National Cancer Institute

Division of Extramural Activities

Annual Report 2020

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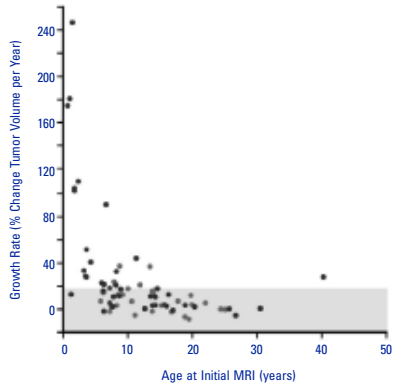

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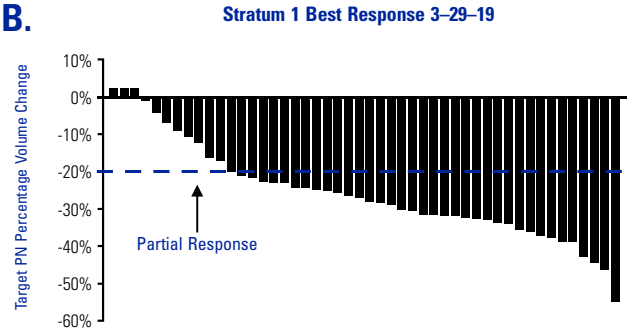

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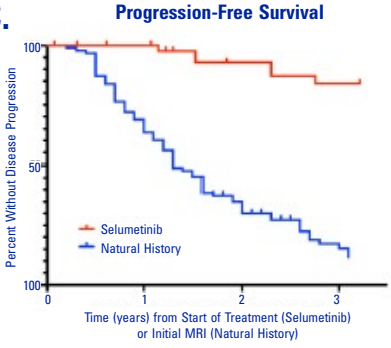

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Baseline

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Pre-Cycle 13

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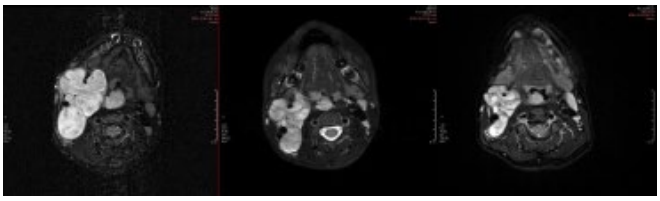

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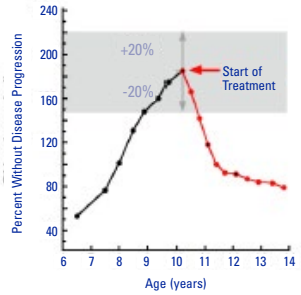

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
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Use of Selumetinib to Treat Neurofibromatosis

Neurofibromatosis type 1 (NF1) is a common genetic disorder (1:3,000) characterized by a variety of progressive manifestations including the development of tumors called plexiform neurofibromas (PNs), many of which occur in very young children. Although they are histologically benign, PNs can grow relentlessly, in particular during early childhood (**A**), leading to severe clinical problems including pain, trouble breathing, blindness, motor weakness, and—in some cases—transformation to aggressive cancers. Surgical removal is not feasible for most PNs, and until recently no effective medical therapies were available for inoperable PNs. After conduct of a series of clinical trials directed at inoperable PNs, which did not demonstrate meaningful clinical activity and reported PN shrinkage in isolated cases only, the Pediatric Oncology Branch, National Cancer Institute (NCI), coordinated a phase I/II trial (**SPRINT**) of the oral mitogen-activated protein (MAP) kinase kinase (MEK) inhibitor selumetinib for children with inoperable and symptomatic PNs. For the first time, this trial demonstrated consistent shrinkage, including partial responses (≥20% decrease in the PN volume) in the majority of patients treated with selumetinib (**B**). A comparison of the progression-free survival (PFS) for patients enrolled on SPRINT to an age-matched cohort of children not receiving selumetinib on the NCI's NF1 natural history study demonstrated a substantial improvement in the PFS for patients treated with selumetinib (**C**). Importantly, selumetinib also resulted in an improvement in patient-reported outcomes, such as pain intensity and pain interference, and in improved appearance and functional outcomes, such as motor function. An example of improvement in appearance in a boy with a large right-neck PN on photography (**D**), visible PN shrinkage on axial MRI (**E**), and individual tumor volume measurements of the growing PN prior to therapy and sustained volume reduction (**F**) highlight the effects of selumetinib.

Based on the results of the SPRINT trial, selumetinib received U.S. Food and Drug Administration (FDA) approval for children with inoperable and symptomatic PNs in April 2020. Additional studies with selumetinib and other MEK inhibitors are ongoing to further assess the potential benefit of selumetinib in other NF1-related tumors and in adults with NF1 and inoperable PNs. This work was the result of a sustained effort of investigators in the NCI Center for Cancer Research Intramural Research Program in collaboration with extramural investigators, the NCI Cancer Therapy Evaluation Program (CTEP), AstraZeneca/Merck, the Neurofibromatosis Therapeutic Acceleration Program (NTAP), and the Children's Tumor Foundation. Most importantly, the patients and families participating in NF1 clinical trials were critical to this effort.

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National Cancer Institute

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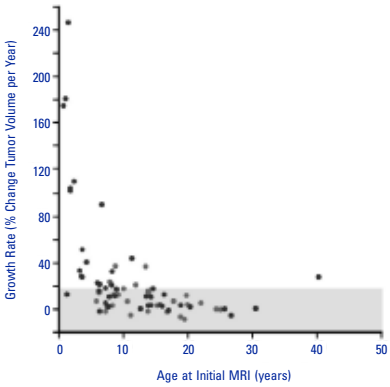

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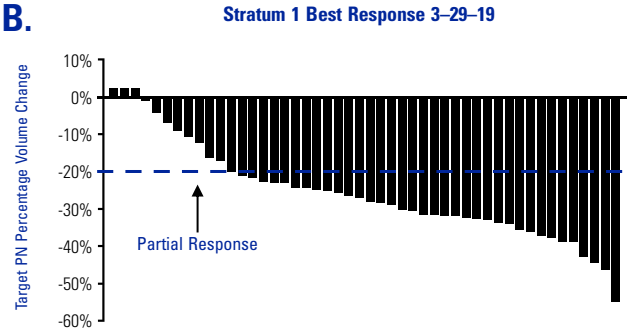

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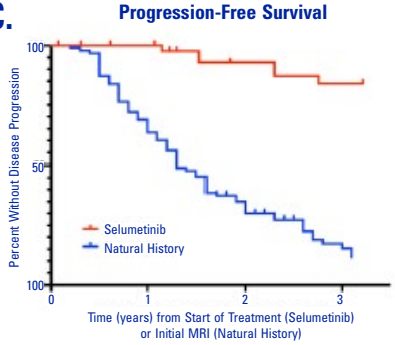

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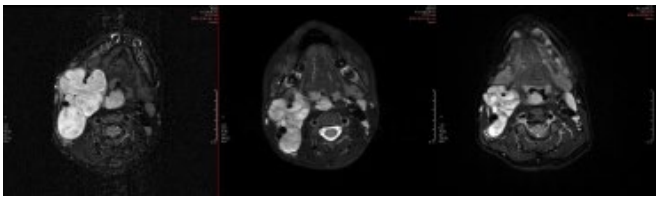

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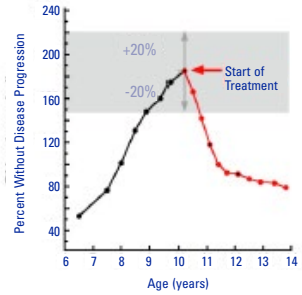

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National Institutes of Health

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Introduction

The Division of Extramural Activities (DEA) is the organizational component of the National Cancer Institute (NCI) responsible for coordinating the scientific 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.

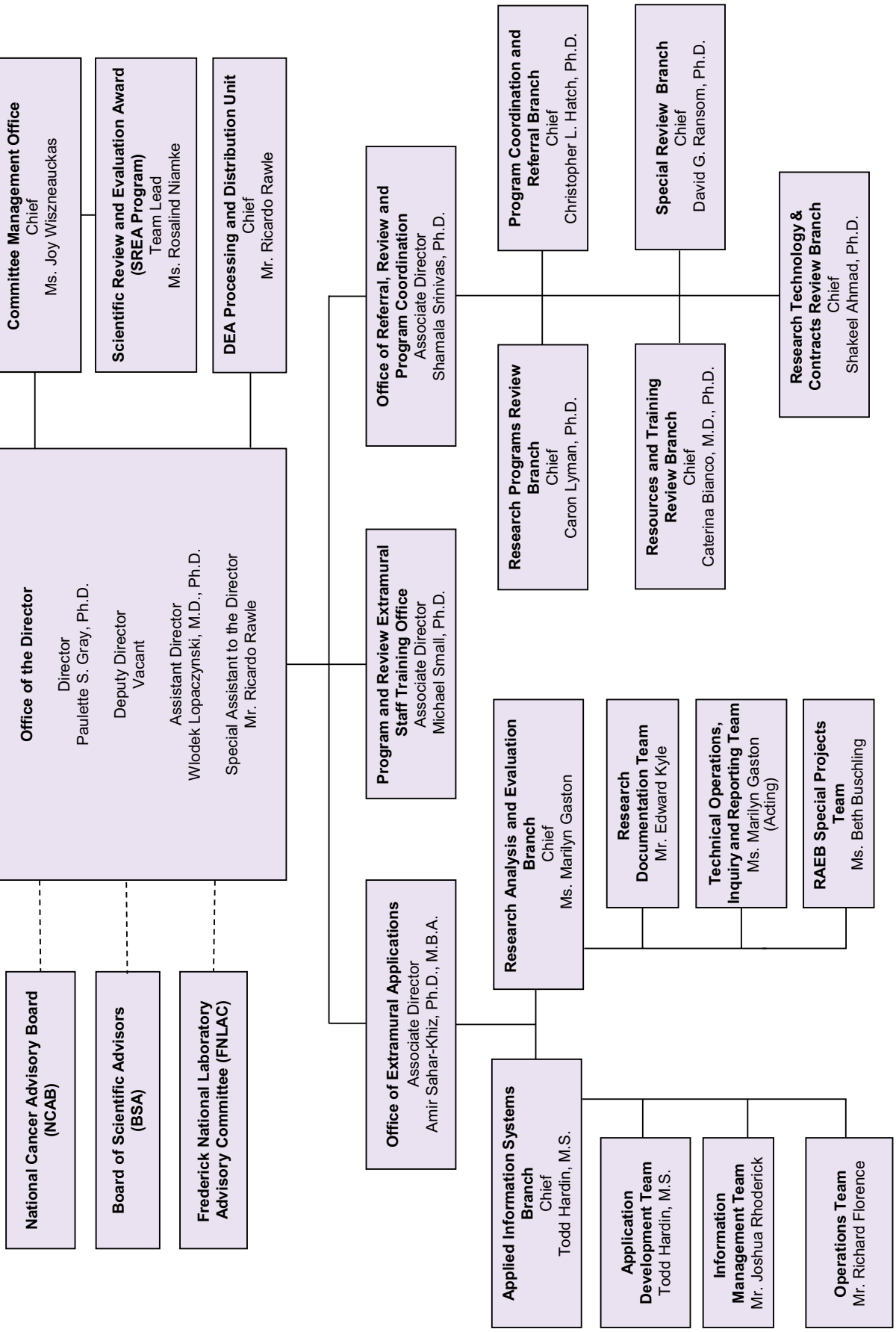
The DEA evaluates the content of all extramural research funded by the NCI and annually tracks the NCI research portfolio of more than 9,000 research and training awards by using consistent budget-linked scientific information to provide a basis for budget projections; maintaining extensive records of 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) 2020 (1 October 2019–30 September 2020) 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 3,150 researchers, clinicians, and advocates who gave unselfishly of their time in FY2020. 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 re-issue requests for applications (RFAs), research and development (R&D) requests for proposals (RFPs), and program announcements (PAs) with special receipt, referral, or review (PARs) considerations by the Board of Scientific Advisors (BSA); and activities of the Frederick National Laboratory Advisory Committee (FNLAC), which reviews the state of research at the Frederick National Laboratory 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), Novel and Exceptional Technology and Research Advisory Council (NExTRAC), the National Institute on Alcohol Abuse and Alcoholism (NIAAA), the National Institute on Drug Abuse, and the National Institute on Minority Health and Health Disparities (NIMHD). The CMO provides policy guidance and assistance to ensure that the NCI and client 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 its 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 younger than 18 years of age) in clinical research, unless there is strong justification for their exclusion. In 2019, the NIH expanded the policy on Inclusion of Children in Clinical Research Policy to include individuals of all ages, including children and older adults. 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 inclusion waivers. In FY2020, 16 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, financial conflict of interest involving NCI-supported research, review integrity, and sexual harassment.

The DEA Director functions as the NCI Research Integrity Officer (RIO) and considers all documents related to research misconduct for transmittal and reporting to the NIH. In FY2020, 73 cases of research integrity, included alleged research misconduct and foreign influence and involving NCI funding, were opened and referred to the DEA Director, and they are under review by the Office of Extramural Research, NIH, and the Office of Research Integrity, HHS. Nine cases were completed/closed, and two cases were found to involve research misconduct.[1]

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

[1] Cases found to involve research misconduct are published in the *Federal Register* and *HHS Office of Research Integrity*.

staff; (2) provides training on specialized topics related to understanding of and compliance with NIH policies; (3) identifies and develops resources to facilitate individual learning and performance; and (4) tracks the participation of extramural staff in NIH- and NCI-sponsored training activities as well as continuously evaluates the efficacy of these activities.

During FY2020, **PRESTO** activities included the following:

- 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, and the Portfolio Management Application (PMA).
- Funding Opportunity Announcement (FOA) Spotlight Series, including presentations on Extramural–Intramural Collaborative Research at the NIH Clinical Center, Improving Symptom Management and Cancer Therapy through Music, Mobile Health Technologies in Global Health, and Participant Engagement and Cancer Genome Sequencing Network (PE-CGS).
- NCI Research Resource Series featuring presentations on the Human Tumor Atlas Network, NCI Informatics Technology for Cancer Research (ITCR) Program, and Pancreatic Cancer Microenvironment Network.
- PRESTO-sponsored training focused on administrative and scientific topics, including Institutional Training Grants (T32 and K12), Overview of NCI Fellowship Awards, Competitive Revisions and Administrative Supplements, NCAB Closed Session Refresher, and Research, Condition, and Disease Categorization (RCDC) Trans-NIH Immunotherapy Category for Congressional Reporting.

During FY2021, PRESTO will continue to offer a variety of training opportunities with a 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. PRESTO will continue to support the NCI Clinical Trials Stewardship Committee in developing and implementing training on Standard Operating Procedures for post-award management of grants involving clinical trials. PRESTO will also host a 2-day Project Management Seminar featuring project management professionals addressing various issues of interest to NCI extramural staff, including effective messaging, lateral thinking for complex problem solution, and managing motivation.

DEA Processing and Distribution Unit (DPDU)

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 reports. 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 re-issue) FOAs. PCRB staff members disseminate various operating policies and procedures pertaining to extramural funding programs. To maintain consistency and completeness, all new and re-issued 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 FY2020, and Table 2 lists RFAs issued by other NIH Institutes and 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 FY2020, and Table 4 lists PAs/PARs issued by other NIH ICs that the NCI has joined as a participating partner.

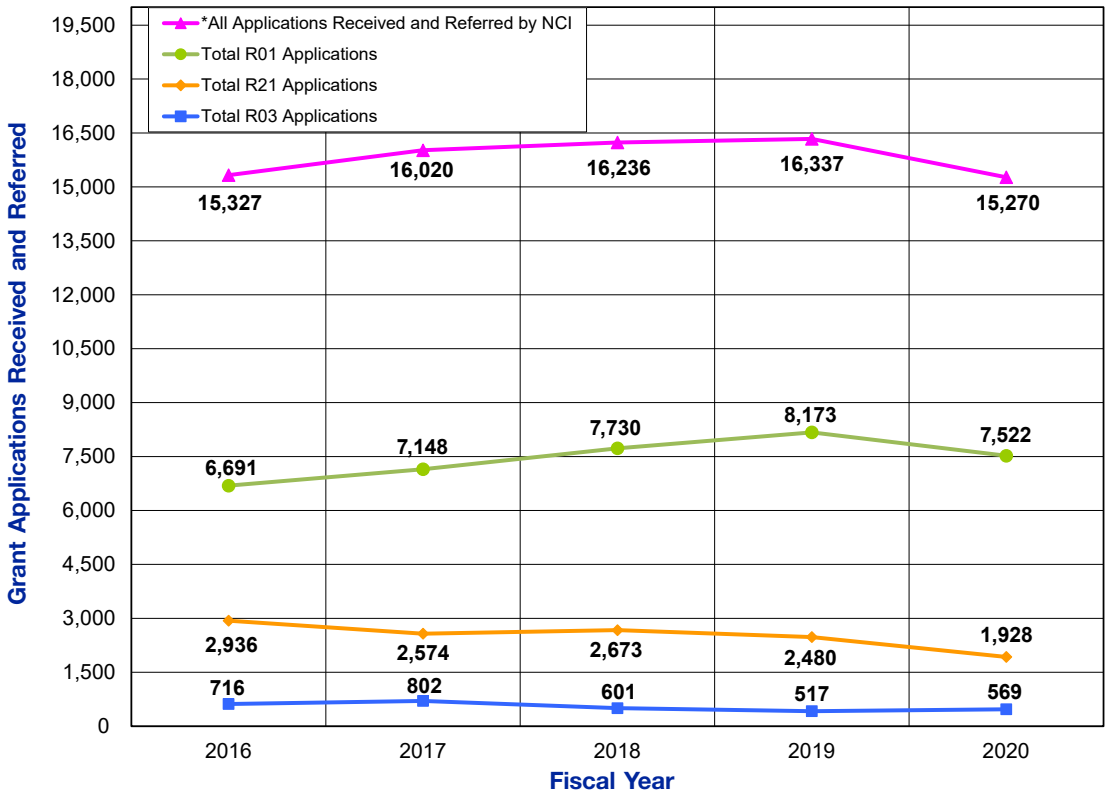
PCRB staff members provide relevant information and timely updates to NCI extramural staff members on activities and results related to the requirements for all FOAs, activity codes (R01, P01, F30, K08, U01, etc.), and grant applications. The Branch also serves as a direct source of guidance on this topic for program officials at the NCI and applicants in the extramural scientific community. The Referral Officers (ROs) in PCRB continued to collaborate 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 Scientific Review Officers (SROs) in managing the reviews of 376 student loan repayment program (LRP), contract proposals, as well as 66 of R13 conference grant applications and a variety of other proposals in FY2020.

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

In FY2020, a total of 15,270 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 activity codes (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), Outstanding Investigator Award (R35), 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 for Healthcare Research and Quality (AHRQ),

Figure 1. Receipt and Referral of NCI Grant Applications*
FY2016 – 2020



* Includes NCI Primary and Secondary applications received and referred.

the Centers for Disease Control and Prevention (CDC), and the U.S. 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 clearance process 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 Officer (Director) must submit an Awaiting Receipt of Applications (ARA) "form" through the NIH electronic Research Administration (eRA) to CSR DRR. ARAs also are 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 impact on 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 R&D 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. However, dollars requested for grant applications reviewed by DEA-chartered IRGs and SEPs represent more than 50 percent of the NCI's total extramural budget. 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 Technical Evaluation Panel (TEP) review of 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 FY2020 the DEA organized, managed, and reviewed a total of 3,412 research grant and cooperative agreement applications (Table 6) and 547 contract proposals (Table 12) assigned to the NCI for funding with appropriated dollars of $1,621,805,082. The total number of grant applications, cooperative agreements, and contract proposals reviewed in FY2020 was **3,959** (Figure 2). In addition, the DEA conducted 15 Cancer Center

site visits, 14 IRG Subcommittee review meetings, 128 SEPs to review grant applications and contract proposals, and 59 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. More than 3,150 peer reviewers served on the NCI DEA-managed IRG Subcommittees, SEPs, and work groups in FY2020. 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

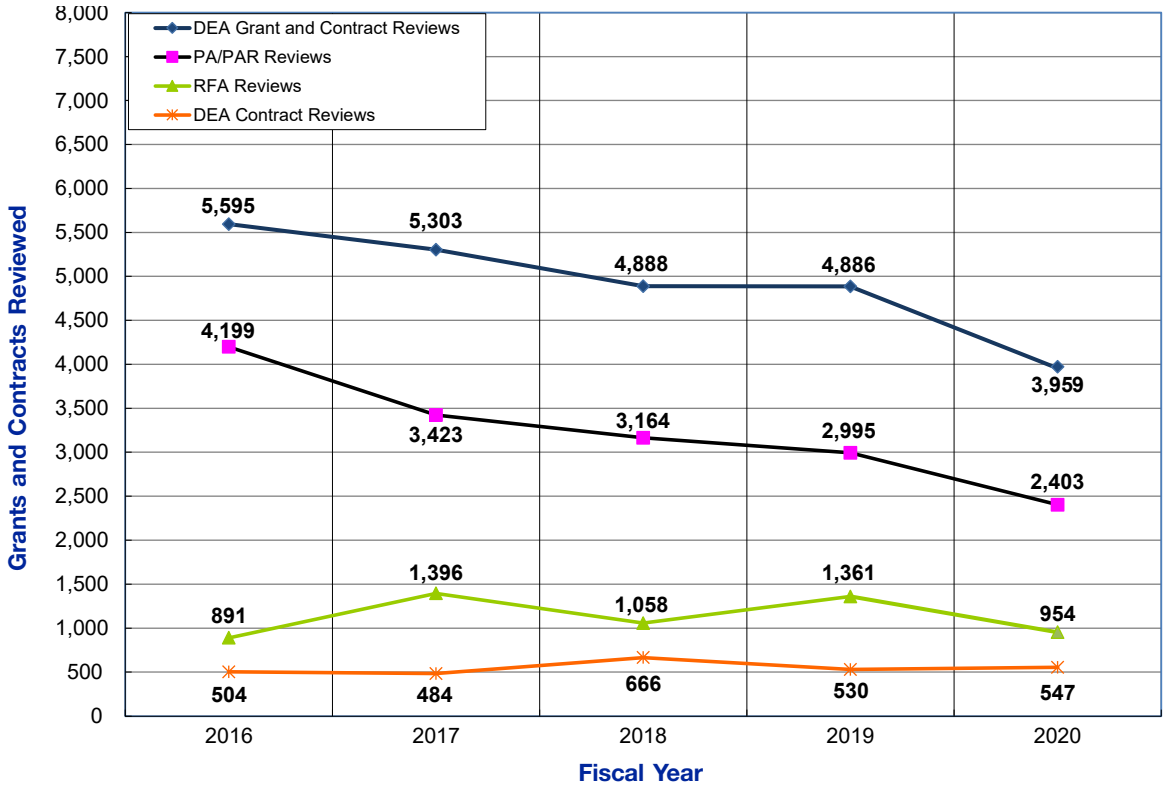
The **Office of Referral, Review, and Program Coordination** (ORRPC) is responsible for the coordination and management of the review of NCI grant applications, cooperative agreements, and contract proposals. The ORRPC is composed of four review branches, and the Program Coordination and Referral Branch. The individual review branches are responsible for organizing, managing, and reporting the results of scientific peer review of grants, cooperative applications, and R&D 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 FY2020 was the review of unsolicited Program Project (P01) applications. These are multi-project, collaborative programs with a well-defined unifying cancer research theme. For the review of P01s, the applications are grouped based on their scientific focus

Figure 2. DEA Review Workload*
Grants and Contracts Reviewed in FY2016 – 2020



* Withdrawn applications not included.

and typically clustered into groups of up to ten applications in each group. The applications often represent a continuum of research, from basic through translational to preclinical and clinical studies.

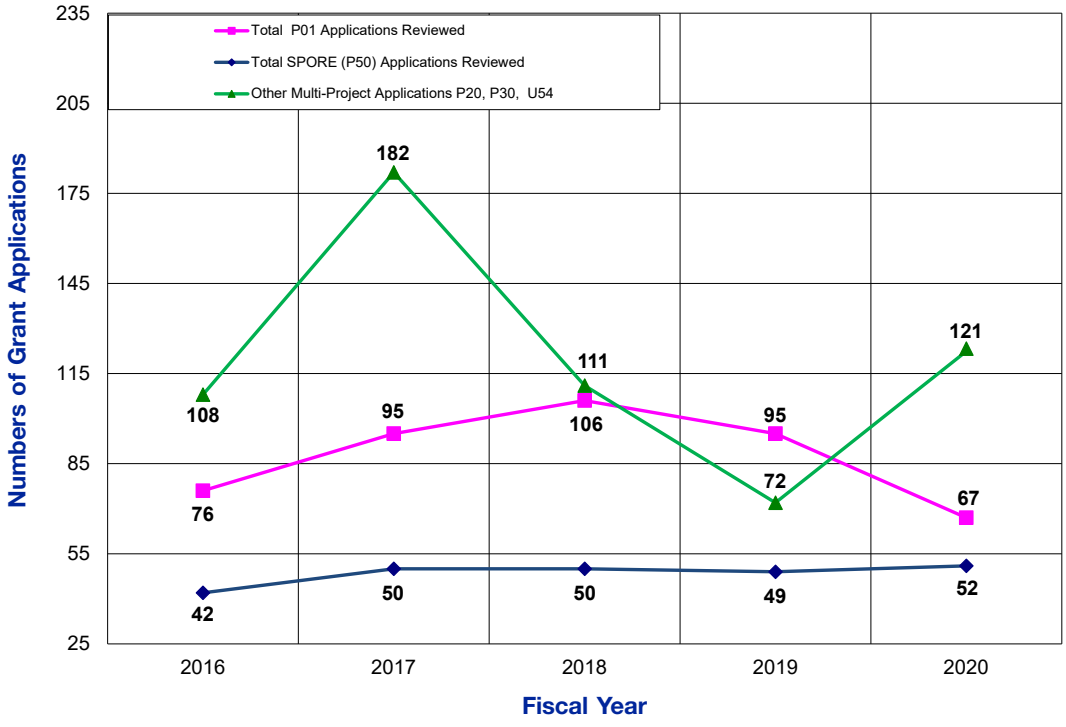
All P01 review panels are constituted as SEPs, with *ad hoc* reviewers recruited based on the required scientific expertise. The SEP review committees evaluate the potential impact of the individual projects and technical merit of the supporting core resources, determine the level of program integration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

During FY2020, RPRB managed the review of 67 new, renewal (competing), resubmitted (amended), and revised (competitive supplement) P01 applications (Figure 3 and Table 8). Fifty-one (76%) of the applications proposed new multidisciplinary research programs, 15 (22%) were competitive renewals, and 28 (42%) of the applications (both Type 1 and 2) were resubmitted applications (Table 8). Twenty-five (37%) of the 67 applications were referred to the NCI's Division of Cancer Biology (DCB), 28 applications (42%) were referred to the Division of Cancer Treatment and Diagnosis (DCTD), nine applications (13%) were referred to the Division of Cancer Control and Population Sciences (DCCPS), and five applications (6%) were referred to the Division of Cancer Prevention (DCP) (see Table 9). The 67 applications requested $186,280,700 in total costs for the first year of support (see Tables 6 and 9) and $922,302,190 in total costs for 5 years.

Specialized Programs of Research Excellence (SPORE, P50)

Another major responsibility of RPRB is the review of NCI Specialized Programs of Research Excellence (SPORE) P50 applications. These complex, multi-project, multidisciplinary, translational applications focus on research that is directly applicable to human disease in specific organ sites or that focuses on a common biological mechanism critical for promoting tumorigenesis and/or cancer progression.

Figure 3. Program Project (P01), SPORE, and Other Multi-Project Research Applications Reviewed in FY2016 – 2020*



* Withdrawn applications not included.

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 FY2020, the RPRB organized and managed nine SEPs for the review of 52 SPORE applications (Figure 3 and Table 11). The applications addressed multiple organ sites, with the following distribution and numbers of applications: Brain (3); Breast (5); Gastrointestinal (2); Pancreas (6); Head and Neck (6); Thyroid (1); Leukemia (2); Skin (3); Myeloma (1); Ovarian (3); Endometrial (1); Prostate (5); Kidney (1); Sarcoma (2); Neuroendocrine (2); and Lung (2). In addition to organ sites, there were applications focused on common biological mechanisms: Epigenetics (2); RAS (1); and Health Disparities (3). Overall, 35 (69%) of the 52 applications were submitted for new SPOREs, and 16 (31%) were competitive renewal applications, with 11 (22%) being resubmitted applications.

The disease sites addressed in the SPORE applications vary from round to round. For example, nine applications addressing six different disease sites were reviewed for the February 2020 NCAB cycle; 25 applications addressing 17 disease sites were reviewed for the June 2020 NCAB cycle, and 17 applications addressing ten disease sites were reviewed for the September 2020 NCAB meeting. The applications requested $120,026,140 in total costs for the first year of support (Table 11).

Additionally, in FY2020, the RPRB coordinated review of 8 Feasibility and Planning Studies for Development of SPOREs to Investigate Cancer Health Disparities (P20) across multiple organ sites (Table 11).

Other RPRB Activities

Potential applicants for P01 and P50 grant submissions are strongly encouraged to participate in a pre-submission discussion with appropriate NCI Program and DEA Review staff members so that they can fully understand the guidelines, requirements, and goals of these complex applications. SROs from the RPRB routinely participate in these pre-submission conferences to assist the applicants in understanding the review process, the special review criteria, and the scoring paradigms for these applications. In FY2020, the RPRB SROs attended 69 of these pre-submission meetings.

As needed, RPRB SROs also manage review of applications submitted to the DEA in response to other initiatives. In FY2020, this included coordinating SEP review of R01, R03, R21, R25, R38, U01, UM1, UH2/UH3, UE5, and U24 applications, and TEP review of Phase I and Phase II contract proposals.

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 P30 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 a 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. During FY2020, Subcommittee A reviewed 16 CCSG applications (site visits).

Training and Career Development

Career Development (CD) and Training and Education (T&E) grant applications are reviewed by IRG

Subcommittees Institutional Training and Education (F), and Career Development (I and J). The number of Career Development applications decreased to 579 in FY2020 from 641 in FY2019 (Table 6). The number of Training and Education grant applications decreased from 164 in 2019 to 157 in 2020 (Figure 4). In addition, 62 applications submitted in response to the NCI Predoctoral to Postdoctoral Fellow Transition Award (F99) and 46 applications in response to NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00) were reviewed.

Other RTRB Activities

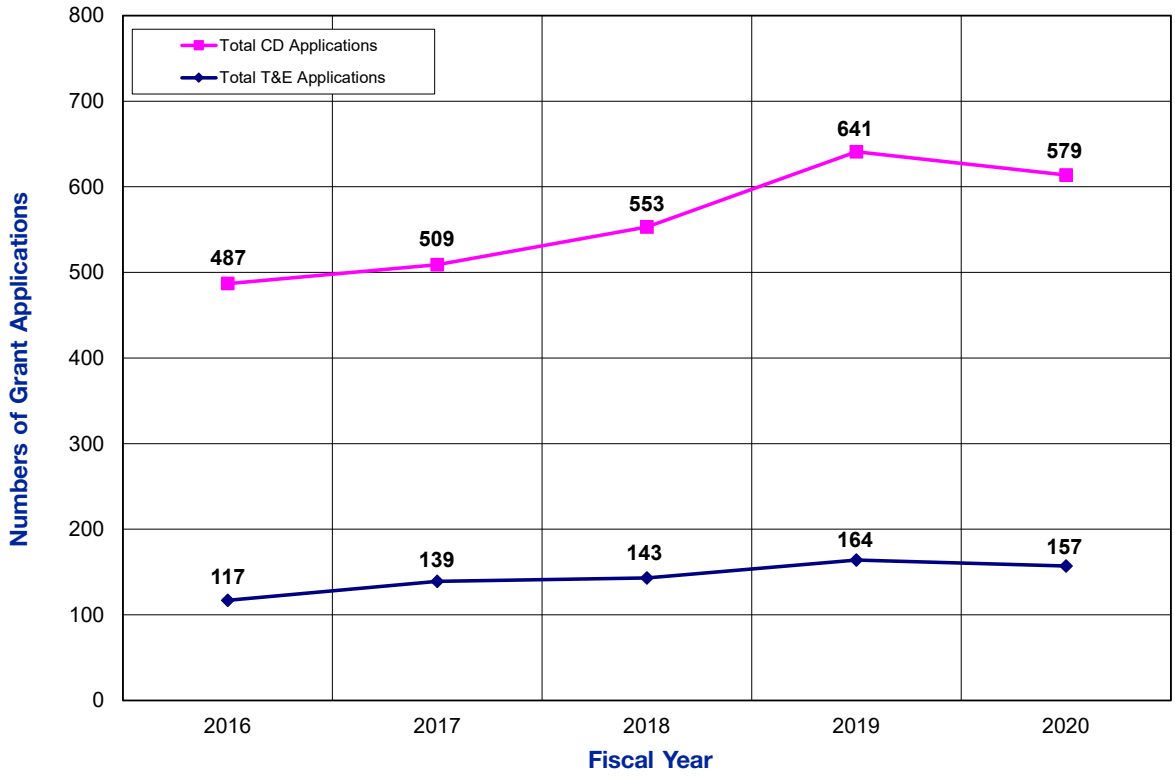
In FY2020, RTRB review staff also reviewed applications received in response to initiatives that were coordinated by the Special Review Branch (SRB), i.e., (1) Exploratory/Developmental Grant (R21); (2) Research Project (R01); (3) Small Grant (R03); (4) Small Business Innovative Research Contracts (SBIR); (5) Research Projects—Cooperative Agreements (U01); (6) Specialized Center—Cooperative Agreements (U54); and (7) Stimulating Access to Research in Residency (R38).

Special Review Branch (SRB)

The SRB organizes and manages the peer review of applications submitted in response to NCI-issued RFAs, PAs, and PARs. Following approval of RFA concepts by the NCI Scientific Program Leaders (SPL) and the Board of Scientific Advisors (BSA), NCI Program staff prepare RFAs and RFPs 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 FY2020, the SRB, with the assistance of the three other DEA review branches (RPRB, RTCRB, and RTRB), peer reviewed a total of 954 applications received in response to 52 RFAs (Table 10)

Figure 4. Numbers of Career Development (CD) and Training and Education (T&E) Applications Reviewed in FY2016 – 2020*



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

and 2,325 applications in response to 45 PAs/PARs (Table 11). All the peer review meetings were conducted by 128 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. Congress appropriated $300 million to the NCI for FY2017, $300 million for FY2018, $400 million for FY2019, and $195 million for FY2020. 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 FY2020, the DEA reviewed a total of 112 applications submitted in response to four Moonshot Initiative RFAs and PARs (Tables 10 and 11), and seven RFPs (Table 12). The activity codes included the following mechanisms: U01 (14 applications), U2C (9 applications), U24 (3 applications), and R43/44 (86 proposals).

Exploratory/Developmental Research

In FY2020, the DEA reviewed 610 R21 applications submitted for the NCI Clinical and Translational Exploratory/Developmental Research Grant Program in response to PAR19-356 (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 17 SEPs over the three review cycles in FY2020.

Small Grant Programs

The small grant (R03) PAR program initiative in the NCI Omnibus R03 for cancer research (PAR 18-021 and PAR 20-052) stimulated increased interest in the applicant community. In FY2020, 542 applications were submitted and reviewed by the DEA in response to this FOA (Table 11).

Other SRB Activities

As needed, SRB SROs also manage review of applications submitted to the DEA in response to other initiatives. In FY2020, this included coordinating review of P01, P20, P30, R01, 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

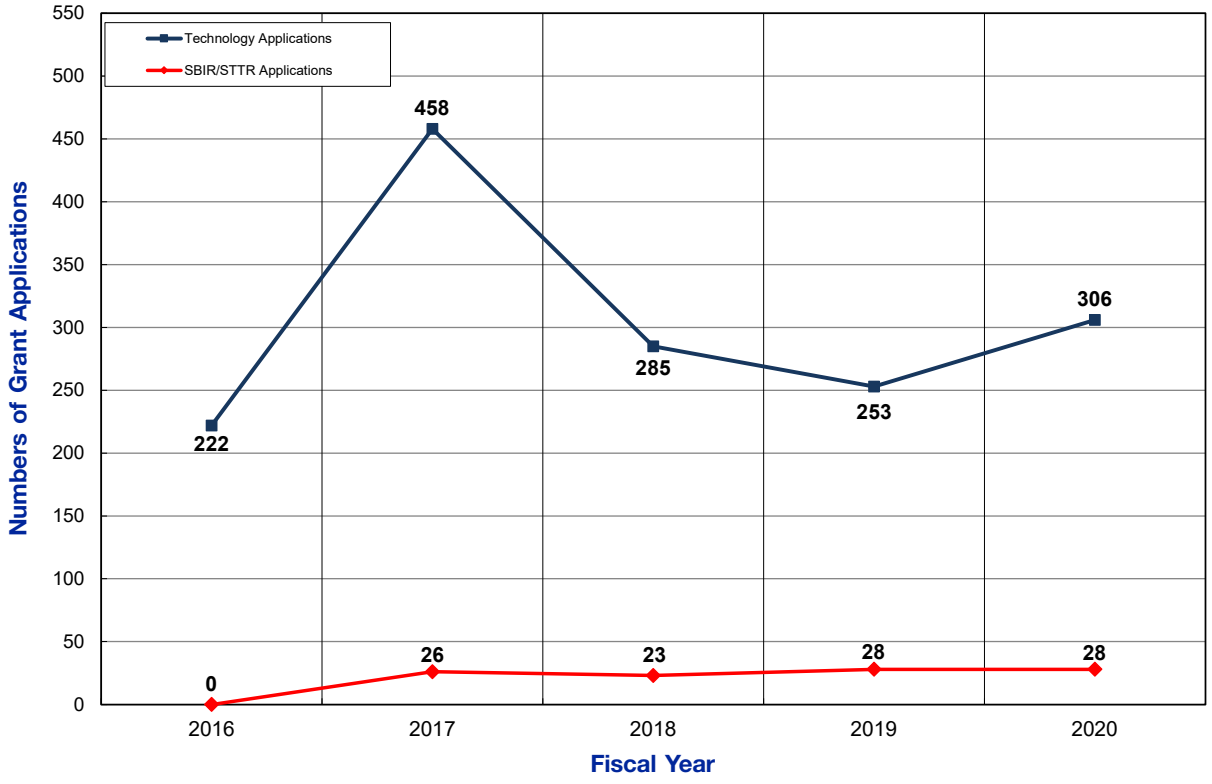
established and supportive preliminary data are available. These two mechanisms are well suited for technology development.

In 2020, 306 technology applications (Figure 5)/(Table 10) 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 CA19-019 [R21 Clinical Trials Not Allowed]); Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (RFA CA19-020 [R33 Clinical Trials Not Allowed]); Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (RFA CA19-021 [R21 Clinical Trials Not Allowed]); Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (RFA CA19-022 [R33 Clinical Trials Not Allowed]); ITCR: Innovative algorithms (RFA CA19-038 [R21 Clinical Trial Optional]); Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (RFA CA20-017 [R21 Clinical Trials Not Allowed]); Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (RFA CA20-018 [R33 Clinical Trials Not Allowed]); Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (RFA CA20-019 [R21 Clinical Trials Not Allowed]); and Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (RFA CA20-020 [R33 Clinical Trials Not Allowed]) (Table 10).

Research and Development (R&D) Contract Proposals

In FY2020, the RTCRB received and reviewed a total of 163 contract proposals. The proposals were in response to SBIR Contract Solicitations—Phase

Figure 5. Technology Initiatives Applications Reviewed in FY2016 – 2020*



* Withdrawn applications are not included.

I & Fast Track (150), Direct to Phase II (8), R&D SEER Contract (12), and CCR Contract (1) (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 on the SAM.gov site (https://sbir.nih.gov/sites/default/files/PHS2021-1.pdf).

Other RTCRB Activities

In FY2020, members of the branch also assisted in the review of applications for initiatives that were coordinated by the SRB, including the NCI Omnibus Exploratory Grant (R21) program and the Small Grant (R03) program. In FY2020, the RTCRB also managed reviews of P01, U01, U24, U54, UG3, and UH2/UH3 applications.

Peer Review for Urgent Awards

In FY2020, in response to the coronavirus disease (COVID-19) pandemic, the NIH availed the use of Urgent Award Policy to meet immediate needs to address a specific public health crisis or emergency in a timely manner. The use of Notice of Special Interest (NOSI) directed investigators to apply through the Urgent Competitive Revisions to Existing NIH Grants and Cooperative Agreements FOA (PA-18-935 Urgent Competitive Revision to Existing NIH Grants and Cooperative Agreements (Urgent Supplement—Clinical Trial Optional). The NCI published two NOSIs in response to the SARS-CoV-2 pandemic: NOT-CA-20-042 for research on COVID-19 and the effects of its causative agent, the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), on cancer, and vice versa; and NOT-CA-20-043 for SBIR and STTR programs for the development of a prophylactic—therapeutic and diagnostic—for COVID-19.

Because awards were to be made based on an immediate need to address the SARS CoV-2 pandemic, applications were submitted on a rolling basis between April and June 2020, and the referral process of submitting applications to the ICs—including NCI—was bypassed. DEA developed an efficient review process where NIH intramural and extramural scientists were recruited to review the revision applications. Reviewers who were recruited to evaluate these applications included program staff from NCI, NIAID, NHLBI, NIBIB, and investigators from CCR. All the review meetings were held using the WebEx platform. The Program Director who provided oversight of an application under review was invited to introduce an application to the panel members but not participate in the evaluation. Scientific Review Officers from all the NCI DEA review branches assisted to manage the reviews for Urgent Awards. They held review meetings within a week to 10 days of the receipt of applications. Over a period of 4 weeks, a total of 29 review meetings were convened to evaluate 121 applications submitted, on a rolling basis. The outcome (reports containing final scores and critiques) for each application was sent to the appropriate program staff for funding consideration.

NCI Grant and RFA Funding

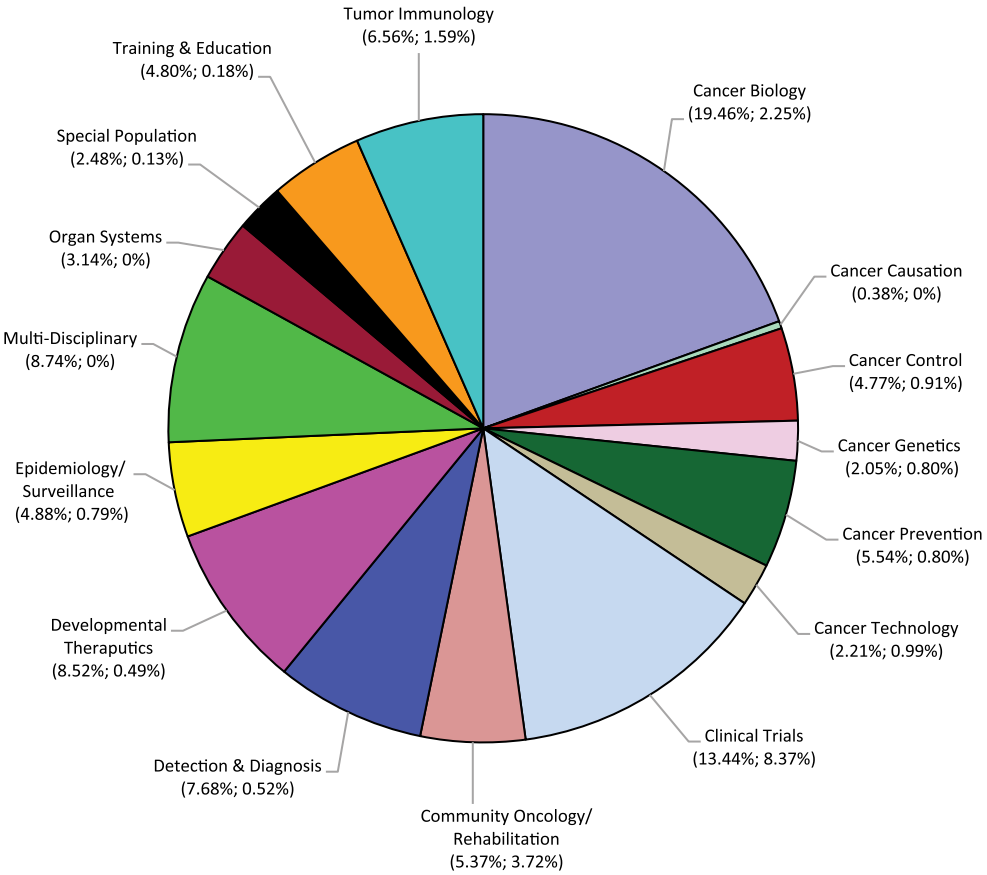
The Board of Scientific Advisors (BSA) is responsible for advising the NCI Director on the extramural program and the future direction and funding of each Division's, Office's, and Center's (DOCs) extramural research. As such, the BSA provides concept review for NCI-sponsored RFAs. Figures 6 and 7 show total NCI Grant and RFA funding according to scientific concept area in FY2019 and FY2020. Figure 8 shows RFA concepts that the BSA approved from FY2017 through FY2020 according to the sponsoring NCI Division, Office, or Center.

Table 13 presents a summary of total funding of NCI grant awards by mechanism and activity code for FY2020. 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 through FY2020, for each of the extramural Divisions, Offices, and Centers.

Trends in grant funding according to scientific discipline and organ site are provided in Tables 15 and 16.

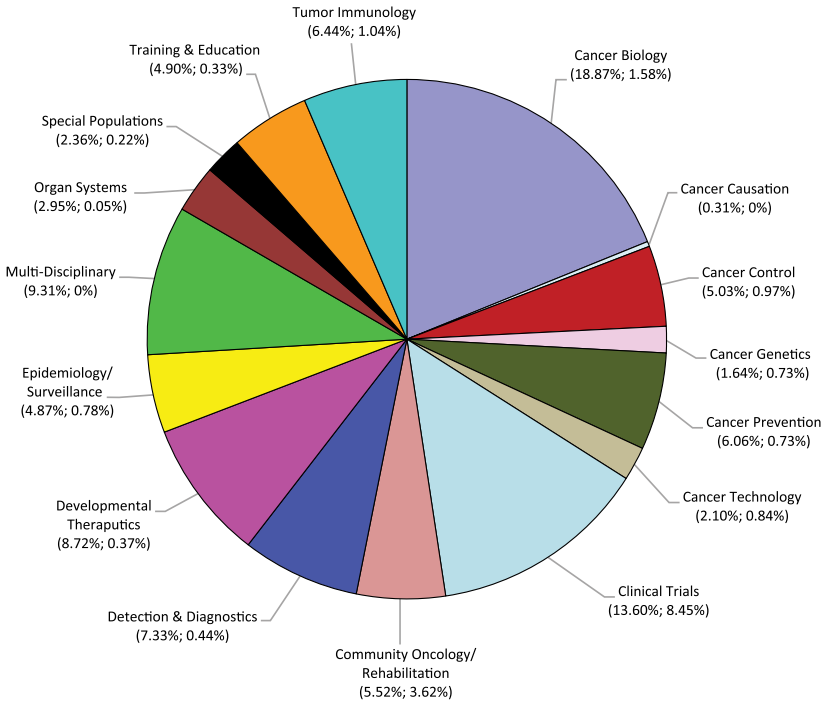
Table 17 reports NCI's funding of foreign research grants in FY2020, and Table 18 reports foreign components of U.S. domestic research grants in FY2020. Note: Some grant awards made during a fiscal year may have been for grant applications reviewed in a prior fiscal year.

Figure 6. NCI Grant and RFA/Cooperative Agreement Funding Percentages by Concept Area FY2019



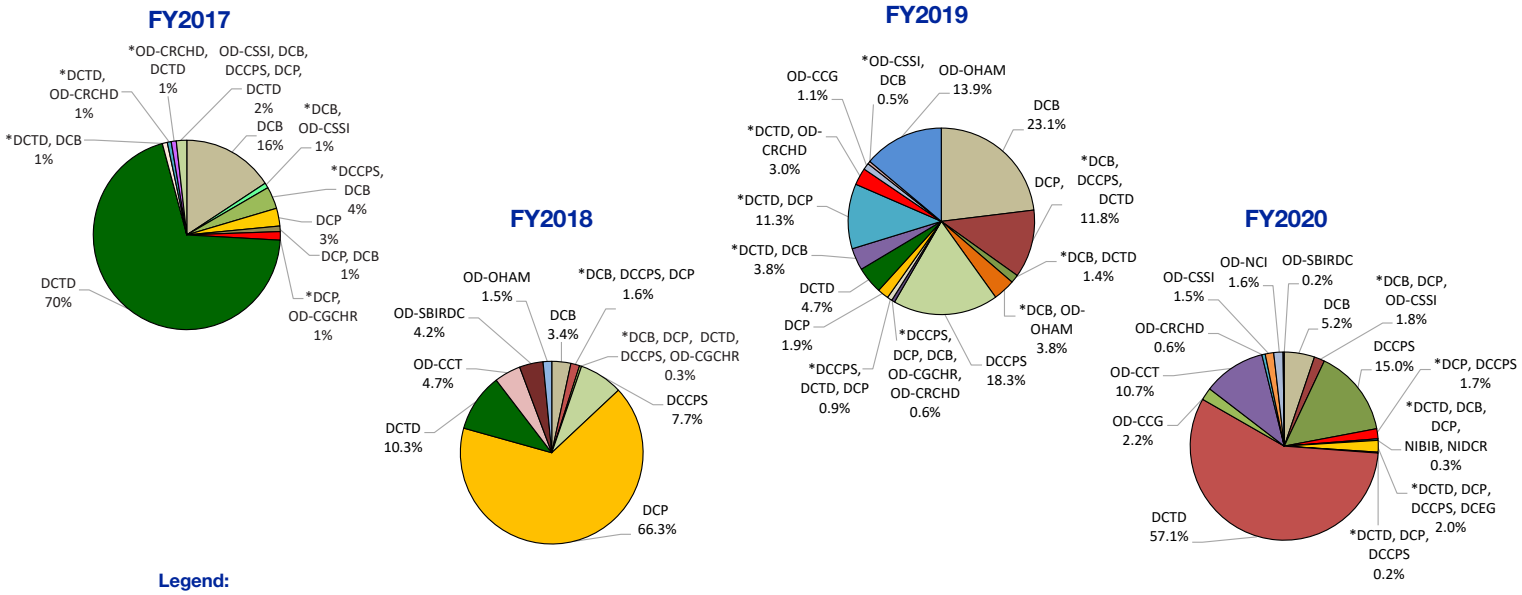
Percentages represent Total Funding and RFA Funding for the Concept Area as a percentage of Total NCI Grants.
Concept Area (% of Total Funding to Total NCI Grants; % of RFA Funding to Total NCI Grants)

Figure 7. NCI Grant and RFA/Cooperative Agreement Funding Percentages by Concept Area FY2020



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	OD-CCT	Office of the Director - Center for Cancer Training
DCCPS	Division of Cancer Control and Population Sciences	OD-CGCHR	Office of the Director - Center for Global Cancer Health Research
DCEG	Division of Cancer Epidemiology and Genetics	OD-CRCHD	Office of the Director - Center to Reduce Cancer Heath Disparities
DCP	Division of Cancer Prevention	OD-OHAM	Office of the Director - Office of HIV and AIDS Malignancy
DCTD	Division of Cancer Treatment and Diagnosis	OD-CSSI	Office of the Director - Center for Strategic Scientific Initiatives
NIBIB	National Institute of Biomedical Imaging and Bioengineering	OD-NCI	Office of the Director – National Cancer Institute
NIDCR	National Institute of Dental and Craniofacial Research	OD-SBIRDC	Office of the Director - Small Business Innovation Research Development Center
OD-CCG	Office of the Director - Center for Cancer Genomics		

* 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 multimillion-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 157 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 FY2020, approximately 2,034 consultants were reimbursed honoraria and flat-rate payment for serving at more than 157 peer review meetings (**Appendix E**). There were 3,159 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, all of the 3,159 instances of honoraria and flat-rate payments to NCI peer review consultants were not paid out in FY2020.

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 FY2020, 43 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 43 hotel invoices and 25 consultant travel invoices were reviewed and submitted for payment in FY2020.

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 main points of discussion were as follows:

- 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

SREA 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, but due to COVID-19, this presentation was canceled.

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 (SAs)" 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 National Cancer Institute'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 oversight of research activities at the **Frederick National Laboratory for Cancer Research (FNLCR)**. Working groups, task forces, etc., are formed under the various chartered committees 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 FY2020 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. One important function of the BSA is to evaluate NCI extramural programs and policies and review 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 to the Frederick National Laboratory for Cancer Research (FNLCR). FNLAC reviews new projects proposed to be performed at FNLCR and advises the Director, NCI, and the Associate Director, NCI-Frederick, about the intrinsic merit of the projects and about whether they should be performed at the Frederick facility (Appendix C).

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

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

NCI Initial Review Groups (IRGs). The NCI IRGs, composed of four active subcommittees, review grant applications for Cancer Center Support (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 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, Division of Extramural Activities (DEA), National Cancer Institute (NCI). This Office continues to provide expert advice to the Director, NCI, Deputy Directors, NCI, the Director, DEA, NCI, and other senior-level Institute/Center/Client staff on all rules, regulations, guidelines, policies, procedures, etc., governing the Federal Advisory Committee Act (FACA). The Committee Management Office 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; and the Novel and Exceptional Technology and Research Advisory Committee (NExTRAC) [formerly the NIH Recombinant DNA Advisory Committee (RAC)] located in the Office of Science Policy, OD, NIH. In addition, CMO serves as the Service Center for three NIH Institutes/Centers (ICs). The National Institute on Alcohol Abuse and Alcoholism (NIAAA), which has seven Federal Advisory Committees, includes an Advisory Council, a BSC, four IRG Subcommittees, and a SEP. The National Institute on Drug Abuse (NIDA), which has four Federal Advisory Committees, includes an Advisory Council, a BSC, one IRG Subcommittee, and a SEP. The National Institute on Minority Health and Health Disparities (NIMHD), which has two Federal Advisory Committees, includes an Advisory Council and a SEP.

In all, CMO successfully manages 30 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 Committee Management Office continued to provide exceptional service to these Client-Institutes on the management of their Federal Advisory Committees. CMO effectively managed a comprehensive ethics program in support of CoC, ACD, ACRWH, NExTRAC, NIDA, and NIMHD. Ethics services include analysis and review of Special Government Employee OGE-450s and Foreign Activity Questionnaires 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 FY2020 include the following:

- Increased the NCI CMO Service Center to include two additional NIH Institutes—the National Institute on Drug Abuse (NIDA), which has four Federal Advisory Committees that includes an Advisory Council, a BSC, one IRG Subcommittee, and a SEP;

and the National Institute on Minority Health and Health Disparities (NIMHD), which has two Federal Advisory Committees that include an Advisory Council and a SEP.
- Implemented new processes and procedures to have advisory committee/board members use the USA Jobs Onboarding System to submit their human resource appointment forms electronically versus completing paper forms.
- Participated in the requirements gathering, testing, and implementation of the NIH Special Government Employee (SGE) portal, which is an information source for prospective, new, and currently serving committee/board members.
- Continued to provide guidance and resources to the CMO community in the implementation of advisory committee/board members' use the NIH Enterprise Ethics System (NEES) to submit their OGE-450s electronically versus completing paper forms.
- Worked with the NCI DEA Director on the establishment of the BSA *ad hoc* Working Group in Support of the Childhood Cancer Data Initiative; FNLAC NCI Task Force to Evaluate the NCI/DOE Collaboration; and NCRA *ad hoc* Working Group on Clinical Trials Enrollment and Retention.
- Worked with the NCI DEA Director to seamlessly transition from face-to-face meetings to virtual meetings for the National Cancer Advisory Board (NCAB), Board of Scientific Advisors (BSA), and Frederick National Laboratory Advisory Committee (FNLAC).
- Responded to requests from NIH Office of Federal Advisory Committee Policy (OFACP) regarding General Accounting Office (GAO) audits and internal control reviews.
- Responded to request from NCI Ethics Office regarding an Office of Government Ethics (OGE) audit.
- Worked with the NCI DEA Director and coordinated with NIH OFACP staff to provide guidance, support, and the required documentation for the merger of the NCI Board of Scientific Counselors for Basic Sciences and the NCI Board of Scientific Counselors for Clinical Sciences and Epidemiology into one NCI Board of Scientific Counselors.
- Provided guidance to NIH OD staff assigned to support ACD and CoC Working Groups.
- Continued to provide oversight of the NCI DEA SREA multimillion-dollar program and successfully closed out the FY2020 budget.
- Oversaw travel authorizations and vouchering of more than 45 SGE travel instances, many of which are complex and require negotiating with the board member.
- Participated in the Phase II Committee Management Module (CMM) process mapping and requirements gathering for the automation of nomination slates.

The following **training sessions** were given by CMO to various Federal audiences over the course of FY2020:

- 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.
- FACA Training to newly assigned Designated Federal Officials (DFOs) of the President's Cancer Panel and Advisory Committee on Research on Women's Health.
- Subcommittee Overview and Training to newly assigned DFO of the NCAB *ad hoc* Subcommittee on Experimental Therapeutics.
- Working Group Overview and Training to newly assigned DFOs of the BSA *ad hoc* Working Group in Support of the Childhood Cancer Data Initiative; FNLAC NCI Task Force to Evaluate the NCI/DOE Collaboration; and NCRA *ad hoc* Working Group on Clinical Trials Enrollment and Retention.
- 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 FY2016 through FY2020 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 FY2020 include the following:

- FY2020 grant information provided to NCI Program Directors on various areas of scientific research, including Systems Biology, Cannabis, and related projects from FY2015 to FY2019, and Childhood Cancer unfunded grants.
- FY2018 and FY2019 Kidney Cancer grants request from NCI's Legislative Office.
- Coordinated with the NCI Office of Budget and Finance (OBF) to update and align budget reporting categories.
- Supplied FY2018 and FY2019 grant and research contract funding information on Stomach and Esophageal Cancer.
- RAEB staff participated in the NCI Accrual Working Group for reporting of NCI compliance with Congressional Inclusion reporting requirements.
- RAEB staff are DEA representatives on the NCI Communications Committee, the My NCI Users Group, and the NCI Planning Committee.

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

In FY2020, the NCI allocated $18 million to support 28 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 seven grants receiving $10 million. R01s were the most common mechanisms funded, with 12 grants receiving $3.3 million. Disease areas receiving the most NCI funding to foreign institutions were Not Site-Specific ($8.7 million), and Breast ($1.9 million), followed by Colon ($1.8 million).

FY2020 Funding of Foreign Institutions

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

Country	Grant & Contracts #	Funding $
Australia	3	$2,291,257
Belgium	1	$247,046
Canada	7	$10,000,462
Denmark	1	$194,683
France	6	$2,999,973
Germany	1	$535,159
Italy	1	$277,695
Netherlands	1	$196,633
South Africa	2	$313,649
Sweden	2	$438,620
United Kingdom	3	$581,382
TOTAL	**28**	**$18,076,559**

In FY2020, the NCI supported 193 U.S. domestic projects with 448 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 (71 grants), the United Kingdom (41 grants), Germany (34 grants), China (29 grants), Netherlands (25 grants), and Australia (21 grants), were the NCI's most frequent collaborators. R01 is the most common funding mechanism used for collaborations, with 230 grants, followed by U01 (65 grants) and U54 (24 grants).

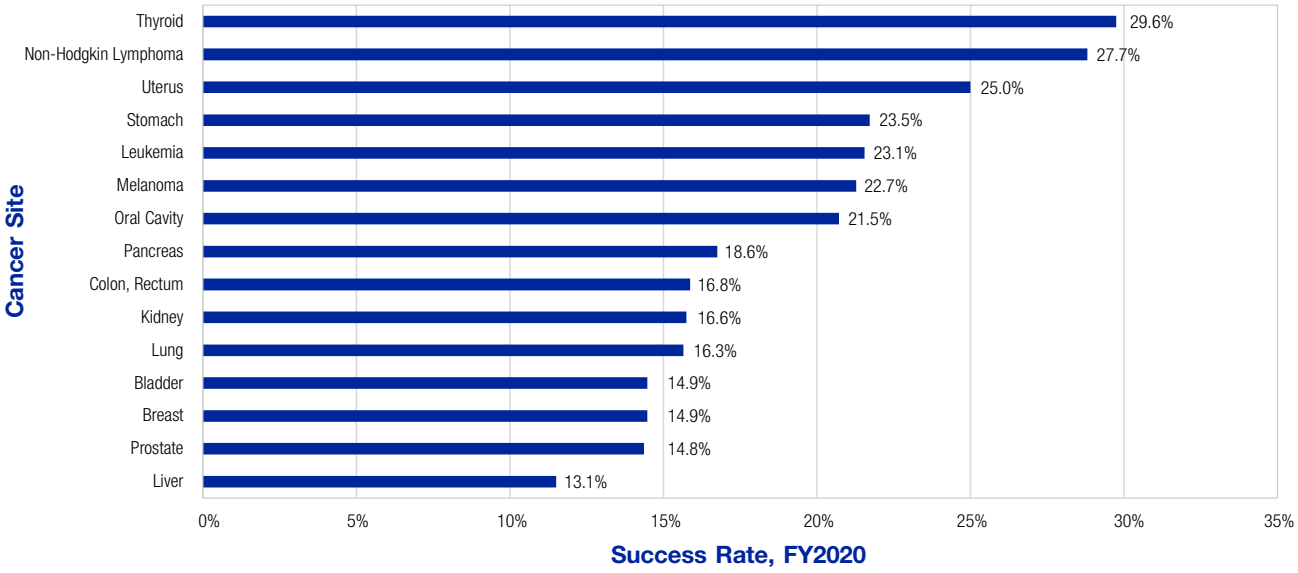
Success Rates of Extramural Science Categories

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 FY2020 success rates for selected Special Interest Categories (SIC) and for the highest incidence cancers. The highest incidence cancer rankings are from the SEER rank of top 15 cancer sites, 2014–2018, age-adjusted incidence for all races and sexes.

Success rates were calculated by dividing the total number of newly and competing funded applications in 2020 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. FY2020 Success Rates for Applications in High Incidence Cancer*

Sorted by Success Rate

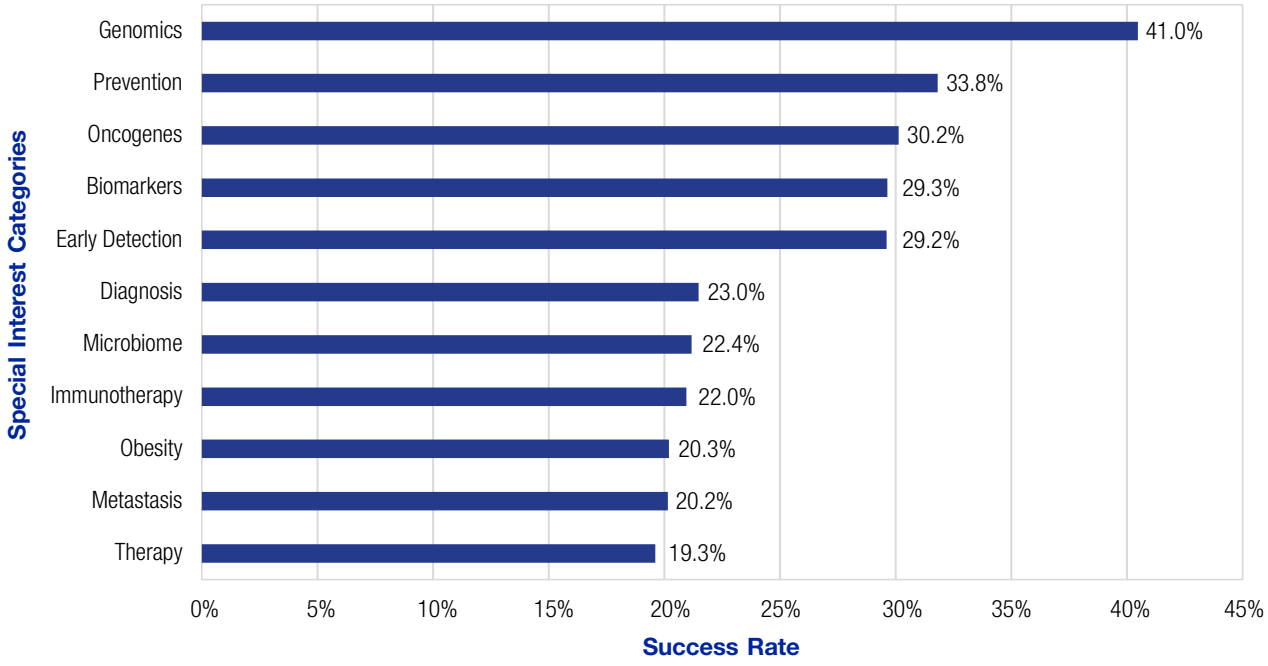


Selected Oncology Sites	SEER Rank*	Types 1 & 2 Funded in 2020	Total Applications Received in 2020	2020 Success Rate (%)	Total Funding for Types 1 & 2 in 2020
Thyroid	9	21	92	29.6%	$6,315,891.00
Non-Hodgkin Lymphoma	7	75	346	27.7%	$63,878,329.00
Uterus	10	15	75	25.0%	$11,085,382.00
Stomach	15	16	84	23.5%	$5,875,648.00
Leukemia	11	141	751	23.1%	$68,519,059.00
Melanoma	5	119	644	22.7%	$50,624,455.00
Oral Cavity	13	14	79	21.5%	$9,529,343.00
Pancreas	12	126	803	18.6%	$44,242,328.00
Colon, Rectum	4	137	953	16.8%	$72,378,730.00
Kidney	8	29	204	16.6%	$7,909,839.00
Lung	2	199	1,422	16.3%	$121,442,825.00
Bladder	6	26	200	14.9%	$10,804,575.00
Breast	1	326	2,508	14.9%	$156,916,134.00
Prostate	3	122	948	14.8%	$57,296,171.00
Liver	14	51	440	13.1%	$24,711,126.00

* RAEB data using SEER rank of top 15 cancer sites 2014–2018 age adjusted incidence for all races and sexes.

Figure 10. FY2020 Success Rates for Applications in Selected Special Interest Categories (SIC)

Sorted by Success Rate



Special Interest Category (SIC)	Types 1 & 2 Funded in 2020	Total Applications Received in 2020	2020 Success Rate (%)	Total Funding for Types 1 & 2 in 2020
Genomics	361	1,242	41.0%	$187,132,998.00
Prevention	237	938	33.8%	$154,067,936.00
Oncogenes	270	1,163	30.2%	$94,423,294.00
Biomarkers	370	1,631	29.3%	$244,207,847.00
Early Detection	131	579	29.2%	$106,712,952.00
Diagnosis	403	2,156	23.0%	$285,310,054.00
Microbiome	39	213	22.4%	$16,102,811.00
Immunotherapy	356	1,975	22.0%	$175,171,004.00
Obesity	40	237	20.3%	$19,459,152.00
Metastasis	349	2,073	20.2%	$144,155,868.00
Therapy	1,174	7,256	19.3%	$586,189,940.00

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- and extramural-specific software applications; administers and maintains DEA infrastructure; 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 contract is coordinated by the AISB. The AISB has function-specific teams to track staff requests, manage the Division's computer equipment inventory, and provide information systems, applications, and information technology-related services and training. 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 FY2020, specific AISB accomplishments are highlighted below.

Systems Infrastructure and Service Support

- **Security.** Maintained and augmented the real-time security configurations and upkeep of Division IT assets, from mobile and desktop to server and database. The Division's information system, DEAIS, underwent independent security assessment and is in the final steps toward achieving continued authorization to operate (ATO). Contingency planning, configuration management, auditing, and change management policies and documents were reviewed and updated.
- **Infrastructure and Operations.** Continued to achieve greater than 98 percent systems availability; performed continuous improvements to key components, such as hosting environments, databases, and systems utilities; coordinated with CBIIT on support of teleconferenced national board and committee meeting.
- **Desktop and Mobile Support.** Provided service desk support for the DEA staff, resolved more than 1,300 desk top support issues, most of which under remote-work conditions; maintained front-line responsibility for desktop configuration and management; retooled the Division's personal workstation assets to accommodate current and future remote telework; continued high degree of asset accountability that exceeded standards; augmented and refined mobile hardware maintenance systems to be responsive to changing needs of the remote workforce; continued to coordinate with NCI CBIIT to conduct various technology pilot and early release projects.
- **Cloud Migration.** Embarked on discovery and research to migrate various in-house services and assets to commoditized on-demand services.

Application Development Projects

- Managed and maintained the portfolio of more than 40 applications, utilities, and reporting tools through software development lifecycle practices to support the Division's activities and mission. Each of the portfolio items was reviewed for maintenance, enhancement, replacement, or end-of-life action.

- Overall, there were about 50 updates to applications, reporting tools and the supporting components. Numerous security, infrastructure, and host environment updates were conducted. Also, databases and application environments were upgraded and patched to maintain highest quality and security of information.

User Training

- Trained users on various office automation software and collaboration tools, especially those for remote connection and collaboration, i.e., Microsoft Teams, Webex, Office 365 integration, NIH VPN.

DEA Website Development and Maintenance

- Initiated strategic plan to modernize Division's digital information system.
- Curated internal and public-facing Web pages.
- Continued migration planning to move the websites to Content Management Systems (CMS).

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

- Updated systems interconnections in support of eRA's cloud migration.
- Collaborated with the Office of Budget and Finance to streamline the processing of contracts data.
- Redesigned system components to improve data quality.
- Implemented a user management module to improve system security.
- Identified and corrected inconsistent coding rules.
- Redesigned the process for indexing Cancer Center Support Grants (P30s).

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, 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), 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
Peter Wirth, Ph.D. ..... Contractor

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
Robert Kruth ..... Program Assistant

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), and Recombinant DNA Advisory Committee (RAC), as well as to seven National Institute on Alcohol Abuse and Alcoholism (NIAAA) advisory committees, four National Institute on Drug Abuse (NIDA) advisory committees, and two National Institute on Minority Health and Health Disparities (NIMHD) 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; NIAAA; NIDA; and NIMHD.
- 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.

Joy Wiszneauckas ..... **Committee Management Officer**
Sondra Sheriff* ..... **Acting Deputy Committee Management Officer**
Kimberley Hetkowski† ..... **Deputy Committee Management Officer**
Etsegenet Abebe ..... **Committee Management Specialist**
Shayla Beckham‡ ..... **Committee Management Specialist**
Alonda Lord ..... **Committee Management Specialist**
Darnett Miller§ ..... **Committee Management Specialist**
Rosalind Niamke ..... **Committee Management Specialist**
Beverly Powell∞ ..... **Committee Management Specialist**
Sondra Sheriff ..... **Senior Committee Management Specialist**
Christine Skeens ..... **Program Analyst**
Cameron Stansbury ..... **Staff Assistant**
Margaret Vardanian ..... **Committee Management Assistant**

* Became Acting Deputy CMO in January 2020.
† Left in January 2020.
‡ Joined in January 2020.
§ Joined in January 2020. Moved to ORRPC September 2020.
∞ Joined in March 2020.

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. ..... **Associate Director**
Scott Chen, Ph.D. ..... **Health Scientist Administrator**
Ivan Ding, M.D. ..... **Health Scientist Administrator**
Denise Santeufemio ..... **Program Analyst**
Janet Craigie ..... **Program Analyst**
Sheila Hester ..... **Program Analyst**
Lauren McLaughlin ..... **Program Specialist**

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**
Linda Brown ..... **Secretary**
Darnett Miller* ..... **Program Specialist**
Kathy Tiong ..... **Program Analyst**

* Moved from CMO in September 2020

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
Eun Ah Cho, Ph.D.* ..... Scientific Review Officer
Robert Coyne, Ph.D. ..... Scientific Review Officer
Hasan Siddiqui, Ph.D. ..... Scientific Review Officer
Sage Kim, Ph.D. ..... Scientific Review Officer
Timothy Meeker, M.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

* Moved to RTRB in January 2020.
** Moved to SRB in January 2020.

Research Technology and Contracts 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
Reed Graves, Ph.D. ..... Scientific Review Officer
Nadeem Khan, Ph.D. ..... Scientific Review Officer
Paul Gallourakis ..... Program Analyst
Hanh "Julie" Hoang ..... Program Specialist
Kimberly Milner* ..... Staff Assistant

* Left in March 2020

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 and Research Enhancement Award Program (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
Kamal Datta, M.D.† ..... RFA/PA Coordinator, Scientific Review Officer
Shannon Doyle, Ph.D.‡ ..... Referral Officer, NCI/NIH Referral Liaison
Anandarup Gupta, Ph.D. ..... RFA/PA Coordinator, Scientific Review Officer
Leota Hall§ ..... Referral Officer, NCI/NIH Referral Liaison
Jeanette I. Marketon, 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

* Left in December 2019.
† Joined in August 2010.
‡ Joined in March 2020.
§ Left in January 2020.

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
Paul Cairns, Ph.D. ..... Scientific Review Officer
Majed Hamawy, Ph.D., M.B.A. ..... Scientific Review Officer
Michael Lindquist, Ph.D.* ..... Scientific Review Officer
Klaus Piontek, Ph.D. ..... Scientific Review Officer
Anita Tandle, Ph.D. ..... Scientific Review Officer
Mukesh Kumar, Ph.D. ..... Scientific Review Officer
Charles Choi ..... Program Analyst**
Stefanie Powell ..... Staff Assistant**

* Joined in November 2019
** Left in December 2019.

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 NIH Center for Scientific Review.

Caterina Bianco Ph.D. ..... Chief
Shari Campbell, D.P.M., M.S.H.S. ..... Scientific Review Officer
Eun Ah Cho, Ph.D.*. ..... Scientific Review Officer
Tushar Deb, Ph.D. ..... Scientific Review Officer
Byeong-Chel Lee, Ph.D. ..... Scientific Review Officer
Timothy Meeker, M.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
Bridgette Wilson ..... Staff Assistant

* Joined in January 2020
** Moved to SRB November 2019

Office of Extramural Applications

- Evaluates, plans, and acquires necessary Information Technology (IT) solutions for all business activities of the Division. Manages and monitors IT contracts within the Division.
- Coordinates and collaborates with the NIH Center for Information Technology (CIT), the NCI Center for Biomedical Informatics and Information Technology (CBIIT), and other entities for various IT-related activities.
- Collaborates with the DEA Office of the Director (OD) and the Committee Management Office (CMO) on various activities related to the NCI Advisory Boards.
- Coordinates activities of the Applied Information Systems Branch (AISB) to evaluate new technologies, desktop and mobile support, user training, server administration, and system application design, development, and maintenance, as well as to conduct necessary audit, planning, and risk assessment to meet the requirements set by the Standards for Security Categorization of Federal and Information Systems.
- Coordinates activities of the Research Analysis and Evaluation Brach (RAEB) to provide budget-linked research portfolio data from NCI grants, cooperative agreements, and contracts for the NCI Office of Budget and Finance (OBF) and other entities, as well as to coordinate the information management of extramural NCI-supported research.

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

Research Analysis and Evaluation Branch (RAEB)

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

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

Research Documentation

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

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

Technical Operations, Inquiry, and Reporting

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

Marilyn Gaston ..... Lead Biologist/Team Leader
William Clark, M.S. ..... Biologist

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 databases systems for the division to support review, referral, coding, advisory, and other extramural-related activities.
- Serves as the liaison with the NCI Center for Biomedical Informatics and Information Technology (CBIIT); NCI units charged with execution of extramural IRM functions; trans-NIH functional units, such as the Center for Scientific Research (CSR), Office of Policy for Extramural Research Administration (OPERA), and the Office of Extramural Research (OER); and the IMPAC II and NIH electronic Research Administration (eRA).
- Supports connectivity, design, and maintenance of the DEA Internet and Intranet websites and applications.
- Administers and monitors the IT support contract to provide design, development, and maintenance for Division information systems.
- Formulates and establishes the DEA-specific office automation policy.
- Provides desktop support and workstation 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 coordination, and application support for review and National Board and Committee activities.
- Conducts continuous security monitoring and implementation of Federal Information Systems Management Act (FISMA) practices and procedures for the Division's information system. Informs and advises staff on new and emerging security requirements impacting them.

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, creates user documentation, and conducts 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.
- Coordinates information systems security activities.

Joshua Rhoderick ..... Team Leader
Harry Chauhan* ..... Information Technology Specialist
Joe Gibbs ..... Information Technology Specialist**

* Joined in September 2020
** Joined in August 2020

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.
- Acquires and administers the Division's information technology assets—computer hardware, software, mobility solutions, IT maintenance contracts and supplies.
- Operates a stand-alone service desk to maintain and troubleshoot desktop and laptop computers, mobility solutions, office automation products, and licensed software applications
- 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 meetings 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 FY2020

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center
10/17/2019	CA20-001	U54	U.S. and Low- and Middle-Income Country (LMIC) HIV-Associated Malignancy Research Centers (U54 Clinical Trials Optional)	CRCHD
10/24/2019	CA20-002	U24	Limited Competition: Biospecimen Banks to Support NCI National Clinical Trials Network (NCTN) (U24 Clinical Trial Not Allowed)	DCTD
10/30/2019	CA20-006	U01	Communication and Decision Making for Individuals with Inherited Cancer Syndromes (U01 Clinical Trial Optional)	DCCPS
11/12/2019	CA20-003	U24	Limited Competition: Biospecimen Bank to Support NCI Early-Phase and Experimental Clinical Trials (U24 Clinical Trials Not Allowed)	DCTD
11/19/2019	CA20-015	K99, R00	NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 Independent Clinical Trial Required)	CCT
	CA20-014	K99, R00	NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 Independent Clinical Trial Not Allowed)	
12/04/2019	CA20-020	R33	Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (R33 Clinical Trials Not Allowed)	CSSI
	CA20-017	R21	Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R21 Clinical Trials Not Allowed)	
	CA20-018	R33	Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R33 Clinical Trials Not Allowed)	
	CA20-019	R21	Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (R21 Clinical Trials Not Allowed)	
12/20/2019	CA20-025	P50	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (P50 Clinical Trial Optional)	CSSI
	CA20-021	R01	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (R01 Clinical Trial Optional)	
	CA20-022	U01	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U01 Clinical Trial Optional)	
	CA20-023	U54	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U54 Clinical Trial Optional)	
	CA20-024	P01	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (P01 Clinical Trial Optional)	
	CA20-026	U2C	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U2C Clinical Trial Optional)	
01/10/2020	CA20-032	R01	Radiobiology of High Linear Energy Transfer (High LET) Exposure in Cancer Treatment (R01, Clinical Trial Not Allowed)	DCTD
01/16/2020	CA20-005	R21	Research Answers to National Cancer Institute's (NCI) Provocative Questions (R21 Clinical Trial Optional)	CSSI
	CA20-004	R01	Research Answers to National Cancer Institute's (NCI) Provocative Questions (R01 Clinical Trial Optional)	
01/23/2020	CA20-009	U24	Advanced Development of Informatics Technologies for Cancer Research and Management (U24 Clinical Trial Optional)	CSSI
	CA20-008	U01	Early-Stage Development of Informatics Technologies for Cancer Research and Management (U01 Clinical Trial Optional)	
	CA20-013	U24	Revision Applications to Support the Application of Informatics Technology for Cancer Research (U24 Clinical Trial Optional)	
	CA20-010	U24	Sustained Support for Informatics Technologies for Cancer Research and Management (U24 Clinical Trial Optional)	
	CA20-011	R01	Revision Applications to Support the Application of Informatics Technology for Cancer Research (R01 Clinical Trials Optional)	
	CA20-007	R21	Development of Innovative Informatics Methods and Algorithms for Cancer Research and Management (R21 Clinical Trial Optional)	
	CA20-012	U01	Revision Applications to Support the Application of Informatics Technology for Cancer Research (U01 Clinical Trials Optional)	
	CA20-016	U54	HIV/AIDS and the Tumor Niche (U54 Clinical Trial Not Allowed)	DCB

continued

Source: Office of Referral, Review, and Program Coordination.

Table 1a (cont'd). Requests for Applications (RFAs) Published by the NCI in FY2020

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center
03/06/2020	CA20-033	R44	SBIR Phase IIB Bridge Awards to Accelerate the Development of Cancer-Relevant Technologies Toward Commercialization (R44 Clinical Trial Optional)	SBIR
03/16/2020	CA20-028	R21	Research to Reduce Morbidity and Improve Care for Pediatric, and Adolescent and Young Adult (AYA) Cancer Survivors (R21 Clinical Trial Optional)	DCCPS
	CA20-027	R01	Research to Reduce Morbidity and Improve Care for Pediatric, and Adolescent and Young Adult (AYA) Cancer Survivors (R01 Clinical Trial Optional)	
04/08/2020	CA20-030	UG3, UH3	Utilizing Cohort Studies to Address Health Outcomes in Cancer Survivors (UG3/UH3 Clinical Trial Not Allowed)	DCCPS
04/14/2020	CA20-031	D43	Strengthening Institutional Capacity to Conduct Global Cancer Research in Low- and Middle-Income Countries (D43 Clinical Trial Not Allowed)	CGH
05/13/2020	CA20-029	U54	Metastasis Research Network (U54 Clinical Trial Not Allowed)	DCB
06/05/2020	CA20-039	U01	Emergency Awards: Research Projects in SARS-CoV-2 Serological Sciences (U01 Clinical Trial Optional)	CSSI
	CA20-038	U54	Emergency Awards: SARS-CoV-2 Serological Sciences Centers of Excellence (U54 Clinical Trial Optional)	
06/10/2020	CA20-035	R01	Improving Smoking Cessation Interventions Among People Living with HIV (R01 Clinical Trial Optional)	DCCPS
	CA20-036	R21	Improving Smoking Cessation Interventions Among People Living with HIV (R21 Clinical Trial Optional)	
06/25/2020	CA20-042	UH2	3D Technologies to Accelerate HTAN Atlas Building Efforts (UH2 Clinical Trial Not Allowed)	DCB
07/02/2020	CA20-040	U01	Aging, Cancer-Initiating Cells, and Cancer Development (U01 Clinical Trial Not Allowed)	DCB
07/07/2020	CA20-037	U01	Tobacco Use and HIV in Low- and Middle-Income Countries (U01 Clinical Trial Optional)	CGH
07/16/2020	CA20-045	R01	Limited Competition: International Agency for Research on Cancer (IARC) Monographs Program (R01 Clinical Trial Not Allowed)	DCB
08/13/20	CA20-052	U24	Limited Competition: Childhood Cancer Survivor Study (U24 Clinical Trial Required)	DCTD
08/20/2020	CA20-044	R33	Visualization Methods and Tools Development for Enhancing Cancer Moonshot Data (R33 Clinical Trial Not Allowed)	DCB
08/24/2020	CA20-048	F99, K00	The NCI Predoctoral to Postdoctoral Fellow Transition Award (F99/K00)	CCT
08/25/2020	CA20-041	U24	NCI Pediatric *In Vivo* Testing Program Coordinating Center (U24 Clinical Trial Not Allowed)	DCTD
	CA20-034	U01	NCI Pediatric *In Vivo* Testing Program (U01 Clinical Trial Not Allowed)	CRCHD
08/27/2020	CA20-047	U19	Glioblastoma Therapeutics Network (U19 Clinical Trial Required)	DCTD
09/04/2020	CA20-053	U24	Genomic Data Analysis Network: Genomic Data Analysis Center (U24 Clinical Trial Not Allowed)	CCG
09/15/2020	CA20-051	R01	Social and Behavioral Intervention Research to Address Modifiable Risk Factors for Cancer in Rural Populations (R01 Clinical Trial Required)	DCCPS
09/18/2020	CA20-043	U01	Cancer Intervention and Surveillance Modeling Network (CISNET) Incubator Program for New Cancer Sites (U01 Clinical Trial Not Allowed)	DCCPS
09/23/2020	CA20-046	R01	Investigation of the Transmission of Kaposi Sarcoma-associated Herpes virus (KSHV) (R01 Clinical Trial Optional)	OHAM

Source: Office of Referral, Review, and Program Coordination.

Table 1b. Requests for Applications (RFAs) Published by the NCI in FY2020

Sorted by Division, Office, and Center

Division, Office, and Center	RFA	Mechanism	Title	Date of Publication
CCG	CA20-053	U24	Genomic Data Analysis Network: Genomic Data Analysis Center (U24 Clinical Trial Not Allowed)	09/04/2020
CCT	CA20-015	K99, R00	NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 Independent Clinical Trial Required)	11/19/2019
	CA20-014	K99, R00	NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 Independent Clinical Trial Not Allowed)	11/19/2019
	CA20-048	F99, K00	The NCI Predoctoral to Postdoctoral Fellow Transition Award (F99/K00)	08/24/2020
CGH	CA20-031	D43	Strengthening Institutional Capacity to Conduct Global Cancer Research in Low-and Middle-Income Countries (D43 Clinical Trial Not Allowed)	04/14/2020
	CA20-037	U01	Tobacco Use and HIV in Low-and Middle-Income Countries (U01 Clinical Trial Optional)	07/07/2020
CRCHD	CA20-001	U54	U.S. and Low- and Middle-Income Country (LMIC) HIV-Associated Malignancy Research Centers (U54 Clinical Trials Optional)	10/17/2019
	CA20-034	U01	NCI Pediatric *In Vivo* Testing Program (U01 Clinical Trial Not Allowed)	08/25/2020
CSSI	CA20-020	R33	Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (R33 Clinical Trials Not Allowed)	12/04/2019
	CA20-017	R21	Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R21 Clinical Trials Not Allowed)	12/04/2019
	CA20-018	R33	Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R33 Clinical Trials Not Allowed)	12/04/2019
	CA20-019	R21	Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (R21 Clinical Trials Not Allowed)	12/04/2019
	CA20-025	P50	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (P50 Clinical Trial Optional)	12/20/2019
	CA20-021	R01	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (R01 Clinical Trial Optional)	12/20/2019
	CA20-022	U01	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U01 Clinical Trial Optional)	12/20/2019
	CA20-023	U54	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U54 Clinical Trial Optional)	12/20/2019
	CA20-024	P01	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (P01 Clinical Trial Optional)	12/20/2019
	CA20-026	U2C	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U2C Clinical Trial Optional)	12/20/2019
	CA20-005	R21	Research Answers to National Cancer Institute's (NCI) Provocative Questions (R21 Clinical Trial Optional)	01/16/2020

continued

Source: Office of Referral, Review, and Program Coordination.

Table 1b (cont'd). Requests for Applications (RFAs) Published by the NCI in FY2020

Sorted by Division, Office, and Center

Division, Office, and Center	RFA	Mechanism	Title	Date of Publication
CSSI (continued)	CA20-004	R01	Research Answers to National Cancer Institute's (NCI) Provocative Questions (R01 Clinical Trial Optional)	01/16/2020
	CA20-009	U24	Advanced Development of Informatics Technologies for Cancer Research and Management (U24 Clinical Trial Optional)	01/23/2020
	CA20-008	U01	Early-Stage Development of Informatics Technologies for Cancer Research and Management (U01 Clinical Trial Optional)	01/23/2020
	CA20-013	U24	Revision Applications to Support the Application of Informatics Technology for Cancer Research (U24 Clinical Trial Optional)	01/23/2020
	CA20-010	U24	Sustained Support for Informatics Technologies for Cancer Research and Management (U24 Clinical Trial Optional)	01/23/2020
	CA20-011	R01	Revision Applications to Support the Application of Informatics Technology for Cancer Research (R01 Clinical Trials Optional)	01/23/2020
	CA20-007	R21	Development of Innovative Informatics Methods and Algorithms for Cancer Research and Management (R21 Clinical Trial Optional)	01/23/2020
	CA20-012	U01	Revision Applications to Support the Application of Informatics Technology for Cancer Research (U01 Clinical Trials Optional)	01/23/2020
	CA20-039	U01	Emergency Awards: Research Projects in SARS-CoV-2 Serological Sciences (U01 Clinical Trial Optional)	06/05/2020
	CA20-038	U54	Emergency Awards: SARS-CoV-2 Serological Sciences Centers of Excellence (U54 Clinical Trial Optional)	06/05/2020
DCB	CA20-016	U54	HIV/AIDS and the Tumor Niche (U54 Clinical Trial Not Allowed)	01/23/2020
	CA20-029	U54	Metastasis Research Network (U54 Clinical Trial Not Allowed)	05/13/2020
	CA20-042	UH2	3D Technologies to Accelerate HTAN Atlas Building Efforts (UH2 Clinical Trial Not Allowed)	06/25/2020
	CA20-040	U01	Aging, Cancer-Initiating Cells, and Cancer Development (U01 Clinical Trial Not Allowed)	07/02/2020
	CA20-045	R01	Limited Competition: International Agency for Research on Cancer (IARC) Monographs Program (R01 Clinical Trial Not Allowed)	07/16/2020
	CA20-044	R33	Visualization Methods and Tools Development for Enhancing Cancer Moonshot Data (R33 Clinical Trial Not Allowed)	08/20/2020

continued

Source: Office of Referral, Review, and Program Coordination.

Table 1b (cont'd). Requests for Applications (RFAs) Published by the NCI in FY2020

Sorted by Division, Office, and Center

Division, Office, and Center	RFA	Mechanism	Title	Date of Publication
DCCPS	CA20-051	R01	Social and Behavioral Intervention Research to Address Modifiable Risk Factors for Cancer in Rural Populations (R01 Clinical Trial Required)	09/15/2020
	CA20-043	U01	Cancer Intervention and Surveillance Modeling Network (CISNET) Incubator Program for New Cancer Sites (U01 Clinical Trial Not Allowed)	09/18/2020
	CA20-006	U01	Communication and Decision Making for Individuals with Inherited Cancer Syndromes (U01 Clinical Trial Optional)	10/30/2019
	CA20-028	R21	Research to Reduce Morbidity and Improve Care for Pediatric, and Adolescent and Young Adult (AYA) Cancer Survivors (R21 Clinical Trial Optional)	03/16/2020
	CA20-027	R01	Research to Reduce Morbidity and Improve Care for Pediatric, and Adolescent and Young Adult (AYA) Cancer Survivors (R01 Clinical Trial Optional)	03/16/2020
	CA20-030	UG3, UH3	Utilizing Cohort Studies to Address Health Outcomes in Cancer Survivors (UG3/UH3 Clinical Trial Not Allowed)	04/08/2020
	CA20-035	R01	Improving Smoking Cessation Interventions Among People Living with HIV (R01 Clinical Trial Optional)	06/10/2020
	CA20-036	R21	Improving Smoking Cessation Interventions Among People Living with HIV (R21 Clinical Trial Optional)	06/10/2020
DCTD	CA20-002	U24	Limited Competition: Biospecimen Banks to Support NCI National Clinical Trials Network (NCTN) (U24 Clinical Trial Not Allowed)	10/24/2019
	CA20-003	U24	Limited Competition: Biospecimen Bank to Support NCI Early-Phase and Experimental Clinical Trials (U24 Clinical Trials Not Allowed)	11/12/2019
	CA20-032	R01	Radiobiology of High Linear Energy Transfer (High LET) Exposure in Cancer Treatment (R01, Clinical Trial Not Allowed)	01/10/2020
	CA20-052	U24	Limited Competition: Childhood Cancer Survivor Study (U24 Clinical Trial Required)	08/13/2020
	CA20-041	U24	NCI Pediatric *In Vivo* Testing Program Coordinating Center (U24 Clinical Trial Not Allowed)	08/25/2020
	CA20-047	U19	Glioblastoma Therapeutics Network (U19 Clinical Trial Required)	08/27/2020
OHAM	CA20-046	R01	Investigation of the Transmission of Kaposi Sarcoma-associated Herpesvirus (KSHV) (R01 Clinical Trial Optional)	09/23/2020
SBIR	CA20-033	R44	SBIR Phase IIB Bridge Awards to Accelerate the Development of Cancer-Relevant Technologies Toward Commercialization (R44 Clinical Trial Optional)	03/06/2020

Source: Office of Referral, Review, and Program Coordination.

Table 2. NCI Participation in Trans-NIH Requests for Applications (RFAs) in FY2020

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
10/04/2019	NS20-011	R43, R44	HEAL INITIATIVE: Development of Therapies and Technologies Directed at Enhanced Pain Management (R43/R44 Clinical Trial Not Allowed)	SBIR	NIH
	NS20-010	R43, R44	HEAL INITIATIVE: Development of Therapies and Technologies Directed at Enhanced Pain Management (R43/R44 Clinical Trial Required)		
	NS20-009	R41, R42	HEAL Initiative: Development of Therapies and Technologies Directed at Enhanced Pain Management (R41/R42 Clinical Trial Not Allowed)		
	NS20-008	R41, R42	HEAL Initiative: Development of Therapies and Technologies Directed at Enhanced Pain Management (R41/R42 Clinical Trial Required)		
10/07/2019	HD20-002	P01	Pediatric HIV/AIDS Cohort Study (PHACS) 2020 (P01 Clinical Trial Not Allowed)	DCP	NIH
12/23/2019	MD20-005	R21	Methods and Measurement in Research with Sexual and Gender Minority (SGM) Populations (R21 Clinical Trials Not Allowed)	DCCPS	NIH
01/21/2020	NS20-028	UG3, UH3	HEAL Initiative: Pain Management Effectiveness Research Network: Clinical Trial Planning and Implementation Cooperative Agreement (UG3/UH3 Clinical Trial Required)	DCP	NIH
01/23/2020	DK20-501	U01	Limited Competition for the Continuation of the Diabetes Prevention Program Outcomes Study (DPPOS) Clinical Centers (Collaborative U01 Clinical Trial Required)	DCP	NIH
	AT20-004	UG3, UH3	HEAL Initiative: Pragmatic and Implementation Studies for the Management of Pain to Reduce Opioid Prescribing (PRISM) (UG3/UH3, Clinical Trials Optional)		
	DK20-502	U01	Limited Competition for the Continuation of the Diabetes Prevention Program Outcomes Study (DPPOS) Biostatistics Research Center (BRC) (Collaborative U01 Clinical Trial Required)		
02/07/2020	OD20-008	K01	Mentored Research Scientist Career Development Award in Tobacco Regulatory Research (K01 Independent Clinical Trial Not Allowed)	CCT DCCPS	NIH-FDA
	OD20-011	K01	Mentored Research Scientist Career Development Award in Tobacco Regulatory Research (K01 Independent Clinical Trial Required)		
	OD20-010	K99, R00	Pathway to Independence Award in Tobacco Regulatory Research (K99/R00 Independent Clinical Trial Required)		
	OD20-009	K99, R00	Pathway to Independence Award in Tobacco Regulatory Research (K99/R00 Independent Clinical Trial Not Allowed)		
03/23/2020	HG20-001	U01	Polygenic Risk Score (PRS) Methods and Analysis for Populations of Diverse Ancestry Centers (U01 Clinical Trial Not Allowed)	DCCPS	NIH
04/08/2020	AI20-023	U01	Limited Competition: International Epidemiology Databases to Evaluate AIDS (IeDEA) (U01 Clinical Trial Not Allowed)	OHAM	NIH

continued

Source: Office of Referral, Review, and Program Coordination.

Table 2 (cont'd). NCI Participation in Trans-NIH Requests for Applications (RFAs) in FY2020

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
06/12/2020	OD20-013	U24	Emergency Awards: RADx-UP Coordination and Data Collection Center (CDCC) (U24 Clinical Trial Optional)	CRCHD	NIH
	DA21-009	R01	Interventions to Prevent Electronic Nicotine Delivery Systems (ENDS) Use Among Adolescents (R01 Clinical Trial Optional)	DCCPS	NIH
07/30/2020	HG20-048	R01	Investigator-Initiated Research on Genetic Counseling Processes and Practices (R01 Clinical Trial Optional)	DCCPS	NIH
08/06/2020	OD20-018	U18	Emergency Awards: Exosome-Based Non-traditional Technologies Towards Multi-Parametric and Integrated Approaches for SARS-CoV-2 (U18 Clinical Trial Not Allowed)	CSSI	NIH-FDA
	OD20-014	U01	Emergency Awards: Automatic Detection and Tracing of SARS-CoV-2 (U01 Clinical Trial Not Allowed)		
08/31/2020	HD21-002	P01	Centers to Advance Research in Endometriosis (CARE) (P01 Clinical Trial Not Allowed)	DCP	NIH
12/02/2019	RM20-001	UG3/UH3	Transformative Technology Development for the Human BioMolecular Atlas Program (UG3/UH3 Clinical Trial Not Allowed)	DCCPS	NIH

Source: Office of Referral, Review, and Program Coordination.

Table 3a. Program Announcements (PAs) Published by the NCI in FY2020

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center
10/02/2019	PAR19-387	R01	Perception and Cognition Research to Inform Cancer Image Interpretation (R01 Clinical Trial Optional)	DCCPS
	PAR19-389	R21	Perception and Cognition Research to Inform Cancer Image Interpretation (R21 Clinical Trial Optional)	
10/18/2019	PAR20-034	R01	Fundamental Mechanisms of Affective and Decisional Processes in Cancer Control (R01 Clinical Trial Optional)	DCCPS
11/04/2019	PAR20-043	P30	Cancer Center Support Grants (CCSGs) for NCI-Designated Cancer Centers (P30 Clinical Trial Optional)	CRCHD
11/08/2019	PAR20-052	R03	NCI Small Grants Program for Cancer Research for Years 2020, 2021, and 2022 (NCI Omnibus R03 Clinical Trial Optional)	ALL DIVISIONS
11/12/2019	PAR20-053	R01	Program to Assess the Rigor and Reproducibility of Extracellular Vesicle-Derived Analytes for Cancer Detection (R01 Clinical Trial Not Allowed)	DCP
11/22/2019	PAR20-061	R21	Co-infection and Cancer (R21 Clinical Trial Not Allowed)	DCCPS
	PAR20-062	R01	Co-infection and Cancer (R01 Clinical Trial Not Allowed)	
12/10/2019	PAR20-074	R01	Revision Applications for Validation of Biomarker Assays Developed Through NIH-Supported Research Grants (R01 Clinical Trial Not Allowed)	DCTD
01/27/2020	PAR20-077	P01	National Cancer Institute Program Project Applications (P01 Clinical Trial Optional)	ALL DIVISIONS
02/24/2020	PAR20-116	R01	Toward Translation of Nanotechnology Cancer Interventions (TTNCI) (R01 Clinical Trial Not Allowed)	DCTD
03/12/2020	PAR20-136	U01	Core Infrastructure Support for Cancer Epidemiology Cohorts (U01 Clinical Trial Not Allowed)	DCCPS
	PAR20-131	R01	Research Projects to Enhance Applicability of Mammalian Models for Translational Research (R01 Clinical Trial Not Allowed)	DCB
03/30/2020	PAR20-155	R01	Academic-Industrial Partnerships (AIP) to Translate and Validate *In Vivo* Imaging Systems (R01 Clinical Trial Optional)	DCTD
04/15/2020	PAR20-170	U01	New Informatics Tools and Methods to Enhance U.S. Cancer Surveillance Research (U01 Clinical Trial Optional)	DCCPS
07/20/2020	PAR20-271	R01	Assay Development and Screening for Discovery of Chemical Probes, Drugs, or Immunomodulators (R01 Clinical Trial Not Allowed)	DCTD
07/22/2020	PAR20-277	R21	Secondary Analysis and Integration of Existing Data to Elucidate the Genetic Architecture of Cancer Risk and Related Outcomes (R21 Clinical Trials Not Allowed)	ALL DIVISIONS
	PAR20-276	R01	Secondary Analysis and Integration of Existing Data to Elucidate the Genetic Architecture of Cancer Risk and Related Outcomes (R01 Clinical Trial Not Allowed)	
07/23/2020	PAR20-278	R35	NCI Outstanding Investigator Award (R35 Clinical Trial Not Allowed)	DCB
08/05/2020	PAR20-294	U01	Core Infrastructure Support for Cancer Epidemiology Cohorts (U01 Clinical Trial Not Allowed)	DCCPS
08/13/2020	PAR20-284	R01	Innovative Research in Cancer Nanotechnology (IRCN) (R01 Clinical Trial Not Allowed)	DCTD
08/24/2020	PAR20-292	R21	NCI Clinical and Translational Exploratory/Developmental Studies (R21 Clinical Trial Optional)	ALL DIVISIONS

continued

Source: Office of Referral, Review, and Program Coordination.

Table 3a (cont'd). Program Announcements (PAs) Published by the NCI in FY2020

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center
08/26/2020	PAR20-287	R50	NCI Research Specialist (Core-Based Scientist) Award (R50 Clinical Trial Not Allowed)	DCB
	PAR20-288	R50	NCI Research Specialist (Laboratory-Based Scientist) Award (R50 Clinical Trial Not Allowed)	
08/28/2020	PAR20-295	R01	Clinical Translation of Activated Optical Fluorescence Methods and Technologies for Sensitive Cancer Detection *In Vivo* (R01 Clinical Trial Optional)	DCTD
09/04/2020	PAR20-303	R21	Tobacco Control Policies to Promote Health Equity (R21 Clinical Trial Optional)	DCCPS
	PAR20-302	R01	Tobacco Control Policies to Promote Health Equity (R01 Clinical Trial Optional)	
09/28/2020	PAR20-305	P50	Specialized Programs of Research Excellence (SPOREs) in Human Cancers for Years 2021, 2022, and 2023 (P50 Clinical Trial Required)	DCTD

Source: Office of Referral, Review, and Program Coordination.

Table 3b. Program Announcements (PAs) Published by the NCI in FY2020

Sorted by Division, Office, and Center

Division, Office, and Center	PA/PAR	Mechanism	Title	Date of Publication
ALL DIVISIONS	PAR20-052	R03	NCI Small Grants Program for Cancer Research for Years 2020, 2021, and 2022 (NCI Omnibus R03 Clinical Trial Optional)	11/08/2019
	PAR20-077	P01	National Cancer Institute Program Project Applications (P01 Clinical Trial Optional)	01/27/2020
	PAR20-276	R01	Secondary Analysis and Integration of Existing Data to Elucidate the Genetic Architecture of Cancer Risk and Related Outcomes (R01 Clinical Trial Not Allowed)	07/22/2020
	PAR20-277	R21	Secondary Analysis and Integration of Existing Data to Elucidate the Genetic Architecture of Cancer Risk and Related Outcomes (R21 Clinical Trials Not Allowed)	
	PAR20-292	R21	NCI Clinical and Translational Exploratory/Developmental Studies (R21 Clinical Trial Optional)	08/24/2020
CRCHD	PAR20-043	P30	Cancer Center Support Grants (CCSGs) for NCI-Designated Cancer Centers (P30 Clinical Trial Optional)	11/04/2019
DCB	PAR20-131	R01	Research Projects to Enhance Applicability of Mammalian Models for Translational Research (R01 Clinical Trial Not Allowed)	03/12/2020
	PAR20-278	R35	NCI Outstanding Investigator Award (R35 Clinical Trial Not Allowed)	07/23/2020
	PAR20-287	R50	NCI Research Specialist (Core-Based Scientist) Award (R50 Clinical Trial Not Allowed)	08/26/2020
	PAR20-288	R50	NCI Research Specialist (Laboratory-Based Scientist) Award (R50 Clinical Trial Not Allowed)	
DCCPS	PAR19-387	R01	Perception and Cognition Research to Inform Cancer Image Interpretation (R01 Clinical Trial Optional)	10/02/2019
	PAR19-389	R21	Perception and Cognition Research to Inform Cancer Image Interpretation (R21 Clinical Trial Optional)	
	PAR20-034	R01	Fundamental Mechanisms of Affective and Decisional Processes in Cancer Control (R01 Clinical Trial Optional)	10/18/2019
	PAR20-061	R21	Co-infection and Cancer (R21 Clinical Trial Not Allowed)	11/22/2019
	PAR20-136	U01	Core Infrastructure Support for Cancer Epidemiology Cohorts (U01 Clinical Trial Not Allowed)	03/12/2020
	PAR20-170	U01	New Informatics Tools and Methods to Enhance U.S. Cancer Surveillance Research (U01 Clinical Trial Optional)	04/15/2020
	PAR20-294	U01	Core Infrastructure Support for Cancer Epidemiology Cohorts (U01 Clinical Trial Not Allowed)	08/05/2020
	PAR20-303	R21	Tobacco Control Policies to Promote Health Equity (R21 Clinical Trial Optional)	09/04/2020
	PAR20-302	R01	Tobacco Control Policies to Promote Health Equity (R01 Clinical Trial Optional)	
	PAR20-062	R01	Co-infection and Cancer (R01 Clinical Trial Not Allowed)	11/22/2019
DCP	PAR20-053	R01	Program to Assess the Rigor and Reproducibility of Extracellular Vesicle-Derived Analytes for Cancer Detection (R01 Clinical Trial Not Allowed)	11/12/2019

continued

Source: Office of Referral, Review, and Program Coordination.

Table 3b (cont'd). Program Announcements (PAs) Published by the NCI in FY2020

Sorted by Division, Office, and Center

Division, Office, and Center	PA/PAR	Mechanism	Title	Date of Publication
DCTD	PAR20-116	R01	Toward Translation of Nanotechnology Cancer Interventions (TTNCI) (R01 Clinical Trial Not Allowed)	02/24/2020
	PAR20-155	R01	Academic-Industrial Partnerships (AIP) to Translate and Validate *In Vivo* Imaging Systems (R01 Clinical Trial Optional)	03/30/2020
	PAR20-271	R01	Assay Development and Screening for Discovery of Chemical Probes, Drugs, or Immunomodulators (R01 Clinical Trial Not Allowed)	07/20/2020
	PAR20-284	R01	Innovative Research in Cancer Nanotechnology (IRCN) (R01 Clinical Trial Not Allowed)	08/13/2020
	PAR20-295	R01	Clinical Translation of Activated Optical Fluorescence Methods and Technologies for Sensitive Cancer Detection *In Vivo* (R01 Clinical Trial Optional)	08/28/2020
	PAR20-305	P50	Specialized Programs of Research Excellence (SPOREs) in Human Cancers for Years 2021, 2022, and 2023 (P50 Clinical Trial Required)	09/28/2020
	PAR20-074	R01	Revision Applications for Validation of Biomarker Assays Developed Through NIH-Supported Research Grants (R01 Clinical Trial Not Allowed)	12/10/2019

Source: Office of Referral, Review, and Program Coordination.

Table 4. NCI Participation in Trans-NIH Program Announcements (PAs/PARs) in FY2020

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
10/18/2019	PAR20-030	R21	HIV-Associated Non-Communicable Diseases Research at Low- and Middle-Income Country Institutions (R21 Clinical Trial Optional)	OHAM	NIH
	PAR20-035	R33, R61	Integrative Research on Polysubstance Abuse and Disorder (R61/R33 Clinical Trial Optional)	DCCPS	NIH
12/30/2019	PAR20-079	R01	Surgical Disparities Research (R01 Clinical Trial Optional)	ALL DIVISIONS	NIH
01/07/2020	PA20-047	R43, R44	Development of Highly Innovative Tools and Technology for Analysis of Single Cells (SBIR) (R43/R44 Clinical Trial Not Allowed)	SBIR	NIH
01/14/2020	PAR20-081	R21	Mechanisms of Disparities in Chronic Liver Diseases and Cancer (R21 Clinical Trial Not Allowed)	ALL DIVISIONS	NIH
	PAR20-088	R01	Mechanisms of Disparities in Chronic Liver Diseases and Cancer (R01 Clinical Trial Not Allowed)		
01/17/2020	PAR20-097	U24	Biomedical Knowledgebase (U24 Clinical Trials Not Allowed)	CSSI	NIH
	PAR20-089	U24	Biomedical Data Repository (U24 Clinical Trials Not Allowed)		
01/23/2020	PAR20-101	U24	Genomic Expert Curation Panels (U24 Clinical Trial Not Allowed)	DCCPS	NIH
	PAR20-100	U24	Genomic Community Resources (U24 Clinical Trial Not Allowed)		
02/03/2020	PAR20-106	P30	Centers for AIDS Research (P30 Clinical Trial Not Allowed)	OHAM	NIH
	PAR20-107	P30	Developmental Centers for AIDS Research (P30 Clinical Trial Not Allowed)		
03/05/2020	PAR20-125	S06	Native American Research Centers for Health (NARCH) (S06 Clinical Trial Optional)	DCCPS	NIH-HIS
03/10/2020	PA20-135	333	Emergency Competitive Revision to Existing NIH Awards (Emergency Supplement Clinical Trial Optional)	ALL DIVISIONS	NIH
03/11/2020	PAR20-133	R21, R33	Gastrointestinal (GI) and Microbiome Explorers: Development of Swallowable Smart Pills or Devices for Precision Nutrition, Microbiome, and Digestive Disease Applications (R21/R33 Clinical Trial Required)	DCP	NIH
	PAR20-134	R21, R33	Development of Wearable Smart Devices for Continuous Monitoring of Circulating Nutrients, Metabolites, and Hormones (R21/R33 Clinical Trial Required)		
03/20/2020	PA20-142	T32	Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant (Parent T32)	CCT	NIH
04/03/2020	PAR20-164	R01	Mechanisms and Consequences of Sleep Disparities in the U.S. (R01 Clinical Trial Not Allowed)	OCCAM	NIH
04/15/2020	PAR20-167	R00, SI2	Lasker Clinical Research Scholars Program (Si2/R00 Clinical Trial Optional)	DCTD	NIH

continued

Source: Office of Referral, Review, and Program Coordination.

Table 4 (cont'd). NCI Participation in Trans-NIH Program Announcements (PAs/PARs) in FY2020

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
04/20/2020	PA20-172	R01	Long-term Effects of Disasters on Health Care Systems Serving Health Disparity Populations (R01 Clinical Trial Optional)	DCCPS	NIH
	PA20-166	333*	Research Supplements to Promote Diversity in Health-Related Research (Admin Supp – Clinical Trial Not Allowed)	CHCRD	NIH-CDC
04/30/2020	PAR20-179	R01	Advancing Research to Develop Improved Measures and Methods for Understanding Multimorbidity (R01 Clinical Trial Optional)	DCCPS	NIH
	PAR20-180	R01	Identifying Innovative Mechanisms or Interventions That Target Multimorbidity and Its Consequences (R01 Clinical Trial Optional)		
05/05/2020	PA20-187	K99, R00	NIH Pathway to Independence Award (Parent K99/R00 Independent Clinical Trial Required)	CCT	NIH
	PA20-185	R01	NIH Research Project Grant (Parent R01 Clinical Trial Not Allowed)	ALL DIVISIONS	
	PA20-189	K99, R00	NIH Pathway to Independence Award (Parent K99/R00 Independent Basic Experimental Studies with Humans Required)		
	PA20-188	K99, R00	NIH Pathway to Independence Award (Parent K99/R00 Independent Clinical Trial Not Allowed)	CCT	
05/07/2020	PA20-197	K25	Mentored Quantitative Research Development Award (Parent K25 Independent Clinical Trial Required)	CCT	NIH
	PA20-195	R21	NIH Exploratory/Developmental Research Grant Program (Parent R21 Clinical Trial Not Allowed)	ALL DIVISIONS	
	PA20-199	K25	Mentored Quantitative Research Development Award (Parent K25 Independent Clinical Trial Not Allowed)	CCT	
	PA20-198	K25	Mentored Quantitative Research Development Award (Parent K25 Independent Basic Experimental Studies with Humans Required)		
05/08/2020	PA20-207	R13	NIH Support for Conferences and Scientific Meetings (Parent R13 Clinical Trial Not Allowed)	ALL DIVISIONS	NIH
05/12/2020	PA20-202	K08	Mentored Clinical Scientist Research Career Development Award (Parent K08 Independent Clinical Trial Required)	CCT	NIH
	PA20-201	K08	Mentored Clinical Scientist Research Career Development Award (Parent K08 Independent Basic Experimental Studies with Humans Required)		
	PA20-203	K08	Mentored Clinical Scientist Research Career Development Award (Parent K08 Independent Clinical Trial Not Allowed)		
05/29/2020	PA20-222	333*	Research Supplements to Promote Diversity in Health-Related Research (Admin Supp – Clinical Trial Not Allowed)	CRCHD	NIH

continued

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

Table 4 (cont'd). NCI Participation in Trans-NIH Program Announcements (PAs/PARs) in FY2020

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
06/03/2020	PAR20-211	K18	Mid-Career Enhancement Awards to Integrate Basic Behavioral, Biomedical, and/or Social Scientific Processes (K18 No Independent Clinical Trials)	CCT	NIH
	PAR20-226	K18	Mid-Career Enhancement Awards to Integrate Basic Behavioral, Biomedical, and/or Social Scientific Processes (K18 Basic Experimental Studies with Humans Required)		
06/09/2020	PA20-227	333*	Administrative Supplement for Research on Dietary Supplements (Admin Supp – Clinical Trial Not Allowed)	DCP	NIH
06/23/2020	PA20-242	F32	Ruth L. Kirschstein National Research Service Award (NRSA) Individual Postdoctoral Fellowship (Parent F32)	CCT	NIH
06/29/2020	PA20-245	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)	CCT	NIH
	PA20-246	F31	Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship (Parent F31)		
06/30/2020	PA20-247	F33	Ruth L. Kirschstein National Research Service Award (NRSA) Individual Senior Fellowship (Parent F33)	CCT	NIH
	PA20-248	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)	CHCRD	
07/06/2020	PA20-251	F31	Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship to Promote Diversity in Health-related Research (Parent F31-Diversity)	CHCRD	NIH
07/10/2020	PAR20-128	SB1	SBIR/STTR Commercialization Readiness Pilot (CRP) Program Technical Assistance (SB1 Clinical Trial Not Allowed)	SBIR	NIH
07/14/2020	PA20-260	R43, R44	PHS 2020-2 Omnibus Solicitation of the NIH, CDC, and FDA for Small Business Innovation Research Grant Applications (Parent SBIR [R43/R44] Clinical Trial Not Allowed)	SBIR	NIH
	PA20-262	R43, R44	PHS 2020-2 Omnibus Solicitation of the NIH, CDC, and FDA for Small Business Innovation Research Grant Applications (Parent SBIR [R43/R44] Clinical Trial Required)		
	PA20-265	R41, R42	PHS 2020-2 Omnibus Solicitation of the NIH for Small Business Technology Transfer Grant Applications (Parent STTR [R41/R42] Clinical Trial Not Allowed)		
	PA20-261	R41, R42	PHS 2020-2 Omnibus Solicitation of the NIH for Small Business Technology Transfer Grant Applications (Parent STTR [R41/R42] Clinical Trial Required)		
07/15/2020	PAR20-266	R33, R61	Promoting Research on Music and Health: Phased Innovation Award for Music Interventions (R61/R33 Clinical Trial Optional)	DCP	NIH

continued

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

Table 4 (cont'd). NCI Participation in Trans-NIH Program Announcements (PAs/PARs) in FY2020

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center	Issuing NIH-IC
07/23/2020	PAR20-281	R01	Fertility Status as a Marker for Overall Health (R01 Clinical Trial Optional)	DCCPS	NIH
	PAR20-282	R21	Fertility Status as a Marker for Overall Health (R21 Clinical Trial Not Allowed)		
07/28/2020	PAR20-254	R01	Ethical, Legal, and Social Implications (ELSI) (Research R01 Clinical Trial Optional)	DCCPS	NIH
	PAR20-255	R21	Ethical, Legal, and Social Implications (ELSI) Exploratory/ Developmental Research Grant (R21) (Clinical Trial Optional)		
07/29/2020	PAR20-257	R03	Ethical, Legal, and Social Implications (ELSI) Small Research Grant (R03) Clinical Trial Optional)	DCCPS	NIH
07/30/2020	PA20-252	333*	Validation Studies of Analytical Methods for Dietary Supplement Constituents (Admin Supp – Clinical Trial Not Allowed)	DCP	NIH
08/17/2020	PAR20-238	R01	Intervention Research to Improve Native American Health (R01 Clinical Trial Optional)	DCCPS	NIH
	PAR20-214	R21	Research to Improve Native American Health (R21 Clinical Trials Optional)		

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

Table 5. Applications Received for Referral by the NCI/DEA in FY2020

Sorted by Activity Code

Mechanism	Activity Code	Totals by Activity	Applications by NCAB			Total Costs Requested First Year
			Feb	June	Sept	
International Training Grants in Epidemiology (FIC)	D43	3	3	0	0	$854,197
NIH Director's New Innovator Awards	DP2	5	0	5	0	$7,500,000
Individual Predoctoral NRSA for M.D./Ph.D. Fellowships (ADAMHA)	F30	202	51	58	93	$0
Predoctoral Individual National Research Service Award	F31	582	148	236	198	$0
Postdoctoral Individual National Research Service Award	F32	234	62	101	71	$0
Predoctoral to Postdoctoral Transition Award	F99	62	0	62	0	$0
Research Scientist Development Award – Research and Training	K01	31	7	7	17	$4,742,356
Clinical Investigator Award	K08	188	59	70	59	$41,694,055
Physician Scientist Award (Program)	K12	9	9	0	0	$4,105,992
Career Transition Award	K22	106	36	45	25	$17,837,133
International Research Career Development Award	K43	3	0	3	0	$280,585
Career Transition Award	K99	294	100	77	117	$35,384,597
Loan Repayment Program for Health Disparities Research (HD-LRP)	L60	81	0	0	81	$0
Research Program Projects	P01	67	17	31	19	$186,280,700
Exploratory Grants	P20	24	3	21	0	$24,490,449
Center Core Grants	P30	29	12	8	9	$113,245,477
Specialized Center	P50	54	9	26	19	$125,558,572
Research Project	R01	7,522	2,625	2,550	2,347	$4,293,924,071
Small Research Grants	R03	569	202	194	173	$46,460,720
Conferences	R13	107	51	33	23	$4,382,519
Academic Research Enhancement Awards (AREA)	R15	227	75	86	66	$96,064,588
Exploratory/Developmental Grants	R21	1,928	508	821	599	$435,239,240
Education Projects	R25	54	23	22	9	$17,754,167
Exploratory/Developmental Grants Phase II	R33	88	30	35	23	$42,809,625
Outstanding Investigator Award	R35	75	0	74	1	$73,523,440
Method to Extend Research in Time (MERIT) Award	R37	61	20	24	17	$34,107,114
Mentored Research Pathway in Residency	R38	4	0	0	4	$1,230,817
Small Business Technology Transfer (STTR) Grants – Phase I	R41	278	92	78	108	$85,815,664
Small Business Technology Transfer (STTR) Grants – Phase II	R42	47	13	15	19	$28,937,279
Small Business Innovation Research Grants (SBIR) – Phase I	R43	877	291	262	324	$267,031,234
Small Business Innovation Research Grants (SBIR) – Phase II	R44	496	193	120	183	$386,547,447
Research Specialist Award	R50	99	0	99	0	$14,666,963

continued

Source: Office of Referral, Review, and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. 422 withdrawn applications have been subtracted from the total count.

Table 5 (cont'd). Applications Received for Referral by the NCI/DEA in FY2020

Sorted by Activity Code

Mechanism	Activity Code	Totals by Activity	Applications by NCAB			Total Costs Requested First Year
			Feb	June	Sept	
High-Priority, Short-Term Project Award	R56	6	3	2	1	$0
Phase 1 Exploratory/Developmental Grant	R61	6	0	3	3	$5,583,665
Commercialization Readiness Program	SB1	16	6	4	6	$3,718,916
Research Enhancement Award	SC1	7	7	0	0	$2,463,697
Pilot Research Project	SC2	9	9	0	0	$1,294,750
Intramural Clinical Scholar Research Award	SI2	6	6	0	0	$0
Institutional National Research Service Award	T32	94	39	34	21	$43,892,851
Research Project (Cooperative Agreements)	U01	448	114	151	183	$344,206,298
Resource-Related Research Project (Cooperative Agreements)	U24	96	34	42	20	$345,730,686
Resource-Related Research Multi-Component Projects and Centers Cooperative Agreements	U2C	10	1	9	0	$35,648,815
Small Business Innovation Research (SBIR) Cooperative Agreements – Phase II	U44	1	1	0	0	$934,667
Specialized Center (Cooperative Agreements)	U54	81	0	12	69	$159,226,763
Education Projects – Cooperative Agreements	UE5	6	0	6	0	$4,579,440
Clinical Research Cooperative Agreements – Single Project	UG1	2	2	0	0	$1,853,328
Phase 1 Exploratory/Developmental Cooperative Agreement	UG3	42	10	10	22	$20,136,100
Exploratory/Developmental Cooperative Agreement Phase I	UH2	7	3	3	1	$1,829,491
Exploratory/Developmental Cooperative Agreement Phase II	UH3	5	1	1	3	$2,954,514
Research Project with Complex Structure Cooperative Agreement	UM1	14	12	1	1	$59,843,838
Resource Access Program	X01	3	0	0	3	$0
Preapplication	X02	5	0	5	0	$0
Overall Totals		**15,270**	**4,887**	**5,446**	**4,937**	**$7,424,366,820**

Source: Office of Referral, Review, and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. 422 withdrawn applications have been subtracted from the total count.

Table 6. Grant and Cooperative Agreement Applications Reviewed by the NCI/DEA in FY2020

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	62	0	62	0	$0
Research Scientist Development Award – Research and Training	K01	24	5	4	15	$3,641,344
Clinical Investigator Award	K08	178	55	69	54	$39,865,671
Physician Scientist Award (Program)	K12	8	8	0	0	$3,457,992
Career Transition Award	K22	106	36	45	25	$17,837,133
Career Transition Award	K99	271	92	73	106	$33,314,906
Loan Repayment Program for Health Disparities Research (HD-LRP)	L60	53	0	0	53	$0
Research Program Projects	P01	66	17	30	19	$167,290,507
Exploratory Grants	P20	23	3	20	0	$22,140,867
Center Core Grants	P30	18	6	8	4	$92,036,444
Specialized Center	P50	52	9	26	17	$120,416,140
Research Project	R01	118	50	3	65	$79,108,934
Small Research Grants	R03	542	189	191	162	$42,872,278
Conferences	R13	66	29	21	16	$1,780,342
Exploratory/Developmental Grants	R21	832	93	394	345	$188,886,090
Education Projects	R25	54	23	22	9	$17,754,167
Exploratory/Developmental Grants Phase II	R33	84	29	32	23	$39,511,324
Outstanding Investigator Award	R35	74	0	74	0	$72,638,833
Mentored Research Pathway in Residency	R38	4	0	0	4	$1,230,817
Small Business Innovation Research Grants (SBIR) – Phase II	R44	28	28	0	0	$42,372,307
Research Specialist Award	R50	99	0	99	0	$14,666,963
Institutional National Research Service Award	T32	78	24	33	21	$28,540,952
Research Project (Cooperative Agreements)	U01	360	92	118	150	$261,876,989
Resource-Related Research Project (Cooperative Agreements)	U24	62	25	37	0	$68,936,048
Resource-Related Research Multi-Component Projects and Centers Cooperative Agreements	U2C	10	1	9	0	$35,648,815
Specialized Center (Cooperative Agreements)	U54	80	0	12	68	$155,444,122
Education Projects – Cooperative Agreements	UE5	6	0	6	0	$4,579,440
Clinical Research Cooperative Agreements – Single Project	UG1	2	2	0	0	$1,853,328
Phase 1 Exploratory/Developmental Cooperative Agreement	UG3	23	10	5	8	$10,537,539
Exploratory/Developmental Cooperative Agreement Phase I	UH2	7	3	3	1	$1,829,491
Exploratory/Developmental Cooperative Agreement Phase II	UH3	4	1	1	2	$1,702,718
Research Project with Complex Structure Cooperative Agreement	UM1	13	12	1	0	$50,032,581
Preapplication	X02	5	0	5	0	$0
Overall Totals		**3,412**	**842**	**1,403**	**1,167**	**$1,621,805,082**

Source: Office of Referral, Review, and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 125 withdrawn applications that have been subtracted from the total count.

Table 7. Applications Reviewed by NCI IRG Subcommittees and Special Emphasis Panels (SEPs) in FY2020

NCI IRG Subcommittee	Types of Applications Reviewed	Total by Committee	Total Costs Requested First Year
A – Cancer Centers	P30	16	$84,941,579
F – Institutional Training and Education	K12,R25,T32	124	$43,898,128
I – Transition to Independence	K01,K08,K22,K99	305	$41,498,750
J – Career Development	K01,K08,K22,K99,U01	209	$52,090,354
Totals – NCI IRG Subcommittees		**654**	**$222,428,811**
Total SEPs	F99,K22,K99,L60,P01,P20,P30,P50, R01,R03,R13,R21,R25,R33,R35,R38, R44,R50, T32,U01,U24,U2C,U54, UE5,UG1,UG3,UH2,UH3,UM1,X02	2,758	$1,399,376,271
Totals		**3,412**	**$1,621,805,082**

Source: Office of Referral, Review, and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 23 withdrawn applications that have been subtracted from the total count of the IRG Subcommittees and 65 withdrawn applications that have been subtracted from the total count of the SEPs.

Table 8. Summary of Investigator-Initiated P01 Applications Reviewed in FY2020

Sorted by NCAB Meeting

Type of Application	February	June	September	FY Total
New	7	15	9	31
Resubmitted New	5	9	6	20
Renewal	2	3	2	7
Resubmitted Renewal	3	4	1	8
Revisions	0	0	1	1
Total	**17**	**31**	**19**	**67**

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 FY2020

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)	25	$58,798,615	$289,645,123
Division of Cancer Control and Population Sciences (DCCPS)	9	$23,650,358	$110,037,866
Division of Cancer Prevention (DCP)	5	$30,349,468	$143,426,667
Division of Cancer Treatment and Diagnosis (DCTD)	28	$73,482,259	$379,192,534
Total	**67**	**$186,280,700**	**$922,302,190**

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 FY2020

Title of Initiative	RFA Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	June	Sept	
The Experimental Therapeutics Clinical Trials Network (UM1 Clinical Trials Required)	CA19-007	UM1	11	11	0	0	$21,627,890
The Experimental Therapeutics Clinical Trials Network (ETCTN) Pharmacokinetic Resource Laboratories (U24 Clinical Trials Not Allowed)	CA19-008	U24	5	5	0	0	$2,352,949
Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R21 Clinical Trials Not Allowed)	CA19-019	R21	81	42	39	0	$19,267,172
Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R33 Clinical Trials Not Allowed)	CA19-020	R33	53	25	28	0	$25,101,006
Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (R21 Clinical Trials Not Allowed)	CA19-021	R21	18	7	11	0	$4,178,310
Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (R33 Clinical Trials Not Allowed)	CA19-022	R33	8	4	4	0	$3,683,675
Revisions for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (R01 Clinical Trial Optional)	CA19-023	R01	1	1	0	0	$267,079
Revisions for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U01 Clinical Trial Optional)	CA19-024	U01	1	0	1	0	$254,811
Revisions for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U54 Clinical Trials Optional)	CA19-025	U54	1	0	1	0	$235,500
Revisions for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U2C Clinical Trial Optional)	CA19-028	U2C	1	1	0	0	$218,633
Cancer Prevention Clinical Trials Network (CP-CTNet): CP-CTNet Sites (UG1 Clinical Trial Required)	CA19-031	UG1	2	2	0	0	$1,853,328
Provocative Questions (PQs) in Cancer with an Underlying HIV Infection (R01 Clinical Trial Optional)	CA19-032	R01	23	23	0	0	$15,586,310
Improving Outcomes for Pediatric, Adolescent and Young Adult Cancer Survivors (U01 Clinical Trial Required)	CA19-033	U01	33	0	33	0	$25,080,635
Feasibility and Planning Studies for Development of Specialized Programs of Research Excellence (SPOREs) to Investigate Cancer Health Disparities (P20 Clinical Trial Optional)	CA19-034	P20	15	3	12	0	$19,449,513

continued

Source: Office of Referral, Review, and Program Coordination.IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 71 withdrawn applications that have been subtracted from the total count.

Table 10 (cont'd). Requests for Applications (RFAs) Reviewed by the NCI/DEA in FY2020

Title of Initiative	RFA Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	June	Sept	
Optimizing the Management and Outcomes for Cancer Survivors Transitioning to Follow-up Care (R01 Clinical Trial Required)	CA19-035	R01	26	26	0	0	$19,446,075
ITCR: Innovative Algorithms (R21 Clinical Trial Optional)	CA19-038	R21	81	44	37	0	$18,005,876
Early-Stage Development of Informatics Technologies for Cancer Research and Management (U01 Clinical Trial Optional)	CA19-039	U01	57	30	27	0	$26,911,501
Advanced Development of Informatics Technologies for Cancer Research and Management (U24 Clinical Trial Optional)	CA19-040	U24	37	16	21	0	$33,435,965
Sustained Support for Informatics Technologies for Cancer Research and Management (U24 Clinical Trial Optional)	CA19-041	U24	6	3	3	0	$5,081,465
Informatics Technology for Cancer Research Education Center (UE5 Clinical Trials Not Allowed)	CA19-042	UE5	6	0	6	0	$4,579,440
Participant Engagement and Cancer Genome Sequencing (PE-CGS): Research Centers (U2C Clinical Trial Optional)	CA19-045	U2C	9	0	9	0	$35,430,182
Participant Engagement and Cancer Genome Sequencing (PE-CGS): Coordinating Center (U24 Clinical Trial Not Allowed)*	CA19-046	U24	3	0	3	0	$1,641,875
SBIR Phase IIB Bridge Awards to Accelerate the Development of Cancer-Relevant Technologies Toward Commercialization (R44 Clinical Trial Optional)	CA19-047	R44	28	28	0	0	$42,372,307
Revision Applications for Mechanisms of Drug Resistance (R01 Clinical Trials Not Allowed)	CA19-049	R01	2	0	2	0	$883,680
Revision Applications for Mechanisms of Drug Resistance (U01 Clinical Trials Not Allowed)	CA19-050	U01	2	0	2	0	$733,295
Revision Applications for Mechanisms of Drug Resistance (P01 Clinical Trials Not Allowed)	CA19-052	P01	0	0	0	0	$0
Revision Applications for Mechanisms of Drug Resistance (P50 Clinical Trials Not Allowed)	CA19-053	P50	1	0	1	0	$390,000
Cancer Intervention and Surveillance Modeling Network (CISNET) (U01 Clinical Trial Not Allowed)	CA19-054	U01	6	0	6	0	$10,082,956
Novel Technology Tools to Facilitate Research Using Next Generation Patient-Derived Cancer Models (U01 Clinical Trial Not Allowed)	CA19-055	U01	14	14	0	0	$15,136,001
Limited Competition: AIDS Malignancy Consortium (AMC) (UM1 Clinical Trials Required)	CA19-056	UM1	1	0	1	0	$24,000,000
The NCI Predoctoral to Postdoctoral Fellow Transition Award (F99/K00)	CA19-057	F99	62	0	62	0	$0
Limited Competition: Pediatric Brain Tumor Consortium (UM1 Clinical Trials Required)	CA19-059	UM1	1	1	0	0	$4,404,691

continued

* Cancer Moonshot℠ Initiative.
Source: Office of Referral, Review, and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 71 withdrawn applications that have been subtracted from the total count.

Table 10 (cont'd). Requests for Applications (RFAs) Reviewed by the NCI/DEA in FY2020

Title of Initiative	RFA Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	June	Sept	
Revision Applications to Support the Application of Informatics Technology for Cancer Research (R01 Clinical Trials Optional)	CA19-062	R01	1	0	1	0	$176,000
Revision Applications to Support the Application of Informatics Technology for Cancer Research (U24 Clinical Trials Optional)	CA19-063	U24	2	0	2	0	$300,056
Improving the Reach and Quality of Cancer Care in Rural Populations (R01 Clinical Trial Required)	CA19-064	R01	18	0	0	18	$11,801,897
U.S. and Low- and Middle-Income Country (LMIC) HIV-Associated Malignancy Research Centers (U54 Clinical Trials Optional)	CA20-001	U54	11	0	11	0	$12,150,253
Limited Competition: Biospecimen Banks to Support NCI National Clinical Trials Network (NCTN) (U24 Clinical Trial Not Allowed)	CA20-002	U24	5	0	5	0	$20,621,728
Limited Competition: Biospecimen Bank to Support NCI Early-Phase and Experimental Clinical Trials (U24 Clinical Trials Not Allowed)	CA20-003	U24	1	0	1	0	$3,015,560
Communication and Decision Making for Individuals with Inherited Cancer Syndromes (U01 Clinical Trial Optional)	CA20-006	U01	16	0	0	16	$15,643,914
NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 Independent Clinical Trial Not Allowed)	CA20-014	K99	40	0	0	40	$4,827,286
NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 Independent Clinical Trial Required)	CA20-015	K99	6	0	0	6	$740,970
HIV/AIDS and the Tumor Niche (U54 Clinical Trial Not Allowed)	CA20-016	U54	5	0	0	5	$8,047,901
Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R21 Clinical Trials Not Allowed)	CA20-017	R21	37	0	0	37	$9,062,560
Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R33 Clinical Trials Not Allowed)	CA20-018	R33	20	0	0	20	$9,277,824
Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (R21 Clinical Trials Not Allowed)	CA20-019	R21	5	0	0	5	$1,073,876
Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (R33 Clinical Trials Not Allowed)	CA20-020	R33	3	0	0	3	$1,448,819

continued

Source: Office of Referral, Review, and Program Coordination.IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 71 withdrawn applications that have been subtracted from the total count.

Table 10 (cont'd). Requests for Applications (RFAs) Reviewed by the NCI/DEA in FY2020

Title of Initiative	RFA Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	June	Sept	
Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (R01 Clinical Trial Optional)	CA20-021	R01	1	0	0	1	$234,750
Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U01 Clinical Trial Optional)	CA20-022	U01	2	0	0	2	$486,067
Radiobiology of High Linear Energy Transfer (High LET) Exposure in Cancer Treatment (R01 Clinical Trial Not Allowed)	CA20-032	R01	46	0	0	46	$30,713,143
Emergency Awards: SARS-CoV-2 Serological Sciences Centers of Excellence (U54 Clinical Trial Optional)	CA20-038	U54	52	0	0	52	$119,563,071
Emergency Awards: Research Projects in SARS-CoV-2 Serological Sciences (U01 Clinical Trial Optional)	CA20-039	U01	84	0	0	84	$61,149,037
Stimulating Access to Research in Residency (StARR) (R38)	HL18-023	R38	4	0	0	4	$1,230,817
Totals			**954**	**286**	**329**	**339**	**$693,257,649**

Source: Office of Referral, Review, and Program Coordination.IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 71 withdrawn applications that have been subtracted from the total count.

Table 11. Program Announcements (PAs) Reviewed by the NCI/DEA in FY2020

Title of Initiative	PA/PAR Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Total	Feb	June	Sept	
NIH Support for Conferences and Scientific Meetings (Parent R13 Clinical Trial Not Allowed)	PA18-648	R13	66	29	21	16	$1,780,342
Mentored Clinical Scientist Research Career Development Award (Parent K08 Independent Clinical Trial Required)	PA19-116	K08	44	14	18	12	$9,806,459
Mentored Clinical Scientist Research Career Development Award (Parent K08 Independent Clinical Trial Not Allowed)	PA19-117	K08	122	36	47	39	$27,196,686
Mentored Research Scientist Development Award (Parent K01 Independent Clinical Trial Not Allowed)	PA19-126	K01	1	0	0	1	$102,860
NIH Pathway to Independence Award (Parent K99/R00 Independent Clinical Trial Required)	PA19-129	K99	8	1	4	3	$1,156,970
NIH Pathway to Independence Award (Parent K99/R00 Independent Clinical Trial Not Allowed)	PA19-130	K99	217	91	69	57	$26,589,680
National Cancer Institute Youth Enjoy Science Research Education Program (R25)	PAR17-059	R25	30	14	16	0	$11,842,251
Cancer Center Support Grants (CCSGs) for NCI-Designated Cancer Centers (P30)	PAR17-095	P30	14	6	8	0	$65,872,420
Core Infrastructure and Methodological Research for Cancer Epidemiology Cohorts (U01)	PAR17-233	U01	7	1	3	3	$12,043,664
NCI Small Grants Program for Cancer Research (NCI Omnibus R03 Clinical Trial Optional)	PAR18-021	R03	380	189	191	0	$30,038,423
Quantitative Imaging Tools and Methods for Cancer Therapy Response Assessment (UG3/UH3 Clinical Trial Optional)	PAR18-248	UG3	23	10	5	8	$10,537,539
National Cancer Institute Program Project Applications (P01 Clinical Trial Optional)	PAR18-290	P01	65	17	30	18	$164,941,003
Assay Validation of High-Quality Markers for Clinical Studies in Cancer (UH3 Clinical Trials Not Allowed	PAR18-310	UH3	4	1	1	2	$1,702,718
Specialized Programs of Research Excellence (SPOREs) in Human Cancers for years 2018, 2019 and 2020 (P50)	PAR18-313	P50	51	9	25	17	$120,026,140
Assay Validation of High Quality Markers for Clinical Studies in Cancer (UH2/UH3 Clinical Trials Not Allowed)	PAR18-317	UH2	7	3	3	1	$1,829,491
NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity (K08 Clinical Trials Required)	PAR18-336	K08	4	3	1	0	$878,074
NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity (K08 No Independent Clinical Trials)	PAR18-337	K08	8	2	3	3	$1,984,452
NCI Mentored Research Scientist Development Award to Promote Diversity (K01 Independent Clinical Trial Not Allowed)	PAR18-364	K01	11	2	1	8	$1,592,412

continued

Source: Office of Referral, Review, and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 54 withdrawn applications that have been subtracted from the total count.

Table 11 (cont'd). Program Announcements (PAs) Reviewed by the NCI/DEA in FY2020

Title of Initiative	PA/PAR Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Total	Feb	June	Sept	
NCI Mentored Research Scientist Development Award to Promote Diversity (Parent K01 Clinical Trial Required)	PAR18-365	K01	12	3	3	6	$1,946,072
NCI Transition Career Development Award to Promote Diversity (K22 No Clinical Trials)	PAR18-366	K22	5	1	3	1	$834,488
The NCI Transition Career Development Award (K22 Independent Clinical Trial Required)	PAR18-466	K22	5	2	2	1	$874,802
The NCI Transition Career Development Award (K22 Independent Clinical Trial Not Allowed)	PAR18-467	K22	96	33	40	23	$16,127,843
Cancer Research Education Grants Program — Curriculum or Methods Development (R25)	PAR18-476	R25	5	2	1	2	$810,030
Cancer Research Education Grants Program — Courses for Skills Development (R25)	PAR18-477	R25	10	5	2	3	$2,814,195
Cancer Research Education Grants Program — Research Experiences (R25)	PAR18-478	R25	9	2	3	4	$2,287,691
Traceback Testing: Increasing Identification and Genetic Counseling of Mutation Carriers through Family-Based Outreach (U01 Clinical Trial Optional)	PAR18-616	U01	5	5	0	0	$4,530,731
Comprehensive Partnerships to Advance Cancer Health Equity (CPACHE) (Collaborative U54 Clinical Trial Optional)	PAR18-767	U54	11	0	0	11	$15,447,397
Oncology Co-Clinical Imaging Research Resources to Encourage Consensus on Quantitative Imaging Methods and Precision Medicine (U24 Clinical Trial Optional)	PAR18-841	U24	3	1	2	0	$2,486,450
Feasibility Studies to Build Collaborative Partnerships in Cancer Research (P20 Clinical Trial Not Allowed)	PAR18-911	P20	8	0	8	0	$2,691,354
Utilizing the PLCO Biospecimens Resource to Bridge Gaps in Cancer Etiology and Early Detection Research (U01 Clinical Trial Not Allowed)	PAR18-913	U01	13	0	8	5	$9,091,726
Integrating Biospecimen Science Approaches into Clinical Assay Development (U01 Clinical Trial Not Allowed)	PAR18-947	U01	14	3	5	6	$6,615,995
Pre-application: Opportunities for Collaborative Research at the NIH Clinical Center (X02 Clinical Trial Optional)	PAR18-950	X02	5	0	5	0	$0
Opportunities for Collaborative Research at the NIH Clinical Center (U01 Clinical Trial Optional)	PAR18-951	U01	7	0	0	7	$5,403,283
Physical Sciences-Oncology Network (PS-ON): Physical Sciences-Oncology Projects (PS-OP) (U01 Clinical Trial Optional)	PAR19-101	U01	44	23	0	21	$34,391,092
Paul Calabresi Career Development Award for Clinical Oncology (K12 Clinical Trial Optional)	PAR19-242	K12	8	8	0	0	$3,457,992
Research Projects in Cancer Systems Biology (U01 Clinical Trial Optional)	PAR19-287	U01	43	16	27	0	$27,451,202
NCI Research Specialist (Core-Based Scientist) Award (R50 Clinical Trial Not Allowed)	PAR19-290	R50	18	0	18	0	$3,172,522

continued

Source: Office of Referral, Review, and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 54 withdrawn applications that have been subtracted from the total count.

Table 11 (cont'd). Program Announcements (PAs) Reviewed by the NCI/DEA in FY2020

Title of Initiative	PA/PAR Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Total	Feb	June	Sept	
NCI Research Specialist (Laboratory-Based Scientist) Award (R50 Clinical Trial Not Allowed)	PAR19-291	R50	81	0	81	0	$11,494,441
NCI Outstanding Investigator Award (R35 Clinical Trial Not Allowed)	PAR19-349	R35	74	0	74	0	$72,638,833
NCI Clinical and Translational Exploratory/Developmental Studies (R21 Clinical Trial Optional)	PAR19-356	R21	610	0	307	303	$137,298,296
Small-Cell Lung Cancer (SCLC) Consortium: Therapeutic Development and Mechanisms of Resistance (U01 Clinical Trial Not Allowed)	PAR19-361	U01	10	0	6	4	$6,125,999
Cancer Center Support Grants (CCSGs) for NCI-Designated Cancer Centers (P30 Clinical Trial Optional)	PAR20-043	P30	4	0	0	4	$26,164,024
NCI Small Grants Program for Cancer Research for Years 2020, 2021, and 2022 (NCI Omnibus R03 Clinical Trial Optional)	PAR20-052	R03	162	0	0	162	$12,833,855
National Cancer Institute Program Project Applications (P01 Clinical Trial Optional)	PAR20-077	P01	1	0	0	1	$2,349,504
Totals			**2,325**	**532**	**1,041**	**752**	**$899,261,401**

Source: Office of Referral, Review, and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. There were 54 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 FY2020*

Announcement Topic Number	Announcement Title	Review Round	No. of Proposals
Topic 397 Phase I	Manufacturing Innovation for the Production of Cell-Based Cancer Immuno-therapies	May-20	6
Topic 398 Phase I & Fast Track	Development of Senolytic Agents for Cancer Treatment	May-20	3
Topic 399 Phase I	Combinatory Treatment Utilizing Radiation to Locally Activate Systemically Delivered Therapeutics	May-20	11
Topic 400 Phase I	Sensing Tools to Measure Biological Response to Radiotherapy	May-20	3
Topic 401 Phase I	Quantitative Biomimetic Phantoms for Cancer Imaging	May-20	2
Topic 402 Phase I	Artificial Intelligence-Aided Imaging for Cancer Prevention, Diagnosis, and Monitoring	May-20	18
Topic 403 Phase I	Spatial Sequencing Technologies with Single Cell Resolution for Cancer Research	May-20	4
Topic 404 Phase I & Fast Track	Subcellular Microscopy and -Omics in Cancer Cell Biology	May-20	12
Topic 405 Phase I	Intra-Tumor Sensing Technologies for Tumor Pharmacotyping	May-20	2
Topic 406 Phase I & Fast Track	Software for Patient Navigation Through the Cancer Care Continuum	May-20	22
Topic 407 Phase I & Fast Track	Cloud-Based Software for the Cancer Research Data Commons	May-20	10
Topic 408 Phase I & Fast Track	Tools and Technologies for Visualizing Multi-Scale Data	May-20	5
Topic 409 Phase I	Software for Automated Analysis of Images for Improved Cancer Health	May-20	7
Topic 410 Phase I & Fast Track	Cancer Clinical Trials Recruitment and Retention Tools for Participant Engagement	May-20	21
Topic 411 Phase I & Fast Track	De-Identification Software Tools for Cancer Imaging Research	May-20	14
Topic 412 Phase I & Fast Track	Software Enabling Data Integration from Wearable Sensors for Cancer Patients	May-20	10
75N91019R00029	SEER Contract	Oct-20	12
75N91020R00001	CCR Contract	Oct-20	1
Phase II Proposals from Earlier Phase I Awards			
Topic 372 Phase II	Development and Validation of Non-Mouse Reagents to Enable Preclinical Development of Novel Therapeutics	May-20	1
Topic 374 Phase II	Novel Approaches for Local Delivery of Chemopreventive Agents	May-20	1
Topic 375 Phase II	Diagnostic Imaging for Cancer Immunotherapies	May-20	1

continued

* NCI reviewed a total of 547 proposals. The proposals were in response to SBIR Contract Solicitations - Phase I and Fast Track (150), Direct to Phase II (8), R&D (13), and Loan Repayment (376).

Table 12 (cont'd). SBIR Topics and Requests for Proposals (RFPs) Reviewed by the NCI/DEA in FY2020*

Announcement Topic Number	Announcement Title	Review Round	No. of Proposals
Topic 376 Phase II	Imaging-Based Tools for Longitudinal and Multi-Dimensional Mapping of the Tumor and Its Microenvironment	May-20	2
Topic 377 Phase II	Bridging the Guideline Implementation Gap: Clinical Decision-Support to Improve Cancer Symptom Management	May-20	1
Topic 378 Phase II	Mobile Application for Surveillance of Post-Radiation Therapy Health-Related Quality of Life	May-20	1
Topic 379 Phase II	Software Enabling Data Integration from Wearable Sensors to Generate Novel Analytics for Cancer Patients	May-20	1
Other Solicitations Reviewed in DEA			
L30 (NOT-OD-20-133)	Extramural Loan Repayment Program for Clinical Researchers (LRP-CR)	Oct-20	253
L40 (NOT-OD-20-136)	Extramural Loan Repayment Program for Pediatric Researchers (LRP-PR)	Oct-20	74
L60 (NOT-OD-20-137)	Extramural Loan Repayment Program for Health Disparities Researchers (LRP-HDR)	Oct-20	49
TOTAL			**547**

* NCI reviewed a total of 547 proposals. The proposals were in response to SBIR Contract Solicitations - Phase I and Fast Track (150), Direct to Phase II (8), R&D (13), and Loan Repayment (376).

Table 13. Summary of NCI Grant Awards by Mechanism in FY2020*

Fund Type: Appropriated Cost Centers Mechanisms	Awards Count	Awards Dollars	Average Cost	% of NCI Total Grants		Fiscal Year: 2020		
				Number	Dollars	Competing Requested	Competing Awarded	Success Rate
Research Project Grants								
Traditional Research Grants - R01	3,161	$1,504,075,135	$475,823	45.22%	37.18%	5,996	739	12.32%
Traditional Research Grants - R01/RL1 MOONSHOT	6	$3,917,740	$652,957	0.09%	0.1%	0	0	0.0%
Program Projects - P01	83	$185,768,871	$2,238,179	1.19%	4.59%	69	12	17.39%
Program Projects - P01 MOONSHOT	4	$8,510,122	$2,127,531	0.06%	0.21%	0	0	0.0%
Small Grants - R03	117	$11,294,733	$96,536	1.67%	0.28%	537	58	10.8%
Exploratory/Developmental Research - R21	322	$74,937,690	$232,726	4.61%	1.85%	1,569	148	9.43%
Merit Awards - R37	153	$69,629,114	$455,092	2.19%	1.72%	57	54	94.74%
Phased Innovation Grant (Phase 2) - R33	1	$655,567	$655,567	0.01%	0.02%	0	0	0.0%
Bridge Award - R56	1	$345,144	$345,144	0.01%	0.01%	0	0	0.0%
Pathway to Independence - R00/Si2	98	$24,096,182	$245,879	1.4%	0.6%	5	0	0.0%
Exploratory/Development Coop. Agreements - UH2/UH3	25	$9,758,726	$390,349	0.36%	0.24%	11	3	27.27%
Exploratory/Developmental Grants - UG3	5	$2,014,711	$402,942	0.07%	0.05%	20	2	10.0%
NIH Director Pioneer Award (NDPA) - DP1	1	$1,197,000	$1,197,000	0.01%	0.03%	0	0	0.0%
Outstanding Investigators - R35	155	$150,248,205	$969,343	2.22%	3.71%	74	16	21.62%
Academic Research Enhancement Awards (AREA) - R15	20	$9,015,911	$450,796	0.29%	0.22%	201	20	9.95%
Multi-Component Research Proj. Coop. Agreements - UM1/RM1	1	$2,765,419	$2,765,419	0.01%	0.07%	0	0	0.0%
Research Specialist Award - R50	98	$16,129,703	$164,589	1.4%	0.4%	99	16	16.16%
Cooperative Agreements - U01/U19	181	$146,787,137	$810,979	2.59%	3.63%	174	25	14.37%
Cooperative Agreements - U01/U19 MOONSHOT	1	$2,971,392	$2,971,392	0.01%	0.07%	0	0	0.0%
Request for Applications	273	$110,519,875	$404,835	3.91%	2.73%	468	47	10.04%
Request for Applications - MOONSHOT	5	$4,067,335	$813,467	0.07%	0.1%	28	5	17.86%
Cooperative Agreements - RFA-U01/U19	115	$192,565,703	$1,674,484	1.64%	4.76%	196	31	15.82%
Cooperative Agreements - RFA-U01/U19 UM1 - MOONSHOT	29	$49,431,812	$1,704,545	0.41%	1.22%	71	8	11.27%

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 FY2020*

Fund Type: Appropriated				% of NCI Total Grants		Fiscal Year: 2020		
Cost Centers Mechanisms	Awards Count	Awards Dollars	Average Cost	Number	Dollars	Competing Requested	Competing Awarded	Success Rate
Small Business Innovative Research - R43/R44/U44	165	$132,809,458	$804,906	2.36%	3.28%	1,041	96	9.22%
Commercial Readiness Program - SB1	0	0	0	0.0%	0.0%	6	0	0.0%
Small Business Technology Transfer - R41/R42/SB1	49	$21,846,817	$445,853	0.7%	0.54%	260	41	15.77%
Small Business Technology Transfer - R41/R42 - Moonshot	1	$999,999	$999,999	0.01%	0.02%	2	0	0.0%
Program Evaluation-R01	0	$94,365,863	$94,365,863	0.0%	2.33%	0	0	0.0%
Subtotal Research Project Grants	**5,070**	**$2,830,725,364**	**$558,328**	**72.52%**	**69.98%**	**10,884**	**1,321**	**12.14%**
Other Research								
Cooperative Clinical Research - U10/UG1	106	$285,729,484	$2,695,561	1.52%	7.06%	2	2	100.0%
Cooperative Clinical Research - CCCT	0	$7,181,170	$7,181,170	0.0%	0.18%	0	0	0.0%
Conference Grants - R13/U13	43	$815,074	$18,955	0.62%	0.02%	70	35	50.0%
International Research Training Grants Conference - D43/U2R	0	$649,054	$649,054	0.0%	0.02%	0	0	0.0%
Cancer Education Awards - R25	73	$20,510,663	$280,968	1.04%	0.51%	61	8	13.11%
Research/Resource Grant - R24/U24/U2C	79	$100,624,078	$1,273,723	1.13%	2.49%	62	15	24.19%
Research/Resource Grant - R24/U24/U2C U24 MOONSHOT	9	$22,148,663	$2,460,963	0.13%	0.55%	12	3	25.0%
Research Education Cooperative Agreement - UE5	5	$1,999,736	$399,947	0.07%	0.05%	16	5	31.25%
Minority Biomedical Research Support - S06	0	$97,866	$97,866	0.0%	0.0%	0	0	0.0%
Predoctoral to Postdoctoral Transition Award - F99	50	$2,067,390	$41,348	0.72%	0.05%	63	26	41.27%
Research Pathway in Residency - R38	2	$713,828	$356,914	0.03%	0.02%	5	1	20.0%
Other Transaction Authority - Non-grant - OT2	0	$20,000	$20,000	0.0%	0.0%	0	0	0.0%
Subtotal Other Research	**367**	**$442,557,006**	**$1,205,877**	**5.25%**	**10.94%**	**291**	**95**	**32.65%**
Centers								
Centers	0	$50,000	$50,000	0.0%	0.0%	0	0	0.0%
Centers - P20	14	$4,081,560	$291,540	0.2%	0.1%	19	2	10.53%
Centers - P30	71	$337,898,699	$4,759,137	1.02%	8.35%	18	17	94.44%

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 FY2020*

Fund Type: Appropriated				% of NCI Total Grants		Fiscal Year: 2020		
Cost Centers Mechanisms	Awards Count	Awards Dollars	Average Cost	Number	Dollars	Competing Requested	Competing Awarded	Success Rate
Centers/Planning - P20/P30 MOONSHOT	0	$4,225,870	$4,225,870	0.0%	0.1%	0	0	0.0%
Centers - CCCT	0	$1,102,411	$1,102,411	0.0%	0.03%	0	0	0.0%
Spore Grants - P50	60	$121,510,620	$2,025,177	0.86%	3.0%	48	12	25.0%
Other P50/P20	0	0	0	0.0%	0.0%	0	0	0.0%
Specialized Center (Cooperative Agreement) - U54/U41	58	$85,538,089	$1,474,795	0.83%	2.11%	81	5	6.17%
Specialized Center (Cooperative Agreement) - U54/U41 - MOONSHOT	9	$11,915,474	$1,323,942	0.13%	0.29%	0	0	0.0%
Other P50/P20 Moonshot	7	$8,019,211	$1,145,602	0.1%	0.2%	1	1	100.0%
Specialized Center (Cooperative Agreement) - BD2K	0	$493,960	$493,960	0.0%	0.01%	0	0	0.0%
Subtotal Centers	**219**	**$574,835,894**	**$2,624,821**	**3.13%**	**14.21%**	**167**	**37**	**22.16%**
NRSA								
NRSA Institution - T32	181	$68,986,886	$381,143	2.59%	1.71%	65	38	58.46%
NRSA Institution - BD2K Awards	0	$197,678	$197,678	0.0%	0.0%	0	0	0.0%
NRSA Fellowships - F30/F31/F32/ F33	657	$30,207,397	$45,978	9.4%	0.75%	848	246	29.01%
Subtotal NRSA	**838**	**$99,391,961**	**$118,606**	**11.99%**	**2.46%**	**913**	**284**	**31.11%**
Careers								
Mentored Clinical Scientist - K08	189	$41,119,247	$217,562	2.7%	1.02%	172	63	36.63%
Preventive Oncology Award - K07	46	$7,297,108	$158,633	0.66%	0.18%	0	0	0.0%
Mentored Career Award - K12	21	$15,688,137	$747,054	0.3%	0.39%	8	4	50.0%
Mentored Rsch Scient Devel Awds/ Mentrd Career Dev.../Temin - K01/Intl.Career - K43	31	$5,357,187	$172,812	0.44%	0.13%	18	7	38.89%
Clinical Research Track - K22	59	$10,846,206	$183,834	0.84%	0.27%	113	29	25.66%
Mentored Patient-Oriented Research Career Dev A - K23	7	$1,179,584	$168,512	0.1%	0.03%	0	0	0.0%
Mid Career Investigator in Patient-Oriented Res A - K24	5	$822,239	$164,448	0.07%	0.02%	0	0	0.0%
Mentored Quantitative Resch. Career Dev. Awd. - K25	3	$425,733	$141,911	0.04%	0.01%	0	0	0.0%
Postdoctoral Fellow Awards - K00	66	$5,825,533	$88,266	0.94%	0.14%	0	0	0.0%
Pathway to Independence - K99	70	$8,803,784	$125,768	1.0%	0.22%	259	52	20.08%
Subtotal Careers	**497**	**$97,364,758**	**$195,905**	**7.11%**	**2.41%**	**570**	**155**	**27.19%**
Total:	**6,991**	**$4,044,874,983**	**$578,583**	**100.0%**	**100.0%**	**12,825**	**1,892**	**14.75%**

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Source: Office of Extramural Finance and Information Analysis.

Table 14. Average Total Cost*† and Number of Research Project Grant Awards by Division, Office, Center, and Mechanism From FY2016 – FY2020

Budget Mechanism/ Division	FY2016		FY2017		FY2018		FY2019		FY2020		Percent Change 2016 vs. 2020	
	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost
P01 Average Cost of Award												
NCI Overall	2,883	$414	2,927	$430	2,964	$444	2,505	$438	3,167	$476	9.85%	14.98%
DCB	0	0	6	$761	6	$967	6	$716	1	$411	100.0%	100.0%
DCB	1,324	$370	1,307	$381	1,291	$395	1,076	$389	1,349	$431	1.9%	16.4%
DCP	0	0	1	$940	1	$982	1	$982	1	$963	100.0%	100.0%
DCP	194	$452	194	$479	210	$495	179	$492	211	$521	8.8%	15.4%
DCTD	0	0	2	$1,239	2	$1,153	2	$1,025	0	0	0.0%	0.0%
DCTD	1,024	$407	1,079	$422	1,102	$435	927	$428	1,174	$464	14.6%	13.9%
DCCPS	0	0	5	$613	5	$564	5	$921	4	$636	100.0%	100.0%
DCCPS	336	$565	328	$578	339	$573	301	$546	416	$589	23.8%	4.2%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	0	0	0	0	0	$229	0	0	0	0	0.0%	0.0%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	5	$2,043	5	$2,301	8	$1,909	8	2,034	11	$2,120	120.0%	3.8%
P01 Average Cost of Award												
NCI Overall	94	$1,844	90	$1,886	85	$1,947	94	$1,903	87	$2,233	–7.45%	21.1%
DCB	0	0	0	$48	0	$53	0	0	0	0	0.0%	0.0%
DCB	43	$1,768	42	$1,765	38	$1,812	37	$1,696	34	$1,779	–20.9%	0.6%
DCP	3	$1,233	2	$1,751	2	$1,948	3	$1,562	3	$1,378	0.0%	11.7%
DCTD	0	0	4	$2,290	4	$2,257	4	$2,239	4	$2,128	100.0%	100.0%
DCTD	40	$1,903	33	$1,861	31	$1,982	38	$1,989	36	$2,183	–10.0%	14.7%
DCCPS	8	$2,138	9	$2,322	10	$2,174	12	$2,182	10	$2,258	25.0%	5.6%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	0	$392	0	$610	0	$535	0	$742	0	$20,000	0.0%	5,002%
R03 Average Cost of Award												
NCI Overall	114	$79	138	$78	148	$82	68	$82	117	$97	2.63%	22.78%
DCB	28	$79	56	$79	71	$80	29	$79	43	$90	53.6%	14.7%
DCP	8	$80	9	$78	8	$78	3	$75	7	$82	–12.5%	3.3%
DCTD	24	$79	33	$78	39	$80	18	$80	39	$98	62.5%	24.6%
DCCPS	54	$80	40	$78	30	$92	18	$91	28	$108	–48.1%	34.4%

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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 by Division, Office, Center, and Mechanism From FY2016 – FY2020

Budget Mechanism/ Division	FY2016		FY2017		FY2018		FY2019		FY2020		Percent Change 2016 vs. 2020	
	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	585	$194	369	$190	298	$191	219	$183	322	$233	–44.96%	20.1%
DCB	0	0	0	$80	0	0	0	0	0	0	0.0%	0.0%
DCB	201	$190	102	$186	27	$186	20	$184	46	$213	–77.1%	11.8%
DCP	61	$191	32	$186	22	$196	23	$174	28	$231	–54.1%	20.9%
DCTD	0	0	0	0	0	$78	0	$37	0	0	0.0%	0.0%
DCTD	220	$192	144	$193	165	$191	121	$181	158	$239	–28.2%	24.1%
DCCPS	0	0	0	$82	0	0	0	0	0	0	0.0%	0.0%
DCCPS	82	$202	67	$184	57	$192	41	$179	69	$231	–15.9%	14.4%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	21	$219	24	$202	27	$187	14	$217	21	$241	0.0%	9.9%
U01/U19 Average Cost of Award												
NCI Overall	65	$912	68	$1,243	91	$1,117	98	$1,368	87	$1,142	33.85%	25.22%
DCB	0	0	2	$1,672	8	$2,554	8	$2,822	7	$1,082	100.0%	100.0%
DCB	6	$690	5	$1,120	7	$771	6	$988	3	$392	–50.0%	–43.2%
DCP	0	0	0	0	6	$723	6	$1,061	6	$670	100.0%	100.0%
DCP	34	$778	26	$976	38	$912	36	$852	36	$789	5.9%	1.4%
DCTD	0	0	8	$1,718	4	$780	5	$2,076	3	$943	100.0%	100.0%
DCTD	6	$462	6	$809	5	$335	6	$353	2	$553	–66.7%	19.8%
DCCPS	0	0	0	0	1	$1,043	8	$2,835	3	$3,728	100.0%	100.0%
DCCPS	6	$1,912	6	$2,037	7	$1,661	8	$1,533	9	$1,317	50.0%	–31.1%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	0	0	0	0	0	0	0	$167	3	$2,838	100.0%	100.0%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	13	$1,113	15	$1,292	15	$1,291	15	$1,396	15	$1,511	15.4%	35.8%
R13 Average Cost of Award												
NCI Overall	51	$14	53	$13	46	$16	59	$14	43	$19	–15.69%	35.71%
DCB	22	$6	30	$4	19	$6	28	$6	20	$6	–9.1%	10.9%
DCP	4	$22	4	$24	5	$20	8	$16	4	$26	0.0%	17.2%

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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 by Division, Office, Center, and Mechanism From FY2016 – FY2020

Budget Mechanism/ Division	FY2016		FY2017		FY2018		FY2019		FY2020		Percent Change 2016 vs. 2020	
	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost
DCTD	12	$7	8	$7	10	$7	13	$7	7	$8	–41.7%	20.4%
DCCPS	8	$19	6	$22	7	$18	4	$23	8	$17	0.0%	–12.6%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	5	$50	5	$51	5	$62	6	$53	4	$99	–20.0%	98.8%
U10 Average Cost of Award												
NCI Overall	48	$2,852	48	$2,919	48	$2,966	11	$12,170	11	$12,555	–77.08%	340.22%
DCTD	48	$2,852	48	$2,919	48	$2,966	11	$12,170	11	$12,555	–77.1%	340.3%
P30 Average Cost of Award												
NCI Overall	69	$4,761	69	$4,426	70	$4,654	71	$4,635	71	$4,834	2.9%	1.53%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	69	$4,761	69	$4,426	70	$4,654	71	$4,635	71	$4,834	2.9%	1.5%
P50 Average Cost of Award												
NCI Overall	54	$2,056	51	$2,185	50	$2,191	58	$2,036	59	$2,048	9.26%	–0.39%
DCTD	51	$2,142	51	$2,177	50	$2,188	52	$2,125	52	$2,169	2.0%	1.3%
DCCPS	3	$464	0	0	0	0	6	$1,217	7	$1,146	133.3%	146.7%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	0	$402	0	$385	0	$128	0	$272	0	0	0.0%	–100.0%
SBIR Average Cost of Award												
NCI Overall	151	$554	188	$564	219	$534	151	$624	165	$805	9.27%	45.31%
SBIRDC	0	0	4	$817	3	$1,007	1	$382	0	0	0.0%	0.0%
SBIR	0	0	0	0	0	0	0	0	165	$751	100.0%	100.0%
SBIRDC	151	$554	183	$556	216	$527	150	$626	0	0	–100.0%	–100.0%
STTR Average Cost of Award												
NCI Overall	51	$349	50	$392	40	$459	29	$626	50	$457	–1.96%	30.95%
SBIR	0	0	0	0	0	0	0	0	1	$1,000	100.0%	100.0%
SBIRDC	0	0	4	$327	3	$442	2	$913	0	0	0.0%	0.0%
SBIR	0	0	0	0	0	0	0	0	49	$446	100.0%	100.0%
SBIRDC	51	$349	46	$397	37	$460	27	$604	0	0	–100.0%	–100.0%

continued

*A grant award count of zero showing a dollar amount represents either administrative supplements to existing grants, which are not factored into the grant count but are factored into the average cost of an award, or co-funded grants, which are not factored into the grant count for the NCI but are factored into the average cost of an award.
† In thousands.
Source: Office of Extramural Finance and Information Analysis.

Table 14 (cont'd). Average Total Cost*† and Number of Research Project Grant Awards by Division, Office, Center, and Mechanism From FY2016 – FY2020

Budget Mechanism/ Division	FY2016		FY2017		FY2018		FY2019		FY2020		Percent Change 2016 vs. 2020	
	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost
U54 Average Cost of Award												
NCI Overall	55	$1,602	66	$1,534	68	$2,261	69	$2,100	45	$1,598	–18.18%	–0.25%
CRCHD	30	$1,268	31	$1,238	38	$1,480	38	$1,185	25	$1,325	–16.7%	4.5%
CSSI	6	$2,234	6	$2,206	0	0	0	0	0	0	–100.0%	–100.0%
DCB	17	$2,080	22	$2,040	30	$3,237	31	$3,208	19	$2,011	11.8%	–3.3%
DCCPS	2	$651	7	$675	0	$400	0	$400	1	$579	–50.0%	–11.0%

*A grant award count of zero showing a dollar amount represents either administrative supplements to existing grants, which are not factored into the grant count but are factored into the average cost of an award, or co-funded grants, which are not factored into the grant count for the NCI but are factored into the average cost of an award.
† In thousands.
Source: Office of Extramural Finance and Information Analysis.

Table 15. NCI Organ and Related Site-Specific Dollars for FY2016 – FY2020 — Average Percent Change

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

Anatomical Site	Counts and Relevant Dollars*	2016	2017	2018	2019	2020	Average Percent Change/ Year
Adrenal	***Number of Grants***	***1***	***1***	***1***	***1***	***1***	
	Relevant Grant Dollars	202,275	‡	209,995	209,995	209,995	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***1***	***1***	***1***	***1***	***1***	
	Total Relevant Dollars	202,275	‡	209,995	209,995	209,995	1.27
Anus	***Number of Grants***	***18***	***25***	***25***	***31***	***32***	
	Relevant Grant Dollars	3,368,804	4,894,934	5,489,383	7,928,587	12,288,551	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***21***	***27***	***31***	***36***	***32***	
	Total Relevant Dollars	3,368,804	4,894,934	5,489,383	7,928,587	12,288,551	39.22
Bladder	***Number of Grants***	***108***	***104***	***114***	***80***	***93***	
	Relevant Grant Dollars	21,648,984	21,066,346	30,288,601	27,645,833	35,657,505	
	Number of Contracts	***13***	***15***	***9***	***1***	***‡***	
	Relevant Contract Dollars	5,856,681	8,205,875	4,183,614	1,088,691	‡	
	Total Count	***121***	***119***	***123***	***81***	***93***	
	Total Relevant Dollars	27,505,665	29,272,221	34,472,215	28,734,524	35,657,505	7.91
Bone Marrow	***Number of Grants***	***11***	***11***	***6***	***9***	***10***	
	Relevant Grant Dollars	4,425,573	3,539,567	2,803,956	4,833,724	4,515,041	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***11***	***11***	***6***	***9***	***10***	
	Total Relevant Dollars	4,425,573	3,539,567	2,803,956	4,833,724	4,515,041	6.25
Bone, Cartilage	***Number of Grants***	***9***	***10***	***5***	***9***	***13***	
	Relevant Grant Dollars	3,340,737	3,299,530	2,706,328	3,671,705	4,589,421	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***9***	***10***	***5***	***9***	***13***	
	Total Relevant Dollars	3,340,737	3,299,530	2,706,328	3,671,705	4,589,421	10.36
Brain	***Number of Grants***	***465***	***478***	***485***	***483***	***480***	
	Relevant Grant Dollars	177,269,529	196,218,129	195,752,964	201,366,277	206,657,077	
	Number of Contracts	***‡***	***3***	***1***	***‡***	***2***	
	Relevant Contract Dollars	‡	606,179	50,007	‡	800,000	
	Total Count	***465***	***481***	***486***	***483***	***482***	
	Total Relevant Dollars	177,269,529	196,824,308	195,802,971	201,366,277	207,457,077	4.09

continued

* Relevant Dollars = portion of the funded amount relevant to a specific site.
† NOT SITE SPECIFIC = research that lacks a focus on a particular type of cancer/cancer site, e.g., basic research on the role of a protein in cellular DNA damage in fruit flies; there is no cancer site focus; however, it is relevant to cancer research.
‡ Coding not required or requested.
Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2016 – FY2020 — Average Percent Change

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

Anatomical Site	Counts and Relevant Dollars*	2016	2017	2018	2019	2020	Average Percent Change/ Year
Breast	***Number of Grants***	***1,322***	***1,313***	***1,333***	***1,368***	***1,348***	
	Relevant Grant Dollars	470,476,822	494,020,790	527,293,687	500,009,641	541,778,994	
	Number of Contracts	***22***	***17***	***15***	***4***	***7***	
	Relevant Contract Dollars	14,699,628	13,538,368	8,187,849	4,020,068	1,411,032	
	Total Count	***1,344***	***1,330***	***1,348***	***1,372***	***1,355***	
	Total Relevant Dollars	485,176,451	507,559,159	535,481,536	504,029,709	543,190,026	3.00
Central Nervous System	***Number of Grants***	***7***	***12***	***9***	***8***	***9***	
	Relevant Grant Dollars	784,790	1,347,811	1,001,486	1,919,978	2,145,042	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***7***	***12***	***9***	***8***	***9***	
	Total Relevant Dollars	784,790	1,347,811	1,001,486	1,919,978	2,145,042	37.37
Cervix	***Number of Grants***	***172***	***167***	***169***	***151***	***167***	
	Relevant Grant Dollars	51,244,770	51,639,739	56,529,769	55,801,427	66,395,225	
	Number of Contracts	***3***	***5***	***2***	***1***	***1***	
	Relevant Contract Dollars	5,125,766	3,846,974	855,852	622,604	761,776	
	Total Count	***175***	***172***	***171***	***152***	***168***	
	Total Relevant Dollars	56,370,536	55,486,713	57,385,621	56,424,031	67,157,001	4.80
Childhood Leukemia	***Number of Grants***	***157***	***161***	***145***	***218***	***243***	
	Relevant Grant Dollars	55,857,941	56,840,658	65,760,928	77,503,021	74,146,240	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***157***	***161***	***145***	***218***	***243***	
	Total Relevant Dollars	55,857,941	56,840,658	65,760,928	77,503,021	74,146,240	7.74
Colon, Rectum	***Number of Grants***	***568***	***547***	***608***	***599***	***625***	
	Relevant Grant Dollars	185,327,068	182,797,070	234,480,747	218,560,623	224,088,330	
	Number of Contracts	***16***	***16***	***12***	***7***	***2***	
	Relevant Contract Dollars	9,412,567	8,004,223	3,410,116	2,976,017	2,043,423	
	Total Count	***584***	***563***	***620***	***606***	***627***	
	Total Relevant Dollars	194,739,634	190,801,293	237,890,863	221,536,640	226,131,753	4.46
Esophagus	***Number of Grants***	***98***	***89***	***92***	***64***	***53***	
	Relevant Grant Dollars	22,479,745	27,239,377	25,721,355	22,683,369	19,853,591	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***98***	***89***	***92***	***64***	***53***	
	Total Relevant Dollars	22,479,745	27,239,377	25,721,355	22,683,369	19,853,591	–2.17

continued

* Relevant Dollars = portion of the funded amount relevant to a specific site.
† NOT SITE SPECIFIC = research that lacks a focus on a particular type of cancer/cancer site, e.g., basic research on the role of a protein in cellular DNA damage in fruit flies; there is no cancer site focus; however, it is relevant to cancer research.
‡ Coding not required or requested.
Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2016 – FY2020 — Average Percent Change

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

Anatomical Site	Counts and Relevant Dollars*	2016	2017	2018	2019	2020	Average Percent Change/ Year
Eye	***Number of Grants***	***22***	***27***	***23***	***24***	***22***	
	Relevant Grant Dollars	3,817,344	5,252,252	4,540,263	4,941,626	6,611,738	
	Number of Contracts	***‡***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	1,999,987	‡	‡	‡	
	Total Count	***22***	***28***	***23***	***24***	***22***	
	Total Relevant Dollars	3,817,344	7,252,239	4,540,263	4,941,626	6,611,738	23.80
Gall Bladder	***Number of Grants***	***4***	***4***	***5***	***5***	***6***	
	Relevant Grant Dollars	579,237	476,722	1,217,986	1,225,202	1,536,444	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***4***	***4***	***5***	***5***	***6***	
	Total Relevant Dollars	579,237	476,722	1,217,986	1,225,202	1,536,444	40.94
Gastrointestinal Stromal Tumor	***Number of Grants***	***6***	***9***	***12***	***13***	***16***	
	Relevant Grant Dollars	$888,078	$1,638,139	3,155,373	3,411,602	3,878,417	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***6***	***9***	***12***	***13***	***16***	
	Total Relevant Dollars	$888,078	$1,638,139	3,155,373	3,411,602	$3,878,417	49.72
Gastrointestinal Tract	***Number of Grants***	***28***	***25***	***20***	***23***	***22***	
	Relevant Grant Dollars	6,074,796	5,074,964	4,019,325	10,623,733	10,670,783	
	Number of Contracts	***4***	***1***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	2,858,139	627,879	894,832	‡	‡	
	Total Count	***32***	***26***	***21***	***23***	***22***	
	Total Relevant Dollars	8,932,935	5,702,843	4,914,157	10,623,733	10,670,783	16.17
Head and Neck	***Number of Grants***	***168***	***176***	***172***	***155***	***148***	
	Relevant Grant Dollars	35,221,524	38,974,882	40,445,671	47,171,588	46,369,930	
	Number of Contracts	***3***	***2***	***3***	***1***	***1***	
	Relevant Contract Dollars	1,814,999	312,604	128,865	1,999,989	400,000	
	Total Count	***171***	***178***	***175***	***156***	***149***	
	Total Relevant Dollars	37,036,523	39,287,486	40,574,536	49,171,577	46,769,930	6.41
Hodgkin Lymphoma	***Number of Grants***	***28***	***29***	***29***	***28***	***35***	
	Relevant Grant Dollars	8,217,911	8,282,621	8,711,348	7,827,737	9,501,025	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***28***	***29***	***29***	***28***	***35***	
	Total Relevant Dollars	8,217,911	8,282,621	8,711,348	7,827,737	9,501,025	4.29

continued

* Relevant Dollars = portion of the funded amount relevant to a specific site.
† NOT SITE SPECIFIC = research that lacks a focus on a particular type of cancer/cancer site, e.g., basic research on the role of a protein in cellular DNA damage in fruit flies; there is no cancer site focus; however, it is relevant to cancer research.
‡ Coding not required or requested.
Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2016 – FY2020 — Average Percent Change

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

Anatomical Site	Counts and Relevant Dollars*	2016	2017	2018	2019	2020	Average Percent Change/ Year
Kaposi Sarcoma	***Number of Grants***	***54***	***58***	***60***	***65***	***69***	
	Relevant Grant Dollars	24,537,356	27,418,524	26,360,868	24,244,764	28,892,855	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***54***	***58***	***60***	***65***	***69***	
	Total Relevant Dollars	24,537,356	27,418,524	26,360,868	24,244,764	28,892,855	4.76
Kidney	***Number of Grants***	***131***	***131***	***145***	***116***	***122***	
	Relevant Grant Dollars	27,200,468	29,737,839	35,202,508	35,514,093	35,076,660	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***131***	***131***	***145***	***116***	***122***	
	Total Relevant Dollars	27,200,468	29,737,839	35,202,508	35,514,093	35,076,660	6.84
Larynx	***Number of Grants***	***2***	***2***	***2***	***1***	***4***	
	Relevant Grant Dollars	575,873	473,788	431,926	82,322	349,888	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***2***	***2***	***2***	***1***	***4***	
	Total Relevant Dollars	575,873	473,788	431,926	82,322	349,888	54.38
Leukemia	***Number of Grants***	***582***	***593***	***560***	***556***	***603***	
	Relevant Grant Dollars	217,864,508	225,848,786	237,381,418	235,759,795	251,524,364	
	Number of Contracts	***1***	***2***	***2***	***‡***	***‡***	
	Relevant Contract Dollars	1,496,276	1,547,327	19,191	‡	‡	
	Total Count	***583***	***595***	***562***	***556***	***603***	
	Total Relevant Dollars	219,360,784	227,396,114	237,400,609	235,759,795	251,524,364	3.51
Liver	***Number of Grants***	***218***	***212***	***258***	***269***	***270***	
	Relevant Grant Dollars	62,124,234	62,046,177	84,863,828	93,301,235	92,885,952	
	Number of Contracts	***2***	***3***	***3***	***7***	***1***	
	Relevant Contract Dollars	353,600	1,674,216	99,772	2,411,664	80,000	
	Total Count	***220***	***215***	***261***	***276***	***271***	
	Total Relevant Dollars	62,477,834	63,720,393	84,963,600	95,712,899	92,965,952	11.28
Lung	***Number of Grants***	***697***	***714***	***726***	***777***	***862***	
	Relevant Grant Dollars	242,571,606	267,051,228	297,030,756	329,758,879	372,958,789	
	Number of Contracts	***23***	***25***	***16***	***20***	***9***	
	Relevant Contract Dollars	15,848,869	21,302,044	17,215,341	55,613,583	15,793,532	
	Total Count	***720***	***739***	***742***	***797***	***871***	
	Total Relevant Dollars	258,420,475	288,353,271	314,246,097	385,372,462	388,752,321	11.02

continued

* Relevant Dollars = portion of the funded amount relevant to a specific site.
† NOT SITE SPECIFIC = research that lacks a focus on a particular type of cancer/cancer site, e.g., basic research on the role of a protein in cellular DNA damage in fruit flies; there is no cancer site focus; however, it is relevant to cancer research.
‡ Coding not required or requested.
Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2016 – FY2020 — Average Percent Change

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

Anatomical Site	Counts and Relevant Dollars*	2016	2017	2018	2019	2020	Average Percent Change/ Year
Lymph Node	***Number of Grants***	***1***	***2***	***3***	***3***	***2***	
	Relevant Grant Dollars	94,613	425,733	650,917	571,254	493,999	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***1***	***2***	***3***	***3***	***2***	
	Total Relevant Dollars	94,613	425,733	650,917	571,254	493,999	94.27
Lymphatic System	***Number of Grants***	***2***	***1***	***1***	***1***	***1***	
	Relevant Grant Dollars	261,544	218,028	205,770	233,372	239,544	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***2***	***1***	***1***	***1***	***1***	
	Total Relevant Dollars	261,544	218,028	205,770	233,372	239,544	–1.55
Melanoma	***Number of Grants***	***410***	***422***	***433***	***431***	***459***	
	Relevant Grant Dollars	119,244,182	132,231,623	141,106,072	151,332,731	155,296,220	
	Number of Contracts	***1***	***2***	***‡***	***14***	***‡***	
	Relevant Contract Dollars	295,782	3,499,958	‡	23,242,523	‡	
	Total Count	***411***	***424***	***433***	***445***	***459***	
	Total Relevant Dollars	119,539,964	135,731,581	141,106,072	174,575,254	155,296,220	7.54
Mesothelioma	***Number of Grants***	***22***	***18***	***20***	***23***	***22***	
	Relevant Grant Dollars	6,939,730	6,037,260	8,166,842	9,722,032	7,662,841	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***22***	***18***	***20***	***23***	***22***	
	Total Relevant Dollars	6,939,730	6,037,260	8,166,842	9,722,032	7,662,841	5.03
Muscle	***Number of Grants***	***2***	***3***	***3***	***2***	***1***	
	Relevant Grant Dollars	342,916	496,492	440,899	314,850	64,926	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***2***	***3***	***3***	***2***	***1***	
	Total Relevant Dollars	342,916	496,492	440,899	314,850	64,926	–18.59
Myeloma	***Number of Grants***	***173***	***169***	***171***	***144***	***141***	
	Relevant Grant Dollars	45,263,432	53,362,826	55,081,460	51,396,312	41,853,952	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***173***	***169***	***171***	***144***	***141***	
	Total Relevant Dollars	45,263,432	53,362,826	55,081,460	51,396,312	41,853,952	–1.04

continued

* Relevant Dollars = portion of the funded amount relevant to a specific site.
† NOT SITE SPECIFIC = research that lacks a focus on a particular type of cancer/cancer site, e.g., basic research on the role of a protein in cellular DNA damage in fruit flies; there is no cancer site focus; however, it is relevant to cancer research.
‡ Coding not required or requested.
Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2016 – FY2020 — Average Percent Change

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

Anatomical Site	Counts and Relevant Dollars*	2016	2017	2018	2019	2020	Average Percent Change/ Year
Nervous System	***Number of Grants***	***22***	***24***	***14***	***15***	***9***	
	Relevant Grant Dollars	6,153,043	6,585,936	4,747,277	5,526,718	2,482,137	
	Number of Contracts	***‡***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	1,499,991	‡	‡	‡	
	Total Count	***22***	***25***	***14***	***15***	***9***	
	Total Relevant Dollars	6,153,043	8,085,927	4,747,277	5,526,718	2,482,137	–12.14
Neuroblastoma	***Number of Grants***	***56***	***58***	***71***	***75***	***76***	
	Relevant Grant Dollars	17,024,278	20,384,541	26,308,199	22,793,475	23,684,550	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***56***	***58***	***71***	***75***	***76***	
	Total Relevant Dollars	17,024,278	20,384,541	26,308,199	22,793,475	23,684,550	9.84
Non-Hodgkin Lymphoma	***Number of Grants***	***331***	***307***	***299***	***278***	***295***	
	Relevant Grant Dollars	98,315,810	96,233,763	99,973,050	99,025,255	109,152,695	
	Number of Contracts	***‡***	***‡***	***‡***	***1***	***1***	
	Relevant Contract Dollars	‡	‡	‡	54,994	2,000,000	
	Total Count	***331***	***307***	***299***	***279***	***296***	
	Total Relevant Dollars	98,315,810	96,233,763	99,973,050	99,080,249	111,152,695	3.26
Not Site Specific†	***Number of Grants***	***1,323***	***1,368***	***1,435***	***1,511***	***1,526***	
	Relevant Grant Dollars	613,729,313	697,160,768	770,712,588	856,175,303	951,968,145	
	Number of Contracts	***154***	***135***	***160***	***125***	***172***	
	Relevant Contract Dollars	555,664,493	583,258,480	736,337,943	522,054,442	339,232,245	
	Total Count	***1,477***	***1,503***	***1,595***	***1,636***	***1,698***	
	Total Relevant Dollars	1,169,393,806	1,280,419,248	1,507,050,531	1,378,229,745	1,291,200,390	3.08
Oral Cavity	***Number of Grants***	***54***	***53***	***40***	***43***	***74***	
	Relevant Grant Dollars	13,714,954	13,533,375	12,182,738	12,325,550	18,840,504	
	Number of Contracts	***‡***	***‡***	***‡***	***1***	***1***	
	Relevant Contract Dollars	‡	‡	‡	15,000	15,000	
	Total Count	***54***	***53***	***40***	***43***	***75***	
	Total Relevant Dollars	13,714,954	13,533,375	12,182,738	12,340,550	18,855,504	10.69
Ovary	***Number of Grants***	***315***	***332***	***335***	***342***	***337***	
	Relevant Grant Dollars	83,576,854	95,963,310	106,717,144	108,940,938	116,728,532	
	Number of Contracts	***3***	***4***	***1***	***1***	***‡***	
	Relevant Contract Dollars	1,470,356	1,535,829	215,329	4,863	‡	
	Total Count	***318***	***336***	***336***	***343***	***337***	
	Total Relevant Dollars	85,047,209	97,499,140	106,932,473	108,945,801	116,728,532	8.34

continued

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

† NOT SITE SPECIFIC = research that lacks a focus on a particular type of cancer/cancer site, e.g., basic research on the role of a protein in cellular DNA damage in fruit flies; there is no cancer site focus; however, it is relevant to cancer research.

‡ Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2016 – FY2020 — Average Percent Change

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

Anatomical Site	Counts and Relevant Dollars*	2016	2017	2018	2019	2020	Average Percent Change/ Year
Pancreas	***Number of Grants***	***439***	***454***	***486***	***484***	***525***	
	Relevant Grant Dollars	138,490,101	163,371,849	169,736,794	172,139,086	189,985,200	
	Number of Contracts	***13***	***13***	***9***	***2***	***1***	
	Relevant Contract Dollars	5,378,661	4,908,116	789,909	1,291,099	398,711	
	Total Count	***452***	***467***	***495***	***486***	***526***	
	Total Relevant Dollars	143,868,761	168,279,965	170,526,703	173,430,185	190,383,911	7.44
Parathyroid	***Number of Grants***	***2***	***3***	***2***	***3***	***6***	
	Relevant Grant Dollars	219,722	676,030	652,252	1,268,612	1,958,217	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***2***	***3***	***2***	***3***	***6***	
	Total Relevant Dollars	219,722	676,030	652,252	1,268,612	1,958,217	88.25
Penis	***Number of Grants***	***3***	***3***	***2***	***7***	***8***	
	Relevant Grant Dollars	341,656	341,693	263,025	656,490	885,380	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***3***	***3***	***2***	***7***	***8***	
	Total Relevant Dollars	341,656	341,693	263,025	656,490	885,380	40.36
Pharynx	***Number of Grants***	***13***	***12***	***7***	***8***	***17***	
	Relevant Grant Dollars	2,017,103	2,045,454	1,456,420	2,928,133	4,406,488	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***13***	***12***	***7***	***8***	***17***	
	Total Relevant Dollars	2,017,103	2,045,454	1,456,420	2,928,133	4,406,488	31.04
Pituitary	***Number of Grants***	***7***	***5***	***5***	***6***	***6***	
	Relevant Grant Dollars	1,419,108	1,222,742	1,572,297	1,546,588	1,524,157	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***7***	***5***	***5***	***6***	***6***	
	Total Relevant Dollars	1,419,108	1,222,742	1,572,297	1,546,588	1,524,157	2.92
Prostate	***Number of Grants***	***587***	***551***	***552***	***533***	***532***	
	Relevant Grant Dollars	202,049,473	194,381,794	203,996,788	210,896,342	208,342,580	
	Number of Contracts	***23***	***21***	***16***	***7***	***5***	
	Relevant Contract Dollars	15,201,920	13,540,995	7,118,212	5,553,063	1,702,340	
	Total Count	***610***	***572***	***568***	***540***	***537***	
	Total Relevant Dollars	217,251,393	207,922,789	211,115,001	216,449,404	210,044,920	–0.79

continued

* Relevant Dollars = portion of the funded amount relevant to a specific site.
† NOT SITE SPECIFIC = research that lacks a focus on a particular type of cancer/cancer site, e.g., basic research on the role of a protein in cellular DNA damage in fruit flies; there is no cancer site focus; however, it is relevant to cancer research.
‡ Coding not required or requested.
Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2016 – FY2020 — Average Percent Change

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

Anatomical Site	Counts and Relevant Dollars*	2016	2017	2018	2019	2020	Average Percent Change/ Year
Retinoblastoma	***Number of Grants***	***10***	***8***	***10***	***10***	***12***	
	Relevant Grant Dollars	2,740,929	1,629,496	3,485,869	2,233,623	2,778,359	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***1***	
	Relevant Contract Dollars	‡	‡	‡	‡	398,149	
	Total Count	***10***	***8***	***10***	***10***	***13***	
	Total Relevant Dollars	2,740,929	1,629,496	3,485,869	2,233,623	3,176,508	19.92
Sarcoma, Bone	***Number of Grants***	***69***	***73***	***70***	***66***	***73***	
	Relevant Grant Dollars	$16,008,892	$19,160,750	32,624,063	16,332,850	15,137,493	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***69***	***73***	***70***	***66***	***73***	
	Total Relevant Dollars	$16,008,892	$19,160,750	32,624,063	16,332,850	15,137,493	8.17
Sarcoma, Soft Tissue	***Number of Grants***	***91***	***97***	***99***	***99***	***103***	
	Relevant Grant Dollars	$20,650,683	$22,274,960	40,785,034	31,903,104	24,661,666	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***91***	***97***	***99***	***99***	***103***	
	Total Relevant Dollars	$20,650,683	$22,274,960	40,785,034	31,903,104	24,661,666	11.62
Skin	***Number of Grants***	***134***	***136***	***127***	***116***	***123***	
	Relevant Grant Dollars	31,543,713	34,846,957	33,633,922	34,112,959	44,553,911	
	Number of Contracts	***‡***	***2***	***1***	***3***	***‡***	
	Relevant Contract Dollars	‡	1,576,506	288,945	643,548	‡	
	Total Count	***134***	***138***	***128***	***119***	***123***	
	Total Relevant Dollars	31,543,713	36,423,463	33,922,867	34,756,507	44,553,911	9.81
Small Intestine	***Number of Grants***	***8***	***10***	***6***	***8***	***7***	
	Relevant Grant Dollars	2,085,715	3,030,339	2,264,455	2,202,945	1,165,582	
	Number of Contracts	***‡***	***‡***	***‡***	***1***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	510,195	‡	
	Total Count	***8***	***10***	***6***	***8***	***7***	
	Total Relevant Dollars	2,085,715	3,030,339	2,264,455	2,713,140	1,165,582	–4.30
Stomach	***Number of Grants***	***58***	***59***	***56***	***41***	***50***	
	Relevant Grant Dollars	11,180,211	11,244,817	11,759,946	10,761,813	12,464,266	
	Number of Contracts	***‡***	***‡***	***‡***	***1***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	510,195	‡	
	Total Count	***58***	***59***	***56***	***42***	***50***	
	Total Relevant Dollars	11,180,211	11,244,817	11,759,946	11,272,008	12,464,266	2.89

continued

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

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‡ Coding not required or requested.

Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2016 – FY2020 — Average Percent Change

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

Anatomical Site	Counts and Relevant Dollars*	2016	2017	2018	2019	2020	Average Percent Change/ Year
Testis	***Number of Grants***	***5***	***7***	***6***	***6***	***16***	
	Relevant Grant Dollars	730,983	1,741,733	1,660,195	1,568,860	5,260,190	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***5***	***7***	***6***	***6***	***16***	
	Total Relevant Dollars	730,983	1,741,733	1,660,195	1,568,860	5,260,190	90.84
Thymus	***Number of Grants***	***3***	***1***	***6***	***6***	***6***	
	Relevant Grant Dollars	260,988	116,127	1,081,389	1,065,371	1,183,335	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***3***	***1***	***6***	***6***	***6***	
	Total Relevant Dollars	260,988	116,127	1,081,389	1,065,371	1,183,335	196.32
Thyroid	***Number of Grants***	***47***	***49***	***46***	***44***	***49***	
	Relevant Grant Dollars	17,604,744	17,778,628	12,105,222	10,794,911	12,627,725	
	Number of Contracts	***‡***	***‡***	***‡***	***1***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	49,394	‡	
	Total Count	***47***	***49***	***46***	***45***	***49***	
	Total Relevant Dollars	17,604,744	17,778,628	12,105,222	10,844,305	12,627,725	6.22
Uterus	***Number of Grants***	***85***	***83***	***84***	***59***	***58***	
	Relevant Grant Dollars	15,043,375	15,803,076	15,069,028	13,819,141	14,403,143	
	Number of Contracts	***‡***	***‡***	***‡***	***1***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	1,231,648	‡	
	Total Count	***85***	***83***	***84***	***60***	***58***	
	Total Relevant Dollars	15,043,375	15,803,076	15,069,028	15,050,789	14,403,143	–1.00
Vagina	***Number of Grants***	***‡***	***1***	***2***	***4***	***3***	
	Relevant Grant Dollars	‡	383,925	524,157	583,872	769,655	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***‡***	***1***	***2***	***4***	***3***	
	Total Relevant Dollars	‡	383,925	524,157	583,872	769,655	26.57
Vascular	***Number of Grants***	***4***	***4***	***2***	***3***	***6***	
	Relevant Grant Dollars	668,887	1,118,191	837,968	1,344,206	1,680,268	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***4***	***4***	***2***	***3***	***6***	
	Total Relevant Dollars	668,887	1,118,191	837,968	1,344,206	1,680,268	31.88

continued

* Relevant Dollars = portion of the funded amount relevant to a specific site.
† NOT SITE SPECIFIC = research that lacks a focus on a particular type of cancer/cancer site, e.g., basic research on the role of a protein in cellular DNA damage in fruit flies; there is no cancer site focus; however, it is relevant to cancer research.
‡ Coding not required or requested.
Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2016 – FY2020 — Average Percent Change

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

Anatomical Site	Counts and Relevant Dollars*	2016	2017	2018	2019	2020	Average Percent Change/ Year
Wilms Tumor	***Number of Grants***	***12***	***11***	***9***	***7***	***6***	
	Relevant Grant Dollars	3,831,667	4,241,898	4,160,103	1,940,000	1,756,390	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***12***	***11***	***9***	***7***	***6***	
	Total Relevant Dollars	3,831,667	4,241,898	4,160,103	1,940,000	1,756,390	–13.51

* Relevant Dollars = portion of the funded amount relevant to a specific site.
† NOT SITE SPECIFIC = research that lacks a focus on a particular type of cancer/cancer site, e.g., basic research on the role of a protein in cellular DNA damage in fruit flies; there is no cancer site focus; however, it is relevant to cancer research.
‡ Coding not required or requested.
Source: Research Analysis and Evaluation Branch.

Table 16. NCI Special Interest Category (SIC) Dollars for FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Adolescent and Young Adults Cancer	***Number of Grants***	***101***	***142***	***172***	***231***	***293***	
	Relevant Grant Dollars	28,390,821	39,158,375	80,608,475	118,127,498	122,204,317	
	Number of Contracts	***‡***	***1***	***‡***	***2***	***‡***	
	Relevant Contract Dollars	‡	37,500	‡	442,938	‡	
	Total Count	***101***	***143***	***172***	***233***	***293***	
	Total Relevant Dollars	28,390,821	39,195,875	80,608,475	118,570,436	122,204,317	48.46
Adoptive Cell Immunotherapy	***Number of Grants***	***175***	***174***	***178***	***211***	***258***	
	Relevant Grant Dollars	43,690,082	50,677,796	65,668,061	87,631,798	86,391,555	
	Number of Contracts	***‡***	***2***	***‡***	***1***	***1***	
	Relevant Contract Dollars	‡	539,847	‡	27,497	399,299	
	Total Count	***175***	***176***	***178***	***212***	***259***	
	Total Relevant Dollars	43,690,082	51,217,643	65,668,061	87,659,295	86,790,854	19.48
Advanced Manufacturing Technology	***Number of Grants***	***3***	***1***	***3***	***3***	***4***	
	Relevant Grant Dollars	900,771	560,239	1,493,003	845,428	1,829,119	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***3***	***1***	***3***	***3***	***4***	
	Total Relevant Dollars	900,771	560,239	1,493,003	845,428	1,829,119	50.42
Aging	***Number of Grants***	***240***	***226***	***196***	***215***	***238***	
	Relevant Grant Dollars	54,936,453	49,797,772	49,513,188	64,340,550	77,241,267	
	Number of Contracts	***4***	***5***	***5***	***6***	***2***	
	Relevant Contract Dollars	343,283	462,276	524,756	690,838	1,152,930	
	Total Count	***244***	***231***	***201***	***221***	***240***	
	Total Relevant Dollars	55,279,736	50,260,048	50,037,944	65,031,388	78,394,197	10.28
Alternative Medicine	***Number of Grants***	***154***	***153***	***148***	***145***	***145***	
	Relevant Grant Dollars	42,068,505	35,660,834	45,018,152	46,859,296	43,374,202	
	Number of Contracts	***2***	***2***	***2***	***2***	***1***	
	Relevant Contract Dollars	6,035,840	4,872,052	3,855,644	928,436	181,500	
	Total Count	***156***	***155***	***150***	***147***	***146***	
	Total Relevant Dollars	48,104,345	40,532,886	48,873,796	47,787,732	43,555,702	–1.56
Alzheimers Dementia	***Number of Grants***	***5***	***3***	***1***	***1***	***3***	
	Relevant Grant Dollars	643,489	514,839	215,229	207,809	467,294	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***5***	***3***	***1***	***1***	***3***	
	Total Relevant Dollars	643,489	514,839	215,229	207,809	467,294	10.81

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Arctic Research	***Number of Grants***	***3***	***5***	***5***	***9***	***17***	
	Relevant Grant Dollars	730,070	1,387,435	1,238,465	4,280,761	7,890,282	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***3***	***5***	***5***	***9***	***17***	
	Total Relevant Dollars	730,070	1,387,435	1,238,465	4,280,761	7,890,282	102.32
Asbestos	***Number of Grants***	***10***	***7***	***7***	***5***	***4***	
	Relevant Grant Dollars	3,619,815	3,146,506	3,065,315	1,716,100	1,478,421	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***10***	***7***	***7***	***5***	***4***	
	Total Relevant Dollars	3,619,815	3,146,506	3,065,315	1,716,100	1,478,421	–18.38
Ataxia Telangiectasia	***Number of Grants***	***5***	***6***	***3***	***3***	***3***	
	Relevant Grant Dollars	786,560	971,104	439,541	632,185	646,859	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***5***	***6***	***3***	***3***	***3***	
	Total Relevant Dollars	786,560	971,104	439,541	632,185	646,859	3.72
Autoimmune Diseases	***Number of Grants***	***4***	***5***	***9***	***10***	***11***	
	Relevant Grant Dollars	832,994	922,027	2,402,185	2,129,342	2,852,373	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***4***	***5***	***9***	***10***	***11***	
	Total Relevant Dollars	832,994	922,027	2,402,185	2,129,342	2,852,373	48.45
Behavior Research	***Number of Grants***	***641***	***631***	***630***	***680***	***799***	
	Relevant Grant Dollars	212,741,824	214,939,253	238,643,771	248,036,698	299,047,617	
	Number of Contracts	***11***	***8***	***7***	***5***	***7***	
	Relevant Contract Dollars	8,642,050	3,674,886	4,155,657	35,595,028	6,869,266	
	Total Count	***652***	***639***	***637***	***685***	***806***	
	Total Relevant Dollars	221,383,874	218,614,139	242,799,428	283,631,726	305,916,884	8.62
Bioengineering	***Number of Grants***	***358***	***359***	***445***	***498***	***517***	
	Relevant Grant Dollars	132,443,598	134,136,385	164,170,593	192,613,667	214,148,983	
	Number of Contracts	***7***	***4***	***6***	***17***	***10***	
	Relevant Contract Dollars	2,478,606	2,254,856	5,021,564	15,537,305	3,547,308	
	Total Count	***365***	***363***	***451***	***515***	***527***	
	Total Relevant Dollars	134,922,204	136,391,241	169,192,157	208,150,972	217,696,291	13.19

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Bioinformatics	***Number of Grants***	***530***	***551***	***641***	***755***	***819***	
	Relevant Grant Dollars	179,136,458	225,131,784	282,603,451	314,616,007	342,712,693	
	Number of Contracts	***28***	***43***	***25***	***26***	***119***	
	Relevant Contract Dollars	58,667,710	37,237,753	43,412,556	243,812,997	174,223,520	
	Total Count	***558***	***594***	***666***	***781***	***938***	
	Total Relevant Dollars	237,804,168	262,369,537	326,016,007	558,429,004	516,936,213	24.00
Biological Carcinogenesis Non-Viral	***Number of Grants***	***66***	***67***	***69***	***75***	***92***	
	Relevant Grant Dollars	20,074,390	20,826,379	21,398,045	23,221,779	25,360,950	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***66***	***67***	***69***	***75***	***92***	
	Total Relevant Dollars	20,074,390	20,826,379	21,398,045	23,221,779	25,360,950	6.06
Biologics/Biological Response Modifiers	***Number of Grants***	***785***	***821***	***901***	***1,040***	***1,215***	
	Relevant Grant Dollars	279,698,693	318,168,448	360,770,365	421,827,794	480,327,415	
	Number of Contracts	***14***	***13***	***9***	***18***	***9***	
	Relevant Contract Dollars	44,277,523	43,053,952	39,559,578	7,000,911	9,399,568	
	Total Count	***799***	***834***	***910***	***1,058***	***1,224***	
	Total Relevant Dollars	323,976,215	361,222,400	400,329,942	428,828,705	489,726,983	10.91
Biomarkers	***Number of Grants***	***1,316***	***1,340***	***1,420***	***1,533***	***1,496***	
	Relevant Grant Dollars	399,176,910	454,837,605	491,516,348	507,662,741	502,778,212	
	Number of Contracts	***16***	***10***	***13***	***25***	***9***	
	Relevant Contract Dollars	6,274,041	7,734,592	7,203,277	14,609,257	5,069,362	
	Total Count	***1,332***	***1,350***	***1,433***	***1,558***	***1,505***	
	Total Relevant Dollars	405,450,951	462,572,197	498,719,625	522,271,998	507,847,574	5.97
Biomaterials Research	***Number of Grants***	***50***	***54***	***64***	***76***	***72***	
	Relevant Grant Dollars	11,643,768	14,118,242	16,497,668	23,344,253	19,950,191	
	Number of Contracts	***‡***	***‡***	***1***	***‡***	***2***	
	Relevant Contract Dollars	‡	‡	149,905	‡	400,000	
	Total Count	***50***	***54***	***65***	***76***	***74***	
	Total Relevant Dollars	11,643,768	14,118,242	16,647,573	23,344,253	20,350,191	16.64
Biomedical Computing	***Number of Grants***	***502***	***516***	***573***	***686***	***768***	
	Relevant Grant Dollars	206,729,157	251,923,719	252,725,128	269,476,921	300,632,446	
	Number of Contracts	***34***	***46***	***52***	***36***	***123***	
	Relevant Contract Dollars	31,453,540	40,076,260	61,946,642	249,348,654	175,830,676	
	Total Count	***536***	***562***	***625***	***722***	***891***	
	Total Relevant Dollars	238,182,697	291,999,979	314,671,770	518,825,575	476,463,122	21.77

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Bone Marrow Transplantation	***Number of Grants***	***84***	***76***	***74***	***67***	***73***	
	Relevant Grant Dollars	34,979,933	29,173,660	34,712,978	29,046,389	32,837,598	
	Number of Contracts	***1***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	728,795	‡	‡	‡	‡	
	Total Count	***85***	***76***	***74***	***67***	***73***	
	Total Relevant Dollars	35,708,727	29,173,660	34,712,978	29,046,389	32,837,598	–0.645
Breast Cancer Detection	***Number of Grants***	***241***	***240***	***236***	***247***	***227***	
	Relevant Grant Dollars	72,103,576	81,227,274	93,964,637	81,438,411	83,444,810	
	Number of Contracts	***4***	***‡***	***2***	***‡***	***3***	
	Relevant Contract Dollars	874,929	‡	53,073	‡	999,778	
	Total Count	***245***	***240***	***238***	***247***	***230***	
	Total Relevant Dollars	72,978,505	81,227,274	94,017,710	81,438,411	84,444,588	4.34
Breast Cancer Early Detection	***Number of Grants***	***123***	***136***	***142***	***146***	***132***	
	Relevant Grant Dollars	33,480,855	41,613,302	41,663,384	41,392,617	42,906,961	
	Number of Contracts	***1***	***‡***	***‡***	***‡***	***2***	
	Relevant Contract Dollars	149,669	‡	‡	‡	799,778	
	Total Count	***124***	***136***	***142***	***146***	***134***	
	Total Relevant Dollars	33,630,524	41,613,302	41,663,384	41,392,617	43,706,739	7.19
Breast Cancer Education	***Number of Grants***	***31***	***31***	***28***	***29***	***28***	
	Relevant Grant Dollars	4,685,670	5,272,981	5,439,597	4,543,456	4,829,069	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***31***	***31***	***28***	***29***	***28***	
	Total Relevant Dollars	4,685,670	5,272,981	5,439,597	4,543,456	4,829,069	1.38
Breast Cancer Epidemiology	***Number of Grants***	***111***	***97***	***92***	***94***	***87***	
	Relevant Grant Dollars	39,840,647	34,190,668	30,273,776	26,836,612	28,355,007	
	Number of Contracts	***12***	***11***	***7***	***‡***	***‡***	
	Relevant Contract Dollars	6,203,333	5,829,361	37,205	‡	‡	
	Total Count	***123***	***108***	***99***	***94***	***87***	
	Total Relevant Dollars	46,043,980	40,020,029	30,310,981	26,836,612	28,355,007	–10.79
Breast Cancer Genetics	***Number of Grants***	***310***	***259***	***218***	***198***	***172***	
	Relevant Grant Dollars	81,070,422	70,149,087	66,472,567	54,942,258	56,347,830	
	Number of Contracts	***1***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	49,931	‡	‡	‡	‡	
	Total Count	***311***	***259***	***218***	***198***	***172***	
	Total Relevant Dollars	81,120,353	70,149,087	66,472,567	54,942,258	56,347,830	–8.39

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Breast Cancer Prevention	***Number of Grants***	***82***	***81***	***79***	***92***	***89***	
	Relevant Grant Dollars	19,111,915	19,450,769	18,347,556	20,549,191	19,734,699	
	Number of Contracts	***2***	***2***	***3***	***‡***	***‡***	
	Relevant Contract Dollars	3,146,728	4,001,575	4,562,338	‡	‡	
	Total Count	***84***	***83***	***82***	***92***	***89***	
	Total Relevant Dollars	22,258,643	23,452,344	22,909,894	20,549,191	19,734,699	–2.8
Breast Cancer Rehabilitation	***Number of Grants***	***61***	***60***	***62***	***69***	***72***	
	Relevant Grant Dollars	15,759,809	16,481,786	16,157,094	19,374,865	23,648,591	
	Number of Contracts	***‡***	***‡***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	1,499,993	‡	‡	
	Total Count	***61***	***60***	***63***	***69***	***72***	
	Total Relevant Dollars	15,759,809	16,481,786	17,657,087	19,374,865	23,648,591	10.87
Breast Cancer Screening	***Number of Grants***	***46***	***51***	***57***	***57***	***52***	
	Relevant Grant Dollars	10,475,206	14,653,679	15,132,034	14,338,947	19,922,792	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***46***	***51***	***57***	***57***	***52***	
	Total Relevant Dollars	10,475,206	14,653,679	15,132,034	14,338,947	19,922,792	19.21
Breast Cancer Treatment	***Number of Grants***	***544***	***567***	***618***	***619***	***625***	
	Relevant Grant Dollars	154,489,026	176,349,237	209,590,194	196,387,826	213,770,728	
	Number of Contracts	***3***	***2***	***2***	***4***	***‡***	
	Relevant Contract Dollars	4,424,708	3,485,914	2,035,240	4,020,068	‡	
	Total Count	***547***	***569***	***620***	***623***	***625***	
	Total Relevant Dollars	158,913,734	179,835,151	211,625,433	200,407,894	213,770,728	8.05
Breast Cancer—Basic	***Number of Grants***	***614***	***586***	***556***	***567***	***567***	
	Relevant Grant Dollars	169,080,913	166,218,155	158,766,455	155,259,816	172,808,076	
	Number of Contracts	***1***	***5***	***3***	***‡***	***6***	
	Relevant Contract Dollars	49,931	3,530,301	40,722	‡	411,254	
	Total Count	***615***	***591***	***559***	***567***	***573***	
	Total Relevant Dollars	169,130,844	169,748,456	158,807,177	155,259,816	173,219,330	0.81
Cancer Stem Cells	***Number of Grants***	***356***	***396***	***417***	***411***	***397***	
	Relevant Grant Dollars	92,830,249	108,363,835	114,972,296	111,157,005	115,958,620	
	Number of Contracts	***3***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	4,980,440	1,475,002	‡	‡	‡	
	Total Count	***359***	***397***	***417***	***411***	***397***	
	Total Relevant Dollars	97,810,689	109,838,837	114,972,296	111,157,005	115,958,620	4.49

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Cancer Survivorship	***Number of Grants***	***363***	***346***	***385***	***441***	***482***	
	Relevant Grant Dollars	162,069,466	167,262,525	203,631,879	238,044,537	285,280,496	
	Number of Contracts	***7***	***3***	***9***	***11***	***37***	
	Relevant Contract Dollars	2,679,641	6,505,519	16,014,755	11,940,379	27,004,668	
	Total Count	***370***	***349***	***394***	***452***	***519***	
	Total Relevant Dollars	164,749,107	173,768,044	219,646,634	249,984,916	312,285,164	17.65
Carcinogenesis, Environmental	***Number of Grants***	***653***	***631***	***626***	***687***	***751***	
	Relevant Grant Dollars	255,935,050	258,785,860	262,220,786	283,174,495	299,484,274	
	Number of Contracts	***19***	***20***	***20***	***8***	***8***	
	Relevant Contract Dollars	13,046,648	11,050,342	16,494,997	33,723,167	12,438,407	
	Total Count	***672***	***651***	***646***	***695***	***759***	
	Total Relevant Dollars	268,981,698	269,836,202	278,715,783	316,897,661	311,922,681	3.93
Cervical Cancer Education	***Number of Grants***	***27***	***23***	***20***	***24***	***27***	
	Relevant Grant Dollars	5,869,483	5,584,906	4,612,220	5,742,343	6,253,073	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***27***	***23***	***20***	***24***	***27***	
	Total Relevant Dollars	5,869,483	5,584,906	4,612,220	5,742,343	6,253,073	2.78
Chemoprevention	***Number of Grants***	***228***	***210***	***199***	***203***	***183***	
	Relevant Grant Dollars	71,829,951	70,023,623	71,362,862	72,507,610	67,095,872	
	Number of Contracts	***9***	***8***	***13***	***21***	***9***	
	Relevant Contract Dollars	16,414,527	15,912,399	19,797,086	20,876,960	16,710,594	
	Total Count	***237***	***218***	***212***	***224***	***192***	
	Total Relevant Dollars	88,244,478	85,936,022	91,159,948	93,384,569	83,806,466	–1.09
Chemoprevention, Clinical	***Number of Grants***	***16***	***12***	***10***	***9***	***7***	
	Relevant Grant Dollars	9,361,402	8,971,425	7,445,837	7,669,943	2,409,765	
	Number of Contracts	***‡***	***‡***	***‡***	***2***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	3,114,962	‡	
	Total Count	***16***	***12***	***10***	***11***	***7***	
	Total Relevant Dollars	9,361,402	8,971,425	7,445,837	10,784,905	2,409,765	–13.49
Chemotherapy	***Number of Grants***	***716***	***732***	***802***	***871***	***893***	
	Relevant Grant Dollars	260,723,356	287,462,997	316,933,597	337,533,318	375,420,336	
	Number of Contracts	***20***	***17***	***13***	***6***	***2***	
	Relevant Contract Dollars	13,695,854	14,902,930	7,708,690	5,184,714	941,602	
	Total Count	***736***	***749***	***815***	***877***	***895***	
	Total Relevant Dollars	274,419,210	302,365,927	324,642,287	342,718,031	376,361,938	8.23

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Child Health	***Number of Grants***	***67***	***66***	***58***	***80***	***91***	
	Relevant Grant Dollars	16,163,223	15,020,069	13,942,846	35,168,895	34,948,659	
	Number of Contracts	***‡***	***‡***	***2***	***1***	***‡***	
	Relevant Contract Dollars	‡	‡	2,037,698	418,241	‡	
	Total Count	***67***	***66***	***60***	***81***	***91***	
	Total Relevant Dollars	16,163,223	15,020,069	15,980,544	35,587,136	34,948,659	30.05
Childhood Cancers	***Number of Grants***	***398***	***411***	***438***	***585***	***623***	
	Relevant Grant Dollars	181,711,926	189,628,119	249,037,676	306,475,154	299,355,101	
	Number of Contracts	***‡***	***2***	***2***	***1***	***5***	
	Relevant Contract Dollars	‡	589,442	2,476,618	1,878,258	5,908,054	
	Total Count	***398***	***413***	***440***	***586***	***298***	
	Total Relevant Dollars	181,711,926	190,217,561	251,514,294	308,353,412	305,263,155	14.62
Chronic Myeloproliferative Disorders	***Number of Grants***	***78***	***66***	***55***	***60***	***62***	
	Relevant Grant Dollars	20,846,554	15,967,470	18,840,695	19,099,884	18,456,267	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***78***	***66***	***55***	***60***	***62***	
	Total Relevant Dollars	20,846,554	15,967,470	18,840,695	19,099,884	18,456,267	–1.85
Clinical Trials, Diagnosis	***Number of Grants***	***151***	***154***	***154***	***151***	***124***	
	Relevant Grant Dollars	60,433,953	61,783,602	59,253,323	65,733,617	70,973,138	
	Number of Contracts	***1***	***1***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	166,395	2,125,347	2,939,599	‡	‡	
	Total Count	***152***	***155***	***155***	***151***	***124***	
	Total Relevant Dollars	60,600,348	63,908,948	62,192,922	65,733,617	70,973,138	4.11
Clinical Trials, Other	***Number of Grants***	***224***	***227***	***252***	***294***	***354***	
	Relevant Grant Dollars	120,494,908	147,623,023	160,552,594	188,858,909	219,973,910	
	Number of Contracts	***6***	***8***	***6***	***9***	***11***	
	Relevant Contract Dollars	42,312,294	32,688,151	24,412,496	26,874,654	22,657,772	
	Total Count	***230***	***235***	***258***	***303***	***365***	
	Total Relevant Dollars	162,807,202	180,311,174	184,965,089	215,733,563	242,631,682	10.61
Clinical Trials, Prevention	***Number of Grants***	***89***	***93***	***104***	***139***	***133***	
	Relevant Grant Dollars	30,908,463	33,917,834	37,773,781	58,723,603	62,505,857	
	Number of Contracts	***4***	***5***	***6***	***6***	***5***	
	Relevant Contract Dollars	9,803,442	9,563,835	7,682,165	7,566,893	5,078,890	
	Total Count	***93***	***98***	***110***	***145***	***138***	
	Total Relevant Dollars	40,711,905	43,481,669	45,455,946	66,290,495	67,584,747	14.78

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Clinical Trials, Therapy	***Number of Grants***	***434***	***446***	***462***	***496***	***459***	
	Relevant Grant Dollars	334,329,251	345,754,242	369,134,221	343,190,499	388,573,083	
	Number of Contracts	***8***	***10***	***7***	***4***	***2***	
	Relevant Contract Dollars	100,254,859	100,543,132	136,563,624	10,446,636	3,746,120	
	Total Count	***442***	***456***	***469***	***500***	***461***	
	Total Relevant Dollars	434,584,110	446,297,374	505,697,845	353,637,135	392,319,203	-0.78
Combination Therapy	***Number of Grants***	***995***	***1,103***	***1,193***	***1,388***	***1,491***	
	Relevant Grant Dollars	301,911,203	361,206,359	408,506,690	466,604,392	540,731,253	
	Number of Contracts	***2***	***3***	***2***	***7***	***5***	
	Relevant Contract Dollars	671,778	2,834,416	993,782	2,658,989	943,735	
	Total Count	***997***	***1,106***	***1,195***	***1,395***	***1,496***	
	Total Relevant Dollars	302,582,981	364,040,775	409,500,472	469,263,381	541,674,988	15.70
Cost Effectiveness	***Number of Grants***	***106***	***110***	***122***	***139***	***161***	
	Relevant Grant Dollars	27,207,714	27,980,143	29,227,852	41,549,580	46,576,856	
	Number of Contracts	***‡***	***‡***	***‡***	***1***	***2***	
	Relevant Contract Dollars	‡	‡	‡	149,996	219,978	
	Total Count	***106***	***110***	***122***	***140***	***163***	
	Total Relevant Dollars	27,207,714	27,980,143	29,227,852	41,699,576	46,796,834	15.55
Diabetes	***Number of Grants***	***62***	***64***	***66***	***58***	***64***	
	Relevant Grant Dollars	10,282,028	11,766,492	12,640,219	10,809,850	13,739,652	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***1***	
	Relevant Contract Dollars	‡	‡	‡	‡	79,857	
	Total Count	***62***	***64***	***66***	***58***	***65***	
	Total Relevant Dollars	10,282,028	11,766,492	12,640,219	10,809,850	13,819,509	8.81
Diagnosis	***Number of Grants***	***1,215***	***1,216***	***1,272***	***1,398***	***1,487***	
	Relevant Grant Dollars	530,211,572	595,266,675	666,808,403	701,913,262	809,810,970	
	Number of Contracts	***43***	***37***	***31***	***21***	***42***	
	Relevant Contract Dollars	54,014,496	61,672,252	53,282,401	19,276,242	47,937,100	
	Total Count	***1,258***	***1,253***	***1,303***	***1,419***	***1,529***	
	Total Relevant Dollars	584,226,068	656,938,926	720,090,804	721,189,504	857,748,070	10.29
DNA Repair	***Number of Grants***	***400***	***409***	***422***	***426***	***443***	
	Relevant Grant Dollars	100,897,948	107,893,903	119,158,685	120,767,193	137,329,333	
	Number of Contracts	***‡***	***‡***	***1***	***1***	***‡***	
	Relevant Contract Dollars	‡	‡	150,000	991,300	‡	
	Total Count	***400***	***409***	***423***	***427***	***443***	
	Total Relevant Dollars	100,897,948	107,893,903	119,308,685	121,758,492	137,329,333	8.09

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Drug Development	***Number of Grants***	***1,742***	***1,772***	***1,787***	***1,882***	***1,978***	
	Relevant Grant Dollars	647,645,213	680,118,152	729,568,548	754,132,073	835,004,564	
	Number of Contracts	***44***	***31***	***28***	***40***	***33***	
	Relevant Contract Dollars	95,203,326	106,973,228	110,388,736	32,805,210	45,279,687	
	Total Count	***1,786***	***1,803***	***1,815***	***1,922***	***2,011***	
	Total Relevant Dollars	742,848,539	787,091,380	839,957,283	786,937,283	880,284,251	4.55
Drug Discovery	***Number of Grants***	***299***	***318***	***314***	***360***	***374***	
	Relevant Grant Dollars	79,153,198	86,983,505	102,664,482	119,635,952	106,976,631	
	Number of Contracts	***10***	***10***	***9***	***8***	***13***	
	Relevant Contract Dollars	4,433,398	3,522,708	7,086,104	5,167,352	11,366,705	
	Total Count	***309***	***328***	***323***	***368***	***387***	
	Total Relevant Dollars	83,586,595	90,506,212	109,750,585	124,803,304	118,343,336	9.52
Drug Resistance	***Number of Grants***	***800***	***874***	***926***	***1,012***	***1,064***	
	Relevant Grant Dollars	214,729,058	261,870,733	286,366,510	316,801,615	352,946,475	
	Number of Contracts	***2***	***‡***	***‡***	***1***	***1***	
	Relevant Contract Dollars	646,029	‡	‡	204,459	400,000	
	Total Count	***802***	***874***	***926***	***1,013***	***1,065***	
	Total Relevant Dollars	215,375,087	261,870,733	286,366,510	317,006,074	353,346,475	13.28
Drugs—Natural Products	***Number of Grants***	***225***	***215***	***216***	***221***	***203***	
	Relevant Grant Dollars	54,297,012	54,246,698	53,923,677	53,238,699	55,002,966	
	Number of Contracts	***2***	***1***	***3***	***‡***	***‡***	
	Relevant Contract Dollars	2,574,718	2,136,305	3,660,194	‡	‡	
	Total Count	***227***	***216***	***219***	***221***	***203***	
	Total Relevant Dollars	56,871,730	56,383,003	57,583,871	53,238,699	55,002,966	–0.74
Early Detection	***Number of Grants***	***542***	***536***	***570***	***586***	***606***	
	Relevant Grant Dollars	229,998,056	256,283,853	303,451,666	300,040,995	334,435,841	
	Number of Contracts	***7***	***6***	***6***	***6***	***9***	
	Relevant Contract Dollars	4,028,068	5,328,789	6,666,906	4,213,675	6,145,473	
	Total Count	***549***	***542***	***576***	***592***	***615***	
	Total Relevant Dollars	234,026,124	261,612,642	310,118,572	304,254,670	340,581,314	10.09
Effectiveness Research	***Number of Grants***	***146***	***133***	***129***	***127***	***137***	
	Relevant Grant Dollars	47,442,385	41,402,394	47,924,884	38,294,394	45,611,226	
	Number of Contracts	***11***	***11***	***7***	***‡***	***‡***	
	Relevant Contract Dollars	30,894,764	29,146,805	186,026	‡	‡	
	Total Count	***157***	***144***	***136***	***127***	***137***	
	Total Relevant Dollars	78,337,149	70,549,199	48,110,910	38,294,394	45,611,226	–10.76

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Endocrinology	***Number of Grants***	***368***	***360***	***360***	***384***	***392***	
	Relevant Grant Dollars	96,691,678	97,228,106	100,568,890	107,119,244	114,683,474	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***368***	***360***	***360***	***384***	***392***	
	Total Relevant Dollars	96,691,678	97,228,106	100,568,890	107,119,244	114,683,474	4.39
Energy Balance	***Number of Grants***	***31***	***28***	***16***	***16***	***21***	
	Relevant Grant Dollars	7,628,220	6,286,953	3,473,865	3,258,250	4,022,239	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***31***	***28***	***16***	***16***	***21***	
	Total Relevant Dollars	7,628,220	6,286,953	3,473,865	3,258,250	4,022,239	–11.27
Epidemiology—Biochemical	***Number of Grants***	***297***	***256***	***255***	***223***	***214***	
	Relevant Grant Dollars	146,920,161	124,682,337	118,461,821	101,679,585	102,980,053	
	Number of Contracts	***1***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	24,966	‡	‡	‡	‡	
	Total Count	***298***	***256***	***255***	***223***	***214***	
	Total Relevant Dollars	146,945,127	124,682,337	118,461,821	101,679,585	102,980,053	–8.25
Epidemiology	***Number of Grants***	***150***	***158***	***173***	***222***	***279***	
	Relevant Grant Dollars	75,587,379	85,439,631	95,193,416	104,428,768	130,163,763	
	Number of Contracts	***31***	***30***	***32***	***23***	***27***	
	Relevant Contract Dollars	111,330,516	121,666,411	117,745,294	49,300,160	58,819,693	
	Total Count	***181***	***188***	***205***	***245***	***306***	
	Total Relevant Dollars	186,917,895	207,106,043	212,938,710	153,728,928	188,983,456	2.18
Epidemiology, Environmental	***Number of Grants***	***182***	***163***	***147***	***138***	***129***	
	Relevant Grant Dollars	74,257,282	68,678,162	66,673,242	55,754,307	49,583,836	
	Number of Contracts	***2***	***4***	***1***	***1***	***1***	
	Relevant Contract Dollars	1,417,866	1,684,591	157,967	49,394	24,996	
	Total Count	***184***	***167***	***148***	***139***	***130***	
	Total Relevant Dollars	75,675,148	70,362,753	66,831,209	55,803,701	49,608,832	–9.91
Epigenetics	***Number of Grants***	***778***	***798***	***859***	***946***	***1,013***	
	Relevant Grant Dollars	203,722,809	230,130,230	269,515,321	293,352,295	326,883,216	
	Number of Contracts	***2***	***2***	***1***	***1***	***2***	
	Relevant Contract Dollars	147,571	329,946	80,000	80,000	5,648,943	
	Total Count	***780***	***800***	***860***	***947***	***1,015***	
	Total Relevant Dollars	203,870,380	230,460,176	269,595,321	293,432,295	332,532,159	13.05

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Gene Mapping, Human	***Number of Grants***	***127***	***105***	***97***	***105***	***123***	
	Relevant Grant Dollars	46,905,132	37,032,434	30,940,689	31,753,493	40,211,045	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***127***	***105***	***97***	***105***	***123***	
	Total Relevant Dollars	46,905,132	37,032,434	30,940,689	31,753,493	40,211,045	–2.06
Gene Mapping, Non-Human	***Number of Grants***	***50***	***45***	***37***	***33***	***26***	
	Relevant Grant Dollars	9,836,690	8,912,665	7,412,413	6,119,601	4,756,997	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***1***	
	Relevant Contract Dollars	‡	‡	‡	‡	2,784,472	
	Total Count	***50***	***45***	***37***	***33***	***27***	
	Total Relevant Dollars	9,836,690	8,912,665	7,412,413	6,119,601	7,541,469	–5.11
Gene Transfer Clinical	***Number of Grants***	***17***	***10***	***6***	***5***	***5***	
	Relevant Grant Dollars	4,853,792	2,673,354	1,318,434	1,607,239	1,722,613	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***17***	***10***	***6***	***5***	***5***	
	Total Relevant Dollars	4,853,792	2,673,354	1,318,434	1,607,239	1,733,613	–16.45
Genetic Testing Research, Human	***Number of Grants***	***85***	***65***	***62***	***59***	***77***	
	Relevant Grant Dollars	29,475,413	23,204,606	22,217,351	32,028,580	42,371,901	
	Number of Contracts	***1***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	75,000	‡	‡	‡	‡	
	Total Count	***86***	***65***	***62***	***59***	***77***	
	Total Relevant Dollars	29,550,408	23,204,606	22,217,351	32,028,580	42,371,901	12.68
Genomics	***Number of Grants***	***1,077***	***1,096***	***1,156***	***1,274***	***1,465***	
	Relevant Grant Dollars	389,134,110	405,076,761	491,680,665	519,129,670	560,876,543	
	Number of Contracts	***12***	***8***	***4***	***5***	***12***	
	Relevant Contract Dollars	83,510,228	81,580,679	83,218,582	1,644,854	7,779,982	
	Total Count	***1,089***	***1,104***	***1,160***	***1,279***	***1,477***	
	Total Relevant Dollars	472,644,337	486,657,439	574,899,247	520,774,524	568,656,525	5.22
Health Literacy	***Number of Grants***	***64***	***57***	***58***	***64***	***60***	
	Relevant Grant Dollars	15,279,155	14,215,534	15,380,028	27,404,885	19,017,234	
	Number of Contracts	***‡***	***1***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	‡	1,200,000	1,200,000	‡	‡	
	Total Count	***64***	***58***	***59***	***64***	***60***	
	Total Relevant Dollars	15,279,155	15,415,534	16,580,028	27,404,885	19,017,234	10.78

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 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Health Promotion	***Number of Grants***	***222***	***193***	***191***	***195***	***179***	
	Relevant Grant Dollars	69,278,601	64,108,503	62,959,503	74,943,015	69,938,681	
	Number of Contracts	***3***	***3***	***2***	***5***	***1***	
	Relevant Contract Dollars	2,081,656	582,324	790,283	301,128	2,000,000	
	Total Count	***225***	***196***	***193***	***200***	***180***	
	Total Relevant Dollars	71,360,257	64,690,827	63,749,786	75,244,143	71,938,681	0.71
Health Care Delivery	***Number of Grants***	***293***	***303***	***305***	***361***	***427***	
	Relevant Grant Dollars	178,992,169	187,497,187	230,065,054	251,771,190	281,554,926	
	Number of Contracts	***17***	***20***	***28***	***14***	***8***	
	Relevant Contract Dollars	32,071,822	31,462,158	35,343,565	8,317,853	1,447,821	
	Total Count	***310***	***323***	***333***	***375***	***435***	
	Total Relevant Dollars	211,063,992	218,959,344	265,408,619	260,089,043	283,002,747	7.94
Helicobacter	***Number of Grants***	***19***	***14***	***11***	***11***	***9***	
	Relevant Grant Dollars	7,837,594	6,687,868	5,287,620	5,686,397	4,433,641	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***19***	***14***	***11***	***11***	***9***	
	Total Relevant Dollars	7,837,594	6,687,868	5,287,620	5,686,397	4,433,641	–12.52
Hematology	***Number of Grants***	***1,022***	***1,007***	***964***	***969***	***1,038***	
	Relevant Grant Dollars	449,886,880	458,813,154	481,919,759	471,321,194	498,168,234	
	Number of Contracts	***3***	***2***	***2***	***1***	***1***	
	Relevant Contract Dollars	2,262,571	1,547,327	19,191	54,994	2,000,000	
	Total Count	***1,025***	***1,009***	***966***	***970***	***1,039***	
	Total Relevant Dollars	452,149,451	460,360,481	481,938,950	471,376,188	500,168,234	2.60
Hematopoietic Stem Cell Research	***Number of Grants***	***245***	***236***	***204***	***196***	***201***	
	Relevant Grant Dollars	84,627,744	98,480,686	77,798,511	80,767,226	80,839,744	
	Number of Contracts	***1***	***‡***	***‡***	***‡***	***1***	
	Relevant Contract Dollars	728,795	‡	‡	‡	406,676	
	Total Count	***246***	***236***	***204***	***196***	***202***	
	Total Relevant Dollars	85,356,538	98,480,686	77,798,511	80,767,226	81,246,420	–0.3
Hormone Replacement Therapy	***Number of Grants***	***11***	***12***	***15***	***13***	***9***	
	Relevant Grant Dollars	2,574,377	2,570,173	2,958,043	3,029,573	2,506,125	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***11***	***12***	***15***	***13***	***9***	
	Total Relevant Dollars	2,574,377	2,570,173	2,958,043	3,029,573	2,506,125	0.01

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Hospice	***Number of Grants***	***23***	***24***	***23***	***28***	***38***	
	Relevant Grant Dollars	6,571,656	6,543,607	7,051,315	13,027,467	14,857,743	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***23***	***24***	***23***	***28***	***38***	
	Total Relevant Dollars	6,571,656	6,543,607	7,051,315	13,027,467	14,857,743	26.53
Human Genome	***Number of Grants***	***741***	***686***	***726***	***886***	***1,117***	
	Relevant Grant Dollars	291,591,849	277,508,890	294,842,598	328,436,799	405,138,714	
	Number of Contracts	***6***	***6***	***3***	***4***	***12***	
	Relevant Contract Dollars	20,797,623	1,278,048	4,896,980	640,754	7,779,982	
	Total Count	***747***	***692***	***729***	***890***	***1,129***	
	Total Relevant Dollars	312,389,472	278,786,937	299,739,578	329,077,553	412,918,696	8.01
Iatrogenesis	***Number of Grants***	***202***	***218***	***228***	***273***	***284***	
	Relevant Grant Dollars	73,902,588	83,792,361	92,238,911	110,764,086	122,909,843	
	Number of Contracts	***15***	***12***	***14***	***1***	***2***	
	Relevant Contract Dollars	10,094,584	8,942,518	4,245,161	951,548	5,964,026	
	Total Count	***217***	***230***	***242***	***274***	***286***	
	Total Relevant Dollars	83,997,172	92,734,879	96,484,072	111,715,633	128,873,869	11.39
Imaging	***Number of Grants***	***780***	***824***	***861***	***912***	***931***	
	Relevant Grant Dollars	333,313,090	389,735,661	419,041,652	425,798,706	456,223,373	
	Number of Contracts	***10***	***13***	***5***	***7***	***16***	
	Relevant Contract Dollars	31,629,404	37,758,418	31,825,401	5,313,249	7,655,508	
	Total Count	***790***	***837***	***866***	***919***	***947***	
	Total Relevant Dollars	364,942,494	427,494,079	450,867,052	431,111,955	463,878,881	6.46
Immunization	***Number of Grants***	***341***	***346***	***366***	***476***	***682***	
	Relevant Grant Dollars	108,683,779	124,310,103	145,386,052	202,878,668	274,472,194	
	Number of Contracts	***11***	***13***	***8***	***18***	***7***	
	Relevant Contract Dollars	40,549,330	43,053,952	39,543,607	6,065,548	8,949,888	
	Total Count	***352***	***359***	***374***	***494***	***689***	
	Total Relevant Dollars	149,233,109	167,364,055	184,929,659	208,944,216	283,422,082	17.82
Immunology	***Number of Grants***	***1,386***	***1,489***	***1,631***	***1,853***	***2,122***	
	Relevant Grant Dollars	515,430,748	640,826,692	698,892,998	793,159,253	953,323,965	
	Number of Contracts	***18***	***20***	***15***	***24***	***13***	
	Relevant Contract Dollars	86,509,909	98,113,523	91,031,557	8,326,879	12,737,661	
	Total Count	***1,404***	***1,509***	***1,646***	***1,877***	***2,135***	
	Total Relevant Dollars	601,940,657	738,940,215	789,924,555	801,486,132	966,061,626	12.91

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Immunotherapy	***Number of Grants***	***612***	***716***	***842***	***1,011***	***1,221***	
	Relevant Grant Dollars	197,273,311	332,571,318	368,977,475	450,135,415	522,207,389	
	Number of Contracts	***7***	***6***	***6***	***18***	***12***	
	Relevant Contract Dollars	10,734,319	4,474,792	2,288,367	6,643,093	12,646,911	
	Total Count	***619***	***722***	***848***	***1,029***	***1,233***	
	Total Relevant Dollars	208,007,630	337,046,109	371,265,842	456,778,507	534,854,300	28.08
Inflammation	***Number of Grants***	***459***	***482***	***493***	***509***	***537***	
	Relevant Grant Dollars	112,244,989	116,025,025	120,560,329	128,327,461	155,890,802	
	Number of Contracts	***3***	***3***	***3***	***2***	***3***	
	Relevant Contract Dollars	18,472,380	20,833,026	19,519,964	134,109	422,519	
	Total Count	***462***	***485***	***496***	***511***	***540***	
	Total Relevant Dollars	130,717,368	136,858,051	140,080,293	128,461,570	156,313,321	5.11
Information Dissemination	***Number of Grants***	***515***	***518***	***514***	***523***	***495***	
	Relevant Grant Dollars	213,783,646	215,896,290	228,167,349	234,086,074	221,362,664	
	Number of Contracts	***18***	***25***	***16***	***2***	***1***	
	Relevant Contract Dollars	7,900,187	17,915,927	15,220,485	260,226	49,816	
	Total Count	***533***	***543***	***530***	***525***	***496***	
	Total Relevant Dollars	221,683,833	233,812,217	243,387,833	234,346,300	221,412,480	0.08
Metastasis	***Number of Grants***	***1,332***	***1,307***	***1,337***	***1,385***	***1,448***	
	Relevant Grant Dollars	380,888,828	398,062,542	422,657,303	439,046,764	495,046,289	
	Number of Contracts	***3***	***2***	***2***	***2***	***5***	
	Relevant Contract Dollars	2,899,297	2,999,993	112,339	299,537	2,568,042	
	Total Count	***1,335***	***1,309***	***1,339***	***1,387***	***1,453***	
	Total Relevant Dollars	383,788,124	401,062,535	422,769,641	439,346,301	497,614,331	6.77
Microbiome	***Number of Grants***	***78***	***104***	***135***	***153***	***179***	
	Relevant Grant Dollars	24,150,503	36,476,639	56,410,998	49,546,365	56,460,175	
	Number of Contracts	***2***	***‡***	***2***	***‡***	***‡***	
	Relevant Contract Dollars	450,141	‡	130,750	‡	‡	
	Total Count	***80***	***104***	***137***	***153***	***179***	
	Total Relevant Dollars	24,600,644	36,476,639	56,541,748	49,546,365	56,460,175	26.22
Mind/Body Research	***Number of Grants***	***29***	***25***	***21***	***24***	***16***	
	Relevant Grant Dollars	9,007,115	7,780,748	6,812,260	7,568,135	5,603,617	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***29***	***25***	***21***	***24***	***16***	
	Total Relevant Dollars	9,007,115	7,780,748	6,812,260	7,568,135	5,603,617	–10.23

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Molecular Disease	***Number of Grants***	***4,513***	***4,399***	***4,312***	***4,072***	***3,991***	
	Relevant Grant Dollars	1,882,712,427	1,931,925,940	2,053,008,956	1,925,663,390	2,003,778,069	
	Number of Contracts	***59***	***53***	***52***	***59***	***97***	
	Relevant Contract Dollars	153,297,602	136,964,093	175,671,451	50,132,155	81,398,459	
	Total Count	***4,572***	***4,452***	***4,364***	***4,131***	***4,088***	
	Total Relevant Dollars	2,036,010,029	2,068,890,033	2,228,680,407	1,975,795,545	2,085,176,528	0.88
Molecular Imaging	***Number of Grants***	***410***	***390***	***354***	***327***	***318***	
	Relevant Grant Dollars	141,492,077	143,199,846	133,169,439	126,093,554	129,883,142	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***410***	***390***	***354***	***327***	***318***	
	Total Relevant Dollars	141,492,077	143,199,846	133,169,439	126,093,554	129,883,142	–2.03
Molecular Targeted Prevention	***Number of Grants***	***144***	***131***	***136***	***158***	***163***	
	Relevant Grant Dollars	43,516,697	40,249,335	46,200,693	52,588,843	57,762,149	
	Number of Contracts	***1***	***1***	***1***	***2***	***‡***	
	Relevant Contract Dollars	547,510	509,347	526,781	299,499	‡	
	Total Count	***145***	***132***	***137***	***160***	***163***	
	Total Relevant Dollars	44,064,207	40,758,682	46,727,473	52,888,342	57,762,149	7.38
Molecular Targeted Therapy	***Number of Grants***	***1,908***	***2,038***	***2,257***	***2,519***	***2,738***	
	Relevant Grant Dollars	656,567,963	742,802,310	865,086,938	943,018,481	1,095,915,792	
	Number of Contracts	***6***	***5***	***4***	***8***	***5***	
	Relevant Contract Dollars	90,988,532	92,251,110	128,114,856	3,150,081	1,104,926	
	Total Count	***1,914***	***2,043***	***2,261***	***2,527***	***2,743***	
	Total Relevant Dollars	747,556,494	835,053,420	993,201,794	946,168,562	1,097,020,718	10.46
Nanotechnology	***Number of Grants***	***376***	***417***	***443***	***449***	***437***	
	Relevant Grant Dollars	114,941,122	130,016,571	131,776,237	137,795,320	139,824,379	
	Number of Contracts	***5***	***5***	***4***	***3***	***4***	
	Relevant Contract Dollars	64,879,438	80,950,539	78,759,554	398,887	991,607	
	Total Count	***381***	***422***	***447***	***452***	***441***	
	Total Relevant Dollars	179,820,560	210,967,110	210,535,791	138,194,206	140,815,986	–3.84
Neurofibromatosis	***Number of Grants***	***19***	***17***	***18***	***20***	***16***	
	Relevant Grant Dollars	3,936,995	3,556,637	3,791,093	6,683,411	3,777,508	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***19***	***17***	***18***	***20***	***16***	
	Total Relevant Dollars	3,936,995	3,556,637	3,791,093	6,683,411	3,777,508	7.44

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Non-Hematopoietic Stem Cell Research	***Number of Grants***	***190***	***179***	***143***	***132***	***137***	
	Relevant Grant Dollars	43,034,964	60,699,959	40,471,293	34,680,251	36,147,893	
	Number of Contracts	***2***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	3,484,164	‡	‡	‡	‡	
	Total Count	***192***	***179***	***143***	***132***	***137***	
	Total Relevant Dollars	46,519,128	60,699,959	40,471,293	34,680,251	36,147,893	–3.23
Nursing Research	***Number of Grants***	***28***	***27***	***27***	***28***	***31***	
	Relevant Grant Dollars	8,044,965	7,943,679	9,848,194	12,283,637	12,696,338	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***1***	
	Relevant Contract Dollars	‡	‡	‡	‡	16,500	
	Total Count	***28***	***27***	***27***	***28***	***32***	
	Total Relevant Dollars	8,044,965	7,943,679	9,848,194	12,283,637	12,712,838	12.74
Nutrition	***Number of Grants***	***330***	***303***	***305***	***321***	***335***	
	Relevant Grant Dollars	102,564,615	90,773,169	101,297,729	100,499,788	99,414,309	
	Number of Contracts	***7***	***6***	***9***	***5***	***11***	
	Relevant Contract Dollars	3,452,083	3,005,520	3,462,874	1,880,590	1,618,855	
	Total Count	***337***	***309***	***314***	***326***	***346***	
	Total Relevant Dollars	106,016,699	93,778,689	104,760,603	102,380,378	101,033,164	–0.85
Nutrition Monitoring	***Number of Grants***	***19***	***19***	***21***	***24***	***22***	
	Relevant Grant Dollars	5,485,202	6,478,782	8,999,541	7,573,449	5,674,690	
	Number of Contracts	***1***	***2***	***1***	***1***	***3***	
	Relevant Contract Dollars	435,711	456,632	604,252	448,385	135,356	
	Total Count	***20***	***21***	***22***	***25***	***25***	
	Total Relevant Dollars	5,920,913	6,935,414	9,603,793	8,021,834	5,810,046	2.89
Obesity	***Number of Grants***	***202***	***200***	***194***	***196***	***200***	
	Relevant Grant Dollars	55,081,497	52,003,841	51,223,096	51,490,956	59,380,632	
	Number of Contracts	***1***	***1***	***2***	***1***	***--***	
	Relevant Contract Dollars	2,190,039	2,037,388	2,232,122	504,052	--	
	Total Count	***203***	***201***	***196***	***197***	***200***	
	Total Relevant Dollars	57,271,546	54,041,229	53,455,218	51,995,008	59,380,632	1.18
Occupational Cancer	***Number of Grants***	***23***	***14***	***12***	***11***	***12***	
	Relevant Grant Dollars	5,893,989	3,931,219	3,482,526	3,068,747	2,694,395	
	Number of Contracts	***‡***	***‡***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	87,500	‡	‡	
	Total Count	***23***	***14***	***13***	***11***	***12***	
	Total Relevant Dollars	5,893,989	3,931,219	3,570,026	3,068,747	2,694,395	–17.18

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Oncogenes	***Number of Grants***	***1,310***	***1,226***	***1,141***	***1,108***	***1,111***	
	Relevant Grant Dollars	403,153,878	378,546,779	359,141,456	357,538,899	355,591,456	
	Number of Contracts	***3***	***3***	***3***	***2***	***2***	
	Relevant Contract Dollars	1,968,626	1,711,492	1,213,234	155,151	2,393,180	
	Total Count	***1,313***	***1,229***	***1,144***	***1,110***	***1,113***	
	Total Relevant Dollars	405,122,504	380,258,271	360,354,689	357,694,050	357,984,636	–3.01
Oncolytic Virotherapy	***Number of Grants***	***57***	***61***	***70***	***82***	***66***	
	Relevant Grant Dollars	15,967,635	16,984,698	24,746,324	34,053,494	23,944,711	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***57***	***61***	***70***	***82***	***66***	
	Total Relevant Dollars	15,967,635	16,984,698	24,746,324	34,053,494	23,944,711	14.99
Organ Transplant Research	***Number of Grants***	***110***	***104***	***103***	***103***	***112***	
	Relevant Grant Dollars	47,946,930	43,054,531	47,912,539	52,525,631	56,209,753	
	Number of Contracts	***1***	***‡***	***‡***	***1***	***‡***	
	Relevant Contract Dollars	728,795	‡	‡	149,849	‡	
	Total Count	***111***	***104***	***103***	***104***	***112***	
	Total Relevant Dollars	48,675,724	43,054,531	47,912,539	52,675,480	56,209,753	4.09
Pain	***Number of Grants***	***54***	***53***	***58***	***76***	***96***	
	Relevant Grant Dollars	11,455,185	12,594,778	19,794,438	20,812,196	30,284,534	
	Number of Contracts	***‡***	***1***	***‡***	***3***	***1***	
	Relevant Contract Dollars	‡	99,932	‡	1,920,403	131,575	
	Total Count	***54***	***54***	***58***	***79***	***97***	
	Total Relevant Dollars	11,455,185	12,694,710	19,794,438	22,732,599	30,416,109	28.85
Palliative Care	***Number of Grants***	***49***	***50***	***54***	***73***	***78***	
	Relevant Grant Dollars	13,862,941	14,389,798	17,555,810	32,957,338	34,561,422	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***49***	***50***	***54***	***73***	***78***	
	Total Relevant Dollars	13,862,941	14,389,798	17,555,810	32,957,338	34,561,422	29.59
Pap Testing	***Number of Grants***	***21***	***22***	***18***	***18***	***12***	
	Relevant Grant Dollars	5,776,068	5,476,069	4,379,452	4,575,890	3,696,262	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***21***	***22***	***18***	***18***	***12***	
	Total Relevant Dollars	5,776,068	5,476,069	4,379,452	4,575,890	3,696,262	–9.98

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Pediatric Research	***Number of Grants***	***481***	***488***	***499***	***588***	***717***	
	Relevant Grant Dollars	220,383,334	227,499,715	280,431,656	347,361,731	357,289,363	
	Number of Contracts	***‡***	***2***	***4***	***2***	***5***	
	Relevant Contract Dollars	‡	589,442	4,514,316	2,296,499	5,908,054	
	Total Count	***481***	***490***	***503***	***590***	***722***	
	Total Relevant Dollars	220,383,334	228,089,157	284,945,972	349,658,230	363,197,417	13.75
Personalized Health Care	***Number of Grants***	***485***	***486***	***490***	***501***	***542***	
	Relevant Grant Dollars	144,856,624	170,929,897	170,539,038	174,575,204	213,353,043	
	Number of Contracts	***4***	***5***	***3***	***2***	***8***	
	Relevant Contract Dollars	49,185,985	44,910,814	63,079,767	398,964	1,406,732	
	Total Count	***489***	***491***	***493***	***503***	***550***	
	Total Relevant Dollars	194,042,608	215,840,711	233,618,805	174,974,168	214,759,775	4.28
Pharmacogenetics	***Number of Grants***	***149***	***141***	***124***	***109***	***93***	
	Relevant Grant Dollars	41,108,745	35,728,605	33,417,628	29,010,516	32,095,254	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***149***	***141***	***124***	***109***	***93***	
	Total Relevant Dollars	41,108,745	35,728,605	33,417,628	29,010,516	32,095,254	–5.53
Prevention	***Number of Grants***	***770***	***733***	***778***	***877***	***979***	
	Relevant Grant Dollars	318,281,486	333,968,556	373,997,908	426,375,012	485,610,230	
	Number of Contracts	***29***	***29***	***29***	***33***	***27***	
	Relevant Contract Dollars	54,150,632	48,177,764	33,218,787	29,446,792	36,427,168	
	Total Count	***799***	***762***	***807***	***910***	***1,006***	
	Total Relevant Dollars	372,432,118	382,146,320	407,216,695	455,821,804	522,037,398	8.91
Proteomics	***Number of Grants***	***566***	***547***	***559***	***594***	***602***	
	Relevant Grant Dollars	140,643,812	140,517,434	158,420,435	161,344,098	154,626,572	
	Number of Contracts	***1***	***4***	***2***	***2***	***2***	
	Relevant Contract Dollars	62,182,698	81,234,900	78,521,602	111,702	2,300,581	
	Total Count	***567***	***551***	***561***	***596***	***604***	
	Total Relevant Dollars	202,826,510	221,752,334	236,942,036	161,455,800	156,927,153	–4.62
Radiation, Electromagnetic Fields	***Number of Grants***	***4***	***3***	***4***	***3***	***4***	
	Relevant Grant Dollars	1,291,914	811,428	989,649	692,156	1,187,780	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***4***	***3***	***4***	***3***	***4***	
	Total Relevant Dollars	1,291,914	811,428	989,649	692,156	1,187,780	6.58

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Radiation, Ionizing	***Number of Grants***	***58***	***58***	***55***	***56***	***46***	
	Relevant Grant Dollars	14,849,251	16,498,303	16,441,421	16,222,082	12,687,670	
	Number of Contracts	***1***	***2***	***2***	***2***	***‡***	
	Relevant Contract Dollars	157,967	455,571	2,157,951	199,394	‡	
	Total Count	***59***	***60***	***57***	***58***	***46***	
	Total Relevant Dollars	15,007,218	16,953,874	18,599,372	16,421,476	12,687,670	–2.94
Radiation, Ionizing Diagnosis	***Number of Grants***	***218***	***203***	***199***	***208***	***206***	
	Relevant Grant Dollars	72,895,969	71,819,401	70,963,666	71,915,134	68,820,937	
	Number of Contracts	***1***	***2***	***‡***	***1***	***2***	
	Relevant Contract Dollars	149,751	343,950	‡	982,108	532,000	
	Total Count	***219***	***205***	***199***	***209***	***208***	
	Total Relevant Dollars	73,045,720	72,163,351	70,963,666	72,897,242	69,352,937	–1.25
Radiation, Ionizing Radiotherapy	***Number of Grants***	***385***	***384***	***389***	***419***	***416***	
	Relevant Grant Dollars	120,584,371	122,782,173	133,404,212	146,440,571	157,102,772	
	Number of Contracts	***10***	***8***	***9***	***8***	***2***	
	Relevant Contract Dollars	8,940,664	6,518,356	3,495,309	4,058,840	1,883,202	
	Total Count	***395***	***392***	***398***	***427***	***418***	
	Total Relevant Dollars	129,525,035	129,300,529	136,899,521	150,499,411	158,985,974	5.32
Radiation, Low-Level Ionizing	***Number of Grants***	***3***	***1***	***2***	***2***	***3***	
	Relevant Grant Dollars	523,999	25,740	298,779	431,578	502,743	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***3***	***1***	***2***	***2***	***3***	
	Total Relevant Dollars	523,999	25,740	298,779	431,578	502,743	256.65
Radiation, Magnetic Resonance Imaging	***Number of Grants***	***250***	***249***	***249***	***260***	***266***	
	Relevant Grant Dollars	78,728,770	86,855,863	85,378,228	87,648,412	98,331,963	
	Number of Contracts	***1***	***1***	***1***	***‡***	***2***	
	Relevant Contract Dollars	225,000	277,650	281,104	‡	599,778	
	Total Count	***251***	***250***	***250***	***260***	***268***	
	Total Relevant Dollars	78,953,770	87,133,513	85,659,332	87,648,412	98,931,741	5.96
Radiation, Mammography	***Number of Grants***	***59***	***58***	***56***	***61***	***66***	
	Relevant Grant Dollars	14,435,131	15,339,130	14,531,883	15,006,659	20,782,348	
	Number of Contracts	***‡***	***‡***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	12,500	‡	‡	
	Total Count	***59***	***58***	***57***	***61***	***66***	
	Total Relevant Dollars	14,435,131	15,339,130	14,544,383	15,006,659	20,782,348	10.69

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Radiation, Non-Ionizing	***Number of Grants***	***103***	***99***	***96***	***84***	***78***	
	Relevant Grant Dollars	23,741,839	25,569,233	26,339,672	24,358,812	24,033,685	
	Number of Contracts	***‡***	***2***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	1,791,728	‡	‡	‡	
	Total Count	***103***	***101***	***96***	***84***	***78***	
	Total Relevant Dollars	23,741,839	27,360,961	26,339,672	24,358,812	24,033,685	0.66
Radiation, Non-Ionizing Diagnosis	***Number of Grants***	***328***	***313***	***307***	***310***	***314***	
	Relevant Grant Dollars	120,965,607	124,041,475	112,998,401	117,939,604	132,914,143	
	Number of Contracts	***2***	***4***	***1***	***2***	***3***	
	Relevant Contract Dollars	1,724,725	1,949,613	281,104	1,132,090	799,778	
	Total Count	***330***	***317***	***308***	***312***	***317***	
	Total Relevant Dollars	122,690,332	125,991,087	113,279,505	119,071,694	133,713,921	2.50
Radiation, Non-Ionizing Radiotherapy	***Number of Grants***	***149***	***146***	***156***	***163***	***162***	
	Relevant Grant Dollars	52,954,709	53,900,397	59,155,854	63,806,196	60,179,423	
	Number of Contracts	***‡***	***3***	***2***	***10***	***7***	
	Relevant Contract Dollars	‡	4,206,536	321,677	6,071,668	2,253,949	
	Total Count	***149***	***149***	***158***	***173***	***169***	
	Total Relevant Dollars	52,954,709	58,106,933	59,477,531	69,877,865	62,433,372	4.73
Radiation, UV	***Number of Grants***	***69***	***68***	***63***	***57***	***60***	
	Relevant Grant Dollars	15,072,662	16,146,542	16,770,517	16,613,599	17,738,292	
	Number of Contracts	***‡***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	1,494,124	‡	‡	‡	
	Total Count	***69***	***69***	***63***	***57***	***60***	
	Total Relevant Dollars	15,072,662	17,640,666	16,770,517	16,613,599	17,738,292	4.48
Rare Diseases	***Number of Grants***	***51***	***43***	***38***	***54***	***45***	
	Relevant Grant Dollars	13,348,150	10,726,359	10,401,147	38,288,227	25,262,960	
	Number of Contracts	***‡***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	49,950	‡	‡	‡	
	Total Count	***51***	***44***	***38***	***54***	***45***	
	Total Relevant Dollars	13,348,150	10,776,309	10,401,147	38,288,227	25,262,960	52.84
Rehabilitation	***Number of Grants***	***134***	***129***	***139***	***152***	***158***	
	Relevant Grant Dollars	54,957,761	56,664,104	55,517,413	61,304,559	69,345,592	
	Number of Contracts	***3***	***‡***	***1***	***‡***	***2***	
	Relevant Contract Dollars	1,694,020	‡	1,499,993	‡	799,682	
	Total Count	***137***	***129***	***140***	***152***	***160***	
	Total Relevant Dollars	56,651,781	56,664,104	57,017,406	61,304,559	70,145,274	5.65

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Rural Populations	***Number of Grants***	***80***	***84***	***90***	***120***	***162***	
	Relevant Grant Dollars	39,972,778	47,225,578	58,851,993	98,480,127	122,332,054	
	Number of Contracts	***‡***	***‡***	***1***	***‡***	***3***	
	Relevant Contract Dollars	‡	‡	56,000	‡	229,861	
	Total Count	***80***	***84***	***91***	***120***	***165***	
	Total Relevant Dollars	39,972,778	47,225,578	58,907,993	98,480,127	122,561,915	33.63
Sexually Transmitted Diseases	***Number of Grants***	***38***	***37***	***35***	***39***	***36***	
	Relevant Grant Dollars	11,054,662	11,261,006	10,790,237	10,654,262	9,772,150	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***38***	***37***	***35***	***39***	***36***	
	Total Relevant Dollars	11,054,662	11,261,006	10,790,237	10,654,262	9,772,150	–2.96
Sleep Disorders	***Number of Grants***	***51***	***48***	***60***	***70***	***79***	
	Relevant Grant Dollars	9,575,112	10,817,251	18,354,414	16,970,680	22,152,566	
	Number of Contracts	***‡***	***‡***	***‡***	***1***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	678,153	‡	
	Total Count	***51***	***48***	***60***	***71***	***79***	
	Total Relevant Dollars	9,575,112	10,817,251	18,354,414	17,648,833	22,152,566	26.08
Small Molecules	***Number of Grants***	***542***	***556***	***592***	***646***	***645***	
	Relevant Grant Dollars	116,837,379	128,242,096	139,220,927	166,827,632	172,925,404	
	Number of Contracts	***4***	***5***	***3***	***6***	***1***	
	Relevant Contract Dollars	2,932,872	3,629,428	3,818,665	2,109,100	535,791	
	Total Count	***546***	***561***	***595***	***652***	***646***	
	Total Relevant Dollars	119,770,251	131,871,523	143,039,592	168,936,732	173,461,195	9.84
Smoking	***Number of Grants***	***237***	***241***	***223***	***239***	***308***	
	Relevant Grant Dollars	85,531,663	90,945,385	89,089,847	99,065,410	118,950,299	
	Number of Contracts	***6***	***6***	***5***	***3***	***3***	
	Relevant Contract Dollars	5,099,990	2,086,550	14,152,035	31,499,932	6,144,385	
	Total Count	***243***	***247***	***228***	***242***	***311***	
	Total Relevant Dollars	90,631,653	93,031,935	103,241,882	130,565,342	125,094,684	8.97
Smoking Behavior	***Number of Grants***	***183***	***181***	***166***	***169***	***187***	
	Relevant Grant Dollars	65,022,529	68,496,317	63,263,716	68,754,459	72,779,870	
	Number of Contracts	***4***	***5***	***4***	***2***	***2***	
	Relevant Contract Dollars	4,424,240	2,070,000	1,268,250	30,989,737	6,143,845	
	Total Count	***187***	***186***	***170***	***171***	***189***	
	Total Relevant Dollars	69,446,769	70,566,317	64,531,966	99,744,196	78,923,715	6.69

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Smoking Cessation	***Number of Grants***	***97***	***101***	***109***	***133***	***155***	
	Relevant Grant Dollars	34,877,760	38,247,479	38,423,410	50,868,931	61,529,655	
	Number of Contracts	***2***	***1***	***1***	***1***	***1***	
	Relevant Contract Dollars	3,139,341	6,250,268	12,883,785	29,089,986	5,343,845	
	Total Count	***99***	***102***	***110***	***134***	***156***	
	Total Relevant Dollars	38,017,101	44,497,747	51,307,195	79,958,917	66,873,500	17.96
Smoking, Passive	***Number of Grants***	***14***	***15***	***16***	***12***	***14***	
	Relevant Grant Dollars	3,389,404	5,075,259	5,088,594	3,165,300	6,396,292	
	Number of Contracts	***2***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	456,715	‡	‡	‡	‡	
	Total Count	***16***	***15***	***16***	***12***	***14***	
	Total Relevant Dollars	3,846,118	5,075,259	5,088,594	3,165,300	6,396,292	24.12
Smokeless Tobacco	***Number of Grants***	***15***	***15***	***15***	***13***	***46***	
	Relevant Grant Dollars	1,686,491	1,827,449	1,882,785	1,609,491	7,843,378	
	Number of Contracts	***1***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	440,965	‡	‡	‡	‡	
	Total Count	***16***	***15***	***15***	***13***	***46***	
	Total Relevant Dollars	2,127,455	1,827,449	1,882,785	1,609,491	7,843,378	90.43
Structural Biology	***Number of Grants***	***682***	***619***	***580***	***573***	***547***	
	Relevant Grant Dollars	165,245,966	160,205,655	160,511,867	170,136,965	153,305,173	
	Number of Contracts	***2***	***1***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	62,705,109	79,804,870	78,321,602	‡	‡	
	Total Count	***684***	***620***	***581***	***573***	***547***	
	Total Relevant Dollars	227,951,075	240,010,526	238,833,468	170,136,965	153,305,173	–8.46
Surgery	***Number of Grants***	***169***	***186***	***195***	***215***	***217***	
	Relevant Grant Dollars	50,662,032	58,892,413	61,508,704	66,631,920	70,639,872	
	Number of Contracts	***‡***	***2***	***2***	***1***	***3***	
	Relevant Contract Dollars	‡	1,172,218	14,539	1,137,419	2,800,331	
	Total Count	***169***	***188***	***197***	***216***	***220***	
	Total Relevant Dollars	50,662,032	60,064,630	61,523,242	67,769,339	73,440,203	9.88
Taxol	***Number of Grants***	***100***	***112***	***121***	***123***	***117***	
	Relevant Grant Dollars	15,870,045	21,162,390	23,999,046	24,567,763	25,130,952	
	Number of Contracts	***1***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	496,154	‡	‡	‡	‡	
	Total Count	***101***	***112***	***121***	***123***	***117***	
	Total Relevant Dollars	16,366,199	21,162,390	23,999,046	24,567,763	25,130,952	11.84

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Telehealth	***Number of Grants***	***219***	***242***	***273***	***312***	***366***	
	Relevant Grant Dollars	68,485,679	79,769,242	110,288,390	118,727,319	139,905,356	
	Number of Contracts	***10***	***8***	***8***	***6***	***15***	
	Relevant Contract Dollars	3,584,009	4,389,571	6,077,680	680,057	14,345,827	
	Total Count	***229***	***250***	***281***	***318***	***381***	
	Total Relevant Dollars	72,069,688	84,158,813	116,366,070	119,407,376	154,251,183	21.71
Therapy	***Number of Grants***	***3,425***	***3,625***	***3,830***	***4,112***	***4,309***	
	Relevant Grant Dollars	1,527,523,958	1,754,215,108	1,919,432,271	2,021,576,346	2,211,866,079	
	Number of Contracts	***78***	***64***	***68***	***88***	***71***	
	Relevant Contract Dollars	179,514,139	157,222,822	187,721,808	162,718,386	93,260,341	
	Total Count	***3,503***	***3,689***	***3,898***	***4,200***	***4,380***	
	Total Relevant Dollars	1,707,038,097	1,911,437,931	2,107,154,079	2,184,294,732	2,305,126,420	7.85
Tropical Diseases	***Number of Grants***	***11***	***8***	***8***	***8***	***12***	
	Relevant Grant Dollars	3,628,078	3,155,736	1,846,880	1,282,015	3,962,719	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***11***	***8***	***8***	***8***	***12***	
	Total Relevant Dollars	3,628,078	3,155,736	1,846,880	1,282,015	3,962,719	31.01
Tumor Markers	***Number of Grants***	***107***	***81***	***55***	***50***	***39***	
	Relevant Grant Dollars	35,214,792	28,002,108	14,174,253	10,847,303	10,087,428	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***107***	***81***	***55***	***50***	***39***	
	Total Relevant Dollars	35,214,792	28,002,108	14,174,253	10,847,303	10,087,428	–25.08
Underserved and Disparities	***Number of Grants***	***472***	***484***	***540***	***639***	***743***	
	Relevant Grant Dollars	228,862,603	247,578,399	324,687,212	412,442,362	493,849,542	
	Number of Contracts	***7***	***9***	***4***	***2***	***6***	
	Relevant Contract Dollars	1,906,103	5,404,861	3,581,740	522,094	1,090,111	
	Total Count	***479***	***493***	***544***	***641***	***749***	
	Total Relevant Dollars	230,768,706	252,983,260	328,268,952	412,964,456	494,939,653	21.26
Vaccine Development	***Number of Grants***	***84***	***76***	***84***	***86***	***77***	
	Relevant Grant Dollars	18,841,587	18,665,405	20,212,226	23,709,448	20,809,287	
	Number of Contracts	***2***	***1***	***1***	***3***	***1***	
	Relevant Contract Dollars	2,719,056	589,266	230,734	27,903	761,776	
	Total Count	***86***	***77***	***85***	***89***	***78***	
	Total Relevant Dollars	21,560,643	19,254,670	20,442,960	23,737,350	21,571,063	0.62

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Vaccine Production	***Number of Grants***	***1***	***1***	***2***	***3***	***4***	
	Relevant Grant Dollars	40,677	40,677	119,047	407,323	1,040,548	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***3***	
	Relevant Contract Dollars	‡	‡	‡	‡	4,717,231	
	Total Count	***1***	***1***	***2***	***3***	***7***	
	Total Relevant Dollars	40,677	40,677	119,047	407,323	5,757,779	437.09
Vaccine Research	***Number of Grants***	***102***	***103***	***106***	***112***	***108***	
	Relevant Grant Dollars	23,660,428	27,073,893	28,024,644	29,756,398	42,394,025	
	Number of Contracts	***10***	***10***	***7***	***12***	***1***	
	Relevant Contract Dollars	34,643,738	39,618,958	37,638,643	4,840,694	1,071,582	
	Total Count	***112***	***113***	***113***	***124***	***109***	
	Total Relevant Dollars	58,304,167	66,692,851	65,663,287	34,597,091	43,465,607	–2.21
Vaccine Testing	***Number of Grants***	***54***	***48***	***42***	***47***	***52***	
	Relevant Grant Dollars	14,750,690	13,896,826	11,061,812	11,899,523	17,996,942	
	Number of Contracts	***1***	***2***	***2***	***‡***	***‡***	
	Relevant Contract Dollars	3,186,536	2,305,882	1,674,230	‡	‡	
	Total Count	***55***	***50***	***44***	***47***	***52***	
	Total Relevant Dollars	17,937,226	16,202,707	12,736,042	11,899,523	17,996,942	3.40
Virus Cancer Research	***Number of Grants***	***314***	***300***	***285***	***308***	***343***	
	Relevant Grant Dollars	130,243,171	133,714,813	131,441,807	130,328,650	159,960,903	
	Number of Contracts	***4***	***2***	***3***	***2***	***1***	
	Relevant Contract Dollars	30,559,118	34,560,327	33,092,240	928,436	761,776	
	Total Count	***318***	***302***	***288***	***310***	***344***	
	Total Relevant Dollars	160,802,289	168,275,141	164,534,046	131,257,086	160,722,679	1.16
Virus—Epstein-Barr	***Number of Grants***	***49***	***49***	***48***	***51***	***51***	
	Relevant Grant Dollars	18,001,207	18,317,870	18,236,645	18,415,472	21,951,062	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***49***	***49***	***48***	***51***	***51***	
	Total Relevant Dollars	18,001,207	18,317,870	18,236,645	18,415,472	21,951,062	5.37
Virus—Hepatitis B	***Number of Grants***	***18***	***13***	***19***	***17***	***19***	
	Relevant Grant Dollars	2,835,408	1,682,116	2,974,267	2,605,999	4,216,083	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***18***	***13***	***19***	***17***	***19***	
	Total Relevant Dollars	2,835,408	1,682,116	2,974,267	2,605,999	4,216,083	21.39

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Virus—Hepatitis C	***Number of Grants***	***22***	***16***	***23***	***19***	***9***	
	Relevant Grant Dollars	4,925,341	3,352,826	4,349,788	2,845,741	1,273,208	
	Number of Contracts	***‡***	***‡***	***‡***	***1***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	510,195	‡	
	Total Count	***22***	***16***	***23***	***20***	***9***	
	Total Relevant Dollars	4,925,341	3,352,826	4,349,788	3,355,936	1,273,208	–21.78
Virus—Herpes	***Number of Grants***	***110***	***107***	***101***	***107***	***113***	
	Relevant Grant Dollars	44,516,965	47,186,600	41,145,977	39,272,062	45,601,103	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***110***	***107***	***101***	***107***	***113***	
	Total Relevant Dollars	44,516,965	47,186,600	41,145,977	39,272,062	45,601,103	1.19
Virus—HHV8	***Number of Grants***	***51***	***53***	***51***	***51***	***58***	
	Relevant Grant Dollars	25,216,563	27,737,808	23,175,112	19,425,311	23,438,247	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***51***	***53***	***51***	***51***	***58***	
	Total Relevant Dollars	25,216,563	27,737,808	23,175,112	19,425,311	23,438,247	–0.49
Virus—HTLV-I	***Number of Grants***	***14***	***11***	***10***	***7***	***7***	
	Relevant Grant Dollars	4,142,547	3,899,447	3,980,369	1,535,971	3,524,763	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***14***	***11***	***10***	***7***	***7***	
	Total Relevant Dollars	4,142,547	3,899,447	3,980,369	1,535,971	3,524,763	16.07
Virus—Papilloma	***Number of Grants***	***141***	***149***	***142***	***156***	***175***	
	Relevant Grant Dollars	48,797,503	52,490,929	54,043,721	55,609,372	67,736,091	
	Number of Contracts	***3***	***1***	***1***	***1***	***1***	
	Relevant Contract Dollars	5,686,039	2,638,379	1,697,599	418,241	761,776	
	Total Count	***144***	***150***	***143***	***157***	***176***	
	Total Relevant Dollars	54,483,542	55,129,308	55,741,320	56,027,613	68,497,867	6.27
Virus—Papova	***Number of Grants***	***154***	***161***	***151***	***166***	***183***	
	Relevant Grant Dollars	52,682,779	56,177,300	56,892,866	59,441,700	72,600,571	
	Number of Contracts	***3***	***1***	***1***	***1***	***1***	
	Relevant Contract Dollars	5,686,039	2,638,379	1,697,599	418,241	761,776	
	Total Count	***157***	***162***	***152***	***167***	***184***	
	Total Relevant Dollars	58,368,818	58,815,679	58,590,465	59,859,941	73,362,347	6.28

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 FY2016 – FY2020 — Average Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars†	2016	2017	2018	2019	2020	Average Percent Change/ Year
Virus—SV40	***Number of Grants***	***1***	***2***	***2***	***2***	***2***	
	Relevant Grant Dollars	155,700	720,567	720,567	711,858	809,500	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***2***	***2***	***2***	***2***	***2***	
	Total Relevant Dollars	155,700	720,567	720,567	711,858	809,500	93.82
Vitamin A	***Number of Grants***	***13***	***9***	***9***	***12***	***10***	
	Relevant Grant Dollars	2,452,760	2,771,355	2,199,510	2,362,430	2,545,642	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***1***	
	Relevant Contract Dollars	‡	‡	‡	‡	90,750	
	Total Count	***13***	***9***	***9***	***12***	***11***	
	Total Relevant Dollars	2,452,760	2,771,355	2,199,510	2,362,430	2,636,392	2.84
Vitamin C	***Number of Grants***	***6***	***4***	***4***	***4***	***6***	
	Relevant Grant Dollars	1,443,333	1,262,997	3,288,782	3,034,224	4,127,482	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***6***	***4***	***4***	***4***	***6***	
	Total Relevant Dollars	1,443,333	1,262,997	3,288,782	3,034,224	4,127,482	44.04
Vitamin D	***Number of Grants***	***32***	***35***	***38***	***34***	***27***	
	Relevant Grant Dollars	10,749,178	12,254,831	13,343,235	11,208,500	7,069,913	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***32***	***35***	***38***	***34***	***27***	
	Total Relevant Dollars	10,749,178	12,254,831	13,343,235	11,208,500	7,069,913	–7.51

* 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 in FY2020

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

Country/Cancer Site											
AUSTRALIA	**F31**	**F32**	**R01**	**R03**	**R21**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**Totals**
Grants #			***1***			***2***					***3***
Funding $			***243,896***			***2,047,361***					***2,291,257***
CHILDHOOD LEUKEMIA						193,793					193,793
COLON, RECTUM						1,853,568					1,853,568
MELANOMA			243,896								243,896
BELGIUM	**F31**	**F32**	**R01**	**R03**	**R21**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**Totals**
Grants #			***1***								***1***
Funding $			***247,046***								***247,046***
NOT SITE SPECIFIC			247,046								247,046
CANADA	**F31**	**F32**	**R01**	**R03**	**R21**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**Totals**
Grants #			***4***			***1***	***1***			***1***	***7***
Funding $			***1,279,801***			***281,916***	***2,475,136***			***5,963,609***	***10,000,462***
BREAST							618,784				618,784
CERVIX			353,682								353,682
CHILDHOOD LEUKEMIA			52,700								52,700
GASTROINTESTINAL TRACT							618,784				618,784
LEUKEMIA			158,099								158,099
LUNG						281,916	618,784				900,700
MELANOMA			59,909								59,909
NON-HODGKIN LYMPHOMA			59,909								59,909
NOT SITE SPECIFIC*			475,684							5,963,609	6,439,293
PANCREAS			59,909								59,909
SARCOMA, BONE			59,909								59,909
URINARY SYSTEM							618,784				618,784
DENMARK	**F31**	**F32**	**R01**	**R03**	**R21**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**Totals**
Grants #			***1***								***1***
Funding $			***194,683***								***194,683***
TESTIS			194,683								194,683
FRANCE	**F31**	**F32**	**R01**	**R03**	**R21**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**Totals**
Grants #			***1***	***1***		***2***			***2***		***6***
Funding $			***477,599***	***112,170***		***1,070,228***			***1,339,976***		***2,999,973***
BREAST			477,599			269,998					747,597
CERVIX									1,339,976		1,339,976
LUNG				112,170							112,170
NOT SITE SPECIFIC*						800,230					800,230
GERMANY	**F31**	**F32**	**R01**	**R03**	**R21**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**Totals**
Grants #								***1***			***1***
Funding $								***535,159***			***535,159***
NOT SITE SPECIFIC*								535,159			535,159
ITALY	**F31**	**F32**	**R01**	**R03**	**R21**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**Totals**
Grants #					***1***						***1***
Funding $					***277,695***						***277,695***
NOT SITE SPECIFIC*					277,695						277,695
NETHERLANDS	**F31**	**F32**	**R01**	**R03**	**R21**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**Totals**
Grants #			***1***								***1***
Funding $			***196,633***								***196,633***
BREAST			196,633								196,633

continued

* NOT SITE SPECIFIC = research which lacks a focus on a particular type of cancer/cancer site, e.g., basic research on the role of a protein in cellular DNA damage in fruit flies; there is no cancer site focus, however it is relevant to cancer research.

Source: Research Analysis and Evaluation Branch

Table 17 (cont'd). NCI Funding of Foreign Research Grants in FY2020

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

Country/Cancer Site											
SOUTH AFRICA	**F31**	**F32**	**R01**	**R03**	**R21**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**Totals**
Grants #			***2***								***2***
Funding $			***313,649***								***313,649***
CERVIX			156,153								156,153
BREAST			157,496								157,496
SWEDEN	**F31**	**F32**	**R01**	**R03**	**R21**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**Totals**
Grants #	***1***		***1***								***2***
Funding $	***29,520***		***409,100***								***438,620***
BREAST			139,094								139,094
LUNG	14,760										14,760
MELANOMA	14,760										14,760
NON-HODGKIN LYMPHOMA			135,003								135,003
SARCOMA, BONE			135,003								135,003
UNITED KINGDOM	**F31**	**F32**	**R01**	**R03**	**R21**	**U01**	**U10**	**U24**	**UH3**	**UM1**	**Totals**
Grants #		***1***				***1***		***1***			***3***
Funding $		***11,850***				***317,425***		***252,107***			***581,382***
BREAST		11,850									11,850
KIDNEY						317,425					317,425
THYROID								252,107			252,107
Total Grants	***1***	***1***	***12***	***1***	***1***	***6***	***1***	***2***	***2***	***1***	***28***
Total $ Per Grant Type	***29,520***	***11,850***	***3,362,407***	***112,170***	***277,695***	***3,716,930***	***2,475,136***	***787,266***	***1,339,976***	***5,963,609***	***18,076,559***

* NOT SITE SPECIFIC = research which lacks a focus on a particular type of cancer/cancer site, e.g., basic research on the role of a protein in cellular DNA damage in fruit flies; there is no cancer site focus, however it is relevant to cancer research.

Source: Research Analysis and Evaluation Branch

Table 18. Foreign Components of U.S. Domestic Research Grants in FY2020

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

COUNTRY	Funding Mechanism																											Sub-total
	DP1	F30	F31	F32	F99	K07	K08	K99	P01	P50	R00	R01	R03	R13	R21	R25	R33	R35	R37	R41	R42	R44	U01	U24	U54	UG1	UG3	UH2	UH3	UM1	
Argentina																									1					1	2
Australia												13					1		1		1		4		1						21
Austria	1											1			1							1									4
Bahamas																1															1
Bangladesh																							1								1
Belgium											1	2							1												4
Botswana							1					1													1				1		4
Brazil												3		1																1	5
Canada		1			2	1			1	1		42		2	1	1	1	1	2	1	1		9	1		3					71
China											1	18	1	1	1				1			1	4						1		29
Congo																									1						1
Cyprus															1																1
Denmark												8							1				2	1							12
Egypt														1																	1
El Salvador												1										1									2
Finland												1			1																2
France									1			7		1					2				2								13
Germany						1				1	1	16			1			2	2	1			8		1						34
Ghana												1																			1
Honduras																													1		1
Hong Kong												2																			2
Hungary												1																			1
Iceland																							1								1
India												4		1	2									1					2		10
Ireland												4		1																	5
Israel												7							1				1								9
Italy										1		9			1								2		1						14
Japan												7		1					1				2								11
Kenya							1					1													2					1	5
Laos															1																1
Lebanon												1																			1
Malawi													1		1										2				1	1	6
Mexico												2		2									2						1	1	8
Mozambique												1																			1
Netherlands		1	1									10			1				1			1	10								25
New Zealand												2																			2
Nigeria						1						2			1	1									1				1		7
Norway												2											2								4

continued

Table 18 (cont'd). Foreign Components of U.S. Domestic Research Grants in FY2020

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

COUNTRY	Funding Mechanism																													Sub-total
	DP1	F30	F31	F32	F99	K07	K08	K99	P01	P50	R00	R01	R03	R13	R21	R25	R33	R35	R37	R41	R42	R44	U01	U24	U54	UG1	UG3	UH2	UH3	UM1	
Peru												1																			1
Philippines																													1		1
Poland												1																			1
Portugal												1																			1
Rwanda						1																			1						2
Senegal																									1						1
Singapore												2						1													3
South Africa												5			1										1		1			1	9
South Korea				1								2		1	1								3			1					9
Spain												10		1									2								13
Swaziland												1								1											2
Sweden												2											3								5
Switzerland									1			6											1		1		1				10
Taiwan												3		1															1		5
Tanzania United Republic												1													2						3
Thailand												1																			1
Uganda												4			2										5		3			1	15
United Kingdom	1			1			1	1	3			19				1		1	3	1			6	1	1			1			41
Vietnam												1																			1
Zambia												1													1						2
Zimbabwe																														1	1
Totals	**2**	**2**	**1**	**2**	**2**	**4**	**3**	**1**	**6**	**3**	**3**	**230**	**2**	**14**	**17**	**4**	**2**	**5**	**16**	**4**	**2**	**4**	**65**	**4**	**24**	**4**	**5**	**1**	**10**	**8**	**450***

* Because many grants have multiple foreign contributors, the total count (450) is greater than the total number of grants (193).
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 13,014 applications in FY2020 requesting $4,482,059,843 in direct costs with appropriated funds. Additionally, the Board reviewed seven FDA applications in FY2020.

The Board heard presentations, discussed, and provided advice on a variety of topics and NCI activities in FY2020, such as—

- NCI Director's Report
- NCI Deputy Director's Report
- President's Cancer Panel Report
- Legislative Report
- Budget Overview
- Comparative Oncology Program: Clinical Trial in Dogs with Cancer and Insight for Humans
- Nature as a Remarkable Chemist: The Story of Taxol
- Cancer Grand Challenges Collaboration with CRUK
- Foreign Influences on Research Integrity
- Annual Delegations of Authority
- Exceptional Responders Program
- Intramural Research Program Neurofibromatosis Type 1 (NF1) Program
- Policy on Percent Effort Grants
- Establishing an *Ad Hoc* Working Group on Clinical Trials Enrollment and Retention
- Update: NYU Coronavirus Activity
- Clinical Trials Policies
- Update: COVID-19 Serology and Immunology Capacity Building
- NCI-Supported Clinical Research During the COVID-19 Pandemic
- Minority Accrual to NCI's National Clinical Trials Network (NCTN) and NCI Community Oncology Research Program (NCORP) Clinical Trials
- The Impact of Advances in Lung Cancer Treatment on Population Mortality by Subtype
- Update on TMIST: Tomosynthesis Mammographic Imaging Screening Trial
- *Ad Hoc* Subcommittee on Population Science, Epidemiology, and Disparities Report
- Subcommittee on Clinical Investigations Report
- Subcommittee on Planning and Budget Report
- *Ad Hoc* Subcommittee on Global Cancer Research Report
- *Ad Hoc* Subcommittee on Experimental Therapeutics Report

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

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

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

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

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

In addition to approving, a number of extramural program initiatives (listed below), the BSA also heard presentations on the following in FY2020:

- NCI Director's Report
- NCI Deputy Director's Report
- President's Cancer Panel Report
- Legislative Report
- Budget Overview
- Comparative Oncology Program: Clinical Trial in Dogs with Cancer and Insight for Humans
- Nature as a Remarkable Chemist: The Story of Taxol
- Cancer Grand Challenges Collaboration with CRUK
- Foreign Influences on Research Integrity
- BSA *Ad hoc* Subcommittee on HIV/AIDS Malignancy Meeting Report
- Update: NYU Coronavirus Activity
- Clinical Trial Policies
- Update: COVID-19 Serology and Immunology Capacity Building
- NCI-Supported Clinical Research During the COVID-19 Pandemic
- Minority Accrual to NCTN and NCORP Clinical Trials
- BSA Childhood Cancer Data Initiative (CCDI) *Ad hoc* Working Group Report

RFA Concepts Approved

Division of Cancer Control and Population Sciences

- Research to Reduce Morbidity and Improve Care for Pediatric and Adolescent and Young Adults (AYA) Cancer Survivors (Clinical Trial Optional)
- Addressing Gaps in Knowledge Utilizing Cancer Survivor Cohort Studies (No Clinical Trial Options)
- Tobacco Cessation, HIV, and Comorbidities in Low- and Middle-Income Countries
- New Cohorts to Assess Environmental Exposures and Cancer Risk
- Social and Behavioral Intervention Research to Address Modifiable Risk Factors for Cancer in Rural Populations

Division of Cancer Treatment and Diagnosis

- Glioblastoma Therapeutics Network

Office of the Director

- Strengthening Institutional Capacity to Conduct Global Cancer Research
- Cancer Moonshot℠ Data Visualization Methods and Tools Development (R33) (NET #1)
- Small Business Transition Grant

RFA/Cooperative Agreements Approved

Division of Cancer Biology

- Metastasis Research Network
- Aging, Cancer-Initiating Cells, and Cancer Progression

Division of Cancer Control and Population Sciences

- Cancer Intervention and Surveillance Modeling Network (CISNET) Incubator Program for New Cancer Sites

Office of the Director

- 3D Technologies to Accelerate Human Tumor Atlas Network (HTAN) Atlas Building Efforts (HTAN #1)
- Collaborative Approaches to Engineer Biology for Cancer Applications

RFA Re-Issuances Approved

Division of Cancer Treatment and Diagnosis

- Childhood Cancer Survivorship Study (CCSS)

Office of the Director

- The NCI Predoctoral to Postdoctoral Fellow Transition Award (F99/K00)
- The Cancer Genome Atlas (TCGA) Network: TCGA Genome Characterization Center (GCC) and TCGA Genome Data Analysis Center (GDAC)

RFA/Cooperative Agreement Re-Issuances Approved

Division of Cancer Biology

- International Agency for Research on Cancer (IARC) Monographs Program

Division of Cancer Treatment and Diagnosis

- Pediatric Preclinical Testing Public-Private Partnership (PPTP3)

RFP Concepts Approved

Division of Cancer Prevention

- Addressing a 'Last Mile' Problem in Cervical Cancer Screening

Division of Cancer Treatment and Diagnosis

- Clinical Trials Monitoring Service (CTMS)

Office of the Director

- SBIR Contract Topics
- SBIR Innovative Concept Award to Develop Transformational Solutions Focused on Prevention, Detection, Treatment, and Research in Pediatric Cancers and Rare Cancers

Program Announcements Approved

Division of Cancer Treatment and Diagnosis

- Towards Translation of Cancer Nanotechnology Intervention (R01) (Clinical Trial Not Allowed)

Office of the Director

- Clinical Translation of Activated Optical Fluorescence Methods and Technologies for Sensitive Cancer Detection *In Vivo*

Program Announcements Re-Issuance Approved

Division of Cancer Treatment and Diagnosis

- Academic–Industrial Partnerships (AIP) to Translate and Validate *In Vivo* Imaging Systems (R01) (Clinical Trial Optional)

Paycheck Protection Program and Health Care Enhancement Act Concepts

- NCI Support of COVID-19 Serological Research

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; 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 National Cancer Institute Facility in Frederick, Maryland, was established in 1972 as a Government-owned Contractor-operated (GOCO) facility. In 1975, the facility 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. The FNLAC reviews the state of research (extramural and intramural) at 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 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 FNLCR, evaluates their productivity, helps determine which of these projects should be transitioned to more conventional mechanisms of support, (i.e., grants, contracts, cooperative agreements), and which should be considered for termination.

The Committee heard presentations, discussed, and provided advice on a variety of topics and NCI activities in FY2020, such as—

- NCI Director's Report
- NCI Acting Director's Report
- Frederick National Laboratory (FNL): Current and Future Work
- Investigator Initiated and Extramural Collaborative Research in the AIDS and Cancer Virus Program, FNLCR
- Strategies for Developing RAS-Like Projects
- Role of FNLCR in NCI's New Precision Medicine Initiatives
- Basic Science Program
- Human Papillomavirus (HPV) Serology at FNL: Progress to Date and Future Directions
- Biopharmaceutical Development Program
- Distinctive Capabilities of the Laboratory Animal Sciences Program
- COVID-19 Serology and Immunology Capacity Building
- Clinical Serological Sciences
- Foundational Serological Sciences
- FNL Operations During the Pandemic
- COVID-19 Research Initiatives at the FNL
- Immune Cell Engineering for the Extramural Community: Recent Progress at the FNLCR
- New National Programs at the NCI's FNLCR

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

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

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

President's Cancer Panel

Current Chair

John P. Williams, M.D., F.A.C.S. ..... George Mason University

Past Chair

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

Members

Robert A. Ingram ..... Hatteras Venture Partners
Edith P. Mitchell, M.D., M.A.C.P., F.C.P.P. ..... Thomas Jefferson University

Current Executive Secretary

Maureen R. Johnson, Ph.D. ..... National Cancer Institute, NIH

Past Executive Secretary

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

National Cancer Advisory Board

Current Chair

Elizabeth M. Jaffee, M.D. ..... Johns Hopkins University

Members

Peter C. Adamson, M.D. ..... Children's Hospital of Philadelphia
Francis Ali-Osman, D.Sc. ..... Duke University Medical Center
Anna D. Barker, Ph.D. ..... University of Southern California
Deborah Watkins Bruner, RN, Ph.D., F.A.A.N. ..... Emory University
Yuan Chang, M.D. ..... University of Pittsburgh Cancer Institute
David C. Christiani, M.D., M.P.H. ..... Harvard Medical School
Howard J. Fingert, M.D., F.A.C.P. ..... Consultant
Judy E. Garber, M.D., M.P.H. ..... Harvard Medical School
Lawrence O. Gostin, J.D. ..... Georgetown University
Andrea A. Hayes-Jordan, M.D., F.A.C.S., F.A.A.P. ..... University of North Carolina Children's Hospital
Scott W. Hiebert, Ph.D. ..... Vanderbilt University
Beth Y. Karlan, M.D. ..... University of California, Los Angeles
Nikan Khatibi, M.D., M.B.A.* ..... Ahura Healthcare Corporation
Timothy J. Ley, M.D. ..... Washington University School of Medicine in St. Louis
Electra D. Paskett, Ph.D. ..... Ohio State University
Nancy J. Raab-Traub, Ph.D. ..... University of North Carolina at Chapel Hill
Mack Roach III, M.D., F.A.C.R. ..... University of California, San Francisco

Charles L. Sawyers, M.D. ..... Weill Cornell Medical College
Margaret R. Spitz, M.D. ..... Baylor College of Medicine
Susan T. Vadaparampil, Ph.D., M.P.H. ..... Moffitt Cancer Center
Max S. Wicha, M.D. ..... University of Michigan

Ex Officio Members of the National Cancer Advisory Board

Robert S. Adler, J.D. ..... U.S. Consumer Product Safety Commission
The Honorable Alex M. Azar II ..... U.S. Department of Health and Human Services
The Honorable Dan Brouillette ..... U.S. Department of Energy
Francis S. Collins, M.D., Ph.D. ..... National Institutes of Health
Kelvin K. Droegemeier, Ph.D. ..... Office of Science and Technology Policy
The Honorable Mark T. Esper, Ph.D. ..... U.S. Department of Defense
Stephen M. Hahn, 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 Eugene Scalia, J.D. ..... U.S. Department of Labor
Robert A. Stone, M.D. ..... U.S. Department of Veterans Affairs
Andrew Wheeler, J.D. ..... U.S. Environmental Protection Agency
Richard Woychik, Ph.D. ..... National Institute of Environmental Health Sciences, NIH

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

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

Executive Secretary

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

NCI Board of Scientific Advisors

Chair

Dafna Bar-Sagi, Ph.D. ..... NYU Grossman School of Medicine

Members

Kenneth C. Anderson, M.D., Ph.D. ..... Dana–Farber Cancer Institute
Michael John Becich, M.D., Ph.D. ..... University of Pittsburgh
Mary C. Beckerle, Ph.D. ..... University of Utah
Melissa L. Bondy, Ph.D. ..... Stanford University

* Pending appointment

Otis W. Brawley, M.D. ..... Johns Hopkins University
Graham A. Colditz, M.D., Dr.P.H. ..... Washington University in St. Louis
Christopher M. Counter, Ph.D. ..... Duke University
Carol E. Ferrans, Ph.D., R.N. ..... University of Illinois Chicago
Keith T. Flaherty, M.D. ..... Massachusetts General Hospital
Karen E. Knudsen, Ph.D. ..... Thomas Jefferson University
James V. Lacey, Jr., Ph.D., M.P.H. ..... Beckman Research Institute of City of Hope
Michelle M. Le Beau, Ph.D. ..... University of Chicago
Sylvia Katina Plevritis, Ph.D. ..... Stanford University
W. Kimryn Rathmell, M.D., Ph.D. ..... Vanderbilt University
Leslie L. Robinson, Ph.D. ..... St. Jude Comprehensive Cancer Center
Martine F. Roussel (Sherr), Ph.D. ..... St. Jude Children's Research Hospital
Robert D. Schreiber, Ph.D. ..... Washington University in St. Louis
Victoria L. Seewaldt, M.D. ..... Beckman Research Institute of City of Hope
Kevin M. Shannon, M.D. ..... University of California, San Francisco
David Sidransky, M.D. ..... Johns Hopkins University
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3. Consultants Serving on Special Emphasis Panels (SEPs) in FY2020

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Tannous, Bakhos A., Ph.D. ..... Massachusetts General Hospital
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Willis, Joseph E., M.D. ..... Case Western Reserve University
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Woodrum, David A., M.D., Ph.D. ..... Mayo Clinic, Rochester
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Yeatman, Timothy J.., M.D. ..... University of Utah

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Zhang, Jinsong, Ph.D. ..... Saint Louis University
Zhang, Junran, M.D., Ph.D. ..... Ohio State University
Zhang, Peng, Ph.D. ..... Belmont University
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Zhang, Siyuan, M.D., Ph.D. ..... University of Notre Dame
Zhang, Wei, Ph.D. ..... Northwestern University at Chicago
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Zhao, Shaying, Ph.D. ..... University of Georgia
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* Approximately 548 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.
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; and 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.
R38	**Stimulating Access to Research in Residency (StARR)** To recruit and retain outstanding, postdoctoral-level health professionals who have demonstrated potential and interest in pursuing careers as clinician-investigators. To address the growing need for this critical component of the research workforce, this funding opportunity seeks applications from institutional programs that can provide outstanding mentored research opportunities for Resident-Investigators and foster their ability to transition to individual career development research awards. The program will support institutions to provide support for up to 2 years of research conducted by Resident-Investigators in structured programs for clinician-investigators with defined program milestones.
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 Multicomponent Projects and Centers Cooperative Agreements** To support multicomponent 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.
UE5	**Research Education Cooperative Agreements Program** The NIH Research Education Cooperative Agreements Program (UE5) supports research education activities in the mission areas of the NIH. The overarching goal of the NCI's UE5 program is to support educational activities that complement and/or enhance the training of a workforce to meet the nation's biomedical, behavioral, and clinical cancer research needs.
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 multiproject applications only.
UG3	**Phase 1 Exploratory/Developmental Cooperative Agreement** As part of a biphasic 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 Counsellors
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
CRUK	Cancer Research UK
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
NIBIB	National Institute of Biomedical Imaging and Bioengineering
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
TEP	Technical Evaluation Panel
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 Counsellors (Basic Sciences) Charter; functional statement, and members.

https://deainfo.nci.nih.gov/advisory/bsc/cse/cse.htm
Board of Scientific Counsellors (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 Home page

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

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