scientific discipline and organ site are provided in Tables 15 and 16. Table 17 reports NCI's funding of foreign research grants in FY2018, and Table 18 reports foreign components of U.S. domestic research grants in FY2018. Note: Some grant awards made during a fiscal year may have been for grant applications reviewed in a prior fiscal year.

Figure 6. NCI Grant and RFA/Cooperative Agreement Funding Percentages by Concept Area FY2017



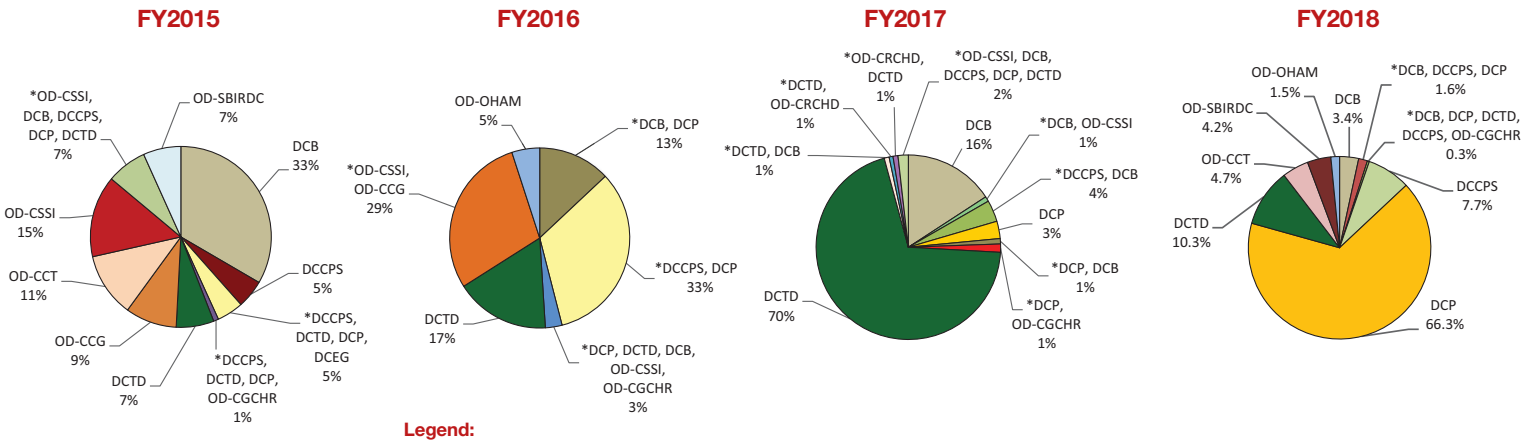
Percentages represent Total Funding and RFA Funding for the Concept Area as a percentage of Total NCI Grants.
Concept Area (% of Total Funding to Total NCI Grants; % of RFA Funding to Total NCI Grants)

Figure 7. NCI Grant and RFA/Cooperative Agreement Funding Percentages by Concept Area FY2018



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

Figure 8. BSA-Approved RFA/Cooperative Agreement 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 Heath 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

* 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 198 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 FY2018, approximately 2,392 consultants were reimbursed honoraria and flat rate payment for serving at more than 198 peer review meetings (Appendix E). There were 3,824 instances of honoraria and flat rate payments to NCI peer review consultants. The SREA staff works diligently to ensure reviewers are reimbursed in a timely manner and, when appropriate, contacts those reviewers with an unpaid or returned reimbursements status. The SROs have expressed their gratitude to the members of the SREA team for tracking the reviewers' payments and, when necessary, assisting reviewers complete their Secure Payee Registration System (SPRS) registration. Due to these proactive efforts by the SREA staff, only 1 out of the 3,824 instances of honoraria and flat rate payments to NCI peer review consultants were not paid out in FY2018.

Throughout the year the SREA staff ensures the timely review and submission of hotel contracts for processing to secure lodging and meeting room space for face-to-face peer review meetings. In FY2018, 105 hotel contracts were processed by the SREA staff. The SREA is also responsible for ensuring all meeting logistic invoices, i.e., hotels, World Travel Service, and teleconference services charges, are accurate and valid before all invoices are processed for payment. All discrepancies are immediately addressed with the appropriate vendor and a revised invoice is requested. A total of 105 hotel invoices and 59 consultant travel invoices were reviewed and submitted for payment in FY2018.

The SREA staff collaborates with the Associate Director, ORRPC, NCI DEA Branch Chiefs, CMO, and Scientific Review Officers 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, where they discussed the Department of Health and Human Services Waiver Policy and peer review meeting reimbursements. Some of the 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
- Scientific Review Officer Responsibilities in the following areas:
  - Federal Advisory Committee Act (FACA)
  - Meeting Requirements and Waiver Policies
  - SREA

The SREA staff also coordinated an NCI DEA review staff Brown Bag presentation from World Travel Service (WTS) on several updates, including changes to airline policies, the WTS travel system, and the use of iBank to track reviewer travel.

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 provides ovesight of research activities at the **Frederick National Laboratory for Cancer Research (FNLCR)**. Under the various chartered committees, working groups, task forces, etc. 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, RFAs, and R&D RFPs, 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 FY2018 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 of 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 backgrounds, 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). These groups of scientific experts from outside the NCI evaluate the performance and productivity of NCI Intramural Principal Investigators and staff scientists through periodic site visits of 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. In 2012, the FCRC was renamed as the Frederick National Laboratory for Cancer Research (FNLCR). FNLAC reviews new projects proposed to be performed at FNLCR and advises the Director, NC I, 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 (Subcommittee A), Institutional Training and Education (Subcommittee F), and Career Development (Subcommittees I and J) 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 Boards, Advisory 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 CMPO 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 (OD), National Institutes of Health (NIH); the Advisory Committee to the Director, NIH (ACD), located in the OD, NIH; the Advisory Committee on Research on Women's Health (ACRWH), located in the Office of Research on Women's Health in the Division of Program Coordination, Planning, and Strategic Initiatives, OD, NIH; the NIH Recombinant DNA Advisory Committee (RAC), located in the Office of Science Policy, OD, 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.

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 of the following: four National Cancer Advisory Board meetings, three Board of Scientific Advisors meetings, and three Frederick National Laboratory Advisory Committee meetings, as well as numerous subcommittees and working groups. Meetings are held via videoconference, Webinar, teleconference, or face to face. The Office also provides logistical support for three NIAAA Council 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 provided exceptional service to the Client-Institutes and the NIH Office of the Director in 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 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 FY2018 include the following:

- Participated in several activities related to the NIH Optimize Initiative in Committee Management (CM), including representation on the following subcommittees: NIH Service Centers, Ethics, Human Resources/Nomination Slates, and Scope of CM Activities.
- Participated in a pilot project initiated as part of the NIH Optimize Initiative in Ethics and Committee Management to have advisory committee/board members use the NIH Enterprise Ethics System (NEES) to submit their OGE-450s electronically versus completing paper forms.
- Provided guidance to NCI staff on the creation of the NCI Clinical Trials and Translational Research Advisory Committee (CTAC) *ad hoc* Translational Research Strategy Subcommittee and the NCI Board of Scientific Advisors (BSA) *ad hoc* Working Group on Immunology of Therapies and Vaccines and Research Structure.

- Worked with the NCI DEA Director on the establishment of several NCAB *ad hoc* Working Groups, including Data Science, Global Health, SBIR/STTR Programs, and Strategic Approaches and Opportunities in 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 NIH Recombinant DNA Advisory Committee (RAC).
- Continued to provide oversight of the NCI DEA SREA multi-million-dollar program and successfully closed out the FY18 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 system enhancements for the creation of the new Committee Management Module (CMM) in the IMPAC II database.

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; 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.
- Brown Bag Presentation to SRO and SA staff from World Travel Service (WTS) on several updates, including changes to airline policies, the WTS travel system, and the use of iBank to track reviewer travel.
- FACA Training to Executive Secretary and ORWH Staff working on the Advisory Committee on Research on Women's Health.
- Working Group Overview and Training to newly assigned Designated Federal Officials (DFOs) of the NCAB *ad hoc* Working Group on Data Science; NCAB *ad hoc* Working Group on Global Health; NCAB *ad hoc* Working Group on SBIR/STTR; NCAB *ad hoc* Working Group on Strategic Approaches and Opportunities in Population Science, Epidemiology, and Disparities; and FNLAC NCI/Department of Energy (DOE) Collaborations Working Group.
- Responded to requests from senior NCI and Client staff on various non-FACA meetings and working group concerns.

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 Branch collects and maintains consistent budget-linked scientific information across all of NCI's scientific programs to analyze the Institute's research funding portfolio. The RAEB staff members assist in making budget projections, and as requested, disseminate scientific cancer information. 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 FY2014 through FY2018 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.

Highlights in FY2018 include the following:

- FY2018 grant information provided to NCI Program Directors on various areas of scientific research, including Aging, Clinical Trials, Leukemia and Lymphoma, Obesity, Health Disparities, and Nutrition and Circadian Rhythms.
- Participation in the International Cancer Research Partners (ICRP), a group of international cancer funding organizations. NCI projects and cancer grants funded by other NIH Institutes are indexed to a Common Scientific Outline (CSO). Such indexing provides consistent scientific research information for all participating international funding institutions.
- Coordination with the NCI Office of Budget and Finance (OBF) to update and align budget reporting categories. FY2018 grant funding information provided on Rare Cancers and CAR-T therapy.
- Chaired the NCI Accrual Working Group for triennial reporting of NCI compliance with Congressional Inclusion reporting requirements.
- Served as NCI point of contact 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 FY2018, the NCI allocated $14.5 million to support 30 projects received from 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 11 grants and one contract adding up $6.4 million. R01s were the most common mechanisms funded, with 12 grants receiving $3 million. Disease areas receiving the most NCI funding to foreign institutions were Not Site Specific ($3.6 million), and Colon ($2.6 million), followed by Breast ($1.5 million).

FY2018 Funding of Foreign Institutions

*(See **Table 17** for more information.)*

Country	Grants & Contracts	Funding $
Canada	12	6,371,197
Australia	3	2,797,382
France	3	1,778,307
Costa Rica	1	843,352
Argentina	2	641,216
Sweden	2	634,524
Germany	1	413,604
United Kingdom	1	324,000
Netherlands	1	224,924
Switzerland	1	218,655
Japan	1	157,967
South Africa	1	81,956
Italy	1	25,000
TOTALS	**30**	**14,512,084**

In FY2018, the NCI supported 230 U.S. domestic projects with 281 foreign components. These projects are listed in Table 18 by country, mechanism, and number of projects. Because many projects have multiple foreign contributors, the total count is greater than the total number of projects. Institutions in Canada (47 grants), Germany (21 grants), the United Kingdom (17 grants), Netherlands (16 grants), China (16 grants), and Australia (12 grants) were the NCI's most frequent collaborators. R01 is the most common funding mechanism used for collaborations, with 145 grants, followed by U01 (33 grants), and R21 (27 grants).

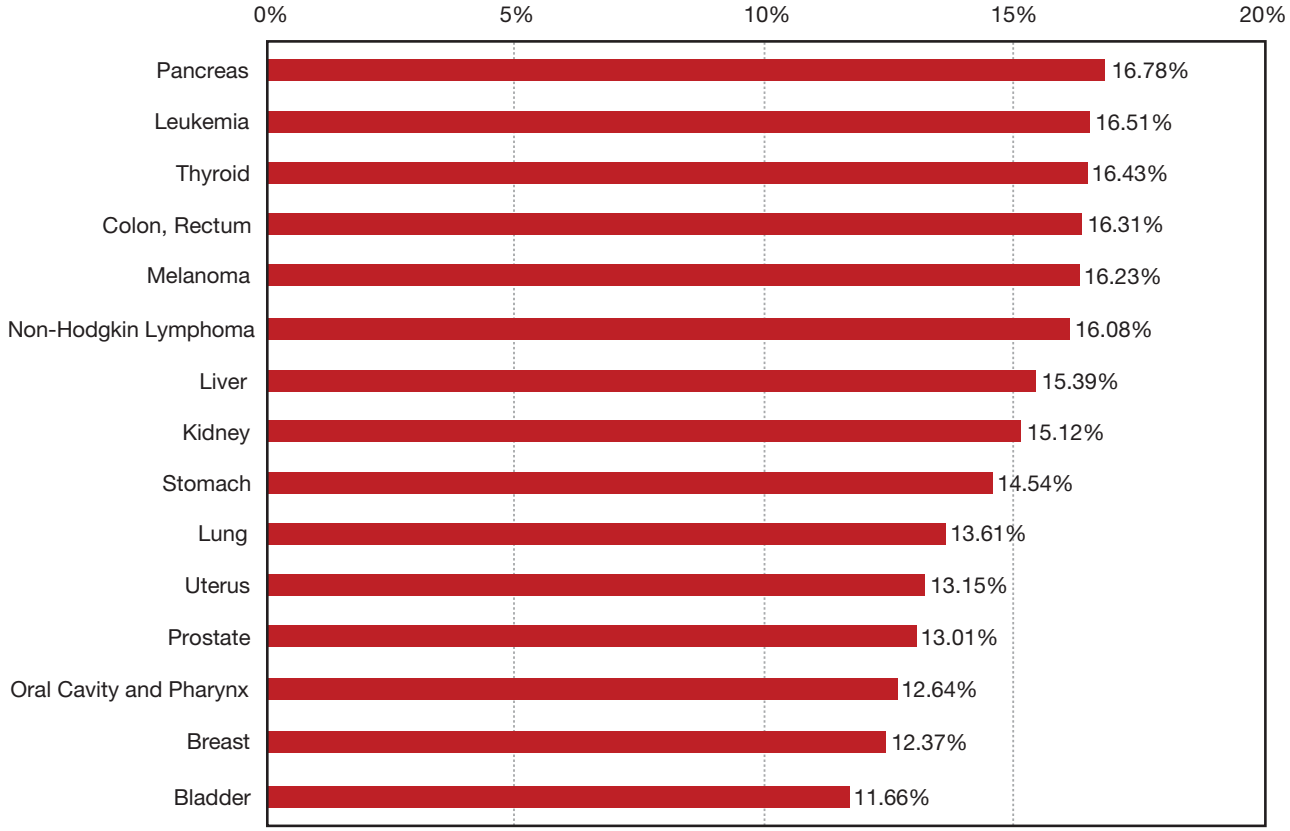
Success Rates of Extramural Science Categories

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 FY2018 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, 2012–2016, age-adjusted incidence for all races and sexes.

Success rates were calculated by dividing the total number of newly and competing funded applications in 2018 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. FY2018 Success Rates for Applications in High Incidence Cancers*

Sorted by Success Rate

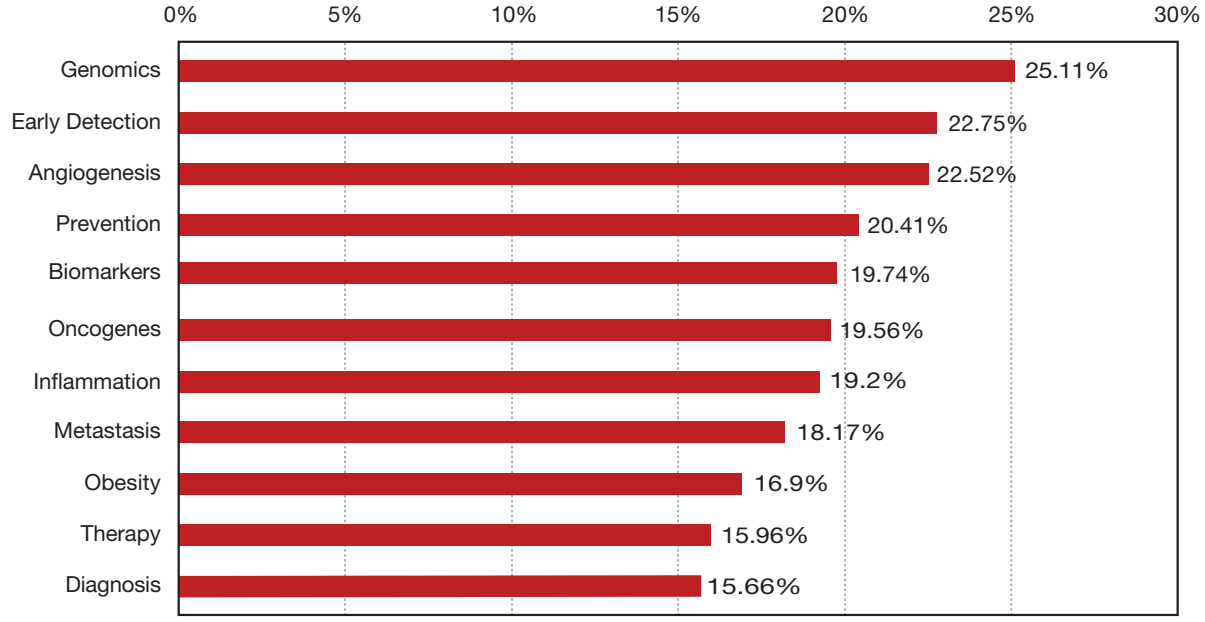


Selected Oncology Sites	SEER Rank*	Types 1 & 2 Funded	Total Applications Received	2018 Success Rate (%)	Total Funding for Types 1 & 2
Pancreas	12	130	774	16.78	$44,155,306
Leukemia	11	126	641	16.51	$64,627,594
Thyroid	9	12	763	16.43	$2,954,352
Colon, Rectum	4	180	1,103	16.31	$85,760,626
Melanoma	5	120	739	16.23	$40,507,974
Non-Hodgkin Lymphoma	7	60	373	16.08	$24,517,006
Liver	14	83	539	15.39	$30,359,308
Kidney	8	31	205	15.12	$7,996,647
Stomach	15	8	55	14.54	$3,842,799
Lung	2	199	1,462	13.61	$85,480,718
Uterus	10	10	76	13.15	$1,584,462
Prostate	3	130	999	13.01	$49,462,789
Oral cavity & pharynx	11	11	87	12.64	$3,097,963
Breast	1	336	2,715	12.37	$119,624,571
Bladder	16	21	180	11.66	$10,256,528

*RAEB 2018 data using SEER rank of top 15 cancer sites 2012–2016 age-adjusted incidence for all races and sexes.

Figure 10. FY2018 Success Rates for Applications in Selected Special Interest Categories (SIC)

Sorted by Success Rate



Special Interest Category	Types 1 & 2 Funded	Total Applications Received	2018 Success Rate (%)	Total Funding for Types 1 & 2
Genomics	325	1,294	25.11	$147,198,7016
Early Detection	149	655	22.75	$77,467,875
Angiogenesis	50	222	22.52	$7,097,163
Prevention	219	1,073	20.41	$82,369,740
Biomarkers	381	1,930	19.74	$126,520,718
Oncogenes	241	1,232	19.56	$68,784,638
Inflammation	120	625	19.20	$25,819,992
Metastasis	376	2,069	18.17	$107,911,615
Obesity Therapy	48	284	16.90	$11,298,227
Therapy	1,133	7,095	15.96	$503,522,311
Diagnosis	361	2,305	15.66	$191,884,642

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 a computer support team to track staff requests, manage the Division's computer equipment inventory, and provide information systems and application training, as needed. The branch is integrated into the business operations of all aspects of the division, supporting key activities with technological solutions and expertise. Specific projects utilizing the technologies and services provided by the AISB are described under the appropriate functions of the DEA throughout this report.

For FY2018, specific AISB accomplishments are highlighted below.

System Adiministration and Desktop Support

- Maintained and augmented the real-time security configurations and upkeep of Division IT assets, from mobile device 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 and assessment report (SAR).
- Documented updates for Contingency Plans (CP), CP Testing, CP Training; Configuration Management Policy.
- Conducted Audit Policy and Procedures; Risk Assessment; Annual Assessment; System Security Plan; E-Authentication (FIPS-199 Standards for Security Categorization of Federal Information and Information Systems Assessment); and Privacy Impact Analysis.
- 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 the Agency on cybersecurity monitoring, auditing, reporting, and weekly preparation for the GAO audit.
- Worked with the NCI security team to prepare for the Government Accountability Office (GAO) audit of the Agency's information systems;
- Upgraded, remediated, and maintained server platforms and server-based environmental components; migrated SharePoint service to latest release;
- Coordinated with CBIIT on support of teleconferenced national board and committee meetings.
- Participated in NCI-CBIIT early rollouts of mobile device management and office to the cloud initiatives.

Desktop and Mobile Support – Provided service desk supports for the DEA staff; resolved 1,200 desktop support issues; performed a technology refresh and configuration for 45 percent of the DEA desktops and monitors; migrated division staff to NCI Office email to the cloud for more secure, compliant, and accessible email archive service; upgraded the IT asset accountability system

to achieve greater than 98 percent accountability of Division technology assets; and continued migration of electronic document distribution to replace paper for advisory board and committee meetings. Supported enterprise service desk response by assuming greater control and responsibility for desktop configuration and management, resulting in less equipment downtime and faster service response time. Coordinated with NCI CBIIT to conduct various technology pilot and early release projects.

Application Development Projects

- Inventory – Deployed 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. Trained staff in usage and initiated a first refinement cycle for development.
- Managed and maintained the portfolio of some 40 applications, utilities, and reporting tools through software development life cycle practices to support the Division's activities and mission. Each of the portfolio items is reviewed for maintenance, enhancement, replacement, or end-of-life action.
- Overall, there were more than 70 production releases of 34 different applications, and 32 application component updates. Numerous security, infrastructure, and host environment updates were made. Databases and application environments were upgraded and patched to maintain the highest quality and security of information.

User Training

- Co-led or participated in DEA's Program and Review Extramural Staff Training Office (PRESTO).
- Trained lead users on Inventory and Peer Review Roster applications.
- Trained users on various office automation software and collaboration tools.

DEA Website Development and Maintenance

- Continuously monitored the Federal-wide Web-page accessibility (508) refresh. Reviewed audit results and planned and initiated remediation of Web pages.
- Initiated a pilot of next-generation hosting services and infrastructure.

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

- Completed migration to Federated login.
- Supported the 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, including the NIH-NIAID cooperative AIDS indexing initiative.
- Planned and implemented numerous code and database performance enhancements to reduce processing time and improve data reporting integrity.
- Defined scientific index interoperability between FLARE and NCI EVS.
- Refined and prepared core database redesign. Developed a replacement migration strategy.
- Improved the development and documentation workflow through adoption and implementation of team collaboration tools.

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 group, Service Now SIG, NCI Informatics and IT Advisory Group (IITAG), and NIH eRA Technical Users Group (eTUG).

Organizational Structure of the Division of Extramural Activities

Office of the Director (OD)

- 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
Ricardo Rawle ..... Special Assistant to the Director
Thu Nguyen ..... Program Analyst
Deneen Mattocks*..... Program Specialist
Kathy Tiong† ..... Program Analyst
Peter Wirth, Ph.D. ..... Contractor

* Joined in January 2018.
† Transferred to the ORPPC Office in November 2017.

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 books, orientation documents, and annual reports.
- Maintains DEA facilities.

Ricardo Rawle ..... Lead Program Analyst
Clara Murphy..... Program Specialist
Adrian Bishop..... Program Specialist
Sanjeeb Choudhry*..... File Clerk
Robert Kruth ..... Program Assistant

*Left in May 2018.

Committee Management Office (CMO), 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 Wiszneauckas..... **Acting 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**
Margaret Vardanian ..... **Contractor**

*On detail, OD NIH.
†Left in May 2018.

Program and Review Extramural Staff Training Office (PRESTO)

- 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

* Left in September 2018.

Office of Referral, Review, and Program Coordination (ORRPC)

- 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
Kathy Tiong† .....Program Analyst

* Left in February 2018.
† Joined in November 2017.

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.

David Ransom, Ph.D.* ..... **Chief**
Shamala Srinivas, Ph.D.† ..... **Acting Chief**
Eun Ah Cho, Ph.D. ..... **Scientific Review Officer**
Robert Coyne, Ph.D. ..... **Scientific Review Officer**
Hasan Sidiqui, 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**
Zhiqiang Zou, Ph.D. ..... **Scientific Review Officer**
Imela Gradington-Jones ..... **Program Specialist**
Micah Traurig ..... **Staff Assistant**

* Branch Chief since April 2018.
† Acting Branch Chief until April 2018.

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
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
Paul Gallourakis ..... Program Analyst
Alisha Craig* ..... Staff Assistant
Stevie Dowling† ..... Staff Assistant
Hanh "Julie" Hoang ..... Staff Assistant
Kimberly Milner ..... Staff Assistant

*Left in September 2018.
†Left in August 2018.

Program Coordination and Referral Branch (PCRB)

- 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 for posting and availability 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 (RPRB)

- 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
Robert Bird, Ph.D. ..... Special Assistant
Sanita Bharti, Ph.D. ..... Scientific Review Officer
Majed Hamawy, Ph.D., M.B.A. ..... 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
Stefanie Powell ..... Staff Assistant
Cameron Stansbury ..... Staff Assistant

*Moved to OD in January 2018.

Resources and Training Review Branch (RTRB)

- 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.

Caterina Bianco Ph.D. ..... 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
Delia Tang M.D. ..... Scientific Review Officer
Donnell Wilson ..... Program Analyst
Linda Edwards ..... Staff Assistant
Leslie Kinney ..... Staff Assistant
Bridgette Wilson..... Staff Assistant

*Moved to SRB in April 2018.

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.125

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.

Marilyn Gaston ..... 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.
- Coordinates, conducts, and maintains the development and deployment of specialized software and database systems for the Division 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 Board and Committee activities.
- Conducts security assessment and authorization implementation for the Division's information systems.

Todd Hardin ..... Chief

Application Development Team

- Analyzes and coordinates life-cycle software development for the Division.
- Develops, designs, and maintains 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 ..... 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, 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 NCI-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.
- Supports National Board meeting technological needs.

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 FY2018

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center
10/10/2017	CA17-047	U24	Immuno-Oncology Translation Network (IOTN): Data Management and Resource-Sharing Center (DMRC) (U24)	DCB
	CA17-046	U01	Immuno-Oncology Translation Network (IOTN): Cancer Immunoprevention Research Projects (U01)	
	CA17-048	U24	Immuno-Oncology Translation Network (IOTN): Cellular Immunotherapy Data Resource (CIDR) (U24)	DCTD
	CA17-045	U01	Immuno-Oncology Translational Network (IOTN): Cancer Immunotherapy Research Projects (U01)	DCB
10/13/2017	CA17-032	U54	Minority-Patient Derived Xenograft (PDX) Development and Trial Center (PDTC) Network (U54)	CRCHD
	CA17-033	P20	Feasibility and Planning Studies for Development of Specialized Programs of Research Excellence (SPOREs) to Investigate Cancer Health Disparities (P20)	
10/18/2017	CA17-042	UM1	Research Centers for Improving Management of Symptoms Across Cancer Treatments (IMPACT) (UM1)	DCCPS
	CA17-043	U24	Coordinating Center for Improving Management of Symptoms Across Cancer Treatments (IMPACT) (U24)	
10/19/2017	CA17-056	U10	Limited Competition: NCI National Clinical Trials Network - Network Group Operations Centers (U10)	DCTD
	CA17-057	U10	Limited Competition: NCI National Clinical Trials Network - Network Group Statistics and Data Management Centers (U10)	
10/20/2017	CA17-038	UG3, UH3	Accelerating Colorectal Cancer Screening and follow-up through Implementation Science (ACCSIS)(UG3/UH3)	DCCPS
	CA17-060	U24	Limited Competition: NCI National Clinical Trials Network - Network Radiotherapy and Imaging Core Services Center (U24)	DCTD
	CA17-061	UG1	NCI National Clinical Trials Network - Network Group Integrated Translational Science Centers (UG1)	
	CA17-059	UG1	NCI National Clinical Trials Network (NCTN) - Network Lead Academic Participating Sites (UG1)	
	CA17-058	U10	Limited Competition: NCI National Clinical Trials Network - Canadian Collaborating Clinical Trials Network (U10)	
	CA17-044	U24	Mechanisms of Cancer Drug Resistance and Sensitivity: Coordinating Center (U24)	
	CA17-039	U24	Accelerating Colorectal Cancer Screening and follow-up through Implementation Science (ACCSIS): Coordinating Center (U24)	DCCPS
	CA17-036	U24	Human Tumor Atlas Network: Data Coordinating Center (U24)	CSSI
	CA17-035	U2C	Human Tumor Atlases (HTA) Precancer Atlas Research Centers (U2C)	DCP
	CA17-034	U2C	Human Tumor Atlases (HTA) Research Centers (U2C)	DCB DCTD
11/14/2017	CA18-001	F99, K00	The NCI Predoctoral to Postdoctoral Fellow Transition Award (F99/K00)	CCT

continued

Source: Office of Referral, Review and Program Coordination.

Table 1a (cont'd). Requests for Applications (RFAs) Published by the NCI in FY2018

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center
11/20/2017	CA18-003	R33	Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R33 - Clinical Trial Not Allowed)	CSSI
	CA18-002	R21	Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R21 - Clinical Trial Not Allowed)	
	CA18-004	R21	Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (R21 - Clinical Trial Not Allowed)	
	CA18-005	R33	Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (R33 - Clinical Trial Not Allowed)	
12/4/2017	CA18-009	P01	Revisions for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (P01 Clinical Trials Optional)	CSSI
	CA18-008	U54	Revisions for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U54 Clinical Trials Optional)	
	CA18-007	U01	Revisions for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U01 Clinical Trials Optional)	
	CA18-006	R01	Revisions for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (R01 Clinical Trials Optional)	
	CA18-010	P50	Revisions for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (P50 Clinical Trials Optional)	
2/14/2018	CA18-011	R44	SBIR Phase IIB Bridge Awards to Accelerate the Development of Cancer-Focused Technologies Toward Commercialization (R44 Clinical Trial Optional)	SBIRDC
3/9/2019	CA18-019	R01	Research Answers to National Cancer Institute's (NCI) Provocative Questions (R01 Clinical Trial Optional)	CSSI
	CA18-020	R21	Research Answers to National Cancer Institute's (NCI) Provocative Questions (R21 Clinical Trial Optional)	
4/3/2018	CA18-022	U01	Revision Applications to National Cancer Institute (NCI)-supported U01 Awards to Include Research on the NCI's Provocative Questions (U01 Clinical Trial Optional)	CSSI
	CA18-023	P01	Revision Applications to National Cancer Institute (NCI)-supported P01 Awards to Include Research on the NCIs Provocative Questions (P01 Clinical Trial Optional)	
	CA18-024	P50	Revision Applications to National Cancer Institute (NCI)-supported P50 Awards to Include Research on the NCI's Provocative Questions (P50 Clinical Trial Optional)	
	CA18-021	R01	Revision Applications to National Cancer Institute (NCI)-Supported R01 Awards to Include Research on the NCI's Provocative Questions (R01 Clinical Trial Optional)	
4/27/2018	CA18-026	R01	Improving the Reach and Quality of Cancer Care in Rural Populations (R01 Clinical Trial Required)	DCCPS
5/10/2018	CA18-014	R21	Investigation of the Transmission of Kaposi Sarcoma-Associated Herpesvirus (KSHV)(R21 Clinical Trial Not Allowed)	OHAM
	CA18-013	R01	Investigation of the Transmission of Kaposi Sarcoma-associated Herpesvirus (KSHV)(R01 Clinical Trial Optional)	

continued

Source: Office of Referral, Review and Program Coordination.

Table 1a (cont'd). Requests for Applications (RFAs) Published by the NCI in FY2018

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center
6/13/2018	CA18-017	UG1	NCI Community Oncology Research Program (NCORP) Minority/ Underserved Community Sites (UG1 Clinical Trial Required)	DCP
	CA18-016	UG1	NCI Community Oncology Research Program (NCORP) Community Sites (UG1 Clinical Trial Required)	
	CA18-015	UG1	NCI Community Oncology Research Program (NCORP) Research Bases (UG1 Clinical Trial Required)	
6/22/2018	CA18-025	UM1	Collaborative Human Tissue Network (CHTN) (UM1 Clinical Trials Not Allowed)	DCTD
8/9/2018	CA18-012	UM1	Limited Competition: AIDS and Cancer Specimen Resource (ACSR) (UM1 Clinical Trials Not Allowed)	DCTD
8/10/2018	CA19-017	U01	Approaches to Identify and Care for Individuals with Inherited Cancer Syndromes (U01 Clinical Trial Required)	DCCPS
8/13/2018	CA19-003	U54	Pediatric Immunotherapy Discovery and Development Network (PI-DDN) (U54 - Clinical Trial Not Allowed)	DCB
	CA19-004	U01	Pediatric Immunotherapy Discovery and Development Network (PI-DDN) (U01 - No Clinical Trial Allowed)	
8/24/2018	CA18-028	R21	Improving Smoking Cessation Interventions among People Living with HIV (R21 Clinical Trial Optional)	DCCPS
	CA18-027	R01	Improving Smoking Cessation Interventions among People Living with HIV (R01 Clinical Trial Optional)	
8/28/2018	CA18-018	U54	Prevention of HPV-related Cancers in HIV-infected individuals: United States-Latin American-Caribbean Clinical Trials Network: Partnership Centers (U54 Clinical Trial Required)	DCP
9/10/2018	CA19-001	U01	Communication and Decision Making for Individuals with Inherited Cancer Syndromes (U01 Clinical Trial Optional).	DCCPS
9/11/2018	CA19-016	U54	Fusion Oncoproteins in Childhood Cancers (FusOnC2) Consortium (U54 Clinical Trial Not Allowed)	DCB DCTD
9/14/2018	CA18-030	U24	Cancer Prevention Clinical Trials Network (CP-CTNet): Data Management, Auditing, and Coordinating Center (DMACC) (U24 Clinical Trials Required)	DCP
	CA18-029	UG1	Cancer Prevention Clinical Trials Network (CP-CTNet): CP-CTNet Sites (UG1 Clinical Trial Required)	
9/17/2018	CA19-002	R01	The NCI Predoctoral to Postdoctoral Fellow Transition Award (F99/K00)	CCT

Source: Office of Referral, Review and Program Coordination.

Table 1b. Requests for Applications (RFAs) Published by the NCI in FY2018

Sorted by Division, Office, and Center

Division, Office, and Center	RFA	Mechanism	Title	Date of Publication
CCT	CA18-001	F99, K00	The NCI Predoctoral to Postdoctoral Fellow Transition Award (F99/K00)	11/14/2017
	CA19-002	R01	The NCI Predoctoral to Postdoctoral Fellow Transition Award (F99/K00)	9/17/2018
CRCHD	CA17-032	U54	Minority-Patient Derived Xenograft (PDX) Development and Trial Center (PDTC) Network (U54)	10/13/2017
	CA17-033	P20	Feasibility and Planning Studies for Development of Specialized Programs of Research Excellence (SPOREs) to Investigate Cancer Health Disparities (P20)	
CSSI	CA17-036	U24	Human Tumor Atlas Network: Data Coordinating Center (U24)	10/20/2017
	CA18-003	R33	Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R33 - Clinical Trial Not Allowed)	11/20/2017
	CA18-002	R21	Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R21 - Clinical Trial Not Allowed)	
	CA18-004	R21	Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (R21 - Clinical Trial Not Allowed)	
	CA18-005	R33	Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (R33 - Clinical Trial Not Allowed)	
	CA18-009	P01	Revisions for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (P01 Clinical Trials Optional)	12/4/2017
	CA18-008	U54	Revisions for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U54 Clinical Trials Optional)	
	CA18-007	U01	Revisions for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U01 Clinical Trials Optional)	
	CA18-006	R01	Revisions for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (R01 Clinical Trials Optional)	
	CA18-010	P50	Revisions for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (P50 Clinical Trials Optional)	
	CA18-019	R01	Research Answers to National Cancer Institute's (NCI) Provocative Questions (R01 Clinical Trial Optional)	3/9/2018
	CA18-020	R21	Research Answers to National Cancer Institute's (NCI) Provocative Questions (R21 Clinical Trial Optional)	
	CA18-022	U01	Revision Applications to National Cancer Institute (NCI)-Supported U01 Awards to Include Research on the NCI's Provocative Questions (U01 Clinical Trial Optional)	4/3/2018
	CA18-023	P01	Revision Applications to National Cancer Institute (NCI)-supported P01 Awards to Include Research on the NCIs Provocative Questions (P01 Clinical Trial Optional)	
	CA18-024	P50	Revision Applications to National Cancer Institute (NCI)-Supported P50 Awards to Include Research on the NCI's Provocative Questions (P50 Clinical Trial Optional)	
	CA18-021	R01	Revision Applications to National Cancer Institute (NCI)-Supported R01 Awards to Include Research on the NCI's Provocative Questions (R01 Clinical Trial Optional)	

continued

Source: Office of Referral, Review and Program Coordination.

Table 1b (cont'd). Requests for Applications (RFAs) Published by the NCI in FY2018

Sorted by Division, Office, and Center

Division, Office, and Center	RFA	Mechanism	Title	Date of Publication
DCB	CA17-046	U01	Immuno-Oncology Translation Network (IOTN): Cancer Immunoprevention Research Projects (U01)	10/10/2017
	CA19-003	U54	Pediatric Immunotherapy Discovery and Development Network (PI-DDN) (U54 - Clinical Trial Not Allowed)	8/13/2018
	CA19-004	U01	Pediatric Immunotherapy Discovery and Development Network (PI-DDN) (U01 - No Clinical Trial Allowed)	
	CA17-047	U24	Immuno-Oncology Translation Network (IOTN): Data Management and Resource-Sharing Center (DMRC) (U24)	10/10/2017
	CA17-048	U24	Immuno-Oncology Translation Network (IOTN): Cellular Immunotherapy Data Resource (CIDR) (U24)	
	CA17-045	U01	Immuno-Oncology Translational Network (IOTN): Cancer Immunotherapy Research Projects (U01)	
	CA17-034	U2C	Human Tumor Atlases (HTA) Research Centers (U2C)	10/20/2017
	CA19-016	U54	Fusion Oncoproteins in Childhood Cancers (FusOnC2) Consortium (U54 Clinical Trial Not Allowed)	9/11/2018
DCCPS	CA17-042	UM1	Research Centers for Improving Management of Symptoms Across Cancer Treatments (IMPACT) (UM1)	10/18/2017
	CA17-043	U24	Coordinating Center for Improving Management of Symptoms Across Cancer Treatments (IMPACT) (U24)	
	CA17-038	UG3, UH3	Accelerating Colorectal Cancer Screening and follow-up through Implementation Science (ACCSIS)(UG3/UH3)	10/20/2017
	CA17-039	U24	Accelerating Colorectal Cancer Screening and follow-up through Implementation Science (ACCSIS): Coordinating Center (U24)	
	CA18-026	R01	Improving the Reach and Quality of Cancer Care in Rural Populations (R01 Clinical Trial Required)	4/27/2018
	CA19-017	U01	Approaches to Identify and Care for Individuals with Inherited Cancer Syndromes (U01 Clinical Trial Required)	8/10/2018
	CA18-028	R21	Improving Smoking Cessation Interventions among People Living with HIV (R21 Clinical Trial Optional)	8/24/2018
	CA18-027	R01	Improving Smoking Cessation Interventions among People Living with HIV (R01 Clinical Trial Optional)	
	CA19-001	U01	Communication and Decision Making for Individuals with Inherited Cancer Syndromes (U01 Clinical Trial Optional).	9/10/2018

continued

Source: Office of Referral, Review and Program Coordination.

Table 1b (cont'd). Requests for Applications (RFAs) Published by the NCI in FY2018

Sorted by Division, Office, and Center

Division, Office, and Center	RFA	Mechanism	Title	Date of Publication
DCP	CA18-017	UG1	NCI Community Oncology Research Program (NCORP) Minority/Underserved Community Sites (UG1 Clinical Trial Required)	6/13/2018
	CA18-016	UG1	NCI Community Oncology Research Program (NCORP) Community Sites (UG1 Clinical Trial Required)	
	CA18-015	UG1	NCI Community Oncology Research Program (NCORP) Research Bases (UG1 Clinical Trial Required)	
	CA18-018	U54	Prevention of HPV-related Cancers in HIV-infected individuals: United States-Latin American-Caribbean Clinical Trials Network: Partnership Centers (U54 Clinical Trial Required)	8/28/2018
	CA18-030	U24	Cancer Prevention Clinical Trials Network (CP-CTNet): Data Management, Auditing, and Coordinating Center (DMACC) (U24 Clinical Trials Required)	9/14/2018
	CA18-029	UG1	Cancer Prevention Clinical Trials Network (CP-CTNet): CP-CTNet Sites (UG1 Clinical Trial Required)	
	CA17-035	U2C	Human Tumor Atlases (HTA) Precancer Atlas Research Centers (U2C)	10/20/2017
DCTD	CA17-044	U24	Mechanisms of Cancer Drug Resistance and Sensitivity: Coordinating Center (U24)	10/20/2017
	CA18-025	UM1	Collaborative Human Tissue Network (CHTN) (UM1 Clinical Trials Not Allowed)	6/22/2018
	CA18-012	UM1	Limited Competition: AIDS and Cancer Specimen Resource (ACSR)(UM1 Clinical Trials Not Allowed)	8/9/2018
	CA17-056	U10	Limited Competition: NCI National Clinical Trials Network - Network Group Operations Centers (U10)	10/19/2017
	CA17-057	U10	Limited Competition: NCI National Clinical Trials Network - Network Group Statistics and Data Management Centers (U10)	
	CA17-060	U24	Limited Competition: NCI National Clinical Trials Network - Network Radiotherapy and Imaging Core Services Center (U24)	10/20/2017
	CA17-061	UG1	NCI National Clinical Trials Network - Network Group Integrated Translational Science Centers (UG1)	
	CA17-059	UG1	NCI National Clinical Trials Network (NCTN)--Network Lead Academic Participating Sites (UG1)	
	CA17-058	U10	Limited Competition: NCI National Clinical Trials Network - Canadian Collaborating Clinical Trials Network (U10)	
OHAM	CA18-014	R21	Investigation of the Transmission of Kaposi Sarcoma-Associated Herpesvirus (KSHV) (R21 Clinical Trial Not Allowed)	5/10/2018
	CA18-013	R01	Investigation of the Transmission of Kaposi Sarcoma-associated Herpesvirus (KSHV)(R01 Clinical Trial Optional)	
SBIRDC	CA18-011	R44	SBIR Phase IIB Bridge Awards to Accelerate the Development of Cancer-Focused Technologies Toward Commercialization (R44 Clinical Trial Optional)	2/14/2018

Source: Office of Referral, Review and Program Coordination.

Table 2. NCI Participation in Trans-NIH Requests for Applications (RFAs) in FY2018

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
11/20/2017	OD18-003	R21	Tobacco Regulatory Science (R21 Clinical Trial Optional)	DCCPS	NIH FDA
	OD18-002	R01	Tobacco Regulatory Science (R01 Clinical Trial Optional)		
	OD18-001	R03	Tobacco Regulatory Science Small Grant Program for New Investigators (R03 Clinical Trial Optional)		
12/22/2017	HL19-007	U01	Limited Competition: Data Analysis and Coordination Center for the MACS/WIHS Combined Cohort Study, MACS/WIHS-CCS (U01 Clinical Trials Not Allowed)	OHAM	NIH
	HL19-008	U01	Limited Competition: Clinical Research Sites for MACS/WIHS Combined Cohort Study, MACS/WIHS-CCS (U01-Clinical Trials Not Allowed)		
1/24/2018	RM18-017	U01	Expanding the Human Genome Editing Repertoire (U01 Clinical Trial Not Allowed)	ALL DIVISIONS	NIH-RM
	RM18-018	U24	Somatic Cell Genome Editing Dissemination and Coordinating Center (U24 Clinical Trial Not Allowed)		
2/8/2018	MD18-006	R21	Time-Sensitive Research on Health Risk and Resilience after Hurricanes Irma and Maria in Puerto Rico and the US Virgin Islands (R21 Clinical Trial Not Allowed)	DCCPS	NIH
4/3/2018	RM18-011	U01	Cutting Edge Informatics Tools for Illuminating the Druggable Genome (U01 Clinical Trial Not Allowed)	CCG	NIH-RM
5/15/2018	OD18-007	K99, R00	Pathway to Independence Award in Tobacco Regulatory Research (K99/R00 - Independent Clinical Trial Not Allowed)	CCT	NIH FDA
	OD18-006	K01	Mentored Research Scientist Career Development Award in Tobacco Regulatory Research (K01 - Independent Clinical Trial Required)		
	OD18-005	K01	Mentored Research Scientist Career Development Award in Tobacco Regulatory Research (K01 - Independent Clinical Trial Not Allowed)		
	OD18-008	K99, R00	Pathway to Independence Award in Tobacco Regulatory Research (K99/R00 - Independent Clinical Trial Required)		
6/8/2018	TR18-020	U54	Rare Diseases Clinical Research Consortia (RDCRC) for Rare Diseases Clinical Research Network (U54 Clinical Trials Optional)	DCTD	NIH
8/2/2018	NS18-041	R33, R61	Discovery of Biomarkers, Biomarker Signatures, and Endpoints for Pain (R61/R33 Clinical Trial Optional)	DCP	NIH

continued

Source: Office of Referral, Review and Program Coordination.

Table 2 (cont'd). NCI Participation in Trans-NIH Requests for Applications (RFAs) in FY2018

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
8/30/2018	ES18-011	U2C	Human Health Exposure Analysis Resource: Targeted Exposure Analysis Laboratories (U2C Clinical Trial Not Allowed)	DCCPS	NIH
	ES18-012	U2C	Human Health Exposure Analysis Resource: Untargeted Exposure Analysis Laboratories (U2C Clinical Trial Not Allowed)		
9/19/2018	NS18-043	R01	Discovery and Validation of Novel Targets for Safe and Effective Pain Treatment (R01 Clinical Trial Not Allowed)	DCP	NIH
	NS18-046	R33, R61	Analytical and/or Clinical Validation of a Candidate Biomarker for Pain (R61/R33 Clinical Trial Optional)		
	NS18-042	R21	Discovery and Validation of Novel Targets for Safe and Effective Pain Treatment (R21 Clinical Trial Not Allowed)		
8/6/2018	RM18-027	UG3	Advancing Extracellular RNA (exRNA) Communication Research: Improved Isolation and Analysis of exRNA-Carrier Subclasses (UG3/UH3 Clinical Trial Not Allowed)	DCB	NIH-RM
8/10/2018	RM18-036	U01	Novel and Innovative Tools to Facilitate Identification, Tracking, Manipulation, and Analysis of Glycans and their Functions (U01 Clinical Trial Not Allowed)	DCP	NIH-RM
	RM18-037	U01	Innovative Adaptations to Simplify Existing Technologies for Manipulation and Analysis of Glycans (U01 Clinical Trial Not Allowed)		

Source: Office of Referral, Review and Program Coordination.

Table 3a. Program Announcements (PAs) Published by the NCI in FY2018

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center
10/3/2017	PAR18-303	R43, R44	Innovative Molecular Analysis Technology Development for Cancer Research and Clinical Care (R43/R44 Clinical Trial Not Allowed)	DCB
10/12/2017	PAR18-317	UH2, UH3	Assay Validation of High Quality Markers for Clinical Studies in Cancer (UH2/UH3 - Clinical Trials Not Allowed)	DCTD
	PAR18-313	P50	Specialized Programs of Research Excellence (SPOREs) in Human Cancers for Years 2018, 2019, and 2020 (P50)	
	PAR18-310	UH3	Assay Validation of High Quality Markers for Clinical Studies in Cancer (UH3 - Clinical Trials Not Allowed	
	PA18-314	333*	Innovation Corps (I-Corps) at NIH Program for NIH and CDC Translational Research (Admin Supp)	SBIRDC
10/30/2017	PAR18-290	P01	National Cancer Institute Program Project Applications (P01 Clinical Trial Optional)	ALL DIVISIONS
10/31/2017	PAR18-337	K08	NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity (K08 - No Independent Clinical Trials)	CRCHD
	PAR18-336	K08	NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity (K08 - Clinical Trials Required)	
11/1/2017	PA18-001	R01	Advancing Translational and Clinical Probiotic/Prebiotic and Human Microbiome Research (R01 Clinical Trial Optional)	ALL DIVISIONS
	PAR18-009	R01	Academic-Industrial Partnerships to Translate and Validate (In Vivo Cancer Imaging Systems (R01 Clinical Trial Optional)	
11/2/2017	PAR18-342	R50	NCI Research Specialist (Core-Based Scientist) Award (R50)	DCB
	PA18-002	R01	Examination of Survivorship Care Planning Efficacy and Impact (R01 Clinical Trial Optional)	DCCPS
	PA18-003	R01	Improving Outcomes in Cancer Treatment-Related Cardiotoxicity (R01 Clinical Trial Optional)	
	PA18-012	R21	Examination of Survivorship Care Planning Efficacy and Impact (R21 Clinical Trial Optional)	
	PA18-013	R21	Improving Outcomes in Cancer Treatment-Related Cardiotoxicity (R21 Clinical Trial Optional)	
	PAR18-341	R50	NCI Research Specialist (Laboratory-based Scientist) Award (R50)	
11/3/2017	PA18-014	R21	Oral Anticancer Agents: Utilization, Adherence, and Health Care Delivery (R21 Clinical Trial Optional)	DCCPS
	PAR18-017	R21	Dissemination and Implementation Research in Health (R21 Clinical Trial Optional)	
	PAR18-016	R21	Physical Activity and Weight Control Interventions Among Cancer Survivors: Effects on Biomarkers of Prognosis and Survival (R21 Clinical Trial Optional)	
	PAR18-007	R01	Dissemination and Implementation Research in Health (R01 Clinical Trial Optional)	
	PAR18-006	R01	Physical Activity and Weight Control Interventions Among Cancer Survivors: Effects on Biomarkers of Prognosis and Survival (R01 Clinical Trial Optional)	

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

Table 3a (cont'd). Program Announcements (PAs) Published by the NCI in FY2018

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center
11/3/2017	PA18-015	R21	Reducing Overscreening for Breast, Cervical, and Colorectal Cancers among Older Adults (R21 Clinical Trial Optional)	DCCPS
	PA18-005	R01	Reducing Overscreening for Breast, Cervical, and Colorectal Cancers among Older Adults (R01 Clinical Trial Optional)	
	PA18-004	R01	Oral Anticancer Agents: Utilization, Adherence, and Health Care Delivery (R01 Clinical Trial Optional)	
11/6/2017	PAR18-011	R01	Early Phase Clinical Trials in Imaging and Image-Guided Interventions (R01 Clinical Trial Required)	DCTD
11/8/2017	PAR18-008	R01	Linking the Provider Recommendation to Adolescent HPV Vaccine Uptake (R01 Clinical Trial Optional)	DCCPS
	PAR18-019	R21	Linking the Provider Recommendation to Adolescent HPV Vaccine Uptake (R21 Clinical Trial Optional)	
11/13/2017	PA18-286	R21	Exploratory/Developmental Bioengineering Research Grants (EBRG) (R21 Clinical Trial Optional)	ALL DIVISIONS
11/15/2017	PAR18-018	R21	Stimulating Innovations in Behavioral Intervention Research for Cancer Prevention and Control (R21 Clinical Trial Optional)	DCCPS
	PAR18-361	U54	Comprehensive Partnerships to Advance Cancer Health Equity (CPACHE) (U54)	CRCHD
11/17/2017	PAR18-020	R21	NCI Clinical and Translational Exploratory/Developmental Studies (R21 Clinical Trial Optional)	DCTD
	PAR18-364	K01	NCI Mentored Research Scientist Development Award to Promote Diversity (K01 -Independent Clinical Trial Not Allowed)	CRCHD
	PAR18-365	K01	NCI Mentored Research Scientist Development Award to Promote Diversity (Parent K01 - Clinical Trial Required)	
11/20/2017	PAR18-366	K22	NCI Transition Career Development Award to Promote Diversity (K22 - No Clinical Trials)	CRCHD
	PAR18-367	K22	NCI Transition Career Development Award to Promote Diversity (K22 Clinical Trial Required)	
11/21/2017	PAR18-021	R03	NCI Small Grants Program for Cancer Research (NCI Omnibus R03 Clinical Trial Optional)	ALL DIVISIONS
11/28/2017	PAR18-023	R01	Tobacco Use and HIV in Low and Middle Income Countries (R01 Clinical Trial Optional)	DCCPS
	PAR18-022	R21	Tobacco Use and HIV in Low and Middle Income Countries (R21 Clinical Trial Optional)	
	PAR18-024	R21	Predicting Behavioral Responses to Population-Level Cancer Control Strategies (R21 Clinical Trial Optional)	
	PAR18-247	R21	Intervening with Cancer Caregivers to Improve Patient Health Outcomes and Optimize Health Care Utilization (R21 Clinical Trial Optional)	
	PAR18-246	R01	Intervening with Cancer Caregivers to Improve Patient Health Outcomes and Optimize Health Care Utilization (R01 Clinical Trial Optional)	
11/29/2017	PAR18-249	U01	Quantitative Imaging Tools and Methods for Cancer Response Assessment (U01 Clinical Trial Optional)	DCTD
	PAR18-248	UG3, UH3	Quantitative Imaging Tools and Methods for Cancer Therapy Response Assessment (UG3/UH3 Clinical Trial Optional)	

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Source: Office of Referral, Review and Program Coordination.

Table 3a (cont'd). Program Announcements (PAs) Published by the NCI in FY2018

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center
11/30/2017	PAR18-292	K12	Paul Calabresi Career Development Award for Clinical Oncology (K12 Clinical Trial Optional)	CCT
	PAR18-250	R21	Improving Smoking Cessation in Socioeconomically Disadvantaged Populations via Scalable Interventions (R21 Clinical Trial Optional)	DCCPS
	PAR18-252	R01	Image-guided Drug Delivery (R01 Clinical Trial Optional)	
	PAR18-251	R01	Improving Smoking Cessation in Socioeconomically Disadvantaged Populations via Scalable Interventions (R01 Clinical Trial Optional)	
12/5/2017	PAR18-478	R25	Cancer Research Education Grants Program - Research Experiences (R25)	CCT
	PAR18-477	R25	Cancer Research Education Grants Program - Courses for Skills Development (R25)	
	PAR18-476	R25	Cancer Research Education Grants Program - Curriculum or Methods Development (R25)	
12/6/2017	PAR18-467	K22	The NCI Transition Career Development Award (K22 - Independent Clinical Trial Not Allowed)	CCT
	PAR18-466	K22	The NCI Transition Career Development Award (K22 Independent Clinical Trial Required)	
12/11/2017	PA18-493	R01	Using Information Technology to Support Systematic Screening and Treatment of Depression in Cancer (R01 Clinical Trial Optional)	DCCPS
	PA18-492	R21	Using Information Technology to Support Systematic Screening and Treatment of Depression in Cancer (R21 Clinical Trial Optional)	
12/15/2017	PA18-496	333*	Administrative Supplements to NCI Grant and Cooperative Agreement Awards to Support Collaborations with the PDX Development and Trial Centers Research Network (PDXNet)(Admin Suppl - Clinical Trial Not Allowed)	DCTD
12/19/2017	PA18-517	333*	Innovation Corps (I-Corps) at NIH Program for NIH and CDC Translational Research (Admin Supp - Clinical Trial Not Allowed)	SBIRDC
12/20/2017	PA18-532	R21	Early-life Factors and Cancer Development Later in Life (R21 - Clinical Trial Not Allowed)	DCCPS
	PA18-529	R01	Early-life Factors and Cancer Development Later in Life (R01 - Clinical Trial Not Allowed)	
	PA18-531	R03	Early-life Factors and Cancer Development Later in Life (R03 - Clinical Trial Not Allowed)	
12/21/2017	PAR18-530	R01	Academic-Industrial Partnerships for Translation of Technologies for Diagnosis and Treatment (R01 - Clinical Trial Optional)	DCTD
12/22/2017	PAR18-552	U01	Partnership for Aging and Cancer Research (U01 - Clinical Trial Not Allowed)	DCB
1/5/2018	PAR18-559	R01	Cancer Prevention and Control Clinical Trials Grant Program (R01 Clinical Trial Required)	DCCPS
	PAR18-560	R01	National Cancer Institute's Investigator-Initiated Early Phase Clinical Trials for Cancer Treatment and Diagnosis (R01 Clinical Trials Required)	

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

Table 3a (cont'd). Program Announcements (PAs) Published by the NCI in FY2018

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center
1/30/2018	PAR18-606	R21	Leveraging Cognitive Neuroscience to Improve Assessment of Cancer Treatment-Related Cognitive Impairment (R21 Clinical Trial Optional)	DCCPS
	PAR18-605	R01	Leveraging Cognitive Neuroscience to Improve Assessment of Cancer Treatment-Related Cognitive Impairment (R01 Clinical Trial Optional)	
2/1/2018	PAR18-616	U01	Traceback Testing: Increasing Identification and Genetic Counseling of Mutation Carriers through Family-based Outreach (U01 Clinical Trial Optional)	DCP
2/5/2018	PA18-629	R01	Integration of Imaging and Fluid-Based Tumor Monitoring in Cancer Therapy (R01 Clinical Trial Optional)	DCTD
2/7/2018	PAR18-641	R21	Perception and Cognition Research to Inform Cancer Image Interpretation (R21 Clinical Trial Optional)	DCCPS
	PAR18-640	R01	Perception and Cognition Research to Inform Cancer Image Interpretation (R01 Clinical Trial Optional)	
	PAR18-639	R21	Innovative Approaches to Studying Cancer Communication in the New Media Environment (R21 - Clinical Trial Optional)	
	PAR18-638	R01	Innovative Approaches to Studying Cancer Communication in the New Media Environment (R01 - Clinical Trial Optional)	
2/13/2018	PAR18-655	R21	Basic Research in Cancer Health Disparities (R21 Clinical Trial Not Allowed)	ALL DIVISIONS
	PAR18-654	R01	Basic Research in Cancer Health Disparities (R01 Clinical Trials Not Allowed)	
2/21/2018	PAR18-674	R21	U.S. Tobacco Control Policies to Reduce Health Disparities (R21 Clinical Trial Optional)	DCCPS
	PAR18-675	R01	U.S. Tobacco Control Policies to Reduce Health Disparities (R01 Clinical Trial Optional)	
2/23/2018	PA18-677	R01	Epidemiologic Research on Emerging Risk Factors and Liver Cancer Susceptibility (R01 - Clinical Trial Not Allowed)	DCCPS
	PA18-678	R21	Epidemiologic Research on Emerging Risk Factors and Liver Cancer Susceptibility (R21 - Clinical Trial Not Allowed)	
2/27/2018	PAR18-681	R01	Fundamental Mechanisms of Affective and Decisional Processes in Cancer Control (R01 Clinical Trial Optional)	DCCPS
3/6/2018	PAR18-704	R01	Innovative Basic Research on Adducts in Cancer Risk Identification and Prevention (R01 Clinical Trial Not Allowed)	DCP
	PAR18-703	R21	Innovative Basic Research on Adducts in Cancer Risk Identification and Prevention (R21 Clinical Trial Not Allowed)	
3/29/2018	PAR18-731	R21	Exploratory Grant Award to Promote Workforce Diversity in Basic Cancer Research (R21 Clinical Trial Not Allowed)	ALL DIVISIONS
4/3/2018	PA18-738	R01	Age-related Microbiota Changes and their Implications in Chronic Disease Prevention, Treatment and Progression (R01 Clinical Trial Optional).	ALL DIVISIONS
	PA18-739	R21	Age-related Microbiota Changes and their Implications in Chronic Disease Prevention, Treatment and Progression (R21 Clinical Trial Optional).	

continued

Source: Office of Referral, Review and Program Coordination.

Table 3a (cont'd). Program Announcements (PAs) Published by the NCI in FY2018

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center
4/10/2018	PA18-748	333*	Research Supplements to Promote Data Sharing in Cancer Epidemiology Studies (Admin Supp Clinical Trial Not Allowed)	DCCPS
4/11/2018	PAR18-752	333*	Administrative Supplements to NCI Grant and Cooperative Agreement Awards to Support Collaborations with the Drug Resistance and Sensitivity Network (DRSN)(Admin Supp Clinical Trial Not Allowed)	DCTD
4/30/2018	PAR18-767	U54	Comprehensive Partnerships to Advance Cancer Health Equity (CPACHE) (Collaborative U54 Clinical Trial Optional)	CRCHD
5/24/2018	PAR18-802	R41, R42	Cancer Prevention, Diagnosis, and Treatment Technologies for Low-Resource Settings (R41/R42 - Clinical Trial Optional)	SBIRDC
	PAR18-801	R43, R44	Cancer Prevention, Diagnosis, and Treatment Technologies for Low-Resource Settings (R43/R44 - Clinical Trial Optional)	
6/7/2018	PA18-821	333*	Collaborative Activities to Promote Cancer Cachexia Research (Admin Supp - Clinical Trial Not Allowed)	DCB
6/28/2018	PA18-842	333*	Administrative Supplements to Support Cancer Disparity Collaborative Research (Clinical Trial Optional)	ALL DIVISIONS
	PAR18-841	U24	Oncology Co-Clinical Imaging Research Resources to Encourage Consensus on Quantitative Imaging Methods and Precision Medicine (U24 - Clinical Trial Optional)	
7/5/2018	PA18-852	333*	Administrative Supplements to Promote Collaborative Activities in Basic Cancer Research (Admin Supp - Clinical Trial Not Allowed)	DCB
7/24/2018	PAR18-869	R01	Modular R01s in Cancer Control and Population Sciences (R01 Clinical Trial Optional)	DCCPS
7/30/2018	PAR18-880	R35	NCI Outstanding Investigator Award (R35 Clinical Trial Not Allowed)	DCB
8/2/2018	PAR18-887	R50	NCI Research Specialist (Core-based Scientist) Award (R50 Clinical Trial Not Allowed)	DCB
	PAR18-888	R50	NCI Research Specialist (Laboratory-based Scientist) Award (R50 Clinical Trial Not Allowed)	
8/7/2018	PAR18-892	R21	Physical Activity and Weight Control Interventions Among Cancer Survivors: Effects on Biomarkers of Prognosis and Survival (R21 Clinical Trial Optional)	ALL DIVISIONS
	PAR18-893	R01	Physical Activity and Weight Control Interventions Among Cancer Survivors: Effects on Biomarkers of Prognosis and Survival (R01 Clinical Trial Optional)	
8/14/2018	PA18-902	R01	Advancing Translational and Clinical Probiotic/Prebiotic and Human Microbiome Research (R01 Clinical Trial Optional)	ALL DIVISIONS
9/5/2018	PAR18-911	P20	Feasibility Studies to Build Collaborative Partnerships in Cancer Research (P20 Clinical Trial Not Allowed)	CRCHD
9/7/2018	PAR18-913	U01	Utilizing the PLCO Biospecimens Resource to Bridge Gaps in Cancer Etiology and Early Detection Research (U01 Clinical Trial Not Allowed)	DCP

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*Administrative Supplement.

Source: Office of Referral, Review and Program Coordination.

Table 3a (cont'd). Program Announcements (PAs) Published by the NCI in FY2018

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center
9/12/2018	PAR18-919	R01	Quantitative Imaging Tools and Methods for Cancer Response Assessment (R01 Clinical Trial Optional)	DCTD
9/21/2018	PAR18-931	333*	Administrative Supplements to Cancer Center Support Grants to Strengthen NCI-Supported Community Outreach Capacity through Community Health Educators of the National Outreach Network (Admin Suppl - Clinical Trial Not Allowed)	CRCHD
9/24/2018	PA18-934	333*	Administrative Supplements to Cancer Center Support Grants to Strengthen the Research, Training, and Outreach Capacity of the Geographic Management of Cancer Health Disparities Program (Admin Suppl - Clinical Trial Not Allowed)	CRCHD
9/28/2018	PAR18-947	U01	Integrating Biospecimen Science Approaches into Clinical Assay Development (U01 Clinical Trial Not Allowed)	DCTD

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

Table 3b. Program Announcements (PAs) Published by the NCI in FY2018

Sorted by Division, Office, and Center

Division, Office, and Center	PA/PAR	Mechanism	Title	Date of Publication
ALL DIVISIONS	PAR18-290	P01	National Cancer Institute Program Project Applications (P01 Clinical Trial Optional)	10/30/2017
	PA18-001	R01	Advancing Translational and Clinical Probiotic/Prebiotic and Human Microbiome Research (R01 Clinical Trial Optional)	11/1/2017
	PAR18-009	R01	Academic-Industrial Partnerships to Translate and Validate in vivo Cancer Imaging Systems (R01 Clinical Trial Optional)	
	PA18-286	R21	Exploratory/Developmental Bioengineering Research Grants (EBRG) (R21 Clinical Trial Optional)	11/13/2017
	PAR18-021	R03	NCI Small Grants Program for Cancer Research (NCI Omnibus R03 Clinical Trial Optional)	11/21/2017
	PAR18-655	R21	Basic Research in Cancer Health Disparities (R21 Clinical Trial Not Allowed)	2/13/2018
	PAR18-654	R01	Basic Research in Cancer Health Disparities (R01 Clinical Trials Not Allowed)	
	PAR18-731	R21	Exploratory Grant Award to Promote Workforce Diversity in Basic Cancer Research (R21 Clinical Trial Not Allowed)	3/29/2018
	PA18-738	R01	Age-related Microbiota Changes and their Implications in Chronic Disease Prevention, Treatment and Progression (R01 Clinical Trial Optional).	4/3/2018
	PA18-739	R21	Age-related Microbiota Changes and their Implications in Chronic Disease Prevention, Treatment and Progression (R21 Clinical Trial Optional).	
	PA18-842	333*	Administrative Supplements to Support Cancer Disparity Collaborative Research (Clinical Trial Optional)	6/28/2018
	PAR18-841	U24	Oncology Co-Clinical Imaging Research Resources to Encourage Consensus on Quantitative Imaging Methods and Precision Medicine (U24 - Clinical Trial Optional)	
	PAR18-892	R21	Physical Activity and Weight Control Interventions Among Cancer Survivors: Effects on Biomarkers of Prognosis and Survival (R21 Clinical Trial Optional)	8/7/2018
	PAR18-893	R01	Physical Activity and Weight Control Interventions Among Cancer Survivors: Effects on Biomarkers of Prognosis and Survival (R01 Clinical Trial Optional)	
	PA18-902	R01	Advancing Translational and Clinical Probiotic/Prebiotic and Human Microbiome Research (R01 Clinical Trial Optional)	8/14/2018

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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 FY2018

Sorted by Division, Office, and Center

Division, Office, and Center	PA/PAR	Mechanism	Title	Date of Publication
CCT	PAR18-292	K12	Paul Calabresi Career Development Award for Clinical Oncology (K12 Clinical Trial Optional)	11/30/2017
	PAR18-478	R25	Cancer Research Education Grants Program - Research Experiences (R25)	12/5/2017
	PAR18-477	R25	Cancer Research Education Grants Program - Courses for Skills Development (R25)	
	PAR18-476	R25	Cancer Research Education Grants Program - Curriculum or Methods Development (R25)	
	PAR18-467	K22	The NCI Transition Career Development Award (K22 - Independent Clinical Trial Not Allowed)	12/6/2017
	PAR18-466	K22	The NCI Transition Career Development Award (K22 Independent Clinical Trial Required)	
CRCHD	PAR18-337	K08	NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity (K08 - No Independent Clinical Trials)	10/31/2017
	PAR18-336	K08	NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity (K08 - Clinical Trials Required)	
	PAR18-361	U54	Comprehensive Partnerships to Advance Cancer Health Equity (CPACHE) (U54)	11/15/2017
	PAR18-364	K01	NCI Mentored Research Scientist Development Award to Promote Diversity (K01 -Independent Clinical Trial Not Allowed)	11/17/2017
	PAR18-365	K01	NCI Mentored Research Scientist Development Award to Promote Diversity (Parent K01 - Clinical Trial Required)	
	PAR18-366	K22	NCI Transition Career Development Award to Promote Diversity (K22 - No Clinical Trials)	11/20/2017
	PAR18-367	K22	NCI Transition Career Development Award to Promote Diversity (K22 Clinical Trial Required)	
	PAR18-767	U54	Comprehensive Partnerships to Advance Cancer Health Equity (CPACHE) (Collaborative U54 Clinical Trial Optional)	4/30/2018
	PAR18-911	P20	Feasibility Studies to Build Collaborative Partnerships in Cancer Research (P20 Clinical Trial Not Allowed)	9/5/2018
	PAR18-931	333*	Administrative Supplements to Cancer Center Support Grants to Strengthen NCI-Supported Community Outreach Capacity through Community Health Educators of the National Outreach Network (Admin Suppl - Clinical Trial Not Allowed)	9/21/2018
	PA18-934	333*	Administrative Supplements to Cancer Center Support Grants to Strengthen the Research, Training, and Outreach Capacity of the Geographic Management of Cancer Health Disparities Program (Admin Suppl - Clinical Trial Not Allowed)	9/24/2018

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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 FY2018

Sorted by Division, Office, and Center

Division, Office, and Center	PA/PAR	Mechanism	Title	Date of Publication
DCB	PAR18-303	R43, R44	Innovative Molecular Analysis Technology Development for Cancer Research and Clinical Care (R43/R44 Clinical Trial Not Allowed)	10/3/2017
	PAR18-342	R50	NCI Research Specialist (Core-based Scientist) Award (R50)	11/2/2017
	PAR18-552	U01	Partnership for Aging and Cancer Research (U01 - Clinical Trial Not Allowed)	12/22/2017
	PA18-821	333*	Collaborative Activities to Promote Cancer Cachexia Research (Admin Supp - Clinical Trial Not Allowed)	6/7/2018
	PA18-852	333*	Administrative Supplements to Promote Collaborative Activities in Basic Cancer Research (Admin Supp - Clinical Trial Not Allowed)	7/5/2018
	PAR18-880	R35	NCI Outstanding Investigator Award (R35 Clinical Trial Not Allowed)	7/30/2018
	PAR18-887	R50	NCI Research Specialist (Core-based Scientist) Award (R50 Clinical Trial Not Allowed)	8/2/2018
	PAR18-888	R50	NCI Research Specialist (Laboratory-based Scientist) Award (R50 Clinical Trial Not Allowed)	
DCCPS	PA18-002	R01	Examination of Survivorship Care Planning Efficacy and Impact (R01 Clinical Trial Optional)	11/2/2017
	PA18-003	R01	Improving Outcomes in Cancer Treatment-Related Cardiotoxicity (R01 Clinical Trial Optional)	
	PA18-012	R21	Examination of Survivorship Care Planning Efficacy and Impact (R21 Clinical Trial Optional)	
	PA18-013	R21	Improving Outcomes in Cancer Treatment-Related Cardiotoxicity (R21 Clinical Trial Optional)	
	PAR18-341	R50	NCI Research Specialist (Laboratory-based Scientist) Award (R50)	
	PA18-014	R21	Oral Anticancer Agents: Utilization, Adherence, and Health Care Delivery (R21 Clinical Trial Optional)	11/3/2017
	PAR18-017	R21	Dissemination and Implementation Research in Health (R21 Clinical Trial Optional)	
	PAR18-016	R21	Physical Activity and Weight Control Interventions Among Cancer Survivors: Effects on Biomarkers of Prognosis and Survival (R21 Clinical Trial Optional)	
	PAR18-007	R01	Dissemination and Implementation Research in Health (R01 Clinical Trial Optional)	
	PAR18-006	R01	Physical Activity and Weight Control Interventions Among Cancer Survivors: Effects on Biomarkers of Prognosis and Survival (R01 Clinical Trial Optional)	
	PA18-015	R21	Reducing Overscreening for Breast, Cervical, and Colorectal Cancers among Older Adults (R21 Clinical Trial Optional)	
	PA18-005	R01	Reducing Overscreening for Breast, Cervical, and Colorectal Cancers among Older Adults (R01 Clinical Trial Optional)	
	PA18-004	R01	Oral Anticancer Agents: Utilization, Adherence, and Health Care Delivery (R01 Clinical Trial Optional)	
	PAR18-008	R01	Linking the Provider Recommendation to Adolescent HPV Vaccine Uptake (R01 Clinical Trial Optional)	11/8/2017
	PAR18-019	R21	Linking the Provider Recommendation to Adolescent HPV Vaccine Uptake (R21 Clinical Trial Optional)	11/8/2017

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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 FY2018

Sorted by Division, Office, and Center

Division, Office, and Center	PA/PAR	Mechanism	Title	Date of Publication
DCCPS	PAR18-018	R21	Stimulating Innovations in Behavioral Intervention Research for Cancer Prevention and Control (R21 Clinical Trial Optional)	11/15/2017
	PAR18-023	R01	Tobacco Use and HIV in Low and Middle Income Countries (R01 Clinical Trial Optional)	11/28/2017
	PAR18-022	R21	Tobacco Use and HIV in Low and Middle Income Countries (R21 Clinical Trial Optional)	
	PAR18-024	R21	Predicting Behavioral Responses to Population-Level Cancer Control Strategies (R21 Clinical Trial Optional)	
	PAR18-247	R21	Intervening with Cancer Caregivers to Improve Patient Health Outcomes and Optimize Health Care Utilization (R21 Clinical Trial Optional)	
	PAR18-246	R01	Intervening with Cancer Caregivers to Improve Patient Health Outcomes and Optimize Health Care Utilization (R01 Clinical Trial Optional)	
	PAR18-250	R21	Improving Smoking Cessation in Socioeconomically Disadvantaged Populations via Scalable Interventions (R21 Clinical Trial Optional)	11/30/2017
	PAR18-252	R01	Image-guided Drug Delivery (R01 Clinical Trial Optional)	
	PAR18-251	R01	Improving Smoking Cessation in Socioeconomically Disadvantaged Populations via Scalable Interventions (R01 Clinical Trial Optional)	
	PA18-493	R01	Using Information Technology to Support Systematic Screening and Treatment of Depression in Cancer (R01 Clinical Trial Optional)	12/11/2017
	PA18-492	R21	Using Information Technology to Support Systematic Screening and Treatment of Depression in Cancer (R21 Clinical Trial Optional)	
	PA18-532	R21	Early-life Factors and Cancer Development Later in Life (R21 - Clinical Trial Not Allowed)	12/20/2017
	PA18-529	R01	Early-life Factors and Cancer Development Later in Life (R01 - Clinical Trial Not Allowed)	
	PA18-531	R03	Early-life Factors and Cancer Development Later in Life (R03 - Clinical Trial Not Allowed)	
	PAR18-559	R01	Cancer Prevention and Control Clinical Trials Grant Program (R01 Clinical Trial Required)	1/5/2018
	PAR18-560	R01	National Cancer Institute's Investigator-Initiated Early Phase Clinical Trials for Cancer Treatment and Diagnosis (R01 Clinical Trials Required)	
	PAR18-606	R21	Leveraging Cognitive Neuroscience to Improve Assessment of Cancer Treatment-Related Cognitive Impairment (R21 Clinical Trial Optional)	1/30/2018
	PAR18-605	R01	Leveraging Cognitive Neuroscience to Improve Assessment of Cancer Treatment-Related Cognitive Impairment (R01 Clinical Trial Optional)	
	PAR18-641	R21	Perception and Cognition Research to Inform Cancer Image Interpretation (R21 Clinical Trial Optional)	2/7/2018
	PAR18-640	R01	Perception and Cognition Research to Inform Cancer Image Interpretation (R01 Clinical Trial Optional)	
	PAR18-639	R21	Innovative Approaches to Studying Cancer Communication in the New Media Environment (R21 - Clinical Trial Optional)	
	PAR18-638	R01	Innovative Approaches to Studying Cancer Communication in the New Media Environment (R01 - Clinical Trial Optional)	

continued

Source: Office of Referral, Review and Program Coordination.

Table 3b (cont'd). Program Announcements (PAs) Published by the NCI in FY2018

Sorted by Division, Office, and Center

Division, Office, and Center	PA/PAR	Mechanism	Title	Date of Publication
DCCPS	PAR18-674	R21	U.S. Tobacco Control Policies to Reduce Health Disparities (R21 Clinical Trial Optional)	2/21/2018
	PAR18-675	R01	U.S. Tobacco Control Policies to Reduce Health Disparities (R01 Clinical Trial Optional)	
	PA18-677	R01	Epidemiologic Research on Emerging Risk Factors and Liver Cancer Susceptibility (R01 - Clinical Trial Not Allowed)	2/23/2018
	PA18-678	R21	Epidemiologic Research on Emerging Risk Factors and Liver Cancer Susceptibility (R21 - Clinical Trial Not Allowed)	
	PAR18-681	R01	Fundamental Mechanisms of Affective and Decisional Processes in Cancer Control (R01 Clinical Trial Optional)	2/27/2018
	PA18-748	333*	Research Supplements to Promote Data Sharing in Cancer Epidemiology Studies (Admin Supp Clinical Trial Not Allowed)	4/10/2018
	PAR18-869	R01	Modular R01s in Cancer Control and Population Sciences (R01 Clinical Trial Optional)	7/24/2018
DCP	PAR18-616	U01	Traceback Testing: Increasing Identification and Genetic Counseling of Mutation Carriers through Family-based Outreach (U01 Clinical Trial Optional)	2/1/2018
	PAR18-704	R01	Innovative Basic Research on Adducts in Cancer Risk Identification and Prevention (R01 Clinical Trial Not Allowed)	3/6/2018
	PAR18-703	R21	Innovative Basic Research on Adducts in Cancer Risk Identification and Prevention (R21 Clinical Trial Not Allowed)	
	PAR18-913	U01	Utilizing the PLCO Biospecimens Resource to Bridge Gaps in Cancer Etiology and Early Detection Research (U01 Clinical Trial Not Allowed)	9/7/2018
DCTD	PAR18-317	UH2, UH3	Assay Validation of High Quality Markers for Clinical Studies in Cancer (UH2/UH3 - Clinical Trials Not Allowed)	10/12/2017
	PAR18-313	P50	Specialized Programs of Research Excellence (SPOREs) in Human Cancers for Years 2018, 2019, and 2020 (P50)	
	PAR18-310	UH3	Assay Validation of High Quality Markers for Clinical Studies in Cancer (UH3 - Clinical Trials Not Allowed	
	PAR18-011	R01	Early Phase Clinical Trials in Imaging and Image-Guided Interventions (R01 Clinical Trial Required)	11/6/2017
	PAR18-020	R21	NCI Clinical and Translational Exploratory/Developmental Studies (R21 Clinical Trial Optional)	11/17/2017
	PAR18-249	U01	Quantitative Imaging Tools and Methods for Cancer Response Assessment (U01 Clinical Trial Optional)	11/29/2017
	PAR18-248	UG3, UH3	Quantitative Imaging Tools and Methods for Cancer Therapy Response Assessment (UG3/UH3 Clinical Trial Optional)	
	PA18-496	333*	Administrative Supplements to NCI Grant and Cooperative Agreement Awards to Support Collaborations with the PDX Development and Trial Centers Research Network (PDXNet)(Admin Suppl - Clinical Trial Not Allowed)	12/15/2017

continued

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

Table 3b (cont'd). Program Announcements (PAs) Published by the NCI in FY2018

Sorted by Division, Office, and Center

Division, Office, and Center	PA/PAR	Mechanism	Title	Date of Publication
DCTD	PAR18-530	R01	Academic-Industrial Partnerships for Translation of Technologies for Diagnosis and Treatment (R01 - Clinical Trial Optional)	12/21/2017
	PA18-629	R01	Integration of Imaging and Fluid-Based Tumor Monitoring in Cancer Therapy (R01 Clinical Trial Optional)	2/5/2018
	PAR18-752	333*	Administrative Supplements to NCI Grant and Cooperative Agreement Awards to Support Collaborations with the Drug Resistance and Sensitivity Network (DRSN)(Admin Supp Clinical Trial Not Allowed)	4/11/2018
	PAR18-919	R01	Quantitative Imaging Tools and Methods for Cancer Response Assessment (R01 Clinical Trial Optional)	9/12/2018
	PAR18-947	U01	Integrating Biospecimen Science Approaches into Clinical Assay Development (U01 Clinical Trial Not Allowed)	9/28/2018
SBIRDC	PA18-314	333*	Innovation Corps (I-Corps) at NIH Program for NIH and CDC Translational Research (Admin Supp)	10/12/2017
	PA18-517	333*	Innovation Corps (I-Corps) at NIH Program for NIH and CDC Translational Research (Admin Supp - Clinical Trial Not Allowed)	12/19/2017
	PAR18-802	R41, R42	Cancer Prevention, Diagnosis, and Treatment Technologies for Low-Resource Settings (R41/R42 - Clinical Trial Optional)	05/24/2018
	PAR18-801	R43, R44	Cancer Prevention, Diagnosis, and Treatment Technologies for Low-Resource Settings (R43/R44 - Clinical Trial Optional)	

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

Table 4. NCI Participation in Trans-NIH Program Announcements (PAs/PARs) in FY2018

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
10/10/2017	PAR17-306	R01	Testing Interventions for Health-Enhancing Physical Activity (R01 - Clinical Trial Optional)	DCCPS	NIH
	PAR18-324	R01			
	PAR18-331	R01	Simulation Modeling and Systems Science to Address Health Disparities (R01-Clinical Trial Not Allowed)		
11/1/2017	PA18-034	R01	Nutrigenetics and Nutrigenomics Approaches for Nutrition Research (R01 Clinical Trial Optional)	DCP	NIH
	PA18-025	R01	Potential Effects of Metformin on Aging and Age-Related Conditions: Small-Scale Clinical Studies and Secondary Analysis of Controlled Clinical Studies (R01 Clinical Trial Optional)		
	PAR18-062	R01	Accelerating the Pace of Drug Abuse Research Using Existing Data (R01 Clinical Trial Optional)	DCCPS	
	PA18-285	R21	Addressing Health Disparities through Effective Interventions among Immigrant Populations (Clinical Trial Optional)		
	PA18-284	R01			
11/2/2017	PA18-010	R01	Diet and Physical Activity Assessment Methodology (Clinical Trial Optional)	DCCPS DCP	NIH
	PAR18-112	R21			
	PA18-339	R01	Revision Applications for Validation of Mobile/Wireless Health Tools for Measurement and Intervention (R01 Clinical Trial Optional)	DCCPS	
11/3/2017	PA18-343	R15	Academic Research Enhancement Award (R15 Clinical Trial Required)	DCCPS	NIH
11/6/2017	PA18-040	R21	The Health of Sexual and Gender Minority (SGM) Populations (R21 Clinical Trial Optional)	CRCHD	NIH
	PA18-054	R03			
	PA18-137	R01	End-of-Life and Palliative Needs of Adolescents and Young Adults (AYA) with Serious Illnesses (Clinical Trial Optional)	DCCPS	
	PA18-155	R21			
	PA18-210	R15	The Health of Sexual and Gender Minority (SGM) Populations (Clinical Trial Optional)	CRCHD	
	PA18-037	R01			
11/7/2017	PA18-149	R01	Palliative Care Needs of Individuals with Advanced Rare Diseases and Their Family Caregivers (R01 Clinical Trial Optional)	DCCPS	NIH
	PAR18-349	K18	Short-term Mentored Career Enhancement Awards for Mid-Career Investigators to Integrate Basic Behavioral and Social Sciences (K18 - No Independent Clinical Trials)	CCT	
	PA18-141	R01	Mechanisms, Models, Measurement, and Management in Pain Research (R01 Clinical Trial Optional)	DCP	
	PAR18-208	U01	Bioengineering Research Partnerships (U01 Clinical Trial Optional)	ALL DIVISIONS	
	PA18-167	R21	Palliative Care Needs of Individuals with Rare Advanced Diseases and Their Family Caregivers (R21 Clinical Trial Optional)	DCCPS	
	PAR18-206	R01	Bioengineering Research Grants (BRG) (R01 Clinical Trial Optional)	ALL DIVISIONS	
	PA18-159	R21	Mechanisms, Models, Measurement, and Management in Pain Research (R21 Clinical Trial Optional)	DCP	
11/8/2017	PAR18-064	R21	Mechanism for Time-Sensitive Drug Abuse Research (R21 Clinical Trial Optional)	DCCPS	NIH
11/15/2017	PA18-104	R21	Exploratory/Developmental Clinical Research Grants in Obesity (R21 Clinical Trial Optional)	DCCPS DCP	NIH

continued

Source: Office of Referral, Review and Program Coordination.

Table 4 (cont'd). NCI Participation in Trans-NIH Program Announcements (PAs/PARs) in FY2018

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
11/17/2017	PAR18-086	R21, R33	Target Assessment, Engagement and Data Replicability to Improve Substance Use Disorders Treatment Outcomes (R21/R33 Clinical Trial Optional)	DCCPS	NIH
	PAR18-085	R33	Target Assessment, Engagement and Data Replicability to Improve Substance Use Disorders Treatment Outcomes (R33 Clinical Trial Optional)		
	PAR18-084	R21, R33	Integrative Research on Polysubstance Abuse and Addiction (R21/R33 Clinical Trial Optional)		
11/21/2017	PA18-406	R21	Population Health Interventions: Integrating Individual and Group Level Evidence (R21) - Clinical Trial Not Allowed	ALL DIVISIONS	NIH
	PAR18-352	R01	Methodology and Measurement in the Behavioral and Social Sciences (R01 Clinical Trial Optional)	DCCPS	
	PAR18-378	R21	Methodology and Measurement in the Behavioral and Social Sciences (R21 Clinical Trial Optional)		
	PA18-403	T32	Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant (Parent T32)	CCT	
	PA18-372	K08	Mentored Clinical Scientist Research Career Development Award (Parent K08 - Independent Clinical Trial Required)		
	PA18-373	K08	Mentored Clinical Scientist Research Career Development Award (Parent K08 - No Independent Clinical Trials)		
	PA18-356	R01	Population Health Interventions: Integrating Individual and Group Level Evidence (R01) Clinical Trial Not Allowed	DCCPS	
11/22/2017	PA18-407	R21	Population Health Interventions: Integrating Individual and Group Level Evidence (R21) - Clinical Trial Optional	DCCPS	NIH
	PAR18-362	R21	Education and Health: New Frontiers - Clinical Trial Optional	DCCPS	
	PAR18-387	R01			
	PAR18-388	R03			
	PA18-385	R01	Population Health Interventions: Integrating Individual and Group Level Evidence (R01) - Clinical Trial Optional	DCCPS	
11/29/2017	PA18-397	K99, R00	NIH Pathway to Independence Award (Parent K99/R00 - Clinical Trial Required)	CCT	NIH
	PA18-398	K99, R00	NIH Pathway to Independence Award (Parent K99/R00 - Independent Clinical Trial Not Allowed)		
	PAR18-189	R01	Multidisciplinary Studies of HIV/AIDS and Aging (Clinical Trial Optional)	OHAM	
	PAR18-190	R21			
11/30/2017	PAR18-222	R01	Multi-Site Studies for System-Level Implementation of Substance Use Prevention and Treatment Services (R01 Clinical Trial Optional)	DCCPS	NIH
	PAR18-289	R21	Exploratory/Developmental Surgical Disparities Research (R21 Clinical Trial Optional)		
	PAR18-288	R01	Surgical Disparities Research (R01 Clinical Trial Optional)		
	PAR18-242	R21	Mobile Health: Technology and Outcomes in Low and Middle Income Countries (R21 Clinical Trial Optional)	CGH	

continued

Source: Office of Referral, Review and Program Coordination.

Table 4 (cont'd). NCI Participation in Trans-NIH Program Announcements (PAs/PARs) in FY2018

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
12/6/2017	PA18-484	R01	NIH Research Project Grant (Parent R01 Clinical Trial Not Allowed)	ALL DIVISIONS	NIH
	PA18-465	R01	Developing the Therapeutic Potential of the Endocannabinoid System for Pain Treatment (R01, Clinical Trial Optional)	DCP	
12/13/2017	PA18-504	R15	Academic Research Enhancement Award (Parent R15 Clinical Trial Not Allowed)	ALL DIVISIONS	NIH
12/15/2017	PA18-503	R21	Advancing the Science of Geriatric Palliative Care (R21 - Clinical Trial Optional)	DCP	NIH
	PA18-499	R21	End-of-Life and Palliative Care Health Literacy: Improving Outcomes in Serious, Advanced Illness (Clinical Trial Optional)	DCCPS	
	PA18-498	R01			
	PA18-502	R01	Advancing the Science of Geriatric Palliative Care (R01 - Clinical Trial Optional)	DCP	
12/21/2017	PA18-545	R01	Research on the Mechanisms and/or Behavioral Outcomes of Multisensory Processing (R01 - Clinical Trial Optional)	DCCPS	NIH
	PAR18-539	K01	International Research Scientist Development Award (IRSDA) (K01) - Independent Clinical Trial Not Allowed	CGH	
	PAR18-540	K01	International Research Scientist Development Award (IRSDA) (K01) - Independent Clinical Trial Required		
1/16/2018	PA18-573	R43, R44	PHS 2018-02 Omnibus Solicitation of the NIH, CDC, and FDA for Small Business Innovation Research Grant Applications (Parent SBIR [R43/R44] Clinical Trial Required)	ALL DIVISIONS	NIH
	PA18-574	R43, R44	PHS 2018-02 Omnibus Solicitation of the NIH, CDC, and FDA for Small Business Innovation Research Grant Applications (Parent SBIR [R43/R44] Clinical Trial Not Allowed)	SBIRDC	
	PA18-575	R41, R42	PHS 2018-02 Omnibus Solicitation of the NIH, CDC, and FDA for Small Business Technology Transfer Grant Applications (Parent STTR [R41/R42] Clinical Trial Not Allowed)		
	PA18-576	R41, R42	PHS 2018-02 Omnibus Solicitation of the NIH, CDC, and FDA for Small Business Technology Transfer Grant Applications (Parent STTR [R41/R42] Clinical Trial Required)		
	PAR18-583	X01	Discovery of the Genetic Basis of Childhood Cancers and of Structural Birth Defects: Gabriella Miller Kids First Pediatric Research Program (X01, Clinical Trials Not Allowed)	DCTD CCT	
1/25/2018	PA18-592	333*	Research Supplements to Promote Re-Entry into Biomedical and Behavioral Research Careers (Admin Supp - Clinical Trial Not Allowed)	CRCHD	NIH
	PA18-586	333*	Research Supplements to Promote Diversity in Health-Related Research (Admin Supp - Clinical Trial Not Allowed)		
	PA18-591	333*	Administrative Supplements to Existing NIH Grants and Cooperative Agreements (Parent Admin Supp - Clinical Trial Optional)	ALL DIVISIONS	

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 FY2018

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
1/26/2018	PA18-590	777	Change of Grantee Organization (Type 7 Parent Clinical Trial Optional)	ALL DIVISIONS	NIH
	PA18-589	666	Successor-in-Interest (Type 6 Parent Clinical Trial Optional)		
2/1/2018	PAR18-611	R21	Electronic Nicotine Delivery Systems (ENDS): Population, Clinical and Applied Prevention Research (Clinical Trial Optional)	DCCPS	NIH
	PAR18-612	R01			
2/8/2018	PAR18-644	R33	Advanced-Stage Development and Utilization of Research Infrastructure for Interdisciplinary Aging Studies (R33 - Clinical Trial Optional)	DCCPS	NIH
	PAR18-645	R21, R33	Research Infrastructure Development for Interdisciplinary Aging Studies (R21/R33 - Clinical Trial Optional)		
	PAR18-646	U01	Opportunities for Collaborative Research at the NIH Clinical Center (U01 - Clinical Trial Optional)	DCTD	
2/9/2018	PA18-648	R13	NIH Support for Conferences and Scientific Meetings (Parent R13 Clinical Trial Not Allowed)	ALL DIVISIONS	NIH
2/13/2018	PA18-658	333*	Administrative Supplement for Research on Sex/Gender Influences (Admin Supp - Clinical Trial Optional)	ALL DIVISIONS	NIH
2/15/2018	PA18-666	F31	Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship to Promote Diversity in Health-Related Research (Parent F31)	CRCHD	NIH
2/16/2018	PA18-671	F31	Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship (Parent F31)	CCT	NIH
	PA18-670	F32	Ruth L. Kirschstein National Research Service Award (NRSA) Individual Postdoctoral Fellowship (Parent F32)		
	PA18-668	F30	Ruth L. Kirschstein National Research Service Award (NRSA) Individual Fellowship for Students at Institutions with NIH-Funded Institutional Predoctoral Dual-Degree Training Programs (Parent F30)		
2/20/2018	PA18-672	F33	Ruth L. Kirschstein National Research Service Award (NRSA) Individual Senior Fellowship (Parent F33)	CCT	NIH
	PA18-673	F30	Ruth L. Kirschstein National Research Service Award (NRSA) Individual Fellowship for Students at Institutions Without NIH-Funded Institutional Predoctoral Dual-Degree Training Programs (Parent F30)		
2/22/2018	PA18-676	333*	Research on the Health of Women of Understudied, Underrepresented and Underreported (U3) Populations An ORWH FY18 Administrative Supplement (Admin Supp - Clinical Trial Optional)	ALL DIVISIONS	NIH
3/2/2018	PAR18-692	K18	Short-term Mentored Career Enhancement Awards for Mid-Career Investigators to Integrate Basic Behavioral and Social Sciences (K18 Clinical Trial Required)	CCT	NIH
	PAR18-694	R24	Interdisciplinary Research Teams to Investigate Reciprocal Basic Behavioral and Social Linkages Between Sleep and Stress (R24 Clinical Trial Optional)	DCCPS	

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

Table 4 (cont'd). NCI Participation in Trans-NIH Program Announcements (PAs/PARs) in FY2018

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
3/6/2018	PA18-705	R43, R44	SBIR Technology Transfer (R43/R44 Clinical Trial Not Allowed)	SBIRDC	NIH
3/14/2018	PAR18-714	R15	Academic Research Enhancement Award for Undergraduate-Focused Institutions (R15 Clinical Trial Not Allowed)	ALL DIVISIONS	NIH
3/15/2018	PA18-713	333*	Administrative Supplements for Research on Sexual and Gender Minority (SGM) Populations (Admin Supp)	CRCHD	NIH
3/21/2018	PAR18-717	D43	Fogarty HIV Research Training Program for Low-and Middle-Income Country Institutions (D43 Clinical Trial Optional)	CRCHD	NIH
3/27/2018	PA18-720	R21	Exploratory/Developmental Clinical Research Grants in Obesity (R21 Clinical Trial Optional)	DCCPS	NIH
3/28/2018	PA18-729	R01	Research on the Health of Transgender and Gender Nonconforming Populations (Clinical Trial Optional)	CRCHD	NIH
	PA18-728	R21			
	PA18-722	R01	Improving Patient Adherence to Treatment and Prevention Regimens to Promote Health (Clinical Trial Optional)	DCCPS	
	PA18-723	R21			
3/29/2018	PAR18-732	R21	Reducing Stigma to Improve HIV/AIDS Prevention, Treatment and Care in Low and Middle- Income Countries (R21 Clinical Trial Optional)	CGH	NIH
	PAR18-727	R01	Food Specific Molecular Profiles and Biomarkers of Food and Nutrient Intake, and Dietary Exposure (R01 Clinical Trial Optional)	DCP	
3/30/2018	PAR18-733	R03	Small Research Grants for Analyses of Data for the Gabriella Miller Kids First Data Resource (R03 - Clinical Trial Not Allowed)	DCTD	NIH
4/3/2018	PAR18-740	R00, SI2	Lasker Clinical Research Scholars Program (Si2/R00 Clinical Trial Optional)	ALL DIVISIONS	NIH
4/20/2018	PAR18-764	R01	Harnessing Big Data to Halt HIV (R01 Clinical Trial Optional)	CGH	NIH
5/16/2018	PAR18-787	R01	Precision Imaging of Oral Lesions (R01 - Clinical Trial Not Allowed)	DCTD	NIH
6/5/2018	PA18-818	333*	Administrative Supplements for Validation Studies of Analytical Methods for Dietary Supplement Constituents (Admin Supp - Clinical Trial Not Allowed)	DCP	NIH
	PA18-817	333*	Administrative Supplements for Research on Dietary Supplements (Admin. Supp.- Clinical Trial Not Allowed)		
6/14/2018	PAR18-830	R01	The Role of Epitranscriptomics in Development and Disease (R01 - Clinical Trial Not Allowed)	DCB	NIH
6/20/2018	PA18-837	333*	Administrative Supplements to Promote Diversity in Small Businesses-SBIR/STTR (Admin Supp Clinical Trial Not Allowed)	SBIRDC	NIH

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

Table 4 (cont'd). NCI Participation in Trans-NIH Program Announcements (PAs/PARs) in FY2018

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
6/29/2018	PAR18-847	R01	Electronic Nicotine Delivery Systems (ENDS): Population, Clinical and Applied Prevention Research (R01 - Clinical Trial Optional)	DCCPS	NIH
	PAR18-846	R21	Electronic Nicotine Delivery Systems (ENDS): Basic Mechanisms of Health Effects (Clinical Trial Not Allowed)	DCB	
	PAR18-845	R01			
	PAR18-848	R21	Electronic Nicotine Delivery Systems (ENDS): Population, Clinical and Applied Prevention Research (R21 - Clinical Trial Optional)	DCCPS	
7/12/2018	PAR18-854	R01	Time-Sensitive Obesity Policy and Program Evaluation (R01 Clinical Trial Not Allowed)	DCCPS	NIH
7/17/2018	PA18-856	R01	Diet and Physical Activity Assessment Methodology (Clinical Trial Not Allowed)	DCCPS	NIH
	PAR18-857	R21			
7/25/2018	PA18-876	R01	Advancing Mechanistic Probiotic/Prebiotic and Human Microbiome Research (R01 Clinical Trial Not Allowed)	ALL DIVISIONS	NIH
7/31/2018	PAR18-881	K18	Short-term Mentored Career Enhancement Awards in Mobile and Wireless Health Technology and Data Analytics: Cross-Training at the intersection of Behavioral and Social Sciences and STEM Disciplines (K18 Independent Clinical Trial Not Allowed)	ALL DIVISIONS	NIH
	PAR18-882	K18	Short-term Mentored Career Enhancement Awards in Mobile and Wireless Health Technology and Data Analytics: Cross-Training at the Intersection of Behavioral and Social Sciences and STEM Disciplines (K18 Independent Clinical Trial Required)		
8/22/2018	PA18-906	333*	Research Supplements to Promote Diversity in Health-Related Research (Admin Supp - Clinical Trial Not Allowed)	CRCHD	NIH
9/10/2018	PA18-917	R01	Developing the Therapeutic Potential of the Endocannabinoid System for Pain Treatment (R01 - Clinical Trial Optional)	DCP	NIH
9/21/2018	PA18-932	R01	Increasing Uptake of Evidence-Based Screening in Diverse Adult Populations (R01 Clinical Trial Optional)	DCCPS	NIH
9/24/2018	PA18-936	333*	NIH Administrative Supplements to Recover Losses Due to Hurricanes Harvey, Irma, and Maria Under the Bipartisan Budget Act of 2018 Non-Construction (Admin Supp Clinical Trial Optional)	ALL DIVISIONS	NIH

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

Table 5. Applications Received for Referral by the NCI/DEA in FY2018

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	9	9	0	0	$2,685,464
NIH Director's Pioneer Award (NDPA)	DP1	1	0	1	0	$3,500,000
NIH Director's New Innovator Awards	DP2	7	0	7	0	$10,500,000
Individual Predoctoral NRSA for M.D./Ph.D. Fellowships (ADAMHA)	F30	187	46	64	77	$0
Predoctoral Individual National Research Service Award	F31	485	144	175	166	$0
Postdoctoral Individual National Research Service Award	F32	275	83	96	96	$0
Predoctoral to Postdoctoral Transition Award	F99	73	0	0	73	$0
Research Scientist Development Award — Research & Training	K01	43	13	9	21	$5,749,256
Academic/Teacher Award	K07	60	15	45	0	$8,835,741
Clinical Investigator Award	K08	153	39	63	51	$33,003,869
Physician Scientist Award (Program)	K12	9	9	0	0	$3,258,067
Career Transition Award	K22	133	48	48	37	$21,696,646
International Research Career Development Award	K43	5	0	0	5	$574,551
Career Transition Award	K99	216	77	79	60	$25,580,115
Research Program Projects	P01	107	34	41	32	$267,291,456
Exploratory Grants	P20	40	0	0	40	$34,739,553
Center Core Grants	P30	24	13	5	6	$112,270,835
Specialized Center	P50	54	11	32	11	$121,799,232
Research Project	R01	7,730	2,650	2,763	2,317	$4,148,620,179
Small Research Grants	R03	601	185	192	224	$47,646,054
Conferences	R13	115	48	38	29	$4,133,505
Academic Research Enhancement Awards (AREA)	R15	291	90	104	97	$125,087,836
Exploratory/Developmental Grants	R21	2,673	902	1,008	763	$603,750,471
Education Projects	R25	71	26	21	24	$21,027,003
Exploratory/Developmental Grants Phase II	R33	115	36	42	37	$51,541,301
Outstanding Investigator Award	R35	103	0	103	0	$100,102,690
Method to Extend Research in Time (MERIT) Award	R37	40	18	22	0	$20,393,884
Mentored Research Pathway in Residency	R38	5	0	5	0	$1,677,133
Small Business Technology Transfer (STTR) Grants — Phase I	R41	262	108	69	85	$63,771,041
Small Business Technology Transfer (STTR) Grants — Phase II	R42	50	19	13	18	$23,146,404
Small Business Innovation Research Grants (SBIR) — Phase I	R43	838	313	272	253	$199,725,478
Small Business Innovation Research Grants (SBIR) — Phase II	R44	275	130	69	76	$151,072,082
Research Specialist Award	R50	27	0	0	27	$4,171,303
High Priority, Short Term Project Award	R56	8	3	3	2	$1,588,186
Minority Biomedical Research Support (MBRS)	S06	14	14	0	0	$14,968,062

continued

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 450 withdrawn applications that have been subtracted from the total count.

Table 5 (cont'd). Applications Received for Referral by the NCI/DEA in FY2018

Sorted by Activity Code

Applications	Activity Code	Total by Activity	Applications by NCAB			Total Costs Requested First Year
			Feb	June	Sept	
Research Enhancement Award	SC1	33	11	0	22	$11,244,722
Pilot Research Project	SC2	22	9	0	13	$3,197,018
Intramural Clinical Scholar Research Award	SI2	8	8	0	0	$499,000
Institutional National Research Service Award	T32	71	30	28	13	$34,559,856
Research Project (Cooperative Agreements)	U01	697	170	320	207	$553,931,508
Cooperative Clinical Research (Cooperative Agreements)	U10	11	0	0	11	$173,605,936
Resource-Related Research Project (Cooperative Agreements)	U24	76	26	26	24	$78,488,623
Resource-Related Research Multi-Component Projects and Centers Cooperative Agreements	U2C	38	0	0	38	$115,549,594
Small Business Innovation Research (SBIR) Cooperative Agreements — Phase II	U44	1	0	1	0	$906,360
Specialized Center (Cooperative Agreements)	U54	47	0	26	21	$109,318,004
Clinical Research Cooperative Agreements — Single Project	UG1	50	0	0	50	$54,339,522
Phase 1 Exploratory/Developmental Cooperative Agreement	UG3	37	5	7	25	$22,037,939
Exploratory/Developmental Cooperative Agreement — Phase I	UH2	17	3	5	9	$5,325,562
Exploratory/Developmental Cooperative Agreement — Phase II	UH3	2	0	0	2	$732,937
Research Project with Complex Structure Cooperative Agreement	UM1	13	0	2	11	$28,508,118
Small Business Technology Transfer (STTR) Cooperative Agreements — Phase I	UT1	1	1	0	0	$142,788
Pre-application	X02	13	0	13	0	$0
Overall Totals		**16,236**	**5,346**	**5,817**	**5,073**	**$7,426,294,884**

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 450 withdrawn applications that have been subtracted from the total count.

Table 6. Grant and Cooperative Agreement Applications Reviewed by the NCI/DEA (by Mechanism) in FY2018

Sorted by Activity Code

Mechanism	Activity Code	Totals by Activity	Applications by NCAB			Total Costs Requested First Year
			Feb	June	Sept	
Predoctoral to Postdoctoral Transition Award	F99	73	0	0	73	$0
Research Scientist Development Award — Research & Training	K01	36	13	9	14	$4,872,606
Academic/Teacher Award	K07	60	15	45	0	$8,835,741
Clinical Investigator Award	K08	146	39	58	49	$31,697,692
Physician Scientist Award (Program)	K12	9	9	0	0	$3,258,067
Career Transition Award	K22	133	48	48	37	$21,696,646
Career Transition Award	K99	195	70	67	58	$23,466,356
Research Program Projects	P01	107	34	41	32	$267,291,456
Exploratory Grants	P20	40	0	0	40	$34,739,553
Center Core Grants	P30	18	7	5	6	$98,379,904
Specialized Center	P50	54	11	32	11	$121,799,232
Research Project	R01	294	134	124	36	$179,668,021
Small Research Grants	R03	562	170	177	215	$43,920,082
Conferences	R13	74	26	26	22	$1,919,341
Exploratory/Developmental Grants	R21	1,342	440	505	397	$304,292,731
Education Projects	R25	71	26	21	24	$21,027,003
Exploratory/Developmental Grants Phase II	R33	115	36	42	37	$51,541,301
Outstanding Investigator Award	R35	103	0	103	0	$100,102,690
Method to Extend Research in Time (MERIT) Award	R37	1	1	0	0	$366,401
Mentored Research Pathway in Residency	R38	5	0	5	0	$1,677,133
Small Business Innovation Research Grants (SBIR) — Phase II	R44	23	23	0	0	$22,147,643
Research Specialist Award	R50	27	0	0	27	$4,171,303
Intramural Clinical Scholar Research Award	SI2	7	7	0	0	$499,000
Institutional National Research Service Award	T32	59	23	25	11	$20,843,655
Research Project (Cooperative Agreements)	U01	475	130	169	176	$364,443,378
Cooperative Clinical Research (Cooperative Agreements)	U10	11	0	0	11	$173,605,936
Resource-Related Research Project (Cooperative Agreements)	U24	58	25	22	11	$61,821,135
Specialized Center (Cooperative Agreements)	U54	21	0	0	21	$27,430,311
Clinical Research Cooperative Agreements — Single Project	UG1	50	0	0	50	$54,339,522
Phase 1 Exploratory/Developmental Cooperative Agreement	UG3	21	5	7	9	$10,001,417
Exploratory/Developmental Cooperative Agreement — Phase I	UH2	17	3	5	9	$5,325,562
Exploratory/Developmental Cooperative Agreement — Phase II	UH3	2	0	0	2	$732,937
Research Project with Complex Structure Cooperative Agreement	UM1	13	0	2	11	$28,508,118
Overall Totals		**4,222**	**1,295**	**1,538**	**1,389**	**$2,094,421,873**

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 154 withdrawn applications that have been subtracted from the total count.

Table 7. Applications Reviewed by NCI IRG Subcommittees and Special Emphasis Panels (SEPs) in FY2018

NCI IRG Subcommittee	Types of Applications Reviewed	Total by Committee	Total Costs Requested First Year
A - Cancer Centers	P30	16	$14,798,736
F - Institutional Training and Education	K12, R25, R38, T32	116	$36,548,486
I - Transition to Independence	K22, K99	308	$39,789,019
J - Career Development	K01, K07, K08, K22, K99	261	$35,015,834
Totals - NCI IRG Subcommittees		**701**	**$126,152,075**
Total SEPs	F99, K01, K99, P01, P20, P30, P50, R01, R03, R13, R15 R21, R25, R33, R35, R37, R44, R50, SI2, T32, U01, U10, U24, U54, UG1, UG3, UH2, UH3, UM1	3,521	$1,879,515,545
Totals		**4,222**	**$2,005,667,620**

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 30 withdrawn applications that have been subtracted from the total count of the IRG Subcommittees, and 124 withdrawn applications that have been subtracted from the total count of the SEPs.

Table 8. Summary of Investigator-Initiated P01 Applications Reviewed for Each NCAB Meeting in FY2018

	Applications by Board			
Type of Application	February	June	September	FY Total
New	18	21	16	55
Resubmitted New	9	7	6	22
Renewal	4	4	6	14
Resubmitted renewal	2	5	4	11
Revisions	0	4	0	4
Total	**33**	**41**	**32**	**106**

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 FY2018

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)	40	$88,292,475	$445,578,798
Division of Cancer Control and Population Sciences (DCCPS)	21	$54,167,992	$269,074,162
Division of Cancer Prevention (DCP)	3	$11,098,872	$53,459,033
Division of Cancer Treatment and Diagnosis (DCTD)	42	$112,214,264	$569,544,713
Total	**106**	**$265,773,603**	**$1,337,656,706**

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 FY2018

Title of Initiative	RFA Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	June	Sept	
Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research	CA17-010	R21	97	41	56	0	$22,424,992
Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research	CA17-011	R33	67	33	34	0	$30,095,727
Innovative Technologies for Cancer-Relevant Biospecimen Science	CA17-012	R21	16	5	11	0	$4,132,745
Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research	CA17-013	R33	11	3	8	0	$4,986,579
Research Answers to NCI's Provocative Questions	CA17-017	R01	214	105	109	0	$126,344,288
Research Answers to NCI's Provocative Questions	CA17-018	R21	144	72	72	0	$32,254,484
Revision Applications to NCI-Supported R01 Awards to Include Research on the NCI's Provocative Questions	CA17-019	R01	5	3	2	0	$1,167,075
Revision Applications to National Cancer Institute (NCI)-Supported P01 Awards to Include Research on the NCI's Provocative Questions	CA17-021	P01	2	0	2	0	$532,069
Revision Applications to National Cancer Institute (NCI)-Supported P50 Awards to Include Research on the NCI's Provocative Questions	CA17-022	P50	3	1	2	0	$670,654
SBIR Phase II Bridge Awards to Accelerate the Development of Cancer Therapeutics, Imaging Technologies, Interventional Devices, Diagnostics, and Prognostics Toward Commercialization	CA17-024	R44	23	23	0	0	$22,147,643
Consortium on Translational Research in Early Detection of Liver Cancer (Clinical and Research Centers	CA17-025	U01	25	0	25	0	$20,193,067
Pediatric Early Phase Clinical Trials Network	CA17-027	UM1	2	0	2	0	$9,993,403
Coordinating Center for the Consortium of Translational Research in Early Detection of Liver Cancer	CA17-028	U24	7	0	7	0	$4,433,555
Precompetitive Collaboration on Liquid Biopsy for Early Cancer Assessment	CA17-029	U01	27	0	7	20	$24,848,258
HIV/AIDS and the Tumor Niche	CA17-030	R01	14	14	0	0	$8,081,985
Limited Competition: A Data Resource for Analyzing Blood and Marrow Transplants	CA17-031	U24	1	0	1	0	$3,977,353
Minority-Patient Derived Xenograft (PDX) Development and Trial Center (PDTC) Network*	CA17-032	U54	11	0	0	11	$13,583,080
Feasibility and Planning Studies for Development of Specialized Programs of Research Excellence (SPOREs) to Investigate Cancer Health Disparities	CA17-033	P20	24	0	0	24	$30,343,592
Approaches to Identify and Care for Individuals with Inherited Cancer Syndromes*	CA17-041	U01	21	0	0	21	$22,127,512
Research Centers for Improving Management of Symptoms Across Cancer Treatments (IMPACT)*	CA17-042	UM1	10	0	0	10	$16,331,523

continued

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 73 withdrawn applications that have been subtracted from the total count.
*Cancer Moonshot FOA.

Table 10 (cont'd). Requests for Applications (RFAs) Reviewed by the NCI/DEA in FY2018

Title of Initiative	RFA Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	June	Sept	
Coordinating Center for Improving Management of Symptoms Across Cancer Treatments (IMPACT)*	CA17-043	U24	6	0	0	6	$3,515,107
Immuno-Oncology Translation Network (IOTN): Cancer Immunotherapy Research Projects*	CA17-045	U01	71	0	0	71	$54,646,512
Immuno-Oncology Translation Network (IOTN): Cancer Immunoprevention Research Projects*	CA17-046	U01	11	0	0	11	$8,193,920
Immuno-Oncology Translation Network (IOTN): Data Management and Resource-Sharing Center (DMRC)*	CA17-047	U24	3	0	0	3	$3,780,977
Immuno-Oncology Translation Network (IOTN): Cellular Immunotherapy Data Resource (CIDR)*	CA17-048	U24	1	0	0	1	$1,789,195
Analyzing and Interpreting Clinician and Patient Adverse Event Data to Better Understand Tolerability	CA17-052	U01	7	0	0	7	$4,711,736
Limited Competition: NCI National Clinical Trials Network — Network Group Operations Centers	CA17-056	U10	5	0	0	5	$116,077,945
Limited Competition: NCI National Clinical Trials Network — Network Group Statistics and Data Management Centers	CA17-057	U10	5	0	0	5	$54,396,733
Limited Competition: NCI National Clinical Trials Network — Canadian Collaborating Clinical Trials Network	CA17-058	U10	1	0	0	1	$3,131,258
NCI National Clinical Trials Network (NCTN)--Network Lead Academic Participating Sites	CA17-059	UG1	42	0	0	42	$43,161,175
Limited Competition: NCI National Clinical Trials Network - Network Radiotherapy and Imaging Core Services Center (U24)	CA17-060	U24	1	0	0	1	$8,604,930
NCI National Clinical Trials Network — Network Group Integrated Translational Science Centers	CA17-061	UG1	8	0	0	8	$11,178,347
The NCI Predoctoral to Postdoctoral Fellow Transition Award	CA18-001	F99	73	0	0	73	$0
Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research	CA18-002	R21	52	0	0	52	$12,527,471
Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research	CA18-003	R33	32	0	0	32	$14,236,158
Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research	CA18-004	R21	5	0	0	5	$1,124,120
Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research	CA18-005	R33	5	0	0	5	$2,222,837
Revisions for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research	CA18-008	U54	1	0	0	1	$221,640
Stimulating Access to Research in Residency (StARR)	HL18-023	R38	5	0	5	0	$1,677,133
Totals			**1,058**	**300**	**343**	**415**	**$743,866,778**

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 73 withdrawn applications that have been subtracted from the total count.
*Cancer Moonshot FOA.

Table 11. Program Announcements (PAs) Reviewed by the NCI/DEA in FY2018

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	1	0	$772,170
Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant	PA16-152	T32	48	23	25	0	$17,635,914
NIH Research Project Grant	PA16-160	R01	21	10	11	0	$14,170,479
NIH Research Project Grant	PA16-160	R37	1	1	0	0	$366,401
Mechanisms, Models, Measurement, and Management in Pain Research	PA16-188	R01	1	1	0	0	$501,651
Mentored Clinical Scientist Research Career Development Award	PA16-191	K08	90	37	53	0	$19,850,456
NIH Pathway to Independence Award	PA16-193	K99	137	70	67	0	$16,642,987
NIH Support for Conferences and Scientific Meetings	PA16-294	R13	52	26	26	0	$1,419,323
Palliative Care Needs of Individuals with Advanced Rare Diseases and Their Family Caregivers	PA17-018	R01	2	1	1	0	$1,832,298
Oral Anticancer Agents: Utilization, Adherence, and Health Care Delivery	PA17-061	R21	1	0	1	0	$229,893
Improving Outcomes in Cancer Treatment-Related Cardiotoxicity	PA18-003	R01	1	0	0	1	$1,138,878
Palliative Care Needs of Individuals with Advanced Rare Diseases and Their Family Caregivers	PA18-149	R01	1	0	0	1	$908,289
Mechanisms, Models, Measurement, and Management in Pain Research	PA18-159	R21	1	0	0	1	$220,425
Mentored Clinical Scientist Research Career Development Award	PA18-372	K08	7	0	0	7	$1,688,681
Mentored Clinical Scientist Research Career Development Award	PA18-373	K08	35	0	0	35	$7,121,794
NIH Pathway to Independence Award	PA18-397	K99	5	0	0	5	$649,226
NIH Pathway to Independence Award	PA18-398	K99	53	0	0	53	$6,174,143
Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant	PA18-403	T32	11	0	0	11	$3,207,741
NIH Support for Conferences and Scientific Meetings	PA18-648	R13	22	0	0	22	$500,018
Specialized Programs of Research Excellence (SPOREs) in Human Cancers for Years 2015, 2016, and 2017	PAR14-353	P50	40	10	30	0	$95,210,112
Physical Sciences-Oncology Network (PS-ON): Physical Sciences-Oncology Projects (PS-OP)	PAR15-021	U01	25	13	12	0	$19,166,627
Assay Validation for High Quality Markers for NCI-Supported Clinical Trials	PAR15-095	UH2	8	3	5	0	$3,021,949
Cancer Research Education Grants Program — Curriculum or Methods Development	PAR15-150	R25	3	2	1	0	$322,600
Cancer Research Education Grants Program — Courses for Skills Development	PAR15-151	R25	7	4	3	0	$2,012,420
Cancer Research Education Grants Program — Research Experiences	PAR15-152	R25	7	3	4	0	$1,707,315

continued

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 81 withdrawn applications that have been subtracted from the total count.

Table 11 (cont'd). Program Announcements (PAs) Reviewed by the NCI/DEA in FY2018

Title of Initiative	PA/PAR Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	Jun	Sept	
The Pancreatic Cancer Detection Consortium	PAR15-289	U01	11	9	2	0	$13,062,827
Utilizing the PLCO Biospecimens Resource to Bridge Gaps in Cancer Etiology and Early Detection Research	PAR15-297	U01	13	0	7	6	$8,393,969
Translational Studies on Adducts for Cancer Risk Identification and Prevention	PAR15-307	U01	1	1	0	0	$1,082,340
Advanced Development of Informatics Technologies for Cancer Research and Management	PAR15-331	U24	27	19	8	0	$24,837,454
Early-Stage Development of Informatics Technologies for Cancer Research and Management	PAR15-332	U01	48	21	27	0	$22,593,413
Sustained Support for Informatics Resources for Cancer Research and Management	PAR15-333	U24	5	3	2	0	$5,319,477
Development of Innovative Informatics Methods and Algorithms for Cancer Research and Management	PAR15-334	R21	68	29	39	0	$15,195,350
Small-Cell Lung Cancer (SCLC) Consortium: Therapeutic Development and Mechanisms of Resistance	PAR16-049	U01	11	0	8	3	$6,462,508
Small-Cell Lung Cancer (SCLC) Consortium: Innovative Approaches to the Prevention and Early Detection of Small Cell Lung Cancer	PAR16-051	U01	7	0	7	0	$4,875,763
Feasibility Studies to Build Collaborative Partnerships in Cancer Research	PAR16-084	P20	24	0	0	24	$4,395,961
Cooperative Agreement to Develop Targeted Agents for Use with Systemic Agents Plus Radiotherapy	PAR16-111	U01	17	13	4	0	$11,905,833
Emerging Questions in Cancer Systems Biology	PAR16-131	U01	75	40	35	0	$59,538,375
Cancer Research Education Grants Program to Promote Diversity — Research Experiences	PAR16-138	R25	14	4	5	5	$3,044,518
Cancer Research Education Grants Program to Promote Diversity — Courses for Skills Development	PAR16-139	R25	7	2	1	4	$1,798,452
Integrating Biospecimen Science Into Clinical Assay Development (U01)	PAR16-166	U01	7	0	7	0	$2,859,594
NCI Clinical and Translational Exploratory/Developmental Studies	PAR16-176	R21	619	293	326	0	$139,170,777
Paul Calabresi Career Development Award for Clinical Oncology	PAR16-189	K12	9	9	0	0	$3,258,067
Cancer Prevention, Control, Behavioral Sciences, and Population Sciences Career Development Award	PAR16-284	K07	60	15	45	0	$8,835,741
The NCI Transition Career Development Award	PAR16-293	K22	88	45	43	0	$14,174,938
Biological Comparisons in Patient-Derived Models of Cancer	PAR16-344	U01	28	0	16	12	$24,928,398
New Informatics Tools and Methods to Enhance U.S. Cancer Surveillance and Research	PAR16-349	UG3	7	0	3	4	$3,527,843
Oncology Co-Clinical Imaging Research Resources to Encourage Consensus on Quantitative Imaging Methods and Precision Medicine	PAR16-385	U24	7	3	4	0	$5,563,087

continued

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 81 withdrawn applications that have been subtracted from the total count.

Table 11 (cont'd). Program Announcements (PAs) Reviewed by the NCI/DEA in FY2018

Title of Initiative	PA/PAR Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	Jun	Sept	
NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity	PAR16-400	K08	7	2	5	0	$1,360,990
NCI Mentored Research Scientist Development Award to Promote Diversity	PAR16-401	K01	22	13	9	0	$2,962,812
NCI Small Grants Program for Cancer Research	PAR16-416	R03	347	170	177	0	$27,194,269
National Cancer Institute Program Project Applications	PAR16-457	P01	73	34	39	0	$180,290,111
National Cancer Institute Youth Enjoy Science Research Education Program	PAR17-059	R25	27	11	7	9	$10,751,361
NCI Transition Career Development Award to Promote Diversity	PAR17-069	K22	8	3	5	0	$1,399,495
Cancer Center Support Grants (CCSGs) for NCI-designated Cancer Centers	PAR17-095	P30	18	7	5	6	$98,379,904
Quantitative Imaging Tools and Methods for Cancer Therapy Response Assessment	PAR17-128	UG3	14	5	4	5	$6,473,574
Quantitative Imaging Tools and Methods for Cancer Response Assessment	PAR17-129	U01	14	6	5	3	$10,635,185
Multilevel Interventions in Cancer Care Delivery: Building from the Problem of Follow-up to Abnormal Screening Tests	PAR17-146	U01	13	6	7	0	$10,170,234
Alliance of Glycobiologists for Cancer Research: Translational Tumor Glycomics Laboratories	PAR17-206	U01	13	10	0	3	$9,341,123
Alliance of Glycobiologists for Cancer Research: Biological Tumor Glycomics Laboratories	PAR17-207	U01	15	10	0	5	$10,969,484
Core Infrastructure and Methodological Research for Cancer Epidemiology Cohorts	PAR17-233	U01	5	1	0	4	$6,770,462
Core Infrastructure and Methodological Research for Cancer Epidemiology Cohorts	PAR17-233	UM1	1	0	0	1	$2,183,192
Lasker Clinical Research Scholars Program	PAR17-254	SI2	7	7	0	0	$499,000
NCI Outstanding Investigator Award	PAR17-494	R35	103	0	103	0	$100,102,690
NCI Clinical and Translational Exploratory/Developmental Studies	PAR18-020	R21	339	0	0	339	$77,012,474
NCI Small Grants Program for Cancer Research	PAR18-021	R03	215	0	0	215	$16,725,813
National Cancer Institute Program Project Applications	PAR18-290	P01	32	0	0	32	$86,469,276
Assay Validation of High Quality Markers for Clinical Studies in Cancer	PAR18-310	UH3	2	0	0	2	$732,937
Specialized Programs of Research Excellence (SPOREs) in Human Cancers for years 2018, 2019, and 2020	PAR18-313	P50	10	0	0	10	$22,704,743
Assay Validation of High Quality Markers for Clinical Studies in Cancer	PAR18-317	UH2	9	0	0	9	$2,303,613
NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity	PAR18-336	K08	3	0	0	3	$812,457
NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity	PAR18-337	K08	4	0	0	4	$863,314

continued

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 81 withdrawn applications that have been subtracted from the total count.

Table 11 (cont'd). Program Announcements (PAs) Reviewed by the NCI/DEA in FY2018

Title of Initiative	PA/PAR Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	Jun	Sept	
NCI Research Specialist (Laboratory-Based Scientist) Award	PAR18-341	R50	23	0	0	23	$3,573,650
NCI Research Specialist (Core-Based Scientist) Award	PAR18-342	R50	4	0	0	4	$597,653
Comprehensive Partnerships to Advance Cancer Health Equity (CPACHE)	PAR18-361	U54	9	0	0	9	$13,625,591
NCI Mentored Research Scientist Development Award to Promote Diversity	PAR18-364	K01	12	0	0	12	$1,649,229
NCI Mentored Research Scientist Development Award to Promote Diversity	PAR18-365	K01	2	0	0	2	$260,565
NCI Transition Career Development Award to Promote Diversity	PAR18-366	K22	3	0	0	3	$581,580
The NCI Transition Career Development Award	PAR18-466	K22	1	0	0	1	$188,048
The NCI Transition Career Development Award	PAR18-467	K22	33	0	0	33	$5,352,585
Cancer Research Education Grants Program — Curriculum or Methods Development	PAR18-476	R25	1	0	0	1	$164,000
Cancer Research Education Grants Program — Courses for Skills Development	PAR18-477	R25	3	0	0	3	$877,898
Cancer Research Education Grants Program — Research Experiences	PAR18-478	R25	2	0	0	2	$348,439
Cancer Prevention and Control Clinical Trials Grant Program	PAR18-559	R01	20	0	0	20	$14,508,196
National Cancer Institute's Investigator-Initiated Early Phase Clinical Trials for Cancer Treatment and Diagnosis	PAR18-560	R01	14	0	0	14	$10,242,712
Opportunities for Collaborative Research at the NIH Clinical Center	PAR18-646	U01	10	0	0	10	$6,966,238
Totals			**3,171**	**995**	**1,195**	**973**	**$1,347,341,372**

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 81 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 FY2018*

Announcement/ Topic Number	Announcement Title	Review Round	No. of Proposals
N01PC65003-74	Surveillance, Epidemiology, and End Results (SEER) Program	Jan-18	16
Topic 370 Phase I (Fast Track)	Targeted Therapy for Cancer and Cancer Therapy-Related Cachexia	May-18	3
Topic 371 Phase I (Fast Track)	Drugs to Exploit the Immune Response Generated by Radiation Therapy	May-18	10
Topic 372 Phase I (Fast Track)	Development and Validation of Non-Mouse Reagents to Enable Preclinical Development of Novel Therapeutics*	May-18	10
Topic 373 Phase I (Fast Track)	Tools and Technologies for Monitoring RNA Modifications*	May-18	8
Topic 374 Phase I (Fast Track)	Novel Approaches for Local Delivery of Chemopreventive Agents*	May-18	10
Topic 375 Phase I (Fast Track)	Diagnostic Imaging for Cancer Immunotherapies*	May-18	8
Topic 376 Phase I (Fast Track)	Imaging-Based Tools for Longitudinal and Multi-Dimensional Mapping of the Tumor and its Microenvironment	May-18	10
Topic 377 Phase I (Fast Track)	Bridging the Guideline Implementation Gap: Clinical Decision-Support to Improve Cancer Symptom Management*	May-18	12
Topic 378 Phase I (Fast Track)	Mobile Application for Surveillance of Post-Radiation Therapy Health-Related Quality of Life	May-18	26
Topic 379 Phase I (Fast Track)	Software Enabling Data Integration from Wearable Sensors to Generate Novel Analytics for Cancer Patients*	May-18	8
Topic 380 Phase I (Fast Track)	Computer Aided Decision Support for Radiation Oncology*	May-18	4
Topic 381 Phase I (Fast Track)	Development of Artificial Intelligence (AI) Tools to Understand and Duplicate Experts' Radiation Therapy Planning for Prostate Cancer	May-18	2
N01CN77019-18	PREVENT Cancer Preclinical Drug Development Program	Oct-18	13
N02CP71024-72	Support for Thyroid Cancer & Other Diseases in Belarus	Oct-18	1
N02CO72406-81	Leidos Biomed Research: Federally Funded Research and Development Center (FFRDC)	Oct-18	1
	Phase II Proposals From Earlier Phase I Awards		
Topic 337/353 Phase II	Cell-Free Nucleic Acid-Based Assay Development for Cancer Diagnosis	May-18	6
Topic 339 Phase II	Systemic Targeted Radionuclide Therapy For Cancer Treatment	May-18	1

continued

*The NCI reviewed a total of 666 proposals. The proposals were in response to SBIR Contract Solicitations — Phase I (142), Phase II (20), and Loan Repayment (504).
*Cancer Moonshot FOA.

Table 12 (cont'd). SBIR Topics and Requests for Proposals (RFPs) Reviewed by the NCI/DEA in FY2018*

Announcement/ Topic Number	Announcement Title	Review Round	No. of Proposals
Topic 341 Phase II	Development of Metabolomics Data Integration Methods and Software	May-18	2
Topic 343 Phase II	An Electronic Platform for Cognitive Assessment in Cancer Patients	May-18	3
Topic 344 Phase II	Technologies for Differential Isolation of Exosomes and Oncosomes	May-18	1
Topic 345 Phase II	Predictive Biomarkers of Adverse Reactions to Radiation Treatment	May-18	1
Topic 346 Phase II	Molecularly Targeted Radiation Therapy for Cancer Treatment	May-18	2
Topic 347 Phase II	Signal Amplification to Enable Attomolar Quantitation in Slide-Based or ELISA Biomarker Immunoassays	May-18	1
Topic 349 Phase II	Proximity Slide-Based Sandwich Immunoassay to Visualize Intramolecular Epitopes of Analytes in Tissue Sections	May-18	1
Topic 352 Phase II	Cell and Animal-Based Models to Advance Cancer Health Disparity Research	May-18	2
	Other Solicitations Reviewed in DEA		
L30 (OD-15-122)	Loan Repayment Program for Clinical Researchers	Oct-18	201
L40 (OD-15-121)	Loan Repayment Program for Pediatric Researchers	Oct-18	303
TOTAL			**666**

*The NCI reviewed a total of 666 proposals. The proposals were in response to SBIR Contract Solicitations — Phase I (142), Phase II (20), and Loan Repayment (504).

Table 13. Summary of NCI Grant Awards by Mechanism in FY2018*

Fund Type: Appropriated				% of NCI Total Grants			Fiscal Year: 2018	
Cost Centers Mechanisms	Awards Count	Awards Dollars	Average Cost	Number	Dollars	Competing Requested	Competing Awarded	Success Rate
Research Project Grants								
Traditional Research Grants — R01/RL1	2,950	1,303,128,640	441,739	45.63%	35.38%	5,800	612	10.55%
Traditional Research Grants — R01/RL1 - Moonshot	14	12,140,246	867,160	0.22%	0.33%	0	0	0.0%
Program Projects — P01	81	156,448,210	1,931,459	1.25%	4.25%	97	18	18.56%
Program Projects — P01 - Moonshot	4	9,080,574	2,270,144	0.06%	0.25%	0	0	0.0%
Small Grants — R03	148	12,153,507	82,118	2.29%	0.33%	564	59	10.46%
Exploratory/Developmental Research — R21	298	56,920,135	191,007	4.61%	1.55%	2,100	183	8.71%
Exploratory/Developmental Research — R21 - Moonshot	0	77,750	77,750	0.0%	0.0%	0	0	0.0%
Merit Awards — R37	66	30,162,817	457,012	1.02%	0.82%	64	64	100.0%
Phased Innovation Grant (Phase 2) — R33	0	235,208	235,208	0.0%	0.01%	0	0	0.0%
Phased Innovation Grant (Phase 2) — R33 - Moonshot	0	252,283	252,283	0.0%	0.01%	0	0	0.0%
Bridge Award — R56	2	601,954	300,977	0.03%	0.02%	1	1	100.0%
Pathway to Independence — R00/Si2	103	24,703,611	239,841	1.59%	0.67%	7	0	0.0%
Exploratory/Development Coop. Agreements — UH2/UH3	10	2,577,913	257,791	0.15%	0.07%	17	3	17.65%
Exploratory/Developmental Grants — UG3	2	845,924	422,962	0.03%	0.02%	21	1	4.76%
NIH Director Pioneer Award (NDPA) — DP1	2	2,388,250	1,194,125	0.03%	0.06%	0	0	0.0%
NIH Director New Innovator Awards — DP2	1	2,710,753	2,710,753	0.02%	0.07%	1	1	100.0%
Outstanding Investigators — R35	125	118,267,263	946,138	1.93%	3.21%	104	20	19.23%
NIH Director's Early Independence Awards — DP5	6	2,494,387	415,731	0.09%	0.07%	0	0	0.0%
Academic Research Enhancement Awards (AREA) — R15	20	8,950,505	447,525	0.31%	0.24%	222	20	9.01%
Multi-Component Research Project Coop. Agreements — UM1/RM1	5	7,922,927	1,584,585	0.08%	0.22%	0	0	0.0%
Research Specialist Award — R50	63	10,559,083	167,604	0.97%	0.29%	27	14	51.85%
Cooperative Agreements — U01/U19	194	143,755,893	741,010	3.0%	3.9%	394	45	11.42%
Cooperative Agreements — U01/U19 - Moonshot	1	2,896,944	2,896,944	0.02%	0.08%	1	1	100.0%

continued

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Source: Office of Extramural Finance and Information Analysis.

Table 13 (cont'd). Summary of NCI Grant Awards by Mechanism in FY2018*

Fund Type: Appropriated				% of NCI Total Grants				Fiscal Year: 2018
Cost Centers Mechanisms	Awards Count	Awards Dollars	Average Cost	Number	Dollars	Competing Requested	Competing Awarded	Success Rate
Request for Applications	253	94,337,235	372,874	3.91%	2.56%	674	73	10.83%
Request for Applications - Moonshot	1	247,310	247,310	0.02%	0.01%	0	0	0.0%
Cooperative Agreements — RFA-U01/U19	120	157,411,061	1,311,759	1.86%	4.27%	80	17	21.25%
Cooperative Agreements — RFA-U01/U19 UM1 - Moonshot	26	61,547,461	2,367,210	0.4%	1.67%	143	25	17.48%
Small Business Innovative Research — R43/R44	216	113,816,989	526,931	3.34%	3.09%	847	140	16.53%
Small Business Innovative Research — R43/R44 - Moonshot	3	3,019,904	1,006,635	0.05%	0.08%	0	0	0.0%
Small Business Technology Transfer — R41/R42	37	17,018,184	459,951	0.57%	0.46%	259	31	11.97%
Small Business Technology Transfer — R41/R42 - Moonshot	3	1,326,638	442,213	0.05%	0.04%	2	2	100.0%
Program Evaluation — R01	0	84,028,127	84,028,127	0.0%	2.28%	0	0	0.0%
Subtotal Research Project Grants	**4,754**	**2,442,027,686**	**513,679**	**73.53%**	**66.3%**	**11,425**	**1,330**	**11.64%**
Other Research								
Clinical Cooperative Groups — U10/UG1	101	248,937,637	2,464,729	1.56%	6.76%	0	0	0.0%
Clinical Cooperative Groups — CCCT	0	5,596,745	5,596,745	0.0%	0.15%	0	0	0.0%
Cooperative Conference Grants — U13	2	9,000	4,500	0.03%	0.0%	1	1	100.0%
Conference Grants — R13/U13	46	724,409	15,748	0.71%	0.02%	74	41	55.41%
International Research Training Grants Conference — D43/U2R	0	943,987	943,987	0.0%	0.03%	0	0	0.0%
Cancer Education Awards — R25	76	21,181,892	278,709	1.18%	0.58%	63	13	20.63%
Research/Resource Grant — R24/U24/U2C	75	85,154,935	1,135,399	1.16%	2.31%	67	10	14.93%
Research/Resource Grant — R24/U24/U2C U24 - Moonshot	15	93,173,756	6,211,584	0.23%	2.53%	43	15	34.88%
Minority Biomedical Research Support — S06	0	97,802	97,802	0.0%	0.0%	0	0	0.0%
Predoctoral to Postdoctoral Fellow Transition Award — F99	47	1,769,662	37,652	0.73%	0.05%	73	23	31.51%
Research Pathway in Residency — R38	1	358,020	358,020	0.02%	0.01%	1	1	100.0%
Subtotal Other Research	**363**	**457,947,845**	**1,261,564**	**5.61%**	**12.43%**	**322**	**104**	**32.3%**

continued

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Source: Office of Extramural Finance and Information Analysis.

Table 13 (cont'd). Summary of NCI Grant Awards by Mechanism in FY2018*

Fund Type: Appropriated				% of NCI Total Grants			Fiscal Year: 2018	
Cost Centers Mechanisms	Awards Count	Awards Dollars	Average Cost	Number	Dollars	Competing Requested	Competing Awarded	Success Rate
Centers								
Core/Planning — P20/P30	91	319,656,889	3,512,713	1.41%	8.68%	49	16	32.65%
Core/Planning — P20/P30 - Moonshot	0	10,711,918	10,711,918	0.0%	0.29%	0	0	0.0%
Core — CCCT	0	1,061,133	1,061,133	0.0%	0.03%	0	0	0.0%
SPORE Grants — P50	54	113,727,779	2,106,070	0.84%	3.09%	55	17	30.91%
Specialized Center (Cooperative Agreement) — U54/U41	81	117,955,905	1,456,246	1.25%	3.2%	53	11	20.75%
Specialized Center (Cooperative Agreement) — U54/U41 - Moonshot	11	61,079,470	5,552,679	0.17%	1.66%	7	7	100.0%
Specialized Center (Cooperative Agreement) — BD2K	1	1,382,393	1,382,393	0.02%	0.04%	0	0	0.0%
Subtotal Centers	**238**	**625,575,487**	**2,628,468**	**3.68%**	**16.98%**	**164**	**51**	**31.1%**
NRSA								
NRSA Institution — T32/T35	167	59,063,597	353,674	2.58%	1.6%	64	36	56.25%
NRSA Fellowships — F31/F32	525	23,148,157	44,092	8.12%	0.63%	742	217	29.25%
Subtotal NRSA	**692**	**82,211,754**	**118,803**	**10.7%**	**2.23%**	**806**	**253**	**31.39%**
Careers								
Mentored Clinical Scientist — K08	103	18,571,361	180,304	1.59%	0.5%	125	36	28.8%
Preventive Oncology Award — K07	69	10,642,982	154,246	1.07%	0.29%	79	19	24.05%
Mentored Career Award — K12	21	14,228,491	677,547	0.32%	0.39%	9	6	66.67%
Mentored Research Scient Devel Awds/Mentored Career Dev... /Temin — K01/Intl. Career — K43	41	5,979,795	145,849	0.63%	0.16%	33	13	39.39%
Clinical Research Track — K22	58	10,304,211	177,659	0.9%	0.28%	137	18	13.14%
Mentored Patient-Oriented Research Career Dev A — K23	13	2,165,733	166,595	0.2%	0.06%	9	1	11.11%
Mid-Career Investigator in Patient-Oriented Res A — K24	13	2,379,742	183,057	0.2%	0.06%	0	0	0.0%
Mentored Quantitative Resch. Career Dev. Awd. — K25	6	847,484	141,247	0.09%	0.02%	0	0	0.0%
Established Invest. Award in Ca Prevention & Control — K05	5	444,131	88,826	0.08%	0.01%	0	0	0.0%
Postdoctoral Fellow Awards — K00	30	2,293,876	76,463	0.46%	0.06%	0	0	0.0%
Pathway to Independence — K99	59	7,564,148	128,206	0.91%	0.21%	176	36	20.45%
Subtotal Careers	**418**	**75,421,954**	**180,435**	**6.47%**	**2.05%**	**568**	**129**	**22.71%**
Total:	**6,465**	**3,683,184,726**	**569,711**	**100.0%**	**100.0%**	**13,285**	**1,867**	**14.05%**

* 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 FY2014 – FY2018

Budget Mechanism/ Division	FY 2014		FY 2015		FY 2016		FY 2017		FY 2018		Percent Change 2014 vs 2018	
	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost
R01 Average Cost of Award												
NCI Overall	3,085	378	2,949	398	2,883	414	2,927	430	2,964	444	-3.92%	17.46%
DCB	0	0	0	0	0	0	6	761	6	967	100.0%	100.0%
DCB	1,441	330	1,375	351	1,324	370	1,307	381	1,291	395	-10.4%	19.8%
DCP	0	0	0	0	0	0	1	940	1	982	100.0%	100.0%
DCP	201	434	199	442	194	452	194	479	210	495	4.5%	13.9%
DCTD	0	0	0	0	0	0	2	1,239	2	1,153	100.0%	100.0%
DCTD	1,041	362	1,014	390	1,024	407	1,079	422	1,102	435	5.9%	20.1%
DCCPS	0	0	0	0	0	0	5	613	5	564	100.0%	100.0%
DCCPS	391	542	354	556	336	565	328	578	339	573	-13.3%	5.7%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	0	0	0	0	0	0	0	0	0	229	0.0%	100.0%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	11	1,343	7	1,703	5	2,043	5	2,301	8	1,909	-27.3%	42.1%
P01 Average Cost of Award												
NCI Overall	109	1,937	100	1,938	94	1,844	90	1,886	85	1,947	-22.02%	0.52%
DCB	0	0	0	0	0	0	0	48	0	53	0.0%	100.0%
DCB	45	1,708	44	1,713	43	1,768	42	1,765	38	1,812	-15.6%	6.0%
DCP	7	1,652	5	1,253	3	1,233	2	1,751	2	1,948	-71.4%	17.9%
DCTD	0	0	0	0	0	0	4	2,290	4	2,257	100.0%	100.0%
DCTD	48	2,018	42	2,165	40	1,903	33	1,861	31	1,982	-35.4%	-1.8%
DCCPS	9	2,836	9	2,299	8	2,138	9	2,322	10	2,174	11.1%	-23.4%
OD (CRCHD,OCAM, CSSI, CCT, OHAM, etc.)	0	343	0	572	0	392	0	610	0	535	0.0%	56.0%
R03 Average Cost of Award												
NCI Overall	194	78	162	79	114	79	138	78	148	82	-23.71%	5.13%
DCB	22	76	33	79	28	79	56	79	71	80	222.7%	5.1%
DCP	48	78	28	79	8	80	9	78	8	78	-83.3%	0.0%
DCTD	24	78	29	79	24	79	33	78	39	80	62.5%	3.4%
DCCPS	100	78	72	79	54	80	40	78	30	92	-70.0%	17.2%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	0	0	0	68	0	0	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 FY2014 – FY2018

Budget Mechanism/ Division	FY 2014		FY 2015		FY 2016		FY 2017		FY 2018		Percent Change 2014 vs 2018	
	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost
R21 Average Cost of Award												
NCI Overall	551	187	639	193	585	194	369	190	298	191	-45.92%	2.14%
DCB	0	0	0	0	0	0	0	80	0	0	0.0%	0.0%
DCB	138	188	196	193	201	190	102	186	27	186	-80.4%	-1.0%
DCP	44	172	55	188	61	191	32	186	22	196	-50.0%	14.2%
DCTD	0	0	0	0	0	0	0	0	0	78	0.0%	100.0%
DCTD	242	194	266	196	220	192	144	193	165	191	-31.8%	-1.5%
DCCPS	0	0	0	0	0	0	0	82	0	0	0.0%	0.0%
DCCPS	93	174	93	185	82	202	67	184	57	192	-38.7%	10.3%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	34	182	29	208	21	219	24	202	27	187	-20.6%	2.7%
U01/U19 Average Cost of Award												
NCI Overall	79	988	53	1,141	65	912	68	1,243	91	1,117	15.19%	13.06%
DCB	0	0	0	0	0	0	2	1,672	8	2,554	100.0%	100.0%
DCB	1	1,065	6	753	6	690	5	1,120	7	771	600.0%	-27.6%
DCP	0	0	0	0	0	0	0	0	6	723	100.0%	100.0%
DCP	35	546	11	975	34	778	26	976	38	912	8.6%	66.9%
DCTD	0	0	0	0	0	0	8	1,718	4	780	100.0%	100.0%
DCTD	1	3,820	7	780	6	462	6	809	5	335	400.0%	-91.2%
DCCPS	0	0	0	0	0	0	0	0	1	1,043	100.0%	100.0%
DCCPS	16	1,570	16	1,570	6	1,912	6	2,037	7	1,661	-56.3%	5.8%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	26	1,113	13	1,129	13	1,113	15	1,292	15	1,291	-42.3%	16.0%
R13 Average Cost of Award												
NCI Overall	54	14	54	14	51	14	53	13	46	16	-14.81%	14.29%
DCB	22	6	29	4	22	6	30	4	19	6	-13.6%	10.2%
DCP	3	34	6	17	4	22	4	24	5	20	66.7%	-41.2%
DCTD	18	6	11	10	12	7	8	7	10	7	-44.4%	4.9%
DCCPS	8	21	5	26	8	19	6	22	7	18	-12.5%	-12.6%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	3	84	3	93	5	50	5	51	5	62	66.7%	-25.7%

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 FY2014 – FY2018

Budget Mechanism/ Division	FY 2014		FY 2015		FY 2016		FY 2017		FY 2018		Percent Change 2014 vs 2018	
	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost
U10 Average Cost of Award												
NCI Overall	49	3,637	49	3,130	48	2,852	48	2,919	48	2,966	-2.04%	-18.45%
DCP	0	11,012	0	1,009	0	0	0	0	0	0	0.0%	-100.0%
DCTD	49	3,412	49	3,110	48	2,852	48	2,919	48	2,966	-2.0%	-13.1%
P30 Average Cost of Award												
NCI Overall	68	4,098	69	4,110	69	4,761	69	4,426	70	4,654	2.94%	13.57%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	68	4,098	69	4,110	69	4,761	69	4,426	70	4,654	2.9%	13.6%
P50 Average Cost of Award												
NCI Overall	61	2,012	53	2,046	54	2,056	51	2,185	50	2,191	-18.03%	8.9%
DCP	0	388	0	0	0	0	0	0	0	0	0.0%	-100.0%
DCTD	56	2,032	53	2,042	51	2,142	51	2,177	50	2,188	-10.7%	7.7%
DCCPS	5	1,676	0	0	3	464	0	0	0	0	-100.0%	-100.0%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	0	138	0	220	0	402	0	385	0	128	0.0%	-7.2%
SBIR Average Cost of Award												
NCI Overall	171	391	162	479	151	554	188	564	219	534	28.07%	36.57%
DCTD	0	66	0	0	0	0	0	0	0	0	0.0%	-100.0%
DCCPS	0	0	0	77	0	0	0	0	0	0	0.0%	0.0%
SBIRDC	0	0	0	0	0	0	4	817	3	1,007	100.0%	100.0%
SBIRDC	171	391	162	479	151	554	183	556	216	527	26.3%	34.9%
STTR Average Cost of Award												
NCI Overall	46	325	32	469	51	349	50	392	40	459	-13.04%	41.23%
SBIRDC	0	0	0	0	0	0	4	327	3	442	100.0%	100.0%
SBIRDC	46	325	32	469	51	349	46	397	37	460	-19.6%	41.4%
U54 Average Cost of Award												
NCI Overall	99	1,268	90	1,073	55	1,602	66	1,534	68	2,261	-31.31%	78.31%
CRCHD	49	978	51	818	30	1,268	31	1,238	38	1,480	-22.4%	51.2%
CSSI	9	2,343	6	2,116	6	2,234	6	2,206	0	0	-100.0%	-100.0%
DCB	30	1,288	22	1,110	17	2,080	22	2,040	30	3,237	0.0%	151.4%
DCCPS	11	1,626	11	1,611	2	651	7	675	0	400	-100.0%	-75.4%

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†In thousands.
Source: Office of Extramural Finance and Information Analysis.

Table 15. NCI Organ and Related Site-Specific Dollars for FY2014 – FY2018 – Annual Percent Change*

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

Anatomical Site	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Adrenal	***Number of Grants***	***3***	***2***	***1***	***1***	***1***	
	Relevant Grant Dollars	440,344	255,563	202,275	‡	209,995	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***3***	***2***	***1***	***1***	***1***	
	Total Relevant Dollars	440,344	255,563	202,275	‡	209,995	**-19.71**
Anus	***Number of Grants***	***19***	***17***	***21***	***27***	***31***	
	Relevant Grant Dollars	3,860,964	3,142,985	3,368,804	4,894,934	5,489,383	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***19***	***17***	***21***	***27***	***31***	
	Total Relevant Dollars	3,860,964	3,142,985	3,368,804	4,894,934	5,489,383	**11.50**
Bladder	***Number of Grants***	***147***	***129***	***127***	***124***	***127***	
	Relevant Grant Dollars	23,221,839	23,038,302	21,648,984	21,066,346	30,288,601	
	Number of Contracts	***‡***	***3***	***13***	***15***	***9***	
	Relevant Contract Dollars	‡	2,845,018	5,856,681	8,205,875	4,183,614	
	Total Count	***147***	***132***	***140***	***139***	***136***	
	Total Relevant Dollars	23,221,839	25,883,320	27,505,665	29,272,221	34,472,215	**10.47**
Bone Marrow	***Number of Grants***	***40***	***21***	***13***	***13***	***9***	
	Relevant Grant Dollars	6,186,065	5,101,356	4,425,573	3,539,567	2,803,956	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***40***	***21***	***13***	***13***	***9***	
	Total Relevant Dollars	6,186,065	5,101,356	4,425,573	3,539,567	2,803,956	-17.89
Bone, Cartilage	***Number of Grants***	***54***	***19***	***13***	***11***	***7***	
	Relevant Grant Dollars	4,313,783	2,011,240	3,340,737	3,299,530	2,706,328	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***54***	***19***	***13***	***11***	***7***	
	Total Relevant Dollars	4,313,783	2,011,240	3,340,737	3,299,530	2,706,328	-1.62
Brain	***Number of Grants***	***557***	***538***	***536***	***534***	***565***	
	Relevant Grant Dollars	162,133,244	184,919,655	177,269,529	196,218,129	195,752,964	
	Number of Contracts	***2***	***2***	***‡***	***3***	***1***	
	Relevant Contract Dollars	422,895	968,489	‡	606,179	50,007	
	Total Count	***559***	***540***	***536***	***537***	***566***	
	Total Relevant Dollars	162,556,139	185,888,144	177,269,529	196,824,308	195,802,971	5.05

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 has 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 FY2014 – FY2018 – Annual Percent Change*

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

Anatomical Site	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Breast	***Number of Grants***	***1,811***	***1,729***	***1,673***	***1,619***	***1,609***	
	Relevant Grant Dollars	478,792,611	491,214,544	470,476,822	494,020,790	527,293,687	
	Number of Contracts	***10***	***11***	***22***	***17***	***17***	
	Relevant Contract Dollars	5,422,635	9,929,929	14,699,628	13,538,368	8,187,849	
	Total Count	***1,821***	***1,740***	***1,695***	***1,636***	***1,626***	
	Total Relevant Dollars	483,879,269	501,144,473	485,176,451	507,559,159	535,481,536	2.62
Central Nervous System	***Number of Grants***	***48***	***13***	***9***	***13***	***10***	
	Relevant Grant Dollars	1,739,620	1,300,559	784,790	1,347,811	1,001,486	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***48***	***13***	***9***	***13***	***10***	
	Total Relevant Dollars	1,739,620	1,300,559	784,790	1,347,811	1,001,486	-4.71
Cervix	***Number of Grants***	***305***	***227***	***207***	***183***	***190***	
	Relevant Grant Dollars	52,183,192	45,275,628	51,244,770	51,639,739	56,529,769	
	Number of Contracts	***1***	***‡***	***3***	***5***	***2***	
	Relevant Contract Dollars	740,476	‡	5,125,766	3,846,974	855,852	
	Total Count	***306***	***227***	***210***	***188***	***192***	
	Total Relevant Dollars	52,923,668	45,275,628	56,370,536	55,486,713	57,385,621	2.97
Childhood Leukemia	***Number of Grants***	***159***	***143***	***177***	***174***	***162***	
	Relevant Grant Dollars	36,743,720	36,439,553	55,857,941	56,840,658	65,760,928	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***160***	***143***	***177***	***174***	***162***	
	Total Relevant Dollars	36,788,720	36,439,553	55,857,941	56,840,658	65,760,928	17.44
Colon, Rectum	***Number of Grants***	***866***	***754***	***698***	***668***	***705***	
	Relevant Grant Dollars	198,038,574	186,582,220	185,327,068	182,797,070	234,480,747	
	Number of Contracts	***6***	***9***	***16***	***16***	***12***	
	Relevant Contract Dollars	3,024,309	4,627,427	9,412,567	8,004,223	3,410,116	
	Total Count	***872***	***763***	***714***	***684***	***717***	
	Total Relevant Dollars	201,062,883	191,209,647	194,739,634	190,801,293	237,890,863	4.90
Esophagus	***Number of Grants***	***117***	***116***	***109***	***101***	***100***	
	Relevant Grant Dollars	24,631,620	26,634,006	22,479,745	27,239,377	25,721,355	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***117***	***116***	***109***	***101***	***100***	
	Total Relevant Dollars	24,631,620	26,634,006	22,479,745	27,239,377	25,721,355	2.03

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 FY2014 – FY2018 – Annual Percent Change*

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

Anatomical Site	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Eye	***Number of Grants***	***17***	***23***	***26***	***30***	***27***	
	Relevant Grant Dollars	2,855,615	4,363,108	3,817,344	5,252,252	4,540,263	
	Number of Contracts	***‡***	***‡***	***‡***	***1***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	1,999,987	‡	
	Total Count	***17***	***23***	***26***	***31***	***27***	
	Total Relevant Dollars	2,855,615	4,363,108	3,817,344	7,252,239	4,540,263	23.21
Gall Bladder	***Number of Grants***	***2***	***1***	***4***	***4***	***6***	
	Relevant Grant Dollars	‡	‡	579,237	476,722	1,217,986	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***2***	***1***	***4***	***4***	***6***	
	Total Relevant Dollars	‡	‡	579,237	476,722	1,217,986	68.89
Gastrointestinal Stromal Tumor	***Number of Grants***	***4***	***2***	***7***	***10***	***14***	
	Relevant Grant Dollars	$986,331	$104,162	$888,078	$1,638,139	3,155,373	
	Number of Contracts	***‡***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	$650,641	‡	‡	‡	
	Total Count	***4***	***3***	***7***	***10***	***14***	
	Total Relevant Dollars	$986,331	$754,803	$888,078	$1,638,139	3,155,373	42.81
Gastrointestinal Tract	***Number of Grants***	***35***	***33***	***33***	***30***	***25***	
	Relevant Grant Dollars	5,831,855	5,873,156	6,074,796	5,074,964	4,019,325	
	Number of Contracts	***‡***	***2***	***4***	***1***	***1***	
	Relevant Contract Dollars	‡	1,663,052	2,858,139	627,879	894,832	
	Total Count	***35***	***35***	***37***	***31***	***26***	
	Total Relevant Dollars	5,831,855	7,536,208	8,932,935	5,702,843	4,914,157	-0.55
Head and Neck	***Number of Grants***	***226***	***205***	***191***	***198***	***196***	
	Relevant Grant Dollars	33,439,973	35,246,846	35,221,524	38,974,882	40,445,671	
	Number of Contracts	***3***	***3***	***3***	***2***	***3***	
	Relevant Contract Dollars	1,733,390	1,713,852	1,814,999	312,604	128,865	
	Total Count	***229***	***208***	***194***	***200***	***199***	
	Total Relevant Dollars	35,173,363	36,960,698	37,036,523	39,287,486	40,574,536	3.66
Hodgkin Lymphoma	***Number of Grants***	***51***	***39***	***35***	***32***	***31***	
	Relevant Grant Dollars	10,262,763	8,519,854	8,217,911	8,282,621	8,711,348	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***51***	***39***	***35***	***32***	***31***	
	Total Relevant Dollars	10,262,763	8,519,854	8,217,911	8,282,621	8,711,348	-3.64

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 FY2014 – FY2018 – Annual Percent Change*

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

Anatomical Site	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Kaposi Sarcoma	***Number of Grants***	***76***	***77***	***63***	***66***	***67***	
	Relevant Grant Dollars	20,860,705	21,864,767	24,537,356	27,418,524	26,360,868	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***76***	***77***	***63***	***66***	***67***	
	Total Relevant Dollars	20,860,705	21,864,767	24,537,356	27,418,524	26,360,868	6.23
Kidney	***Number of Grants***	***237***	***160***	***154***	***146***	***162***	
	Relevant Grant Dollars	21,146,275	23,745,801	27,200,468	29,737,839	35,202,508	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***237***	***160***	***154***	***146***	***162***	
	Total Relevant Dollars	21,146,275	23,745,801	27,200,468	29,737,839	35,202,508	13.63
Larynx	***Number of Grants***	***7***	***5***	***5***	***3***	***2***	
	Relevant Grant Dollars	1,535,331	671,024	575,873	473,788	431,926	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***7***	***5***	***5***	***3***	***2***	
	Total Relevant Dollars	1,535,331	671,024	575,873	473,788	431,926	-24.25
Leukemia	***Number of Grants***	***781***	***702***	***675***	***670***	***644***	
	Relevant Grant Dollars	212,414,621	218,460,707	217,864,508	225,848,786	237,381,418	
	Number of Contracts	***4***	***5***	***1***	***2***	***2***	
	Relevant Contract Dollars	1,775,197	3,259,086	1,496,276	1,547,327	19,191	
	Total Count	***785***	***707***	***676***	***672***	***646***	
	Total Relevant Dollars	214,189,818	221,719,793	219,360,784	227,396,114	237,400,609	2.62
Liver	***Number of Grants***	***306***	***294***	***259***	***256***	***286***	
	Relevant Grant Dollars	49,666,458	59,175,493	62,124,234	62,046,177	84,863,828	
	Number of Contracts	***‡***	***2***	***2***	***3***	***3***	
	Relevant Contract Dollars	‡	1,488,511	353,600	1,674,216	99,772	
	Total Count	***306***	***296***	***261***	***259***	***289***	
	Total Relevant Dollars	49,666,458	60,664,004	62,477,834	63,720,393	84,963,600	15.11
Lung	***Number of Grants***	***977***	***898***	***891***	***875***	***907***	
	Relevant Grant Dollars	219,322,515	220,913,549	242,571,606	267,051,228	297,030,756	
	Number of Contracts	***11***	***9***	***23***	***25***	***17***	
	Relevant Contract Dollars	6,163,921	5,231,560	15,848,869	21,302,044	17,215,341	
	Total Count	***988***	***907***	***914***	***900***	***924***	
	Total Relevant Dollars	225,486,436	226,145,109	258,420,475	288,353,271	314,246,097	8.78

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 FY2014 – FY2018 – Annual Percent Change*

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

Anatomical Site	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Lymph Node	***Number of Grants***	***4***	***4***	***1***	***3***	***3***	
	Relevant Grant Dollars	316,561	273,875	94,613	425,733	650,917	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***4***	***4***	***1***	***3***	***3***	
	Total Relevant Dollars	316,561	273,875	94,613	425,733	650,917	80.98
Lymphatic System	***Number of Grants***	***3***	***5***	***3***	***2***	***1***	
	Relevant Grant Dollars	397,376	704,373	261,544	218,028	205,770	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***3***	***5***	***3***	***2***	***1***	
	Total Relevant Dollars	397,376	704,373	261,544	218,028	205,770	-1.96
Melanoma	***Number of Grants***	***502***	***461***	***462***	***481***	***506***	
	Relevant Grant Dollars	106,822,745	114,263,178	119,244,182	132,231,623	141,106,072	
	Number of Contracts	***‡***	***2***	***1***	***2***	***‡***	
	Relevant Contract Dollars	‡	597,520	295,782	3,499,958	‡	
	Total Count	***502***	***463***	***463***	***483***	***506***	
	Total Relevant Dollars	106,822,745	114,860,698	119,539,964	135,731,581	141,106,072	7.27
Mesothelioma	***Number of Grants***	***25***	***25***	***26***	***20***	***20***	
	Relevant Grant Dollars	7,157,480	5,376,051	6,939,730	6,037,260	8,166,842	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***25***	***25***	***26***	***20***	***20***	
	Total Relevant Dollars	7,157,480	5,376,051	6,939,730	6,037,260	8,166,842	6.61
Muscle	***Number of Grants***	***10***	***5***	***4***	***4***	***3***	
	Relevant Grant Dollars	862,759	384,442	342,916	496,492	440,899	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***10***	***3***	***4***	***4***	***3***	
	Total Relevant Dollars	862,759	384,442	342,916	496,492	440,899	-8.16
Myeloma	***Number of Grants***	***174***	***184***	***190***	***199***	***191***	
	Relevant Grant Dollars	37,800,248	40,799,287	45,263,432	53,362,826	55,081,460	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***174***	***184***	***190***	***199***	***191***	
	Total Relevant Dollars	37,800,248	40,799,287	45,263,432	53,362,826	55,081,460	9.99

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 FY2014 – FY2018 – Annual Percent Change*

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

Anatomical Site	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Nervous System	***Number of Grants***	***24***	***25***	***24***	***26***	***20***	
	Relevant Grant Dollars	4,421,874	6,108,596	6,153,043	6,585,936	4,747,277	
	Number of Contracts	***‡***	***‡***	***‡***	***1***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	1,499,991	‡	
	Total Count	***24***	***25***	***24***	***27***	***20***	
	Total Relevant Dollars	4,421,874	6,108,596	6,153,043	8,085,927	4,747,277	7.24
Neuroblastoma	***Number of Grants***	***104***	***75***	***64***	***64***	***80***	
	Relevant Grant Dollars	21,130,521	16,233,598	17,024,278	20,384,541	26,308,199	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***104***	***75***	***64***	***64***	***80***	
	Total Relevant Dollars	21,130,521	16,233,598	17,024,278	20,384,541	26,308,199	7.62
Non-Hodgkin Lymphoma	***Number of Grants***	***452***	***413***	***387***	***353***	***340***	
	Relevant Grant Dollars	93,955,405	96,633,382	98,315,810	96,233,763	99,973,050	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***452***	***413***	***387***	***353***	***340***	
	Total Relevant Dollars	93,955,405	96,633,382	98,315,810	96,233,763	99,973,050	1.58
Not Site Specific*	***Number of Grants***	***1,747***	***1,668***	***1,629***	***1,645***	***1,716***	
	Relevant Grant Dollars	621,155,734	580,506,330	613,729,313	697,160,768	770,712,588	
	Number of Contracts	***181***	***152***	***154***	***135***	***174***	
	Relevant Contract Dollars	212,411,501	442,411,300	555,664,493	583,258,480	736,337,943	
	Total Count	***1,928***	***1,820***	***1,783***	***1,780***	***1,890***	
	Total Relevant Dollars	833,567,235	1,022,917,630	1,169,393,806	1,280,419,248	1,507,050,531	16.05
Oral Cavity	***Number of Grants***	***66***	***66***	***68***	***70***	***55***	
	Relevant Grant Dollars	8,835,614	12,635,411	13,714,954	13,533,375	12,182,738	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***66***	***66***	***68***	***70***	***55***	
	Total Relevant Dollars	8,835,614	12,635,411	13,714,954	13,533,375	12,182,738	10.06
Ovary	***Number of Grants***	***380***	***382***	***373***	***375***	***390***	
	Relevant Grant Dollars	79,194,763	77,297,410	83,576,854	95,963,310	106,717,144	
	Number of Contracts	***2***	***5***	***3***	***4***	***1***	
	Relevant Contract Dollars	1,182,604	3,363,895	1,470,356	1,535,829	215,329	
	Total Count	***382***	***387***	***376***	***379***	***391***	
	Total Relevant Dollars	80,377,367	80,661,305	85,047,209	97,499,140	106,932,473	7.52

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 FY2014 – FY2018 – Annual Percent Change*

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

Anatomical Site	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Pancreas	***Number of Grants***	***494***	***499***	***502***	***527***	***553***	
	Relevant Grant Dollars	109,038,628	113,151,301	138,490,101	163,371,849	169,736,794	
	Number of Contracts	***5***	***4***	***13***	***13***	***9***	
	Relevant Contract Dollars	6,483,207	3,791,916	5,378,661	4,908,116	789,909	
	Total Count	***499***	***503***	***515***	***540***	***562***	
	Total Relevant Dollars	115,521,835	116,943,217	143,868,761	168,279,965	170,526,703	10.63
Parathyroid	***Number of Grants***	***3***	***3***	***3***	***4***	***2***	
	Relevant Grant Dollars	401,380	391,973	219,722	676,030	652,252	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***3***	***3***	***3***	***4***	***2***	
	Total Relevant Dollars	401,380	391,973	219,722	676,030	652,252	39.46
Penis	***Number of Grants***	***8***	***6***	***4***	***3***	***3***	
	Relevant Grant Dollars	2,652,760	191,911	341,656	341,693	263,025	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***8***	***6***	***4***	***3***	***3***	
	Total Relevant Dollars	2,652,760	191,911	341,656	341,693	263,025	-9.43
Pharynx	***Number of Grants***	***25***	***21***	***17***	***16***	***8***	
	Relevant Grant Dollars	1,881,045	2,704,917	2,017,103	2,045,454	1,456,420	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***25***	***21***	***17***	***16***	***8***	
	Total Relevant Dollars	1,881,045	2,704,917	2,017,103	2,045,454	1,456,420	-2.25
Pituitary	***Number of Grants***	***4***	***5***	***8***	***5***	***6***	
	Relevant Grant Dollars	458,773	821,132	1,419,108	1,222,742	1,572,297	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***4***	***5***	***8***	***5***	***6***	
	Total Relevant Dollars	458,773	821,132	1,419,108	1,222,742	1,572,297	41.63
Prostate	***Number of Grants***	***866***	***774***	***734***	***681***	***662***	
	Relevant Grant Dollars	187,129,390	198,462,848	202,049,473	194,381,794	203,996,788	
	Number of Contracts	***5***	***9***	***23***	***21***	***17***	
	Relevant Contract Dollars	6,350,291	6,069,471	15,201,920	13,540,995	7,118,212	
	Total Count	***871***	***783***	***757***	***702***	***679***	
	Total Relevant Dollars	193,479,681	204,532,319	217,251,393	207,922,789	211,115,001	2.29

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 has 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 FY2014 – FY2018 – Annual Percent Change*

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

Anatomical Site	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Retinoblastoma	***Number of Grants***	***16***	***14***	***12***	***9***	***11***	
	Relevant Grant Dollars	3,538,181	3,475,408	2,740,929	1,629,496	3,485,869	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***16***	***12***	***12***	***9***	***11***	
	Total Relevant Dollars	3,538,181	3,475,408	2,740,929	1,629,496	3,485,869	12.61
Sarcoma, Bone	***Number of Grants***	***69***	***66***	***77***	***83***	***82***	
	Relevant Grant Dollars	$13,986,055	$13,765,833	$16,008,892	$19,160,750	32,624,063	
	Number of Contracts	***1***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	$1,499,549	‡	‡	‡	‡	
	Total Count	***70***	***66***	***77***	***83***	***82***	
	Total Relevant Dollars	$15,485,604	$13,765,833	$16,008,892	$19,160,750	32,624,063	23.78
Sarcoma, Soft Tissue	***Number of Grants***	***97***	***98***	***103***	***105***	***114***	
	Relevant Grant Dollars	$20,048,895	$20,268,346	$20,650,683	$22,274,960	40,785,034	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***97***	***98***	***103***	***105***	***114***	
	Total Relevant Dollars	$20,048,895	$20,268,346	$20,650,683	$22,274,960	40,785,034	23.48
Skin	***Number of Grants***	***192***	***170***	***163***	***153***	***150***	
	Relevant Grant Dollars	35,045,052	34,254,082	31,543,713	34,846,957	33,633,922	
	Number of Contracts	***‡***	***1***	***‡***	***2***	***1***	
	Relevant Contract Dollars	‡	35,000	‡	1,576,506	288,945	
	Total Count	***192***	***171***	***163***	***155***	***151***	
	Total Relevant Dollars	35,045,052	34,289,082	31,543,713	36,423,463	33,922,867	-0.38
Small Intestine	***Number of Grants***	***13***	***10***	***9***	***11***	***8***	
	Relevant Grant Dollars	1,954,527	2,085,838	2,085,715	3,030,339	2,264,455	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***13***	***10***	***9***	***11***	***8***	
	Total Relevant Dollars	1,954,527	2,085,838	2,085,715	3,030,339	2,264,455	6.68
Stomach	***Number of Grants***	***63***	***66***	***63***	***62***	***60***	
	Relevant Grant Dollars	8,597,660	9,547,109	11,180,211	11,244,817	11,759,946	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***63***	***66***	***63***	***62***	***60***	
	Total Relevant Dollars	8,597,660	9,547,109	11,180,211	11,244,817	11,759,946	8.32

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 has 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 FY2014 – FY2018 – Annual Percent Change*

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

Anatomical Site	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Testis	***Number of Grants***	***8***	***10***	***9***	***8***	***8***	
	Relevant Grant Dollars	3,880,838	3,143,451	730,983	1,741,733	1,660,195	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***8***	***10***	***9***	***8***	***8***	
	Total Relevant Dollars	3,880,838	3,143,451	730,983	1,741,733	1,660,195	9.46
Thymus	***Number of Grants***	***5***	***4***	***3***	***2***	***6***	
	Relevant Grant Dollars	449,070	239,742	260,988	116,127	1,081,389	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***5***	***4***	***3***	***2***	***6***	
	Total Relevant Dollars	449,070	239,742	260,988	116,127	1,081,389	184.48
Thyroid	Number of Grants	61	62	54	55	53	
	Relevant Grant Dollars	17,516,816	19,137,599	17,604,744	17,778,628	12,105,222	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	61	62	54	55	53	
	Total Relevant Dollars	17,516,816	19,137,599	17,604,744	17,778,628	12,105,222	-7.42
Uterus	***Number of Grants***	***101***	***88***	***90***	***90***	***92***	
	Relevant Grant Dollars	13,467,035	10,947,265	15,043,375	15,803,076	15,069,028	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***101***	***88***	***90***	***90***	***92***	
	Total Relevant Dollars	13,467,035	10,947,265	15,043,375	15,803,076	15,069,028	4.77
Vagina	***Number of Grants***	***4***	***4***	***2***	***1***	***2***	
	Relevant Grant Dollars	286,298	86,493	‡	383,925	524,157	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***4***	***4***	***2***	***1***	***2***	
	Total Relevant Dollars	286,298	86,493	‡	383,925	524,157	103.53
Vascular	***Number of Grants***	***19***	***14***	***6***	***7***	***5***	
	Relevant Grant Dollars	2,310,811	1,745,884	668,887	1,118,191	837,968	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***19***	***14***	***6***	***7***	***5***	
	Total Relevant Dollars	2,310,811	1,745,884	668,887	1,118,191	837,968	-11.00

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 has 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 FY2014 – FY2018 – Annual Percent Change*

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

Anatomical Site	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Wilms Tumor	***Number of Grants***	***9***	***10***	***12***	***12***	***11***	
	Relevant Grant Dollars	3,843,112	3,548,011	3,831,667	4,241,898	4,160,103	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***9***	***10***	***12***	***12***	***11***	
	Total Relevant Dollars	3,843,112	3,548,011	3,831,667	4,241,898	4,160,103	2.27

* 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 has 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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Adolescent and Young Adults Cancer	***Number of Grants***		***9***	***106***	***160***	***213***	
	Relevant Grant Dollars		2,606,149	28,390,821	39,158,375	80,608,475	
	Number of Contracts		***1***	***‡***	***1***	***‡***	
	Relevant Contract Dollars		140,000	‡	37,500	‡	
	Total Count		***10***	***106***	***161***	***213***	
	Total Relevant Dollars		2,746,149	28,390,821	39,195,875	80,608,475	359.18
Adoptive Cell Immunotherapy	***Number of Grants***	***211***	***210***	***200***	***203***	***204***	
	Relevant Grant Dollars	52,024,707	45,245,708	43,690,082	50,677,796	65,668,061	
	Number of Contracts	***‡***	***‡***	***‡***	***2***	***1***	
	Relevant Contract Dollars	‡	‡	‡	539,847	‡	
	Total Count	***211***	***210***	***200***	***205***	***205***	
	Total Relevant Dollars	52,024,707	45,245,708	43,690,082	51,217,643	65,668,061	7.24
Advanced Manufacturing Technology	***Number of Grants***	***8***	***9***	***4***	***2***	***3***	
	Relevant Grant Dollars	2,295,195	1,939,427	900,771	560,239	1,493,003	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***8***	***9***	***4***	***2***	***3***	
	Total Relevant Dollars	2,295,195	1,939,427	900,771	560,239	1,493,003	14.90
Aging	***Number of Grants***	***420***	***319***	***292***	***268***	***235***	
	Relevant Grant Dollars	57,171,560	53,143,671	54,936,453	49,797,772	49,513,188	
	Number of Contracts	***1***	***3***	***4***	***5***	***5***	
	Relevant Contract Dollars	31,046	230,807	343,283	462,276	524,756	
	Total Count	***421***	***322***	***296***	***273***	***240***	
	Total Relevant Dollars	57,202,606	53,374,478	55,279,736	50,260,048	50,037,944	-3.16
Alternative Medicine	***Number of Grants***	***317***	***229***	***190***	***154***	***181***	
	Relevant Grant Dollars	52,792,542	47,270,448	42,068,505	35,660,834	45,018,152	
	Number of Contracts	***2***	***2***	***2***	***2***	***2***	
	Relevant Contract Dollars	3,552,516	4,201,607	6,035,840	4,872,052	3,855,644	
	Total Count	***319***	***231***	***192***	***156***	***183***	
	Total Relevant Dollars	56,345,058	51,472,055	48,104,345	40,532,886	48,873,796	-2.58
Alzheimers Dementia	***Number of Grants***	***2***	***3***	***6***	***4***	***3***	
	Relevant Grant Dollars	294,069	386,427	643,489	514,839	215,229	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***2***	***3***	***6***	***4***	***3***	
	Total Relevant Dollars	294,069	386,427	643,489	514,839	215,229	4.93
Arctic Research	***Number of Grants***	***8***	***5***	***5***	***5***	***5***	
	Relevant Grant Dollars	1,141,359	562,755	730,070	1,387,435	1,238,465	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***8***	***5***	***5***	***5***	***5***	
	Total Relevant Dollars	1,141,359	562,755	730,070	1,387,435	1,238,465	14.58

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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Asbestos	***Number of Grants***	***12***	***13***	***13***	***9***	***8***	
	Relevant Grant Dollars	2,937,531	3,365,262	3,619,815	3,146,506	3,065,315	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***12***	***13***	***13***	***9***	***8***	
	Total Relevant Dollars	2,937,531	3,365,262	3,619,815	3,146,506	3,065,315	1.61
Ataxia Telangiectasia	***Number of Grants***	***6***	***5***	***5***	***5***	***2***	
	Relevant Grant Dollars	309,072	749,775	786,560	971,104	439,541	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***6***	***5***	***5***	***5***	***2***	
	Total Relevant Dollars	309,072	749,775	786,560	971,104	439,541	29.05
Autoimmune Diseases	***Number of Grants***	***22***	***14***	***9***	***7***	***10***	
	Relevant Grant Dollars	1,403,677	630,151	832,994	922,027	2,402,185	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***22***	***14***	***9***	***7***	***10***	
	Total Relevant Dollars	1,403,677	630,151	832,994	922,027	2,402,185	37.07
Behavior Research	***Number of Grants***	***1,032***	***920***	***888***	***806***	***800***	
	Relevant Grant Dollars	239765778	222,068,908	212,741,824	214,939,253	238,643,771	
	Number of Contracts	***5***	***9***	***11***	***8***	***7***	
	Relevant Contract Dollars	3018920	8,316,984	8,642,050	3,674,886	4,155,657	
	Total Count	***1037***	***929***	***899***	***814***	***807***	
	Total Relevant Dollars	242784698	230,385,892	221,383,874	218,614,139	242,799,428	0.19
Bioengineering	***Number of Grants***	***551***	***525***	***478***	***467***	***524***	
	Relevant Grant Dollars	139,804,609	135,770,178	132,443,598	134,136,385	164,170,593	
	Number of Contracts	***9***	***10***	***7***	***4***	***7***	
	Relevant Contract Dollars	3,567,443	1,910,970	2,478,606	2,254,856	5,021,564	
	Total Count	***560***	***535***	***485***	***471***	***531***	
	Total Relevant Dollars	143,372,052	137,681,148	134,922,204	136,391,241	169,192,157	4.79
Bioinformatics	***Number of Grants***	***649***	***645***	***661***	***675***	***763***	
	Relevant Grant Dollars	183,215,139	162,383,424	179,136,458	225,131,784	282,603,451	
	Number of Contracts	***29***	***18***	***28***	***43***	***27***	
	Relevant Contract Dollars	24,606,810	33,425,767	58,667,710	37,237,753	43,412,556	
	Total Count	***678***	***663***	***689***	***718***	***790***	
	Total Relevant Dollars	207,821,949	195,809,191	237,804,168	262,369,537	326,016,007	12.56
Biological Carcinogenesis, Non-Viral	***Number of Grants***	***78***	***83***	***77***	***78***	***82***	
	Relevant Grant Dollars	15,804,902	18,764,027	20,074,390	20,826,379	21,398,045	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***78***	***83***	***77***	***78***	***82***	
	Total Relevant Dollars	15,804,902	18,764,027	20,074,390	20,826,379	21,398,045	8.04

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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Biologics/Biological Response Modifiers	***Number of Grants***	***1,188***	***1,031***	***946***	***976***	***1,048***	
	Relevant Grant Dollars	289,423,470	271,992,850	279,698,693	318,168,448	360,770,365	
	Number of Contracts	***5***	***7***	***14***	***13***	***11***	
	Relevant Contract Dollars	5,894,582	28,016,244	44,277,523	43,053,952	39,559,578	
	Total Count	***1,193***	***1038***	***960***	***989***	***1,059***	
	Total Relevant Dollars	295,318,052	300,009,094	323,976,215	361,222,400	400,329,942	7.97
Biomaterials Research	***Number of Grants***	***84***	***78***	***63***	***64***	***71***	
	Relevant Grant Dollars	14,254,502	13,939,654	11,643,768	14,118,242	16,497,668	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***1***	
	Relevant Contract Dollars	‡	‡	‡	‡	149,905	
	Total Count	***84***	***78***	***63***	***64***	***72***	
	Total Relevant Dollars	14,254,502	13,939,654	11,643,768	14,118,242	16,647,573	5.12
Biomedical Computing	***Number of Grants***	***595***	***617***	***653***	***661***	***724***	
	Relevant Grant Dollars	190,278,426	185,096,312	206,729,157	251,923,719	252,725,128	
	Number of Contracts	***24***	***23***	***34***	***46***	***57***	
	Relevant Contract Dollars	24,933,240	24,023,855	31,453,540	40,076,260	61,946,642	
	Total Count	***619***	***640***	***687***	***707***	***781***	
	Total Relevant Dollars	215,211,666	209,120,167	238,182,697	291,999,979	314,671,770	10.35
Birth Defects	***Number of Grants***	***30***	***35***	***30***	***27***	***28***	
	Relevant Grant Dollars	4,403,949	8,435,172	8,432,758	6,952,868	7,310,219	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***30***	***35***	***30***	***27***	***28***	
	Total Relevant Dollars	4,403,949	8,435,172	8,432,758	6,952,868	7,310,219	19.77
Bone Marrow Transplantation	***Number of Grants***	***115***	***104***	***99***	***85***	***84***	
	Relevant Grant Dollars	35,750,541	34,316,819	34,979,933	29,173,660	34,712,978	
	Number of Contracts	***‡***	***‡***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	728,795	‡	‡	
	Total Count	***115***	***104***	***100***	***85***	***84***	
	Total Relevant Dollars	35,750,541	34,316,819	35,708,727	29,173,660	34,712,978	0.18
Breast Cancer Detection	***Number of Grants***	***385***	***344***	***322***	***309***	***289***	
	Relevant Grant Dollars	75,065,760	82,711,296	72,103,576	81,227,274	93,964,637	
	Number of Contracts	***1***	***1***	***4***	***‡***	***4***	
	Relevant Contract Dollars	1,100,000	750,000	874,929	‡	53,073	
	Total Count	***386***	***345***	***326***	***309***	***293***	
	Total Relevant Dollars	76,165,760	83,461,296	72,978,505	81,227,274	94,017,710	6.01
Breast Cancer Early Detection	***Number of Grants***	***180***	***189***	***170***	***174***	***160***	
	Relevant Grant Dollars	43,117,642	41,884,877	33,480,855	41,613,302	41,663,384	
	Number of Contracts	***1***	***1***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	1,100,000	750,000	149,669	‡	‡	
	Total Count	***181***	***190***	***171***	***174***	***160***	***-0.21***
	Total Relevant Dollars	44,217,642	42,634,877	33,630,524	41,613,302	41,663,384	

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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Breast Cancer Education	***Number of Grants***	***102***	***41***	***38***	***37***	***35***	
	Relevant Grant Dollars	4,699,015	4,270,107	4,685,670	5,272,981	5,439,597	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***102***	***41***	***38***	***37***	***35***	
	Total Relevant Dollars	4,699,015	4,270,107	4,685,670	5,272,981	5,439,597	4.07
Breast Cancer Epidemiology	***Number of Grants***	***210***	***192***	***147***	***130***	***117***	
	Relevant Grant Dollars	65,139,979	55,393,919	39,840,647	34,190,668	30,273,776	
	Number of Contracts	***1***	***3***	***12***	***11***	***7***	
	Relevant Contract Dollars	125,000	1,469,411	6,203,333	5,829,361	37,205	
	Total Count	***211***	***195***	***159***	***141***	***124***	
	Total Relevant Dollars	65,264,979	56,863,330	46,043,980	40,020,029	30,310,981	-17.31
Breast Cancer Genetics	***Number of Grants***	***498***	***462***	***398***	***336***	***277***	
	Relevant Grant Dollars	107,994,765	96,024,839	81,070,422	70,149,087	66,472,567	
	Number of Contracts	***‡***	***‡***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	49,931	‡	‡	
	Total Count	***498***	***462***	***399***	***336***	***277***	
	Total Relevant Dollars	107,994,765	96,024,839	81,120,353	70,149,087	66,472,567	-11.34
Breast Cancer Prevention	***Number of Grants***	***180***	***110***	***99***	***92***	***91***	
	Relevant Grant Dollars	16,628,036	18,681,211	19,111,915	19,450,769	18,347,556	
	Number of Contracts	***1***	***1***	***2***	***2***	***3***	
	Relevant Contract Dollars	1,478,927	3,163,159	3,146,728	4,001,575	4,562,338	
	Total Count	***181***	***111***	***101***	***94***	***94***	
	Total Relevant Dollars	18,106,963	21,844,370	22,258,643	23,452,344	22,909,894	6.39
Breast Cancer Rehabilitation	***Number of Grants***	***130***	***92***	***86***	***77***	***76***	
	Relevant Grant Dollars	16,034,148	16,436,183	15,759,809	16,481,786	16,157,094	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***1***	
	Relevant Contract Dollars	‡	‡	‡	‡	1,499,993	
	Total Count	***130***	***92***	***86***	***77***	***77***	
	Total Relevant Dollars	16,034,148	16,436,183	15,759,809	16,481,786	17,657,087	2.52
Breast Cancer Screening	***Number of Grants***	***142***	***91***	***70***	***66***	***63***	
	Relevant Grant Dollars	20,751,155	17,485,192	10,475,206	14,653,679	15,132,034	
	Number of Contracts	***1***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	1,100,000	750,000	‡	‡	‡	
	Total Count	***143***	***92***	***70***	***66***	***63***	
	Total Relevant Dollars	21,851,155	18,235,192	10,475,206	14,653,679	15,132,034	-3.98
Breast Cancer Treatment	***Number of Grants***	***687***	***644***	***650***	***669***	***713***	
	Relevant Grant Dollars	138,560,818	152,387,067	154,489,026	176,349,237	209,590,194	
	Number of Contracts	***4***	***3***	***3***	***2***	***3***	
	Relevant Contract Dollars	2,065,223	892,527	4,424,708	3,485,914	2,035,240	
	Total Count	***691***	***647***	***653***	***671***	***716***	
	Total Relevant Dollars	140,626,041	153,279,594	158,913,734	179,835,151	211,625,433	10.87

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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Breast Cancer—Basic	***Number of Grants***	***855***	***763***	***745***	***697***	***671***	
	Relevant Grant Dollars	167,569,592	165,644,820	169,080,913	166,218,155	158,766,455	
	Number of Contracts	***3***	***3***	***1***	***5***	***3***	
	Relevant Contract Dollars	653,485	3,654,832	49,931	3,530,301	40,722	
	Total Count	***858***	***766***	***746***	***702***	***674***	
	Total Relevant Dollars	168,223,077	169,299,652	169,130,844	169,748,456	158,807,177	-1.38
Cancer Stem Cells	***Number of Grants***	***121***	***273***	***380***	***437***	***471***	
	Relevant Grant Dollars	22,418,829	62,046,223	92,830,249	108,363,835	114,972,296	
	Number of Contracts	***5***	***6***	***3***	***1***	***‡***	
	Relevant Contract Dollars	1,121,242	1,533,679	4,980,440	1,475,002	‡	
	Total Count	***126***	***279***	***383***	***438***	***471***	
	Total Relevant Dollars	23,540,071	63,579,902	97,810,689	109,838,837	114,972,296	60.22
Cancer Survivorship	***Number of Grants***	***568***	***476***	***465***	***430***	***455***	
	Relevant Grant Dollars	169,414,751	171,526,613	162,069,466	167,262,525	203,631,879	
	Number of Contracts	***1***	***7***	***7***	***3***	***9***	
	Relevant Contract Dollars	997,190	9,847,866	2,679,641	6,505,519	16,014,755	
	Total Count	***569***	***483***	***472***	***433***	***464***	
	Total Relevant Dollars	170,411,941	181,374,479	164,749,107	173,768,044	219,646,634	7.28
Carcinogenesis, Environmental	***Number of Grants***	***1,041***	***943***	***892***	***821***	***805***	
	Relevant Grant Dollars	273,042,396	260,061,824	255,935,050	258,785,860	262,220,786	
	Number of Contracts	***11***	***9***	***19***	***20***	***21***	
	Relevant Contract Dollars	3,879,202	3,465,524	13,046,648	11,050,342	16,494,997	
	Total Count	***1,052***	***952***	***911***	***841***	***826***	
	Total Relevant Dollars	276,921,598	263,527,348	268,981,698	269,836,202	278,715,783	0.21
Cervical Cancer Education	***Number of Grants***	***34***	***38***	***37***	***27***	***24***	
	Relevant Grant Dollars	6,077,658	6,221,573	5,869,483	5,584,906	4,612,220	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***34***	***38***	***37***	***27***	***24***	
	Total Relevant Dollars	6,077,658	6,221,573	5,869,483	5,584,906	4,612,220	-6.38
Chemoprevention	***Number of Grants***	***429***	***342***	***295***	***262***	***247***	
	Relevant Grant Dollars	84,243,372	80,022,566	71,829,951	70,023,623	71,362,862	
	Number of Contracts	***6***	***11***	***9***	***8***	***13***	
	Relevant Contract Dollars	15,066,511	20,758,658	16,414,527	15,912,399	19,797,086	
	Total Count	***435***	***353***	***304***	***270***	***260***	
	Total Relevant Dollars	99,309,883	100,781,224	88,244,478	85,936,022	91,159,948	-1.87
Chemoprevention, Clinical	***Number of Grants***	***91***	***36***	***24***	***18***	***12***	
	Relevant Grant Dollars	14,722,116	12,015,435	9,361,402	8,971,425	7,445,837	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***91***	***36***	***24***	***18***	***12***	
	Total Relevant Dollars	14,722,116	12,015,435	9,361,402	8,971,425	7,445,837	-15.41

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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Chemotherapy	***Number of Grants***	***1,087***	***930***	***872***	***904***	***962***	
	Relevant Grant Dollars	250,373,415	246,109,305	260,723,356	287,462,997	316,933,597	
	Number of Contracts	***12***	***7***	***20***	***17***	***14***	
	Relevant Contract Dollars	9,970,324	5,413,456	13,695,854	14,902,930	7,708,690	
	Total Count	***1,099***	***937***	***892***	***921***	***976***	
	Total Relevant Dollars	260,343,739	251,522,761	274,419,210	302,365,927	324,642,287	5.81
Child Health	***Number of Grants***	***122***	***102***	***100***	***89***	***83***	
	Relevant Grant Dollars	24,830,888	20,762,243	16,163,223	15,020,069	13,942,846	
	Number of Contracts	***2***	***3***	***‡***	***‡***	***2***	
	Relevant Contract Dollars	177,670	195,000	‡	‡	2,037,698	
	Total Count	***124***	***105***	***100***	***89***	***85***	
	Total Relevant Dollars	25,008,558	20,957,243	16,163,223	15,020,069	15,980,544	-9.93
Childhood Cancers	***Number of Grants***	***493***	***448***	***453***	***460***	***499***	
	Relevant Grant Dollars	173,785,934	178,242,101	181,711,926	189,628,119	249,037,676	
	Number of Contracts	***2***	***‡***	***‡***	***2***	***2***	
	Relevant Contract Dollars	3,007,558	‡	‡	589,442	2,476,618	
	Total Count	***495***	***448***	***453***	***462***	***501***	
	Total Relevant Dollars	176,793,492	178,242,101	181,711,926	190,217,561	251,514,294	-9.91
Chronic Myeloproliferative Disorders	***Number of Grants***	***132***	***113***	***91***	***77***	***72***	
	Relevant Grant Dollars	36,189,051	30,632,366	20,846,554	15,967,470	18,840,695	
	Number of Contracts	***‡***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	1,489,494	‡	‡	‡	
	Total Count	***132***	***114***	***91***	***77***	***72***	
	Total Relevant Dollars	36,189,051	32,121,860	20,846,554	15,967,470	18,840,695	-12.93
Clinical Trials, Diagnosis	***Number of Grants***	***146***	***187***	***194***	***184***	***179***	
	Relevant Grant Dollars	45,889,734	53,037,657	60,433,953	61,783,602	59,253,323	
	Number of Contracts	***1***	***‡***	***1***	***1***	***1***	
	Relevant Contract Dollars	1,728,293	‡	166,395	2,125,347	2,939,599	
	Total Count	***147***	***187***	***195***	***185***	***180***	
	Total Relevant Dollars	47,618,027	53,037,657	60,600,348	63,908,948	62,192,922	7.10
Clinical Trials, Other	***Number of Grants***	***279***	***250***	***283***	***266***	***285***	
	Relevant Grant Dollars	149,612,281	133,237,216	120,494,908	147,623,023	160,552,594	
	Number of Contracts	***3***	***5***	***6***	***8***	***6***	
	Relevant Contract Dollars	7,962,288	27,271,204	42,312,294	32,688,151	24,412,496	
	Total Count	***282***	***255***	***289***	***274***	***291***	
	Total Relevant Dollars	157,574,569	160,508,420	162,807,202	180,311,174	184,965,089	4.15
Clinical Trials, Prevention	***Number of Grants***	***114***	***119***	***109***	***105***	***115***	
	Relevant Grant Dollars	35,417,115	31,032,388	30,908,463	33,917,834	37,773,781	
	Number of Contracts	***4***	***5***	***4***	***5***	***6***	
	Relevant Contract Dollars	7,423,381	10,710,985	9,803,442	9,563,835	7,682,165	
	Total Count	***118***	***124***	***113***	***110***	***121***	
	Total Relevant Dollars	42,840,496	41,743,373	40,711,905	43,481,669	45,455,946	1.57

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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Clinical Trials, Therapy	***Number of Grants***	***546***	***501***	***498***	***517***	***536***	
	Relevant Grant Dollars	315,511,818	334,042,999	334,329,251	345,754,242	369,134,221	
	Number of Contracts	***11***	***15***	***8***	***10***	***7***	
	Relevant Contract Dollars	18,485,764	60,380,409	100,254,859	100,543,132	136,563,624	
	Total Count	***557***	***516***	***506***	***527***	***543***	
	Total Relevant Dollars	333,997,582	394,423,408	434,584,110	446,297,374	505,697,845	11.06
Combined Treatment Modalities	***Number of Grants***	***1,056***	***1,084***	***1,148***	***1,294***	***1,385***	
	Relevant Grant Dollars	241,467,906	266,541,656	301,911,203	361,206,359	408,506,690	
	Number of Contracts	***6***	***7***	***2***	***3***	***3***	
	Relevant Contract Dollars	7,488,672	3,420,624	671,778	2,834,416	993,782	
	Total Count	***1,062***	***1,091***	***1,150***	***1,297***	***1,388***	
	Total Relevant Dollars	248,956,578	269,962,280	302,582,981	364,040,775	409,500,472	13.32
Cost Effectiveness	***Number of Grants***	***139***	***131***	***137***	***136***	***141***	
	Relevant Grant Dollars	22,816,491	24,073,416	27,207,714	27,980,143	29,227,852	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***139***	***131***	***137***	***136***	***141***	
	Total Relevant Dollars	22,816,491	24,073,416	27,207,714	27,980,143	29,227,852	6.45
Diabetes	***Number of Grants***	***77***	***77***	***75***	***74***	***79***	
	Relevant Grant Dollars	8,622,303	10,029,759	10,282,028	11,766,492	12,640,219	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***77***	***77***	***75***	***74***	***79***	
	Total Relevant Dollars	8,622,303	10,029,759	10,282,028	11,766,492	12,640,219	10.17
Diagnosis	***Number of Grants***	***1,686***	***1,631***	***1,576***	***1,519***	***1,535***	
	Relevant Grant Dollars	529,392,958	539,541,884	530,211,572	595,266,675	666,808,403	
	Number of Contracts	***39***	***31***	***43***	***37***	***35***	
	Relevant Contract Dollars	30,979,563	49,265,219	54,014,496	61,672,252	53,282,401	
	Total Count	***1,725***	***1,662***	***1,619***	***1,556***	***1,570***	
	Total Relevant Dollars	560,372,521	588,807,103	584,226,068	656,938,926	720,090,804	6.58
Dioxin	***Number of Grants***	***7***	***9***	***7***	***4***	***2***	
	Relevant Grant Dollars	631,714	383,261	369,498	226,792	59,359	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***7***	***9***	***7***	***4***	***2***	
	Total Relevant Dollars	631,714	383,261	369,498	226,792	59,359	-38.84
DNA Repair	***Number of Grants***	***494***	***507***	***473***	***478***	***482***	
	Relevant Grant Dollars	99,797,181	100,671,223	100,897,948	107,893,903	119,158,685	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***1***	
	Relevant Contract Dollars	‡	‡	‡	‡	150,000	
	Total Count	***494***	***507***	***473***	***478***	***483***	
	Total Relevant Dollars	99,797,181	100,671,223	100,897,948	107,893,903	119,308,685	4.65

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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Drug Development	***Number of Grants***	***2,393***	***2,284***	***2,130***	***2,144***	***2,159***	
	Relevant Grant Dollars	604,291,255	617,108,394	647,645,213	680,118,152	729,568,548	
	Number of Contracts	***39***	***47***	***44***	***31***	***29***	
	Relevant Contract Dollars	36,749,532	84,307,830	95,203,326	106,973,228	110,388,736	
	Total Count	***2,432***	***2,331***	***2,174***	***2,175***	***2,188***	
	Total Relevant Dollars	641,040,787	701,416,224	742,848,539	787,091,380	839,957,283	6.99
Drug Discovery	***Number of Grants***	***432***	***422***	***366***	***377***	***378***	
	Relevant Grant Dollars	83,662,149	80,704,643	79,153,198	86,983,505	102,664,482	
	Number of Contracts	***3***	***4***	***10***	***10***	***9***	
	Relevant Contract Dollars	298,072	2,349,989	4,433,398	3,522,708	7,086,104	
	Total Count	***435***	***426***	***376***	***387***	***387***	
	Total Relevant Dollars	83,960,221	83,054,632	83,586,595	90,506,212	109,750,585	7.27
Drug Resistance	***Number of Grants***	***785***	***852***	***898***	***981***	***1,065***	
	Relevant Grant Dollars	148,056,783	177,796,465	214,729,058	261,870,733	286,366,510	
	Number of Contracts	***1***	***3***	***2***	***‡***	***‡***	
	Relevant Contract Dollars	1,000,000	824,798	646,029	‡	‡	
	Total Count	***786***	***855***	***900***	***981***	***1,065***	
	Total Relevant Dollars	149,056,783	178,621,263	215,375,087	261,870,733	286,366,510	17.83
Drugs—Natural Products	***Number of Grants***	***490***	***371***	***300***	***272***	***272***	
	Relevant Grant Dollars	71,095,657	57,656,190	54,297,012	54,246,698	53,923,677	
	Number of Contracts	***‡***	***‡***	***2***	***1***	***3***	
	Relevant Contract Dollars	‡	‡	2,574,718	2,136,305	3,660,194	
	Total Count	***490***	***371***	***302***	***273***	***275***	
	Total Relevant Dollars	71,095,657	57,656,190	56,871,730	56,383,003	57,583,871	-4.74
Early Detection	***Number of Grants***	***748***	***714***	***694***	***677***	***663***	
	Relevant Grant Dollars	225,248,442	220,102,816	229,998,056	256,283,853	303,451,666	
	Number of Contracts	***9***	***14***	***7***	***6***	***6***	
	Relevant Contract Dollars	8,393,779	8,686,400	4,028,068	5,328,789	6,666,906	
	Total Count	***757***	***728***	***701***	***683***	***669***	
	Total Relevant Dollars	233,642,221	228,789,216	234,026,124	261,612,642	310,118,572	7.63
Effectiveness Research	***Number of Grants***	***296***	***264***	***223***	***184***	***161***	
	Relevant Grant Dollars	80,220,580	69,440,936	47,442,385	41,402,394	47,924,884	
	Number of Contracts	***1***	***2***	***11***	***11***	***7***	
	Relevant Contract Dollars	10,500	4,377,973	30,894,764	29,146,805	186,026	
	Total Count	***297***	***266***	***234***	***195***	***168***	
	Total Relevant Dollars	80,231,080	73,818,909	78,337,149	70,549,199	48,110,910	-10.90
Endocrinology	***Number of Grants***	***539***	***512***	***469***	***440***	***422***	
	Relevant Grant Dollars	107,069,679	104,762,093	96,691,678	97,228,106	100,568,890	
	Number of Contracts	***1***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	1,478,552	‡	‡	‡	‡	
	Total Count	***540***	***512***	***469***	***440***	***422***	
	Total Relevant Dollars	108,548,231	104,762,093	96,691,678	97,228,106	100,568,890	-1.80

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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Energy Balance	***Number of Grants***	***86***	***68***	***51***	***33***	***24***	
	Relevant Grant Dollars	23,971,943	20,847,429	7,628,220	6,286,953	3,473,865	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***86***	***68***	***51***	***33***	***24***	
	Total Relevant Dollars	23,971,943	20,847,429	7,628,220	6,286,953	3,473,865	-34.69
Epidemiology—Biochemical	***Number of Grants***	***495***	***457***	***385***	***326***	***303***	
	Relevant Grant Dollars	169,955,392	164,276,738	146,920,161	124,682,337	118,461,821	
	Number of Contracts	***1***	***1***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	2,160,252	1,716,430	24,966	‡	‡	
	Total Count	***496***	***458***	***386***	***326***	***303***	
	Total Relevant Dollars	172,115,644	165,993,168	146,945,127	124,682,337	118,461,821	-8.79
Epidemiology	***Number of Grants***	***233***	***210***	***188***	***186***	***197***	
	Relevant Grant Dollars	81,439,737	76,666,541	75,587,379	85,439,631	95,193,416	
	Number of Contracts	***33***	***27***	***31***	***30***	***32***	
	Relevant Contract Dollars	38,502,206	91,178,576	111,330,516	121,666,411	117,745,294	
	Total Count	***266***	***237***	***219***	***216***	***229***	
	Total Relevant Dollars	119,941,943	167,845,117	186,917,895	207,106,043	212,938,710	16.22
Epidemiology, Environmental	***Number of Grants***	***336***	***303***	***250***	***215***	***177***	
	Relevant Grant Dollars	107,915,202	93,061,131	74,257,282	68,678,162	66,673,242	
	Number of Contracts	***5***	***4***	***2***	***4***	***1***	
	Relevant Contract Dollars	3,754,701	3,257,460	1,417,866	1,684,591	157,967	
	Total Count	***341***	***307***	***252***	***219***	***178***	
	Total Relevant Dollars	111,669,903	96,318,591	75,675,148	70,362,753	66,831,209	-11.80
Epigenetics	***Number of Grants***	***943***	***917***	***928***	***911***	***981***	
	Relevant Grant Dollars	187,566,016	185,757,320	203,722,809	230,130,230	269,515,321	
	Number of Contracts	***‡***	***1***	***2***	***2***	***1***	
	Relevant Contract Dollars	‡	80,000	147,571	329,946	80,000	
	Total Count	***943***	***918***	***930***	***913***	***982***	
	Total Relevant Dollars	187,566,016	185,837,320	203,870,380	230,460,176	269,595,321	9.70
Gene Mapping, Human	***Number of Grants***	***237***	***197***	***153***	***127***	***116***	
	Relevant Grant Dollars	61,585,479	48,294,930	46,905,132	37,032,434	30,940,689	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***237***	***197***	***153***	***127***	***116***	
	Total Relevant Dollars	61,585,479	48,294,930	46,905,132	37,032,434	30,940,689	-15.48
Gene Mapping, Non-Human	***Number of Grants***	***130***	***82***	***59***	***46***	***43***	
	Relevant Grant Dollars	14,858,944	9,387,204	9,836,690	8,912,665	7,412,413	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***130***	***82***	***59***	***46***	***43***	
	Total Relevant Dollars	14,858,944	9,387,204	9,836,690	8,912,665	7,412,413	-14.56

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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Gene Transfer, Clinical	***Number of Grants***	***22***	***20***	***20***	***16***	***9***	
	Relevant Grant Dollars	4,272,656	4,512,499	4,853,792	2,673,354	1,318,434	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***22***	***20***	***20***	***16***	***9***	
	Total Relevant Dollars	4,272,656	4,512,499	4,853,792	2,673,354	1,318,434	-20.60
Genetic Testing Research, Human	***Number of Grants***	***154***	***131***	***104***	***89***	***73***	
	Relevant Grant Dollars	42,299,385	38,489,954	29,475,413	23,204,606	22,217,351	
	Number of Contracts	***1***	***‡***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	660,000	‡	75,000	‡	‡	
	Total Count	***155***	***131***	***105***	***89***	***73***	
	Total Relevant Dollars	42,959,385	38,489,954	29,550,408	23,204,606	22,217,351	-14.83
Genomics	***Number of Grants***	***1,182***	***1,203***	***1,266***	***1,294***	***1,355***	
	Relevant Grant Dollars	323,758,372	341,321,721	389,134,110	405,076,761	491,680,665	
	Number of Contracts	***2***	***9***	***12***	***8***	***4***	
	Relevant Contract Dollars	972,912	55,539,001	83,510,228	81,580,679	83,218,582	
	Total Count	***1,184***	***1,212***	***1,278***	***1,302***	***1,359***	
	Total Relevant Dollars	324,731,284	396,860,722	472,644,337	486,657,439	574,899,247	15.60
Health Literacy	***Number of Grants***	***98***	***100***	***97***	***82***	***73***	
	Relevant Grant Dollars	18,558,771	18,398,631	15,279,155	14,215,534	15,380,028	
	Number of Contracts	***‡***	***‡***	***‡***	***1***	***1***	
	Relevant Contract Dollars	‡	‡	‡	1,200,000	1,200,000	
	Total Count	***98***	***100***	***97***	***83***	***74***	
	Total Relevant Dollars	18,558,771	18,398,631	15,279,155	15,415,534	16,580,028	-2.34
Health Promotion	***Number of Grants***	***378***	***338***	***309***	***263***	***246***	
	Relevant Grant Dollars	107,111,437	92,700,255	69,278,601	64,108,503	62,959,503	
	Number of Contracts	***7***	***3***	***3***	***3***	***2***	
	Relevant Contract Dollars	4,712,166	1,673,149	2,081,656	582,324	790,283	
	Total Count	***385***	***341***	***312***	***266***	***248***	
	Total Relevant Dollars	111,823,603	94,373,404	71,360,257	64,690,827	63,749,786	-12.69
Health Care Delivery	***Number of Grants***	***398***	***378***	***377***	***349***	***362***	
	Relevant Grant Dollars	218,923,687	200,905,989	178,992,169	187,497,187	230,065,054	
	Number of Contracts	***3***	***5***	***17***	***20***	***28***	
	Relevant Contract Dollars	2,221,373	5,400,399	32,071,822	31,462,158	35,343,565	
	Total Count	***401***	***383***	***394***	***369***	***390***	
	Total Relevant Dollars	221,145,060	206,306,388	211,063,992	218,959,344	265,408,619	5.13
Helicobacter	***Number of Grants***	***29***	***29***	***22***	***16***	***13***	
	Relevant Grant Dollars	6,799,315	8,287,809	7,837,594	6,687,868	5,287,620	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***29***	***29***	***22***	***16***	***13***	
	Total Relevant Dollars	6,799,315	8,287,809	7,837,594	6,687,868	5,287,620	-4.78

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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Hematology	***Number of Grants***	***1,336***	***1,283***	***1,208***	***1,178***	***1,115***	
	Relevant Grant Dollars	432,281,168	443,608,933	449,886,880	458,813,154	481,919,759	
	Number of Contracts	***4***	***5***	***3***	***2***	***2***	
	Relevant Contract Dollars	1,775,197	3,259,086	2,262,571	1,547,327	19,191	
	Total Count	***1,340***	***1,288***	***1,211***	***1,180***	***1,117***	
	Total Relevant Dollars	434,056,365	446,868,019	452,149,451	460,360,481	481,938,950	2.65
Hematopoietic Stem Cell Research	***Number of Grants***	***397***	***306***	***291***	***270***	***247***	
	Relevant Grant Dollars	87,079,722	88,073,334	84,627,744	98,480,686	77,798,511	
	Number of Contracts	***‡***	***‡***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	728,795	‡	‡	
	Total Count	***397***	***306***	***292***	***270***	***247***	
	Total Relevant Dollars	87,079,722	88,073,334	85,356,538	98,480,686	77,798,511	-1.89
Hormone Replacement Therapy	***Number of Grants***	17	10	13	13	15	
	Relevant Grant Dollars	1,621,562	420,973	2,574,377	2,570,173	2,958,043	
	Number of Contracts	‡	‡	‡	‡	‡	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	17	10	13	13	15	
	Total Relevant Dollars	1,621,562	420,973	2,574,377	2,570,173	2,958,043	113.10
Hospice	***Number of Grants***	***26***	***21***	***26***	***27***	***28***	
	Relevant Grant Dollars	6,718,944	5,068,406	6,571,656	6,543,607	7,051,315	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***26***	***21***	***26***	***27***	***28***	
	Total Relevant Dollars	6,718,944	5,068,406	6,571,656	6,543,607	7,051,315	3.10
Human Genome	***Number of Grants***	***889***	***893***	***889***	***827***	***855***	
	Relevant Grant Dollars	288,232,403	270,053,324	291,591,849	277,508,890	294,842,598	
	Number of Contracts	***2***	***‡***	***6***	***6***	***3***	
	Relevant Contract Dollars	972,912	‡	20,797,623	1,278,048	4,896,980	
	Total Count	***891***	***893***	***895***	***833***	***858***	
	Total Relevant Dollars	289,205,315	270,053,324	312,389,472	278,786,937	299,739,578	1.45
Iatrogenesis	***Number of Grants***	***255***	***234***	***240***	***259***	***272***	
	Relevant Grant Dollars	62,665,069	65,666,762	73,902,588	83,792,361	92,238,911	
	Number of Contracts	***16***	***9***	***15***	***12***	***15***	
	Relevant Contract Dollars	11,590,700	7,954,033	10,094,584	8,942,518	4,245,161	
	Total Count	***271***	***243***	***255***	***271***	***287***	
	Total Relevant Dollars	74,255,769	73,620,795	83,997,172	92,734,879	96,484,072	6.92
Imaging	***Number of Grants***	***1,020***	***1,004***	***1,005***	***1,013***	***1,040***	
	Relevant Grant Dollars	303,333,609	328,599,329	333,313,090	389,735,661	419,041,652	
	Number of Contracts	***15***	***3***	***10***	***13***	***9***	
	Relevant Contract Dollars	9,601,975	22,477,850	31,629,404	37,758,418	31,825,401	
	Total Count	***1,035***	***1,007***	***1,015***	***1,026***	***1,049***	
	Total Relevant Dollars	312,935,584	351,077,179	364,942,494	427,494,079	450,867,052	9.68

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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Immunization	***Number of Grants***	***432***	***411***	***398***	***403***	***422***	
	Relevant Grant Dollars	104,548,325	102,651,388	108,683,779	124,310,103	145,386,052	
	Number of Contracts	***4***	***7***	***11***	***13***	***9***	
	Relevant Contract Dollars	4,894,582	28,016,244	40,549,330	43,053,952	39,543,607	
	Total Count	***436***	***418***	***409***	***416***	***431***	
	Total Relevant Dollars	109,442,907	130,667,632	149,233,109	167,364,055	184,929,659	14.06
Immunology	***Number of Grants***	***1,718***	***1,682***	***1,661***	***1,760***	***1,912***	
	Relevant Grant Dollars	456,652,765	473,974,158	515,430,748	640,826,692	698,892,998	
	Number of Contracts	***11***	***14***	***18***	***20***	***21***	
	Relevant Contract Dollars	11,828,482	66,471,724	86,509,909	98,113,523	91,031,557	
	Total Count	***1,729***	***1,696***	***1,679***	***1,780***	***1,933***	
	Total Relevant Dollars	468,481,247	540,445,882	601,940,657	738,940,215	789,924,555	14.09
Immunotherapy	***Number of Grants***	***658***	***638***	***695***	***813***	***951***	
	Relevant Grant Dollars	184,930,676	155,133,285	197,273,311	332,571,318	368,977,475	
	Number of Contracts	***5***	***3***	***7***	***6***	***12***	
	Relevant Contract Dollars	5,118,106	3,683,673	10,734,319	4,474,792	2,288,367	
	Total Count	***663***	***641***	***702***	***819***	***963***	
	Total Relevant Dollars	190,048,782	158,816,958	208,007,630	337,046,109	371,265,842	21.68
Inflammation	***Number of Grants***	***611***	***580***	***561***	***575***	***588***	
	Relevant Grant Dollars	109,966,955	112,167,081	112,244,989	116,025,025	120,560,329	
	Number of Contracts	***3***	***3***	***3***	***3***	***3***	
	Relevant Contract Dollars	3,652,516	14,497,899	18,472,380	20,833,026	19,519,964	
	Total Count	***614***	***583***	***564***	***578***	***591***	
	Total Relevant Dollars	113,619,471	126,664,980	130,717,368	136,858,051	140,080,293	5.43
Information Dissemination	***Number of Grants***	***739***	***681***	***652***	***624***	***599***	
	Relevant Grant Dollars	217,876,571	210,348,487	213,783,646	215,896,290	228,167,349	
	Number of Contracts	***8***	***10***	***18***	***25***	***16***	
	Relevant Contract Dollars	14,567,395	3,998,692	7,900,187	17,915,927	15,220,485	
	Total Count	***747***	***691***	***670***	***649***	***615***	
	Total Relevant Dollars	232,443,966	214,347,179	221,683,833	233,812,217	243,387,833	1.30
Metastasis	***Number of Grants***	***1,545***	***1,604***	***1,605***	***1,578***	***1,591***	
	Relevant Grant Dollars	340,009,556	358,876,606	380,888,828	398,062,542	422,657,303	
	Number of Contracts	***3***	***4***	***3***	***2***	***4***	
	Relevant Contract Dollars	961,421	1,108,062	2,899,297	2,999,993	112,339	
	Total Count	***1,548***	***1,608***	***1,608***	***1,580***	***1,595***	
	Total Relevant Dollars	340,970,977	359,984,668	383,788,124	401,062,535	422,769,641	5.52
Microbiome	***Number of Grants***	***50***	***57***	***88***	***111***	***152***	
	Relevant Grant Dollars	11,284,599	13,679,639	24,150,503	36,476,639	56,410,998	
	Number of Contracts	***‡***	***‡***	***2***	***‡***	***2***	
	Relevant Contract Dollars	‡	‡	450,141	‡	130,750	
	Total Count	***50***	***57***	***90***	***111***	***154***	
	Total Relevant Dollars	11,284,599	13,679,639	24,600,644	36,476,639	56,541,748	51.08

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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Mind/Body Research	***Number of Grants***	***59***	***52***	***41***	***33***	***27***	
	Relevant Grant Dollars	11,783,092	10,026,196	9,007,115	7,780,748	6,812,260	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***59***	***52***	***41***	***33***	***27***	
	Total Relevant Dollars	11,783,092	10,026,196	9,007,115	7,780,748	6,812,260	-12.78
Molecular Disease	***Number of Grants***	***5,466***	***5,602***	***5,473***	***5,307***	***5,193***	
	Relevant Grant Dollars	1,679,313,384	1,782,526,277	1,882,712,427	1,931,925,940	2,053,008,956	
	Number of Contracts	***45***	***41***	***59***	***53***	***58***	
	Relevant Contract Dollars	30,765,834	79,018,098	153,297,602	136,964,093	175,671,451	
	Total Count	***5,511***	***5,643***	***5,532***	***5,360***	***5,251***	
	Total Relevant Dollars	1,710,079,218	1,861,544,375	2,036,010,029	2,068,890,033	2,228,680,407	6.89
Molecular Imaging	***Number of Grants***	***620***	***609***	***539***	***495***	***437***	
	Relevant Grant Dollars	152,907,543	156,307,861	141,492,077	143,199,846	133,169,439	
	Number of Contracts	***3***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	1,942,675	118,783	‡	‡	‡	
	Total Count	***623***	***610***	***539***	***495***	***437***	
	Total Relevant Dollars	154,850,218	156,426,644	141,492,077	143,199,846	133,169,439	-3.58
Molecular Targeted Prevention	***Number of Grants***	***232***	***208***	***185***	***155***	***164***	
	Relevant Grant Dollars	44,556,081	46,590,174	43,516,697	40,249,335	46,200,693	
	Number of Contracts	***2***	***1***	***1***	***1***	***1***	
	Relevant Contract Dollars	2,979,162	790,790	547,510	509,347	526,781	
	Total Count	***234***	***209***	***186***	***156***	***165***	
	Total Relevant Dollars	47,535,243	47,380,964	44,064,207	40,758,682	46,727,473	-0.04
Molecular Targeted Therapy	***Number of Grants***	***2,044***	***2,148***	***2,232***	***2,373***	***2,618***	
	Relevant Grant Dollars	523,857,998	581,779,389	656,567,963	742,802,310	865,086,938	
	Number of Contracts	***12***	***16***	***6***	***5***	***6***	
	Relevant Contract Dollars	8,863,954	53,873,784	90,988,532	92,251,110	128,114,856	
	Total Count	***2,056***	***2,164***	***2,238***	***2,378***	***2,624***	
	Total Relevant Dollars	532,721,952	635,653,173	747,556,494	835,053,420	993,201,794	16.89
Nanotechnology	***Number of Grants***	***455***	***481***	***455***	***493***	***525***	
	Relevant Grant Dollars	111,516,643	106,197,770	114,941,122	130,016,571	131,776,237	
	Number of Contracts	***5***	***9***	***5***	***5***	***6***	
	Relevant Contract Dollars	5,326,115	56,177,120	64,879,438	80,950,539	78,759,554	
	Total Count	***460***	***490***	***460***	***498***	***531***	
	Total Relevant Dollars	116,842,758	162,374,890	179,820,560	210,967,110	210,535,791	16.70
Neurofibromatosis	***Number of Grants***	***8***	***10***	***12***	***12***	***13***	
	Relevant Grant Dollars	1,376,362	3,686,798	3,936,995	3,556,637	3,791,093	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***8***	***10***	***12***	***12***	***13***	
	Total Relevant Dollars	1,376,362	3,686,798	3,936,995	3,556,637	3,791,093	42.89

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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Non-Hematopoietic Stem Cell Research	***Number of Grants***	***339***	***287***	***236***	***221***	***175***	
	Relevant Grant Dollars	63,046,148	53,559,986	43,034,964	60,699,959	40,471,293	
	Number of Contracts	***‡***	***‡***	***2***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	3,484,164	‡	‡	
	Total Count	***339***	***287***	***238***	***221***	***175***	
	Total Relevant Dollars	63,046,148	53,559,986	46,519,128	60,699,959	40,471,293	-7.75
Nursing Research	***Number of Grants***	***35***	***36***	***33***	***30***	***29***	
	Relevant Grant Dollars	8,475,918	8,132,143	8,044,965	7,943,679	9,848,194	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***35***	***36***	***33***	***30***	***29***	
	Total Relevant Dollars	8,475,918	8,132,143	8,044,965	7,943,679	9,848,194	4.39
Nutrition	***Number of Grants***	***638***	***513***	***441***	***393***	***374***	
	Relevant Grant Dollars	131,807,340	117,756,071	102,564,615	90,773,169	101,297,729	
	Number of Contracts	***9***	***10***	***7***	***6***	***9***	
	Relevant Contract Dollars	4,372,361	4,220,813	3,452,083	3,005,520	3,462,874	
	Total Count	***647***	***523***	***448***	***399***	***383***	
	Total Relevant Dollars	136,179,701	121,976,884	106,016,699	93,778,689	104,760,603	-5.83
Nutrition Monitoring	***Number of Grants***	***30***	***33***	***26***	***24***	***23***	
	Relevant Grant Dollars	8,955,163	9,882,676	5,485,202	6,478,782	8,999,541	
	Number of Contracts	***3***	***1***	***1***	***2***	***1***	
	Relevant Contract Dollars	2,210,544	323,154	435,711	456,632	604,252	
	Total Count	***33***	***34***	***27***	***26***	***24***	
	Total Relevant Dollars	11,165,707	10,205,830	5,920,913	6,935,414	9,603,793	1.25
Obesity	***Number of Grants***	***290***	***281***	***262***	***249***	***240***	
	Relevant Grant Dollars	63,637,392	64,004,183	55,081,497	52,003,841	51,223,096	
	Number of Contracts	***1***	***3***	***1***	***1***	***2***	
	Relevant Contract Dollars	1,478,927	3,323,159	2,190,039	2,037,388	2,232,122	
	Total Count	***291***	***284***	***263***	***250***	***242***	
	Total Relevant Dollars	65,116,319	67,327,342	57,271,546	54,041,229	53,455,218	-4.56
Occupational Cancer	***Number of Grants***	***27***	***30***	***27***	***19***	***14***	
	Relevant Grant Dollars	6,625,987	6,560,117	5,893,989	3,931,219	3,482,526	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***1***	
	Relevant Contract Dollars	‡	‡	‡	‡	87,500	
	Total Count	***27***	***30***	***27***	***19***	***15***	
	Total Relevant Dollars	6,625,987	6,560,117	5,893,989	3,931,219	3,570,026	13.40
Oncogenes	***Number of Grants***	***1,784***	***1,693***	***1,573***	***1,440***	***1,348***	
	Relevant Grant Dollars	404,601,468	402,124,198	403,153,878	378,546,779	359,141,456	
	Number of Contracts	***1***	***3***	***3***	***3***	***3***	
	Relevant Contract Dollars	111,706	1,510,068	1,968,626	1,711,492	1,213,234	
	Total Count	***1,785***	***1,696***	***1,576***	***1,443***	***1,351***	
	Total Relevant Dollars	404,713,174	403,634,266	405,122,504	380,258,271	360,354,689	-2.81

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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Organ Transplant Research	***Number of Grants***	***151***	***132***	***129***	***117***	***120***	
	Relevant Grant Dollars	48,657,932	45,618,921	47,946,930	43,054,531	47,912,539	
	Number of Contracts	***‡***	***‡***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	728,795	‡	‡	
	Total Count	***151***	***132***	***130***	***117***	***12***	
	Total Relevant Dollars	48,657,932	45,618,921	48,675,724	43,054,531	47,912,539	0.04
Osteoporosis	***Number of Grants***	***7***	***6***	***6***	***4***	***3***	
	Relevant Grant Dollars	1,471,815	1,557,646	768,584	144,894	558,679	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***7***	***6***	***6***	***4***	***3***	
	Total Relevant Dollars	1,471,815	1,557,646	768,584	144,894	558,679	39.90
Pain	***Number of Grants***	***132***	***75***	***65***	***67***	***69***	
	Relevant Grant Dollars	12,405,393	9,313,288	11,455,185	12,594,778	19,794,438	
	Number of Contracts	***‡***	***‡***	***‡***	***1***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	99,932	‡	
	Total Count	***132***	***75***	***65***	***68***	***69***	
	Total Relevant Dollars	12,405,393	9,313,288	11,455,185	12,694,710	19,794,438	16.20
Palliative Care	***Number of Grants***	***129***	***68***	***64***	***56***	***62***	
	Relevant Grant Dollars	15,149,837	10,957,597	13,862,941	14,389,798	17,555,810	
	Number of Contracts	***1***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	10,500	‡	‡	‡	‡	
	Total Count	***130***	***68***	***64***	***56***	***62***	
	Total Relevant Dollars	15,160,337	10,957,597	13,862,941	14,389,798	17,555,810	6.14
Pap Testing	***Number of Grants***	***81***	***34***	***27***	***24***	***24***	
	Relevant Grant Dollars	5,542,465	4,772,033	5,776,068	5,476,069	4,379,452	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***81***	***34***	***27***	***24***	***24***	
	Total Relevant Dollars	5,542,465	4,772,033	5,776,068	5,476,069	4,379,452	-4.52
Pediatric Research	***Number of Grants***	***623***	***583***	***580***	***564***	***595***	
	Relevant Grant Dollars	209,529,822	216,588,476	220,383,334	227,499,715	280,431,656	
	Number of Contracts	***4***	***3***	***‡***	***2***	***4***	
	Relevant Contract Dollars	3,185,228	195,000	‡	589,442	4,514,316	
	Total Count	***627***	***586***	***580***	***566***	***599***	
	Total Relevant Dollars	212,715,050	216,783,476	220,383,334	228,089,157	284,945,972	7.99
Personalized Health Care	***Number of Grants***	***664***	***635***	***597***	***583***	***578***	
	Relevant Grant Dollars	155,335,886	153,442,074	144,856,624	170,929,897	170,539,038	
	Number of Contracts	***1***	***3***	***4***	***5***	***4***	
	Relevant Contract Dollars	224,999	25,437,656	49,185,985	44,910,814	63,079,767	
	Total Count	***665***	***638***	***601***	***588***	***582***	
	Total Relevant Dollars	155,560,885	178,879,730	194,042,608	215,840,711	233,618,805	10.73

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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Pharmacogenetics	***Number of Grants***	***226***	***183***	***176***	***162***	***143***	
	Relevant Grant Dollars	41,541,959	37,555,190	41,108,745	35,728,605	33,417,628	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***226***	***183***	***176***	***162***	***143***	
	Total Relevant Dollars	41,541,959	37,555,190	41,108,745	35,728,605	33,417,628	-4.92
Prevention	***Number of Grants***	***1,221***	***1,067***	***1,001***	***916***	***946***	
	Relevant Grant Dollars	366,837,607	339,430,238	318,281,486	333,968,556	373,997,908	
	Number of Contracts	***23***	***33***	***29***	***29***	***29***	
	Relevant Contract Dollars	32,958,496	51,922,887	54,150,632	48,177,764	33,218,787	
	Total Count	***1,244***	***1,100***	***1,030***	***945***	***975***	
	Total Relevant Dollars	399,796,103	391,353,125	372,432,118	382,146,320	407,216,695	0.55
Proteomics	***Number of Grants***	***680***	***664***	***673***	***652***	***657***	
	Relevant Grant Dollars	132,200,036	134218056	140,643,812	140,517,434	158,420,435	
	Number of Contracts	***3***	***3***	***1***	***4***	***2***	
	Relevant Contract Dollars	465,439	53481462	62,182,698	81,234,900	78,521,602	
	Total Count	***683***	***667***	***674***	***656***	***659***	
	Total Relevant Dollars	132,665,475	187699518	202,826,510	221,752,334	236,942,036	16.43
Radiation, Electromagnetic Fields	***Number of Grants***	***1***	***3***	***4***	***4***	***4***	
	Relevant Grant Dollars	207,149	1,015,296	1,291,914	811,428	989,649	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***1***	***3***	***4***	***4***	***4***	
	Total Relevant Dollars	207,149	1,015,296	1,291,914	811,428	989,649	100.53
Radiation, Ionizing	***Number of Grants***	***91***	***87***	***70***	***67***	***59***	
	Relevant Grant Dollars	13,527,344	16,375,603	14,849,251	16,498,303	16,441,421	
	Number of Contracts	***1***	***1***	***1***	***2***	***2***	
	Relevant Contract Dollars	209,449	291,030	157,967	455,571	2,157,951	
	Total Count	***92***	***88***	***71***	***69***	***61***	
	Total Relevant Dollars	13,736,793	16,666,633	15,007,218	16,953,874	18,599,372	8.51
Radiation, Ionizing Diagnosis	***Number of Grants***	***301***	***292***	***286***	***255***	***237***	
	Relevant Grant Dollars	67,671,200	71,896,359	72,895,969	71,819,401	70,963,666	
	Number of Contracts	***3***	***1***	***1***	***2***	***1***	
	Relevant Contract Dollars	4,153,185	750,000	149,751	343,950	‡	
	Total Count	***304***	***293***	***287***	***257***	***238***	
	Total Relevant Dollars	71,824,385	72,646,359	73,045,720	72,163,351	70,963,666	-0.29
Radiation, Ionizing Radiotherapy	***Number of Grants***	***510***	***459***	***457***	***455***	***448***	
	Relevant Grant Dollars	105,995,072	113,662,465	120,584,371	122,782,173	133,404,212	
	Number of Contracts	***1***	***14***	***10***	***8***	***10***	
	Relevant Contract Dollars	1,499,978	5,521,043	8,940,664	6,518,356	3,495,309	
	Total Count	***511***	***473***	***467***	***463***	***458***	
	Total Relevant Dollars	107,495,050	119,183,508	129,525,035	129,300,529	136,899,521	6.31

continued

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Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Radiation, Low-Level Ionizing	***Number of Grants***	***7***	***5***	***3***	***2***	***2***	
	Relevant Grant Dollars	760,210	489,579	523,999	25,740	298,779	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***7***	***5***	***3***	***2***	***2***	
	Total Relevant Dollars	760,210	489,579	523,999	25,740	298,779	234.27
Radiation, Magnetic Resonance Imaging	***Number of Grants***	***322***	***339***	***316***	***302***	***304***	
	Relevant Grant Dollars	83,520,731	91,673,750	78,728,770	86,855,863	85,378,228	
	Number of Contracts	***‡***	***‡***	***1***	***1***	***2***	
	Relevant Contract Dollars	‡	‡	225,000	277,650	281,104	
	Total Count	***322***	***339***	***317***	***303***	***306***	
	Total Relevant Dollars	83,520,731	91,673,750	78,953,770	87,133,513	85,659,332	1.13
Radiation, Mammography	***Number of Grants***	***153***	***95***	***83***	***73***	***66***	
	Relevant Grant Dollars	23,148,908	20,990,452	14,435,131	15,339,130	14,531,883	
	Number of Contracts	***1***	***1***	***‡***	***‡***	***1***	
	Relevant Contract Dollars	1,100,000	750,000	‡	‡	12,500	
	Total Count	***154***	***96***	***83***	***73***	***67***	
	Total Relevant Dollars	24,248,908	21,740,452	14,435,131	15,339,130	14,544,383	-10.71
Radiation, Non-Ionizing	***Number of Grants***	***130***	***129***	***125***	***118***	***111***	
	Relevant Grant Dollars	24,739,055	25,836,973	23,741,839	25,569,233	26,339,672	
	Number of Contracts	***‡***	***1***	***‡***	***2***	***‡***	
	Relevant Contract Dollars	‡	35,000	‡	1,791,728	‡	
	Total Count	***130***	***130***	***125***	***120***	***111***	
	Total Relevant Dollars	24,739,055	25,871,973	23,741,839	27,360,961	26,339,672	1.96
Radiation, Non-Ionizing Diagnosis	***Number of Grants***	***474***	***470***	***438***	***401***	***377***	
	Relevant Grant Dollars	130,723,063	134,607,297	120,965,607	124,041,475	112,998,401	
	Number of Contracts	***3***	***‡***	***2***	***4***	***2***	
	Relevant Contract Dollars	679,250	‡	1,724,725	1,949,613	281,104	
	Total Count	***477***	***470***	***440***	***405***	***379***	
	Total Relevant Dollars	131,402,313	134,607,297	122,690,332	125,991,087	113,279,505	-3.45
Radiation, Non-Ionizing Radiotherapy	***Number of Grants***	***193***	***190***	***183***	***169***	***174***	
	Relevant Grant Dollars	51,128,011	53,934,953	52,954,709	53,900,397	59,155,854	
	Number of Contracts	***5***	***2***	***‡***	***3***	***3***	
	Relevant Contract Dollars	1,044,592	1,798,842	‡	4,206,536	321,677	
	Total Count	***198***	***192***	***183***	***172***	***177***	
	Total Relevant Dollars	52,172,603	55,733,795	52,954,709	58,106,933	59,477,531	3.48
Radiation, UV	***Number of Grants***	***114***	***98***	***88***	***82***	***76***	
	Relevant Grant Dollars	22,589,958	18,726,175	15,072,662	16,146,542	16,770,517	
	Number of Contracts	***‡***	***1***	***‡***	***1***	***‡***	
	Relevant Contract Dollars	‡	35,000	‡	1,494,124	‡	
	Total Count	***114***	***99***	***88***	***83***	***76***	
	Total Relevant Dollars	22,589,958	18,761,175	15,072,662	17,640,666	16,770,517	-6.12

continued

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Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Rare Diseases	***Number of Grants***	***62***	***61***	***57***	***52***	***44***	
	Relevant Grant Dollars	10,866,928	14,081,488	13,348,150	10,726,359	10,401,147	
	Number of Contracts	***1***	***‡***	***‡***	***1***	***‡***	
	Relevant Contract Dollars	312,912	‡	‡	49,950	‡	
	Total Count	***63***	***61***	***57***	***53***	***44***	
	Total Relevant Dollars	11,179,840	14,081,488	13,348,150	10,776,309	10,401,147	-0.50
Rehabilitation	***Number of Grants***	***210***	***168***	***173***	***156***	***166***	
	Relevant Grant Dollars	47,474,572	51,747,174	54,957,761	56,664,104	55,517,413	
	Number of Contracts	***2***	***1***	***3***	***‡***	***1***	
	Relevant Contract Dollars	1,007,690	149,925	1,694,020	‡	1,499,993	
	Total Count	***212***	***169***	***176***	***156***	***167***	
	Total Relevant Dollars	48,482,262	51,897,099	56,651,781	56,664,104	57,017,406	4.21
Rural Populations	***Number of Grants***	***118***	***103***	***103***	***95***	***102***	
	Relevant Grant Dollars	51,131,320	45,918,623	39,972,778	47,225,578	58,851,993	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***1***	
	Relevant Contract Dollars	‡	‡	‡	‡	56,000	
	Total Count	***118***	***103***	***103***	***95***	***103***	
	Total Relevant Dollars	51,131,320	45,918,623	39,972,778	47,225,578	58,907,993	4.93
Sexually Transmitted Diseases	***Number of Grants***	***130***	***69***	***52***	***42***	***41***	
	Relevant Grant Dollars	17,283,985	12,192,170	11,054,662	11,261,006	10,790,237	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***130***	***69***	***52***	***42***	***41***	
	Total Relevant Dollars	17,283,985	12,192,170	11,054,662	11,261,006	10,790,237	-10.27
Sleep Disorders	***Number of Grants***	***48***	***49***	***59***	***60***	***68***	
	Relevant Grant Dollars	6,930,386	7,520,997	9,575,112	10,817,251	18,354,414	
	Number of Contracts	***1***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	78,195	35,000	‡	‡	‡	
	Total Count	***49***	***50***	***59***	***60***	***68***	
	Total Relevant Dollars	7,008,581	7,555,997	9,575,112	10,817,251	18,354,414	29.29
Small Molecules	***Number of Grants***	***609***	***648***	***649***	***660***	***691***	
	Relevant Grant Dollars	109,485,605	112,555,106	116,837,379	128,242,096	139,220,927	
	Number of Contracts	***4***	***2***	***4***	***5***	***4***	
	Relevant Contract Dollars	1,389,150	846,672	2,932,872	3,629,428	3,818,665	
	Total Count	***613***	***650***	***653***	***665***	***695***	
	Total Relevant Dollars	110,874,755	113,401,778	119,770,251	131,871,523	143,039,592	6.61
Smoking	***Number of Grants***	***381***	***354***	***344***	***324***	***315***	
	Relevant Grant Dollars	80,787,427	79,736,310	85,531,663	90,945,385	89,089,847	
	Number of Contracts	***5***	***5***	***6***	***6***	***5***	
	Relevant Contract Dollars	1,335,500	1,960,000	5,099,990	2,086,550	14,152,035	
	Total Count	***386***	***359***	***350***	***330***	***320***	
	Total Relevant Dollars	82,122,927	81,696,310	90,631,653	93,031,935	103,241,882	6.01

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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Smoking Behavior	***Number of Grants***	***274***	***269***	***267***	***248***	***244***	
	Relevant Grant Dollars	64,136,938	63,391,848	65,022,529	68,496,317	63,263,716	
	Number of Contracts	***5***	***3***	***4***	***5***	***4***	
	Relevant Contract Dollars	1,335,500	1,285,000	4,424,240	2,070,000	1,268,250	
	Total Count	***279***	***272***	***271***	***253***	***248***	
	Total Relevant Dollars	65,472,438	64,676,848	69,446,769	70,566,317	64,531,966	-0.19
Smoking Cessation	***Number of Grants***	***38***	***78***	***112***	***121***	***140***	
	Relevant Grant Dollars	11,218,530	21,477,518	34,877,760	38,247,479	38,423,410	
	Number of Contracts	***2***	***‡***	***2***	***1***	***1***	
	Relevant Contract Dollars	1,580,171	‡	3,139,341	6,250,268	12,883,785	
	Total Count	***40***	***78***	***114***	***122***	***141***	
	Total Relevant Dollars	12,798,701	21,477,518	38,017,101	44,497,747	51,307,195	44.29
Smoking, Passive	***Number of Grants***	***20***	***20***	***20***	***22***	***20***	
	Relevant Grant Dollars	3,771,941	4,153,475	3,389,404	5,075,259	5,088,594	
	Number of Contracts	***1***	***1***	***2***	***‡***	***‡***	
	Relevant Contract Dollars	420,000	420,000	456,715	‡	‡	
	Total Count	***21***	***21***	***22***	***22***	***20***	
	Total Relevant Dollars	4,191,941	4,573,475	3,846,118	5,075,259	5,088,594	6.35
Smokeless Tobacco	***Number of Grants***	***29***	***25***	***27***	***26***	***23***	
	Relevant Grant Dollars	1,359,152	1,961,730	1,686,491	1,827,449	1,882,785	
	Number of Contracts	***1***	***1***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	420,000	420,000	440,965	‡	‡	
	Total Count	***30***	***26***	***28***	***26***	***23***	
	Total Relevant Dollars	1,779,152	2,381,730	2,127,455	1,827,449	1,882,785	3.02
Structural Biology	***Number of Grants***	***1,048***	***944***	***856***	***761***	***702***	
	Relevant Grant Dollars	196,164,921	180,943,953	165,245,966	160,205,655	160,511,867	
	Number of Contracts	***‡***	***2***	***2***	***1***	***1***	
	Relevant Contract Dollars	‡	52,481,360	62,705,109	79,804,870	78,321,602	
	Total Count	***1,048***	***946***	***858***	***762***	***703***	
	Total Relevant Dollars	196,164,921	233,425,313	227,951,075	240,010,526	238,833,468	5.36
Surgery	***Number of Grants***	***300***	***208***	***210***	***214***	***222***	
	Relevant Grant Dollars	48,740,495	47,266,013	50,662,032	58,892,413	61,508,704	
	Number of Contracts	***‡***	***2***	***‡***	***2***	***2***	
	Relevant Contract Dollars	‡	1,094,494	‡	1,172,218	14,539	
	Total Count	***300***	***210***	***210***	***216***	***224***	
	Total Relevant Dollars	48,740,495	48,360,507	50,662,032	60,064,630	61,523,242	6.24
Taxol	***Number of Grants***	***222***	***149***	***127***	***130***	***144***	
	Relevant Grant Dollars	17,879,201	14,735,085	15,870,045	21,162,390	23,999,046	
	Number of Contracts	***‡***	***‡***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	496,154	‡	‡	
	Total Count	***222***	***149***	***128***	***130***	***144***	
	Total Relevant Dollars	17,879,201	14,735,085	16,366,199	21,162,390	23,999,046	9.04

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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Telehealth	***Number of Grants***	***283***	***270***	***291***	***304***	***329***	
	Relevant Grant Dollars	64,593,337	64,342,929	68,485,679	79,769,242	110,288,390	
	Number of Contracts	***6***	***6***	***10***	***8***	***9***	
	Relevant Contract Dollars	10,473,269	6,161,456	3,584,009	4,389,571	6,077,680	
	Total Count	***289***	***276***	***301***	***312***	***338***	
	Total Relevant Dollars	75,066,606	70,504,385	72,069,688	84,158,813	116,366,070	12.79
Therapy	***Number of Grants***	***4,057***	***4,079***	***4,107***	***4,293***	***40***	
	Relevant Grant Dollars	1,366,836,549	1,430,619,450	1,527,523,958	1,754,215,108	9,212,704	
	Number of Contracts	***67***	***81***	***78***	***64***	***1***	
	Relevant Contract Dollars	80,749,732	137,502,906	179,514,139	157,222,822	397,217	
	Total Count	***4,124***	***4,160***	***4,185***	***4,357***	***41***	
	Total Relevant Dollars	1,447,586,281	1,568,122,356	1,707,038,097	1,911,437,931	9,609,921	-17.58
Tropical Diseases	***Number of Grants***	***15***	***15***	***11***	***10***	***10***	
	Relevant Grant Dollars	2,968,168	3,731,760	3,628,078	3,155,736	1,846,880	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***15***	***15***	***11***	***10***	***10***	
	Total Relevant Dollars	2,968,168	3,731,760	3,628,078	3,155,736	1,846,880	-7.88
Tumor Markers	***Number of Grants***	***298***	***214***	***147***	***110***	***71***	
	Relevant Grant Dollars	59,605,975	49,088,453	35,214,792	28,002,108	14,174,253	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***298***	***214***	***147***	***110***	***71***	
	Total Relevant Dollars	59,605,975	49,088,453	35,214,792	28,002,108	14,174,253	-28.94
Underserved and Disparities	***Number of Grants***	***610***	***595***	***605***	***578***	***628***	
	Relevant Grant Dollars	245,809,745	230,676,876	228,862,603	247,578,399	324,687,212	
	Number of Contracts	***‡***	***4***	***7***	***9***	***5***	
	Relevant Contract Dollars	‡	5,952,032	1,906,103	5,404,861	3,581,740	
	Total Count	***610***	***599***	***612***	***587***	***633***	
	Total Relevant Dollars	245,809,745	236,628,908	230,768,706	252,983,260	328,268,952	8.29
Vaccine Development	***Number of Grants***	***112***	***109***	***100***	***87***	***95***	
	Relevant Grant Dollars	15,119,199	17,882,191	18,841,587	18,665,405	20,212,226	
	Number of Contracts	***1***	***1***	***2***	***1***	***1***	
	Relevant Contract Dollars	458,635	318,481	2,719,056	589,266	230,734	
	Total Count	***113***	***110***	***102***	***88***	***96***	
	Total Relevant Dollars	15,577,834	18,200,672	21,560,643	19,254,670	20,442,960	7.69
Vaccine Production	***Number of Grants***	***1***	***1***	***1***	***1***	***2***	
	Relevant Grant Dollars	‡	41,056	40,677	40,677	119,047	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***1***	***1***	***1***	***1***	***2***	
	Total Relevant Dollars	‡	41,056	40,677	40,677	119,047	63.91

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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Vaccine Research	***Number of Grants***	***149***	***129***	***113***	***121***	***123***	
	Relevant Grant Dollars	25,518,109	22,248,751	23,660,428	27,073,893	28,024,644	
	Number of Contracts	***‡***	***6***	***10***	***10***	***7***	
	Relevant Contract Dollars	‡	24,951,052	34,643,738	39,618,958	37,638,643	
	Total Count	***149***	***135***	***123***	***131***	***130***	
	Total Relevant Dollars	25,518,109	47,199,803	58,304,167	66,692,851	65,663,287	30.33
Vaccine Testing	***Number of Grants***	***70***	***72***	***63***	***58***	***49***	
	Relevant Grant Dollars	14,265,015	14,360,299	14,750,690	13,896,826	11,061,812	
	Number of Contracts	***3***	***1***	***1***	***2***	***2***	
	Relevant Contract Dollars	4,435,947	2,746,712	3,186,536	2,305,882	1,674,230	
	Total Count	***73***	***73***	***64***	***60***	***51***	
	Total Relevant Dollars	18,700,962	17,107,011	17,937,226	16,202,707	12,736,042	-8.68
Virus Cancer Research	***Number of Grants***	***442***	***419***	***370***	***356***	***347***	
	Relevant Grant Dollars	124,977,046	121,319,532	130,243,171	133,714,813	131,441,807	
	Number of Contracts	***1***	***2***	***4***	***2***	***3***	
	Relevant Contract Dollars	740,476	21,920,290	30,559,118	34,560,327	33,092,240	
	Total Count	***443***	***421***	***374***	***358***	***350***	
	Total Relevant Dollars	125,717,522	143,239,822	160,802,289	168,275,141	164,534,046	7.15
Virus—Epstein-Barr	***Number of Grants***	***75***	***69***	***57***	***55***	***57***	
	Relevant Grant Dollars	17,304,516	16,834,173	18,001,207	18,317,870	18,236,645	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***75***	***69***	***57***	***55***	***57***	
	Total Relevant Dollars	17,304,516	16,834,173	18,001,207	18,317,870	18,236,645	1.38
Virus—Hepatitis B	***Number of Grants***	***39***	***33***	***22***	***19***	***23***	
	Relevant Grant Dollars	4,816,519	3,855,582	2,835,408	1,682,116	2,974,267	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***39***	***33***	***22***	***19***	***23***	
	Total Relevant Dollars	4,816,519	3,855,582	2,835,408	1,682,116	2,974,267	-2.56
Virus—Hepatitis C	***Number of Grants***	***34***	***34***	***25***	***24***	***26***	
	Relevant Grant Dollars	3,507,767	6,172,959	4,925,341	3,352,826	4,349,788	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***34***	***34***	***25***	***24***	***26***	
	Total Relevant Dollars	3,507,767	6,172,959	4,925,341	3,352,826	4,349,788	13.39
Virus—Herpes	***Number of Grants***	***157***	***148***	***127***	***123***	***122***	
	Relevant Grant Dollars	42,315,552	41,959,685	44,516,965	47,186,600	41,145,977	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***157***	***148***	***127***	***123***	***122***	
	Total Relevant Dollars	42,315,552	41,959,685	44,516,965	47,186,600	41,145,977	-0.38

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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Virus—HHV8	***Number of Grants***	***65***	***63***	***57***	***60***	***57***	
	Relevant Grant Dollars	19,671,059	19,794,001	25,216,563	27,737,808	23,175,112	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***65***	***63***	***57***	***60***	***57***	
	Total Relevant Dollars	19,671,059	19,794,001	25,216,563	27,737,808	23,175,112	5.39
Virus—HTLV-I	***Number of Grants***	***22***	***18***	***14***	***14***	***13***	
	Relevant Grant Dollars	4,627,662	3,629,925	4,142,547	3,899,447	3,980,369	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***22***	***18***	***14***	***14***	***13***	
	Total Relevant Dollars	4,627,662	3,629,925	4,142,547	3,899,447	3,980,369	-2.80
Virus—Papilloma	***Number of Grants***	***176***	***167***	***171***	***165***	***167***	
	Relevant Grant Dollars	43,808,063	43,027,935	48,797,503	52,490,929	54,043,721	
	Number of Contracts	***1***	***1***	***3***	***1***	***1***	
	Relevant Contract Dollars	740,476	1,327,705	5,686,039	2,638,379	1,697,599	
	Total Count	***177***	***168***	***174***	***166***	***168***	
	Total Relevant Dollars	44,548,539	44,355,640	54,483,542	55,129,308	55,741,320	6.17
Virus—Papova	***Number of Grants***	***196***	***188***	***187***	***178***	***178***	
	Relevant Grant Dollars	50,340,929	49,604,921	52,682,779	56,177,300	56,892,866	
	Number of Contracts	***1***	***1***	***3***	***1***	***1***	
	Relevant Contract Dollars	740,476	1,327,705	5,686,039	2,638,379	1,697,599	
	Total Count	***197***	***189***	***190***	***179***	***179***	
	Total Relevant Dollars	51,081,405	50,932,626	58,368,818	58,815,679	58,590,465	3.67
Virus—SV40	***Number of Grants***	***7***	***2***	***2***	***2***	***2***	
	Relevant Grant Dollars	356,763	361,950	155,700	720,567	720,567	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***7***	***2***	***2***	***2***	***2***	
	Total Relevant Dollars	356,763	361,950	155,700	720,567	720,567	76.81
Vitamin A	***Number of Grants***	***31***	***24***	***18***	***14***	***14***	
	Relevant Grant Dollars	4,342,551	2,458,147	2,452,760	2,771,355	2,199,510	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***31***	***24***	***18***	***14***	***14***	
	Total Relevant Dollars	4,342,551	2,458,147	2,452,760	2,771,355	2,199,510	-12.81
Vitamin C	***Number of Grants***	***7***	***6***	***6***	***5***	***5***	
	Relevant Grant Dollars	993,313	1,569,644	1,443,333	1,262,997	3,288,782	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***7***	***6***	***6***	***5***	***5***	
	Total Relevant Dollars	993,313	1,569,644	1,443,333	1,262,997	3,288,782	49.46

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 FY2014 – FY2018 – Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2014	2015	2016	2017	2018	Average Percent Change/Year
Vitamin D	***Number of Grants***	***81***	***68***	***46***	***44***	***44***	
	Relevant Grant Dollars	17,167,368	16,217,405	10,749,178	12,254,831	13,343,235	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***81***	***68***	***46***	***44***	***44***	
	Total Relevant Dollars	17,167,368	16,217,405	10,749,178	12,254,831	13,343,235	-4.09
Vitamins, Other	***Number of Grants***	***8***	***7***	***4***	***4***	***2***	
	Relevant Grant Dollars	3,199,595	3,184,755	403,368	20,764	‡	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***8***	***7***	***4***	***4***	***2***	
	Total Relevant Dollars	3,199,595	3,184,755	403,368	20,764	‡	-60.88

* 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 FY2018

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

Country/ Cancer Site											
Argentina	**P20**	**R01**	**R21**	**R33**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**N01**	**Totals**
Grants #	***1***	***1***									***2***
Funding $	***248,000***	***393,216***									***641,216***
Bladder	124,000										124,000
Cervix		393,216									393,216
Stomach	124,000										124,000
Australia	**P20**	**R01**	**R21**	**R33**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**N01**	**Totals**
Grants #			***1***		***2***						***3***
Funding $			***124,967***		***2,672,415***						***2,797,382***
Childhood Leukemia					394,802						394,802
Colon, Rectum					2,277,613						2,277,613
Neuroblastoma			124,967								124,967
Canada	**P20**	**R01**	**R21**	**R33**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**N01**	**Totals**
Grants #		***6***	***1***	***1***		***1***	***1***		***1***	***1***	***12***
Funding $		***1,456,473***	***107,091***	***258,952***		***2,407,343***	***397,387***		***932,981***	***810,970***	***6,371,197***
Bladder		4,769				120,367					125,136
Brain						120,367					120,367
Breast				129,476		962,938					1,092,414
Cervix		411,369				60,184					471,553
Colon, Rectum						96,294					96,294
Esophagus						48,147					48,147
Head and Neck						120,367					120,367
Kidney						120,367					120,367
Leukemia		437,856				90,275					528,131
Liver						24,073					24,073
Lung		90,617				120,367					210,984
Melanoma		123,525									123,525
Myeloma						60,184					60,184
Non-Hodgkin Lymphoma		123,525				90,275					213,800
Not Site Specific*			107,091				397,387		932,981	810,970	2,248,429
Ovary						120,367					120,367
Pancreas						48,147					48,147
Prostate		264,812		129,476		120,367					514,655
Stomach						24,073					24,073
Uterus						60,184					60,184
Costa Rica	**P20**	**R01**	**R21**	**R33**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**N01**	**Totals**
Grants #										***1***	***1***
Funding $										***843,352***	***843,352***
Cervix										843,352	843,352

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 FY2018

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

Country/ Cancer Site											
France	**P20**	**R01**	**R21**	**R33**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**N01**	**Totals**
Grants #					***2***			***1***			***3***
Funding $					***1,265,047***			***513,260***			***1,778,307***
Anus					221,620						221,620
Cervix								513,260			513,260
Not Site Specific*					821,807						821,807
Pharynx					221,620						221,620
Germany	**P20**	**R01**	**R21**	**R33**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**N01**	**Totals**
Grants #							***1***				***1***
Funding $							***413,604***				***413,604***
Not Site Specific*							413,604				413,604
Italy	**P20**	**R01**	**R21**	**R33**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**N01**	**Totals**
Grants #										***1***	***1***
Funding $										***25,000***	***25,000***
Not Site Specific*										25,000	25,000
Japan	**P20**	**R01**	**R21**	**R33**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**N01**	**Totals**
Grants #										***1***	***1***
Funding $										***157,967***	***157,967***
Not Site Specific*										157,967	157,967
Netherlands	**P20**	**R01**	**R21**	**R33**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**N01**	**Totals**
Grants #		***1***									***1***
Funding $		***224,924***									***224,924***
Breast		224,924									224,924
South Africa	**P20**	**R01**	**R21**	**R33**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**N01**	**Totals**
Grants #		***1***									***1***
Funding $		***81,956***									***81,956***
Breast		81,956									81,956
Sweden	**P20**	**R01**	**R21**	**R33**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**N01**	**Totals**
Grants #		***2***									***2***
Funding $		***634,524***									***634,524***
Breast		139,544									139,544
Colon, Rectum		224,100									224,100
Non-Hodgkin Lymphoma		135,440									135,440
Sarcoma, Bone		135,440									135,440
Switzerland	**P20**	**R01**	**R21**	**R33**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**N01**	**Totals**
Grants #		***1***									***1***
Funding $		***218,655***									***218,655***
Brain		218,655									218,655
United Kingdom	**P20**	**R01**	**R21**	**R33**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**N01**	**Totals**
Grants #							***1***				***1***
Funding $							***324,000***				***324,000***
Thyroid							324,000				324,000
Total Grants & Contracts	***1***	***12***	***2***	***1***	***4***	***1***	***3***	***1***	***1***	***4***	***30***
Total $ Per Grant & Contract Type	***248,000***	***3,009,748***	***232,058***	***258,952***	***3,937,462***	***2,407,343***	***1,134,991***	***513,260***	***932,981***	***1,837,289***	***14,512,084***

*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 FY2018

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

Country	Funding Mechanism																						Sub-total
	F30	F31	K01	K07	K08	K99	R00	R01	R03	R13	R21	R25	R35	R37	R41	R42	R44	U01	UG1	UG3	UH3	UM1	N01	
Australia							1	6							2	1		2						12
Austria								1									2							3
Bahamas												1						1						2
Belgium						1		1						1										3
Botswana																					1			1
Brazil																					2			2
Canada	1			1				33			1			2	3		1	3	1	1				47
China						1		9			1							3		1			1	16
Colombia																					1			1
Denmark								4			1				1									6
Egypt								1				1												2
El Salvador								1																1
Finland								1																1
France								4			4			2				1						11
Georgia				1																				1
Germany								11	1		2			1		1		5						21
Ghana								1										1						2
Greece								1																1
Hungary											1													1
India								3			2									2	2			9
Ireland								3																3
Israel		1						7									1	1						10
Italy								2			2				1			1						6
Japan								5										1					1	7
Kenya		1			1			2													1	1		6
Lebanon								1																1
Malawi											1									1				2
Mexico			1	1				3													1			6
Mongolia																				1				1
Netherlands								7		1	2						1	5						16
Nigeria								1				1						1		1				4
Norway								2																2
Peru								2													1			3
Philippines																					2			2
Poland								1																1
Portugal								1																1
Qatar									1															1

continued

Source: Research Analysis and Evaluation Branch.

Table 18. (cont'd). Foreign Components of U.S. Domestic Research Grants and Contracts in FY2018

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

Country	Funding Mechanism																							Sub-total
	F30	F31	K01	K07	K08	K99	R00	R01	R03	R13	R21	R25	R35	R37	R41	R42	R44	U01	UG1	UG3	UH3	UM1	N01	
Russia											7													7
Rwanda				1																				1
Senegal																		1						1
Singapore								1					1		1									3
South Africa																		1			2	1		4
South Korea								1										2						3
Spain			1					7							1									9
Sweden								3																3
Switzerland								2							1			2						5
Taiwan								2			1									1				4
Tanzania U Rep								1			1													2
Uganda								1												2	1			4
United Kingdom								12				1		2				2						17
Vietnam											1													1
Zambia								1																1
Zimbabwe																						1		1
Totals	**1**	**2**	**2**	**4**	**1**	**2**	**1**	**145**	**2**	**1**	**27**	**4**	**1**	**8**	**10**	**2**	**5**	**33**	**1**	**10**	**14**	**3**	**2**	**281***

* Because many grants have multiple foreign contributors, the total count (281) is greater than the total number (230) of grants and contracts.

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, 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 15,120 applications in FY2018 requesting $5,142,273,938 in direct costs with appropriated funds. Additionally, the Board reviewed seven FDA applications in FY2018.

The Board heard presentations, discussed, and provided advice on a variety of topics and NCI activities in FY2018, such as:

- NCI Director's Report
- President's Cancer Panel Report
- Legislative Report
- High-Quality Risk-Based Cervical Cancer Screening for the U.S. and the World
- Patient-Reported Outcomes Version of the Common Terminology Criteria for Adverse Events (PRO-CTCAE)
- Early Career Investigators and NCI Planning
- Annual Delegations of Authority
- Next Steps in Studying the Human Microbiome in Epidemiologic Studies
- Next Generation Sequencing (NGS) Coverage Determination – FDA Approval of NGS-Based OncoPanels
- T-Cells as a Drug for the Personalized Immunotherapy of Cancer
- Inter- and Intra-Tumoral Heterogeneity in Pediatric Sarcomas
- *Ad Hoc* Data Science Working Group Interim Report
- *Ad Hoc* Global Health Working Group Final Report
- *Ad Hoc* Subcommittee on Global Cancer Research 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: **http://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 FY2018:

- NCI Director's Report
- Legislative Report
- President's Cancer Panel Report
- High-Quality Risk-Based Cervical Cancer Screening for the U.S. and the World
- Patient-Reported Outcomes Version of the Common Terminology Criteria for Adverse Events (PRO-CTCAE)
- Early Career Investigators and NCI Planning
- Next Generation Sequencing (NGS) Coverage Determination-FDA Approval of NGS-Based OncoPanels
- T-Cells as a Drug for the Personalized Immunotherapy of Cancer
- *Ad Hoc* Subcommittee on Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) Malignancy Report

RFA Concepts Approved

Office of the Director

- Investigation of the Transmission of Kaposi Sarcoma-Associated Herpesvirus (KSHV)
- Pathway to Independence Awards for Outstanding Early-Stage Postdoctoral Fellows (K88/R00)

Division of Cancer Control and Population Sciences

- Improving the Reach and Quality of Cancer Care in Rural Populations
- Implementation Science Centers for Cancer Control (IS-C3)
- Communications and Decision Making in the Context of Risk and Uncertainty for Individuals with Inherited Cancer Syndromes

RFA/Cooperative Agreements Approved

Office of the Director

- NCI Awardee Skills Development Consortium (NASDC)

Division of Cancer Biology

- Immuno-Oncology Translation Network (IOTN)

Division of Cancer Prevention

- Cancer Preventive Agent Development Program: Early Phase Clinical Research

Division of Cancer Control and Population Sciences

- Tobacco Cessation Interventions Among People Living with HIV/AIDS
- Research to Develop Evidence-Based Approaches to Patient Engagement
- Patient Engagement for Priority Cancer Sequencing (PE4PC-Seq)

RFA Re-Issuance Approved

Office of the Director

- Small Business Innovation Research (SBIR) Phase II Bridge Awards to Accelerate the Development of Cancer-Focused Technologies Toward Commercialization
- U.S.-China Program for Biomedical Collaborative Research

Division of Cancer Prevention

- NCI Community Oncology Research Program

RFA/Cooperative Agreements Re-Issuances Approved

Office of the Director

- AIDS and Cancer Specimen Resource (ACSR)

Division of Cancer Treatment and Diagnosis

- Cooperative Human Tissue Network (CHTN)
- Early Clinical Trials for New Anticancer Agents with Phase 1 and 2 Emphasis

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, and/or 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 FY2018, such as:

- NCI Director's Report
- RAS Initiative
- National Cryo-EM Facility (NCEF)
- Chemical Biology Consortium
- LDHA
- P97
- Discovery of Subnanomolar Inhibitors of Mcl-1
- FNLCR Operational Overview
- Current Operations and Future Plans at the Frederick National Laboratory
- NCI Experimental Therapeutics Program
- Role of Molecular Pharmacodynamics in both Drug Discovery and Development
- NCI Early Therapeutic Trials Network
- Accelerating Therapeutics for Opportunities in Medicine (ATOM)
- NCI-Department of Energy (DOE) Collaborations Working Group Report

Another major role of the FNLAC 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 an appropriate locus for carrying out the proposed projects, and that they are consistent with the mission of the National Cancer Institute.

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

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National Cancer Advisory Board

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Yuan Chang, M.D. ..... University of Pittsburgh Cancer Institute
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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
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Margaret R. Spitz, M.D. ..... Baylor College of Medicine
Max S. Wicha, M.D. .....University of Michigan

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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
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*pending appointment

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Dan Theodorescu, M.D., Ph.D. ..... University of Colorado
Louis M. Weiner, M.D. ..... Georgetown University

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William Dahut, M.D. ..... National Cancer Institute, NIH
James H. Doroshow, M.D. ..... National Cancer Institute, NIH
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Rosemarie B. Hakim, Ph.D. ..... U.S. Centers for Medicare and Medicaid Services
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Anthony Kerlavage, Ph.D. ..... National Cancer Institute, NIH
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Executive Secretary

Sheila A. Prindiville, M.D., M.P.H. ..... National Cancer Institute, NIH

*pending appointment

NCI Council of Research Advocates

Chair

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

Members

Gregory J. Aune, M.D., Ph.D. ..... The University of Texas Health Science Center at San Antonio
Rick Bangs, M.B.A., P.M.P. .....SWOG Patient Advocate Committee
Mary Ann Battles, M.S. .....Genentech Inc.
Julie Fleshman, J.D., M.B.A. ..... Pancreatic Cancer Action Network
Sue J. Friedman, D.V.M. ..... Facing Our Risk of Cancer Empowered
Shelley Fuld Nasso, M.A. ..... National Coalition for Cancer Survivorship
Martha E. Gaines, J.D., LL.M. ..... University of Wisconsin Law School
Danielle Leach, M.P.A. .....St. Baldrick's Foundation
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Senaida F. Poole, Ph.D. .....University of California
Roberto A. Vargas, M.P.H. .....University of California, San Francisco
Regina M. Vidaver, Ph.D. .....Wisconsin Department of Health Services

Executive Secretary

Amy Williams .....National Cancer Institute, NIH

NCI Initial Review Group Scientific Review Committees

Subcommittee A - Cancer Centers

Current Chair

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Past Chair

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Gerold Bepler, M.D., Ph.D. .....Wayne State University
Arthur W. Blackstock, Jr., M.D. ..... Wake Forest University
Kathleen A. Cooney, M.D. .....Duke University
Robert W. Gerlach, M.P.A. .....Dartmouth College
Helen E. Heslop, M.D. .....Baylor College of Medicine
Richard J. Jones, M.D. .....Johns Hopkins University
Anita Y. Kinney, Ph.D., R.N. .....Rutgers, State University of New Jersey
Karen E. Knudsen, Ph.D. .....Thomas Jefferson University

Cheryl T. Lee, M.D. ..... The Ohio State University
King C. Li, M.D., M.B.A. ..... University of Illinois at Urbana-Champaign
Scott M. Lippman, M.D. ..... University of California, San Diego
James J. Mule, Ph.D. ..... Moffitt Cancer Center
Phyllis Pettit Nassi, M.S.W. ..... The University of Utah
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. Platanias, M.D., Ph.D. ..... Northwestern University
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David R. Spriggs, M.D. ..... Memorial Sloan Kettering Cancer Center
Joann B. Sweasy, Ph.D. ..... Yale University
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Subbarao Bondada, Ph.D. ..... University of Kentucky
William G. Cance, M.D. ..... The University of Arizona
Edward Chu, M.D., M.M.S. ..... University of Pittsburgh
Lisa K. Denzin, Ph.D. ..... Rutgers, State University of New Jersey
David J. Grdina, Ph.D., M.B.A. ..... The University of Chicago
Stephen R. Hann, Ph.D. ..... Vanderbilt University
Richard L. Haspel, M.D., Ph.D. ..... Harvard Medical School
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Mark W. Jackson, Ph.D. ..... Case Western Reserve University
John S. Lazo, Ph.D. ..... University of Virginia
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Scott A. Oakes, M.D. ..... University of California, San Francisco
John A. Olson, Jr., M.D., Ph.D. ..... University of Maryland School of Medicine
Elizabeth A. Platz, Sc.D., M.P.H. ..... Johns Hopkins University

Mary Elaine Reyland, Ph.D. ..... University of Colorado, Denver
Erle S. Robertson, Ph.D. ..... University of Pennsylvania
Melanie E. Royce, M.D., Ph.D. ..... The University of New Mexico
Kathryn H. Schmitz, Ph.D., M.P.H. ..... University of Pennsylvania
Brian Joseph Smith, Ph.D. ..... University of Iowa College of Public Health
Luzhe Sun, Ph.D. ..... The University of Texas Health Science Center
Tor D. Tosteson, Sc.D. ..... Dartmouth University

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Timothy C. Meeker, M.D. ..... National Cancer Institute, NIH

Subcommittee I - Career Development

Chair

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Jennifer D. Black, Ph.D. ..... University of Nebraska Medical Center
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Jennifer P. Clarke, Ph.D. ..... University of Nebraska-Lincoln
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Jun Luo, Ph.D. ..... John Hopkins University
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Maneesh Jain, Ph.D. ..... University of Nebraska
Jennifer Hatcher, Ph.D., M.P.H., M.S.N. ..... University of Kentucky
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Veronica Wendy Setiawan, Ph.D. ..... University of California, Los Angeles
Li Tang, M.D., Ph.D. ..... Roswell Park Cancer Institute
Jie Wu, Ph.D. ..... University of Oklahoma Health Sciences Center
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Gang Zhou, Ph.D. ..... Augusta University

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Appendix E: NCI Initial Review Group Consultants

1. Consultants Serving as Temporary Members on IRG Subcommittees in FY2018

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Bar, Eli E., Ph.D. ..... Case Western Reserve University
Basu, Sujit, M.D., Ph.D. ..... The Ohio State University
Bepler, Gerold, M.D., Ph.D. ..... Barbara Ann Karmanos Cancer Institute
Bjornsti, Mary-Ann, Ph.D. ..... The University of Alabama at Birmingham
Black, Jennifer D., Ph.D. ..... University of Nebraska Medical Center
Bondy, Melissa L., Ph.D. ..... Baylor College of Medicine
Boussiotis, Vassiliki A., M.D., Ph.D. ..... Beth Israel Deaconess Medical Center
Buchsbaum, Donald J., Ph.D. ..... The University of Alabama at Birmingham
Bulte, Jeff W., Ph.D. ..... Johns Hopkins University

C

Caan, Bette J., Dr.P.H. ..... Kaiser Foundation Research Institute
Campagnola, Paul J., Ph.D. ..... University of Wisconsin-Madison
Cance, William G., M.D. ..... The University of Arizona
Carpizo, Darren R., M.D., Ph.D. ..... Rutgers, The State University of New Jersey
Carroll, Martin, M.D. ..... University of Pennsylvania
Carroll, Raymond J., Ph.D. ..... Texas A&M University
Chen, Jiandong, Ph.D. ..... Moffitt Cancer Center
Chen, Wei, Ph.D. ..... Wayne State University
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Costanzo, Erin, Ph.D. ..... University of Wisconsin-Madison
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Duerksen-Hughes, Penelope J., Ph.D. ..... Loma Linda University

E

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*Approximately 23 reviewers served more than once.

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Moore, Anna, Ph.D. ..... Michigan State University
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Total Number of Reviewers: 139*

*Approximately 46 reviewers served more than once.

3. Consultants Serving on Special Emphasis Panels (SEPs) in FY 2018

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Weidhaas, Joanne B., M.D., Ph.D. ..... University of California, Los Angeles
Weigel, Brenda J., M.D. ..... University of Minnesota
Weinberg, Armin D., Ph.D. ..... Baylor College of Medicine
Weinberg, Irving, M.D., Ph.D. ..... Weinberg Medical Physics, LLC
Weiner, George J., M.D. ..... University of Iowa
Weiner, Mark G., M.D. ..... Temple University
Weiss, Heidi L., Ph.D. ..... University of Kentucky
Weiss, Robert S., Ph.D. ..... Cornell University
Weissman, Bernard E., Ph.D. ..... The University of North Carolina at Chapel Hill
Welch, Danny R., Ph.D. ..... University of Kansas Medical Center
Weljie, Aalim M., Ph.D. ..... University of Pennsylvania
Weller, Edie A., Ph.D. ..... Boston Children's Hospital
Wellstein, Anton, M.D., Ph.D. ..... Georgetown University
Welm, Alana L., Ph.D. ..... The University of Utah
Weng, Chunhua, Ph.D. ..... Columbia University Health Sciences
Wenzel, Lari, Ph.D. ..... University of California, Irvine
West, Robert B., M.D., Ph.D. ..... Stanford University
White, Fletcher A., Ph.D. ..... Indiana University-Purdue, University at Indianapolis
White, Kristin, Ph.D. ..... Massachusetts General Hospital
White, Michael A., Ph.D. ..... The University of Texas Southwestern Medical Center
White, Rebekah, M.D. ..... University of California, San Diego
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Wiemels, Joseph L., Ph.D. ..... University of Southern California
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Willey, James C., M.D. ..... University of Toledo Health Science Campus
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Williams, David E., Ph.D. ..... Oregon State University
Williams, Jacqueline P., Ph.D. ..... University of Rochester
Wilson, Keith T., M.D. ..... Vanderbilt University Medical Center
Windle, Brad E., Ph.D. ..... Virginia Commonwealth University
Windmiller, Joshua R., Ph.D. ..... Electrozyme, LLC
Wingard, John R., M.D. ..... University of Florida

Wistuba, Ignacio I., M.D. ..... The University of Texas MD Anderson Cancer Center
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Wood, Laura DeLong, M.D., Ph.D. ..... Johns Hopkins University
Woodall, W. GILL, Ph.D. ..... The University of New Mexico
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Worsham, Maria J., Ph.D. ..... Henry Ford Health System
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Wu, Anna H., Ph.D., M.P.H. ..... University of Southern California
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Wu, Baolin, Ph.D. ..... University of Minnesota
Wu, Catherine Ju-Ying, M.D. ..... Dana-Farber Cancer Center
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Wu, Shandong, Ph.D. ..... University of Pittsburgh
Wu, Shiyong, Ph.D. ..... Ohio University, Athens
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X

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Xie, Wen, M.D., Ph.D. ..... University of Pittsburgh
Xie, Yang, M.D., Ph.D. ..... The University of Texas Southwestern Medical Center
Xin, Li, Ph.D. ..... University of Washington, Seattle
Xiong, Yue, Ph.D. ..... The University of North Carolina at Chapel Hill
Xu, Hua, Ph.D. ..... The University of Texas Health Science Center at Houston
Xu, Liang, M.D., Ph.D. ..... University of Kansas
Xu, Wei, Ph.D. ..... University of Wisconsin-Madison
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Y

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Young, James W., M.D. ..... Memorial Sloan Kettering Cancer Center
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Z

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Zhang, Gq, Ph.D. ..... The University of Texas Health Science Center at Houston

Zhang, Hong, Ph.D. ..... The University of Texas Southwestern Medical Center
Zhang, Jian-Ting, Ph.D. ..... University of Toledo Health Science Campus
Zhang, Jin, Ph.D. ..... University of California, San Diego
Zhang, Jinfeng, Ph.D. ..... Harvard University
Zhang, Jinsong, Ph.D. ..... Saint Louis University
Zhang, Junran, M.D., Ph.D. ..... The Ohio State University
Zhang, Kang, M.D., Ph.D. ..... University of California, San Diego
Zhang, Luwen, Ph.D. ..... University of Nebraska, Lincoln
Zhang, Rugang, Ph.D. ..... Wistar Institute
Zhang, Ruiwen, M.D., Ph.D. ..... University of Houston
Zhang, Wei, Ph.D. ..... Northwestern University at Chicago
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Zhao, Hongyu, Ph.D. ..... Yale University
Zhao, Rui, Ph.D. ..... University of Colorado, Denver
Zhao, Shaying, Ph.D. ..... The University of Georgia
Zheng, Bin, Ph.D. ..... Massachusetts General Hospital
Zheng, Bin, Ph.D. ..... University of Oklahoma, Norman
Zheng, Lei, M.D., Ph.D. ..... Johns Hopkins University
Zheng, Siyang, Ph.D. ..... The Pennsylvania State University, University Park
Zheng, Steven, Ph.D. ..... Rutgers, The State University of New Jersey
Zheng, Wenjin J., Ph.D. ..... The University of Texas Health Science Center at Houston
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Zhong, Xiao-Bo, Ph.D. ..... University of Connecticut, Storrs
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Zhou, Jin-Rong, Ph.D. ..... Beth Israel Deaconess Medical Center
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Zlotta, Alexandre, M.D. ..... Sinai Health System
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Total Number of Reviewers: 2,089*

*Approximately 931 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	**Mentored Clinical Scientists Development Award—Minorities in Clinical Oncology** A specialized type of Mentored Clinical Scientist Developmental Award (K08) that supports the development of outstanding clinical research scientists, with this type being reserved for qualified individuals from underrepresented minority groups. Both types of K08 awards support periods of specialized study for clinically trained professionals who are committed to careers in research and who have the potential to develop into independent investigators. The K08 awards for Minorities in Clinical Oncology are distinct and important because they provide opportunities for promising medical scientists with demonstrated aptitudes who belong to underrepresented minority groups to develop into independent investigators, or for faculty members who belong to underrepresented minority groups to pursue research aspects of categorical areas applicable to the awarding unit(s), and aid in filling the academic faculty gaps in these shortage areas within U.S. health professions institutions.
K12	**Institutional Clinical Oncology Research Career Development Award** To support a newly trained clinician appointed by an institution for development of independent research skills and experience in a fundamental science within the framework of an interdisciplinary research and development program.
K18	**The Career Enhancement Award** Provides either full-time or part-time support for experienced scientists who would like to broaden their scientific capabilities or to make changes in their research careers by acquiring new research skills or knowledge. Career enhancement experiences supported by this award should usually last no more than 1 year.
K22	**The NCI Transition Career Development Award for Underrepresented Minorities** To provide support to outstanding newly trained basic or clinical investigators to develop their independent research skills through a two-phase program: an initial period involving an intramural appointment at the NIH and a final period of support at an extramural institution. The award is intended to facilitate the establishment of a record of independent research by the investigator to sustain or promote a successful research career.
K22	**The NCI Scholars Program** To provide an opportunity for outstanding new investigators to begin their independent research careers, first within the special environment of the NCI and then at an institution of their choice. Specifically, this program provides necessary resources to initiate an independent research program of 3 to 4 years at the NCI, followed by an extramural funding mechanism (K22) to support their research program for 2 years at the extramural institution to which they are recruited.
K23	**Mentored Patient-Oriented Research Career Development Award** To provide support for the career development of investigators who have made a commitment to focus their research endeavors on patient-oriented research. This mechanism provides support for a 3-year minimum up to a 5-year period of supervised study and research for clinically trained professionals who have the potential to develop into productive clinical investigators.

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

L40	**Loan Repayment Program for Pediatric Research** To provide for the repayment of the educational loan debt of qualified health professionals involved in research directly related to diseases, disorders, and other conditions in children. Qualified health professionals who contractually agree to conduct qualified pediatric research are eligible to apply for this program. (See the NIH Guidelines about Loan Repayment at http://www.lrp.nih.gov/index.aspx.)
L50	**Loan Repayment Program for Contraception and Infertility Research** To provide for the repayment of the educational loan debt of qualified health professionals (including graduate students) who contractually agree to commit to conduct qualified contraception and/or infertility research.
L60	**Loan Repayment Program for Health Disparities Research** To provide for the repayment of the educational loan debt of qualified health professionals involved in minority health and health disparities research, for the purposes of improving minority health and reducing health disparities. Qualified health professionals who contractually agree to conduct qualified minority health disparities research or other health disparities research are eligible to apply for this program.
P Series: Research Program Projects and Centers	
P01	**Research Program Projects** To support multidisciplinary or multifaceted research programs that have a focused theme. Each component project should be directly related to and contribute to the common theme.
P20	**Exploratory Grants** To support planning for new programs, expansion or modification of existing resources, and feasibility studies to explore various approaches to the development of interdisciplinary programs that offer potential solutions to problems of special significance to the mission of the NIH. These exploratory studies may lead to specialized or comprehensive centers.
P30	**Center Core Grants** To support shared use of resources and facilities for categorical research by investigators from different disciplines who provide a multidisciplinary approach to a joint research effort, or by investigators from the same discipline who focus on a common research problem. The core grant is integrated with the Center's component projects or Program Projects, though funded independently from them. By providing more accessible resources, this support is expected to ensure greater productivity than that provided through the separate projects and Program Projects.
P41	**Biotechnology Resource Grants** To support biotechnology resources available to all qualified investigators without regard to the scientific disciplines or disease orientations of their research activities or specifically directed to a categorical program area.

P50	**Specialized Center Grants** To support any part of the full range of research and development from very basic to clinical; may involve ancillary supportive activities such as protracted patient care necessary to the primary research or R&D effort. This spectrum of activities comprises a multidisciplinary attack on a specific disease or biomedical problem area. These grants differ from Program Project grants in that they are usually developed in response to an announcement of the programmatic needs of an Institute or Division, and subsequently receive continuous attention from its staff. Centers also may serve as regional or national resources for special research purposes.
R Series: Research Projects	
R01	**Research Project** Grants are awarded to institutions to allow a Principal Investigator to pursue a scientific focus or objective in his or her area of interest and competence. Institutional sponsorship assures the NIH that the institution will provide facilities necessary to conduct the research and will be accountable for the grant funds. Applications are accepted for health-related research and development in all areas within the scope of the NIH's mission.
R03	**Small Research Grants** Small grants provide research support, specifically limited in time and amount, for activities such as pilot projects, testing of new techniques, or feasibility studies of innovative, high-risk research, which would provide a basis for more extended research.
R13	**Conferences** The NIH provides funding for conferences to coordinate, exchange, and disseminate information related to its program interests. Generally, such awards are limited to participation with other organizations in supporting conferences rather than provision of sole support. Costs eligible for support include salaries, consultant services, equipment rental, travel, supplies, conference services, and publications. Prospective applicants are encouraged to inquire in advance concerning possible interest on the part of an awarding Institute/Center (IC), and to obtain more information on application procedures and costs.
R15	**The NIH Academic Research Enhancement Awards (AREA)** To enhance the research environment of educational institutions that have not been traditional recipients of NIH research funds, this award provides limited funds to those institutions' faculty members to develop new research projects or expand ongoing research activities in health sciences and to encourage students to participate in the research activity. As funds are anticipated to continue to be available each year, the NIH is now inviting applications for AREA grants through a standing, ongoing Program Announcement.
R21	**Exploratory/Developmental Grants** To encourage the development of new research activities in categorical program areas. (Support generally is restricted in the level of support and duration.)
R24	**Resource-Related Research Projects** To support research projects that will enhance the capability of resources to serve biomedical research.

R25E	**Cancer Education Grant Program (CEGP)** A flexible, curriculum-driven program aimed at developing and sustaining innovative educational approaches that ultimately will have an impact on reducing cancer incidence, mortality, and morbidity, as well as on improving the quality of life of cancer patients. The CEGP accepts investigator-initiated grant applications that pursue a wide spectrum of objectives ranging from short courses to the development of new curricula in academic institutions; to national forums and seminar series; to hands-on workshop experiences for the continuing education of health care professionals, biomedical researchers, and the lay community; to structured short-term research experiences designed to motivate high school, college, medical, dental, and other health professional students to pursue careers in cancer research. Education grants can focus on education activities before, during, and after the completion of a doctoral-level degree, as long as they address a need that is not fulfilled adequately by any other grant mechanism available at the NIH and are dedicated to areas of particular concern to the National Cancer Program.
R25T	**Cancer Education and Career Development Program** To support the development and implementation of curriculum-dependent, team-oriented programs to train predoctoral and postdoctoral candidates in cancer research team settings that are highly interdisciplinary and collaborative. This specialized program is particularly applicable to the behavioral, prevention, control, nutrition, and population sciences but should also be considered by other areas of research (e.g., imaging, pathology) that will require sustained leadership, dedicated faculty time, specialized curriculum development and implementation, interdisciplinary research environments, and more than one mentor per program participant to achieve their education and research career development objectives.
R33	**Exploratory/Developmental Grants, Phase II** To provide a second phase for support of innovative exploratory and developmental research activities initiated under the R21 mechanism. Although only R21 awardees are generally eligible to apply for R33 support, specific program initiatives may establish eligibility criteria under which applications could be accepted from applicants who demonstrate program competency equivalent to that expected under R33.
R35	**Outstanding Investigator Award (OIA)** To provide long-term support to experienced investigators with outstanding records of cancer research productivity who propose to conduct exceptional research. The OIA is intended to allow investigators the opportunity to take greater risks, be more adventurous in their lines of inquiry, or take the time to develop new techniques. The OIA would allow an Institution to submit an application nominating an established Program Director/Principal Investigator (PD/PI) for a 7-year grant.

R37	**Method to Extend Research in Time (MERIT) Award** To provide longer term grant support to Early Stage Investigators (ESIs). By providing such an opportunity for longer term support to ESIs, the NCI intends to give them flexibility and opportunity for creativity and innovation, and additional time to successfully launch their careers and to become more established before having to submit renewal applications. The objective of the NCI's ESI MERIT Award is to allow eligible investigators the opportunity to obtain up to 7 years of support in two segments, with the first being an initial 5-year award and the second being based on an opportunity for an extension of up to 2 additional years, based on an expedited NCI review of the accomplishments during the initial funding segment. Investigators may not apply for an ESI MERIT award. ESIs who have submitted a single-Principal Investigator (PI) R01 application that received a score within the NCI payline are eligible for consideration for the award. NCI program staff members will identify eligible candidate applications for the ESI MERIT Award and submit them to the members of the National Cancer Advisory Board (NCAB) for consideration. If recommended by the NCAB and approved by NCI leadership, the ESI R01 will be converted to an ESI MERIT (R37) for the initial 5-year funding segment.
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	**Biomedical Research Support Grants (NCRR BRSG)** As an example of this funding mechanism, the NIH issued a Request for Applications (RFA) in FY2004 to provide short-term interim support for institutional activities that will strengthen oversight of human subjects research at institutions that receive significant NIH support for clinical research. Although there is considerable flexibility in the types of activities that could be supported under the BRSG program, that RFA emphasized the importance of efforts to enhance the protection of research subjects by means that would be sustained by the recipient institution after the award period ends. Awardees also are required to collaborate with other institutions conducting human subjects research and are not currently funded under this program, and to share educational resources, computer technologies, best practices, etc. Although all NIH components supporting clinical research (including the NCI) are providing support for this program, it is administered by the National Center for Research Resources (NCRR).
S10	**Biomedical Research Support Shared Instrumentation Grants (NCRR SIG)** The National Center for Research Resources (NCRR) initiated its competitive Shared Instrumentation Grant (SIG) Program in FY1982. Shared Instrumentation Grants provide support for expensive state-of-the-art instruments utilized in both basic and clinical research. This program is designed to meet the special problems of acquisition and updating of expensive shared-use instruments that are not generally available through other NIH funding mechanisms, such as the regular research project, program project, or center grant programs. Applications for funds to design or to advance the design of new instruments are not accepted. The objective of the program is to make available to institutions with a high concentration of NIH-supported biomedical investigators expensive research instruments that can only be justified on a shared-use basis and for which meritorious research projects are described.
S21	**Research and Institutional Resources Health Disparities Endowment Grants—Capacity Building** To strengthen the research and training infrastructure of the institution, while addressing current and emerging needs in minority health and other health disparities research.
T Series: Training Programs	
T15	**Continuing Education Training Grants** To assist professional schools and other public and nonprofit institutions in the establishment, expansion, or improvement of programs of continuing professional education, especially for programs of extensive continuation, extension, or refresher education dealing with new developments in the science and technology of the profession.
T32	**NIH National Research Service Award—Institutional Research Training Grants** To enable institutions to make National Research Service Awards to individuals selected by them for predoctoral and postdoctoral research training in specified shortage areas.
T34	**Undergraduate NRSA Institutional Research Training Grants** To enhance the undergraduate research training of individuals from groups underrepresented in biomedical, behavioral, clinical, and social sciences through Institutional National Research Service Award Training Grants in preparation for research doctorate degree programs.

U Series: Cooperative Agreements	
U01	**Research Projects—Cooperative Agreements** To support a discrete, specified, circumscribed project to be performed by the named investigators in an area representing their specific interests and competencies.
U10	**Cooperative Clinical Research—Cooperative Agreements** To support clinical evaluation of various methods of therapy and/or prevention in specific disease areas. These represent cooperative programs between participating institutions and Principal Investigators and are usually conducted under established protocols.
U13	**Conference—Cooperative Agreements** To coordinate, exchange, and disseminate information related to its program interests, an NIH Institute or Center can use this type of award to provide funding and direction for appropriate scientific conferences. These cooperative agreements allow the NCI to partner with one or more outside organizations to support international, national, or regional meetings, conferences, and workshops that are of value in promoting the goals of the National Cancer Program.
U19	**Research Program—Cooperative Agreements** To support a research program of multiple projects directed toward a specific major objective, basic theme, or program goal, requiring a broadly based, multidisciplinary, and often long-term approach.
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	**Specialized Center—Cooperative Agreements** To support any part of the full range of research and development from very basic to clinical; may involve ancillary supportive activities such as protracted patient care necessary to the primary research or R&D effort. The spectrum of activities comprises a multidisciplinary attack on a specific disease entity or biomedical problem area. These differ from program projects in that they are usually developed in response to an announcement of the programmatic needs of an Institute or Division and subsequently receive continual attention from its staff. Centers also may serve as regional or national resources for special research purposes, with assistance from staff of the funding component in identifying appropriate priority needs.
U56	**Exploratory Grants—Cooperative Agreements** To support planning for new programs, expansion, or modification of existing resources, and feasibility studies to explore various approaches to the development of interdisciplinary programs that offer potential solutions to problems of special significance to the mission of the NIH. These exploratory studies may lead to specialized or comprehensive centers. Substantial Federal programmatic staff involvement is intended to assist investigators during performance of the research activities, as defined in the terms and conditions of award.
UG1	**Clinical Research Cooperative Agreements — Single Project** 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.
UG3	**Phase 1 Exploratory/Developmental Cooperative Agreement** 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.
UH2/ UH3	**Exploratory/Developmental Cooperative Agreement Phase I/II** To support the development of new research activities in categorical program areas. (Support generally is restricted in level of support and in time.) The UH3 provides a second phase for the support for innovative exploratory and development research activities initiated under the UH2 mechanism. Although only UH2 awardees are generally eligible to apply for UH3 support, specific program initiatives may establish eligibility criteria under which applications could be accepted from applicants demonstrating progress equivalent to that expected under the UH2.

UM1	**Research Project With Complex Structure Cooperative Agreement** To support cooperative agreements involving large-scale research activities with complicated structures that cannot be appropriately categorized into an available single component activity code (e.g., clinical networks, research programs, or consortia). The components represent a variety of supporting functions and are not independent of each component. Substantial Federal programmatic staff involvement is intended to assist investigators during performance of the research activities, as defined in the terms and conditions of the award. The performance period may extend up to 7 years but only through the established deviation request process. ICs desiring to use this activity code for programs greater than 5 years must receive OPERA prior approval through the deviation request process.

Appendix G: Glossary of Acronyms

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

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

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

December 2019