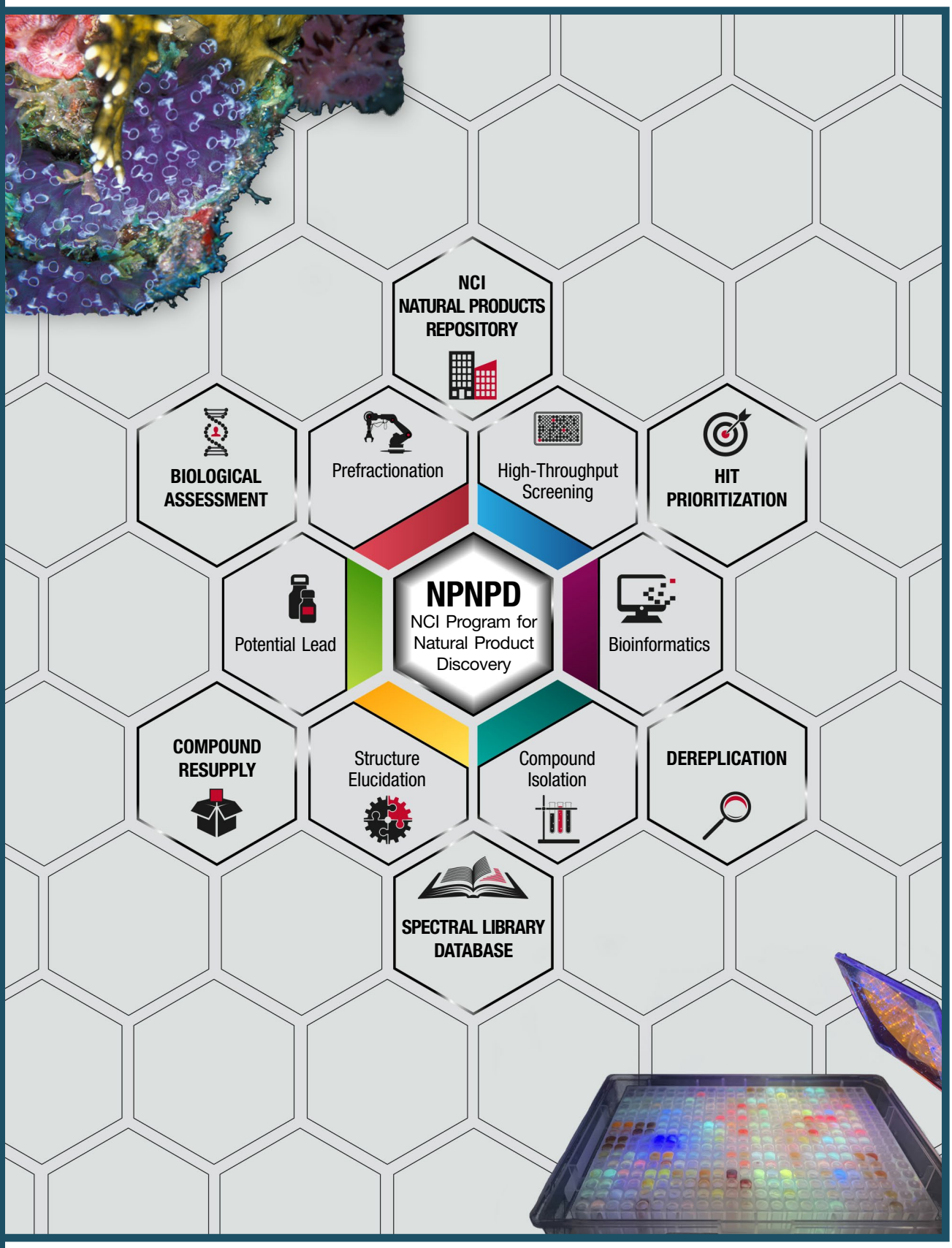
National Cancer Institute

Division of Extramural Activities

Annual Report 2022



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

THE NCI PROGRAM FOR NATURAL PRODUCT DISCOVERY

Unique bioactive molecules from natural sources have contributed significantly to the treatment of cancer. Recent reviews have shown that about 40% of all small-molecule anticancer drugs are derived from natural pharmacophores.[1] Although they have shown significant success in the clinic, the screening, isolation, and structure elucidation of natural products has traditionally been a time-consuming and expensive process, which has led to a significant decrease in the number of natural product samples included in high-throughput drug discovery campaigns.[2] In response to these challenges, the National Cancer Institute (NCI) Division of Cancer Treatment and Diagnosis and the NCI Center for Cancer Research collaborated on an initiative, funded by the Cancer Moonshot℠, to empower drug discovery from natural products.

The NCI Program for Natural Product Discovery (NPNPD) is a multifaceted enterprise designed to advance natural product discovery technologies and facilitate the identification of structurally defined, validated lead molecules. At the core of the NPNPD is the NCI Natural Products Repository's diverse collection of plant, marine, and microbial organisms and ongoing production of a large, publicly available library of prefractionated natural product samples for screening.[3] To date, more than 500,000 partially purified natural product samples have been released to extramural researchers for screening against all disease states. The plated samples are provided to both academic and commercial research organizations for free. In addition, the NPNPD has developed highly automated technologies for the isolation and structure elucidation of active molecules identified by extramural screening centers.[4] The NPNPD partners with extramural collaborators to identify active compounds from cancer-targeted screens. This venture also is undertaken with academic research institutions at no cost to encourage natural product–based drug discovery. In addition, the NPNPD has developed new bioinformatic systems to increase the efficiency and improve the targeting of anticancer natural product research. These endeavors include the use of self-organizing maps and neural networks[5] to help prioritize chemistry efforts and identify potential mechanisms of action.[6]

The NPNPD is a unique resource for the cancer research community. Numerous laboratories have already requested plated samples, and initial screening results are starting to appear in published articles.[7] More information on the NPNPD, including how to request samples, can be found in the NPNPD Prefactionated Library.

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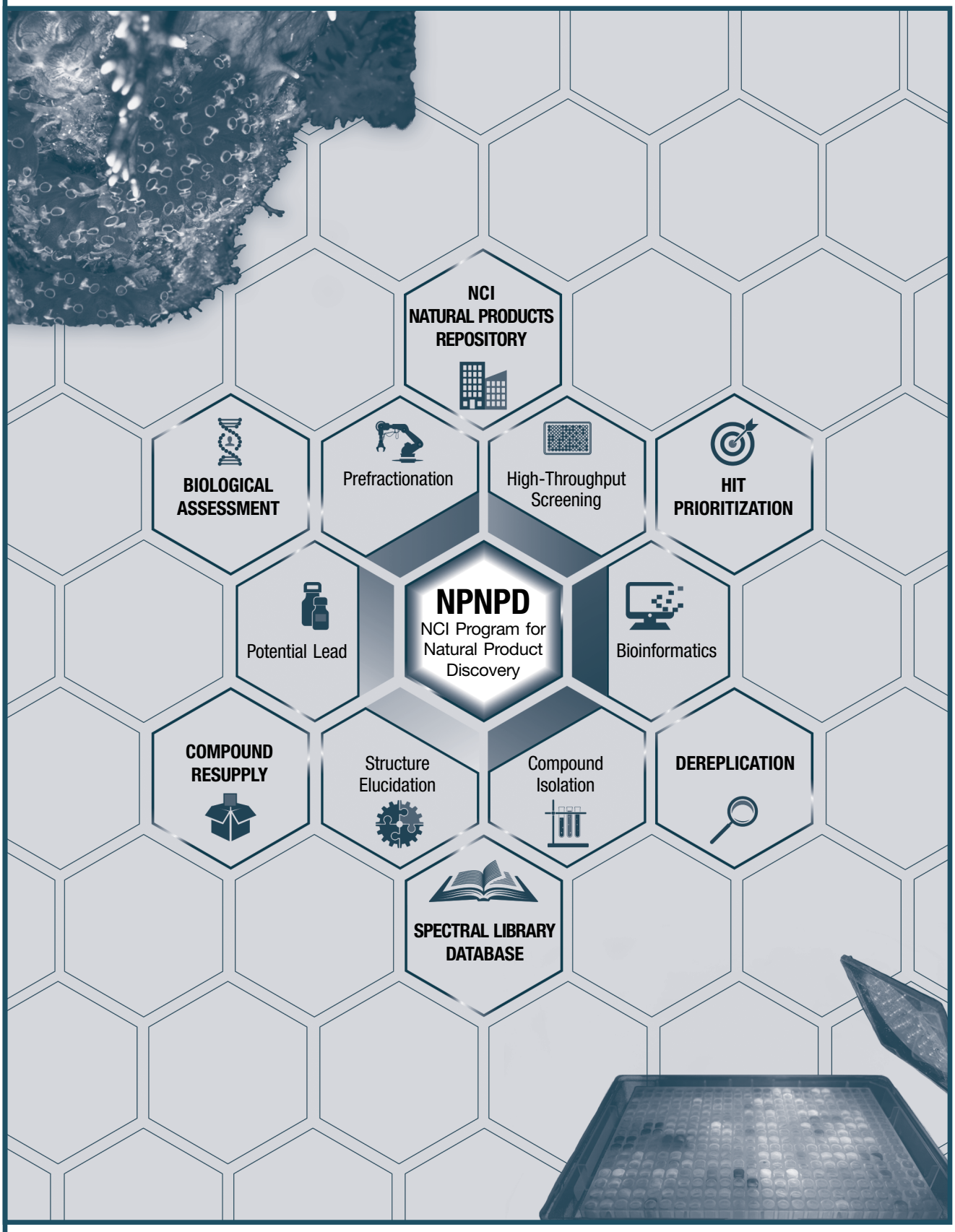

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
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Introduction

The Division of Extramural Activities (DEA) is the organizational component of the National Cancer Institute (NCI) responsible for coordinating the scientific peer review of extramural research proposed before funding and for conducting systematic surveillance of that research after funding. A major responsibility of the DEA is the solicitation of advice from individuals and/or committees of experts on the technical and scientific merit of grants, cooperative agreements, and contracts. The peer review process is critically important to science in that it allows good ideas to surface and to be evaluated based on their merit and promise of the proposed research effort. This system is the keystone for ensuring that the best science is supported.

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

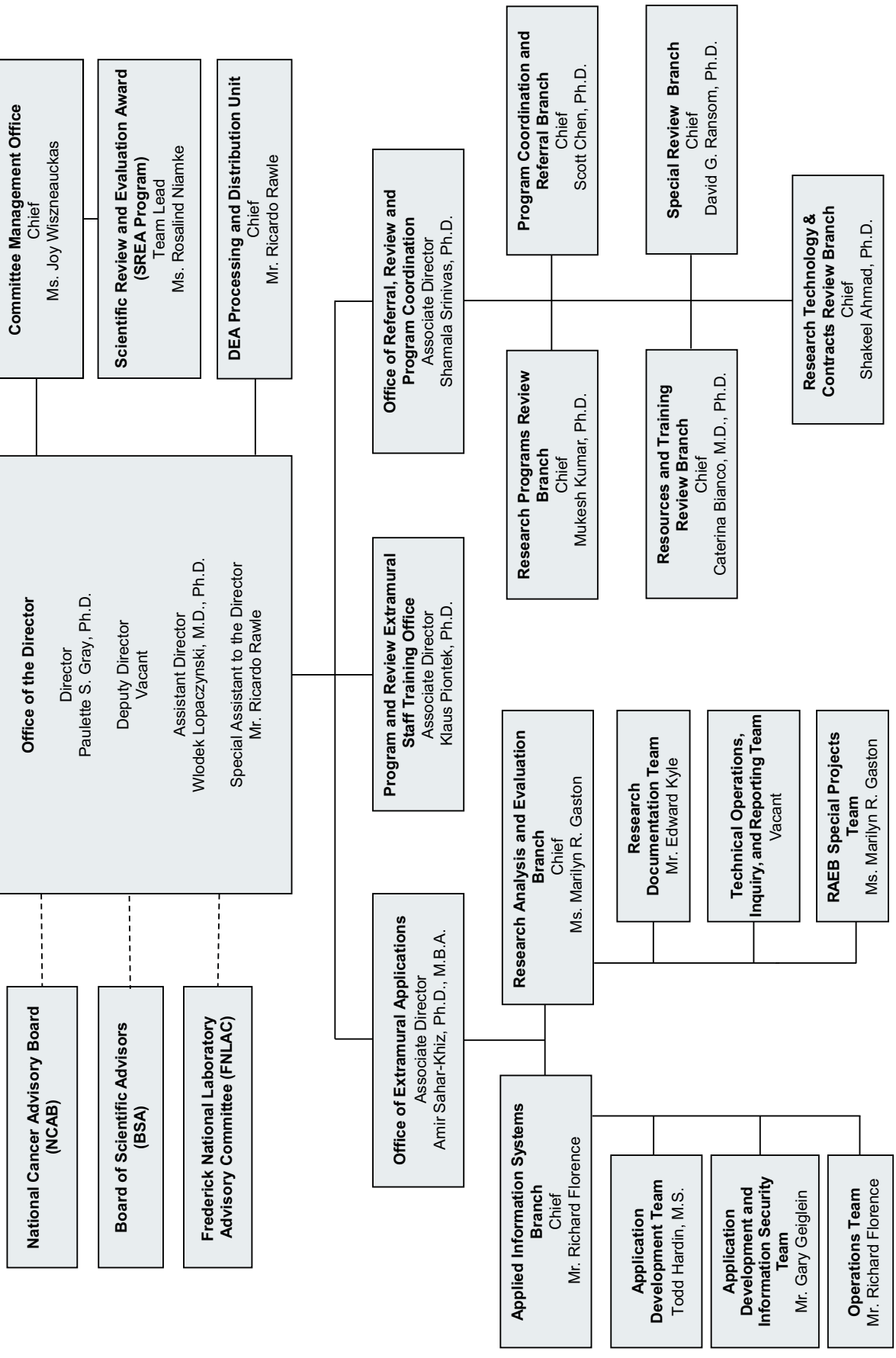
The DEA evaluates the content of all extramural research funded by the NCI and annually tracks the NCI research portfolio of more than 9,000 research and training awards by using consistent budget-linked scientific information to provide a basis for budget projections; maintaining extensive records of 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) 2022 (1 October 2021 – 30 September 2022) and provide data comparison with previous years.

To implement a biomedical research program of the highest quality, the NCI draws on the national pool of scientists actively engaged in research for assistance in selecting the best research and training projects. A sincere thanks to the more than 2,350 researchers, clinicians, and advocates who gave unselfishly of their time in FY2022. 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 (NIDA), 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 notices of funding opportunity (NOFOs).

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 the Public Health Service*, 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 (the Inclusion Across the Lifespan policy). 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 FY2022, 12 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 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 FY2022, 30 cases of research integrity—including alleged research misconduct, foreign interference, harassment and other, 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/or the Office of Research Integrity, HHS. Thirteen cases were completed/closed, and three 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

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

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

During FY2022, 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, the Portfolio Management Application (PMA), the NOFO development and Concept to Award Tracking System (CATS), the Workbench system, and Greensheets.
- Funding Opportunity Announcement (FOA) Spotlight Series, including presentations on the Innovative Molecular Analysis Technologies (IMAT) Program, the Support for Research Excellence (SuRE) Program, Basic Cancer Research in Cancer Health Disparities, the StAR (Stimulating Access to Research in Residency) Program (R38), Microbiome Related Programs and Initiatives, Development and Issuance of NOSIs and Referral of NOSI-connected Applications at the NCI, and Development and Challenges Facing NCI Notices of Special Interest (NOSIs).
- NCI Research Resource Series featuring a presentation on the NCI Co-Clinical Imaging Research Resources Program (CIRP) Cancer Imaging Resource U24 Consortium for Precision Medicine at Preclinical & Clinical Setting, and the NIH Collaborative Research Exchange (CREx).
- PRESTO-sponsored training focused on administrative and scientific topics, including NCI Receipt & Referral: Special Focus on ACR and RDA Scenarios.

During FY2023, 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 including a redesign of the PRESTO website with filtering functions to make it easier to find relevant recordings of training sessions and seminars. PRESTO will continue to support the NCI by providing Program and Review–related trainings and seminars, including Analysis and Survey Results from the NCI NOSI Workgroup, Resources for Identifying Experts in Cancer Fields, Bioengineering Research Grant in Cancer Research and Trans-NIH Bioengineering Collaboration, Vertebrate Animals Use in NIH Funding Research, Global Clinical Trials focused on Prevention of Cervical Cancer in Women Living with HIV, the Electronic Tools Workshop Series, and the New Program Officials Series. PRESTO will also participate in the Office of Grants Management Virtual Intro to the Grants Lifecycle: An Overview for New NCI Staff event. PRESTO plans to host one or more SRO Boot Camps for new SROs and revive the SRO Discussions series addressing various issues of interest and importance to NCI Scientific Review Officers and Extramural Staff Assistants, including updates to eRA Commons modules like Peer Review, Office of Extramural Research policy changes like reasonable service limits for reviewers and mandatory training for reviewers.

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 notices of funding opportunity (NOFOs), 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) NOFOs. 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 NOFOs 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 NOFO 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 FY2022, 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 FY2022, and Table 4 lists PAs/PARs issued by other NIH ICs that the NCI has joined as a participating partner.

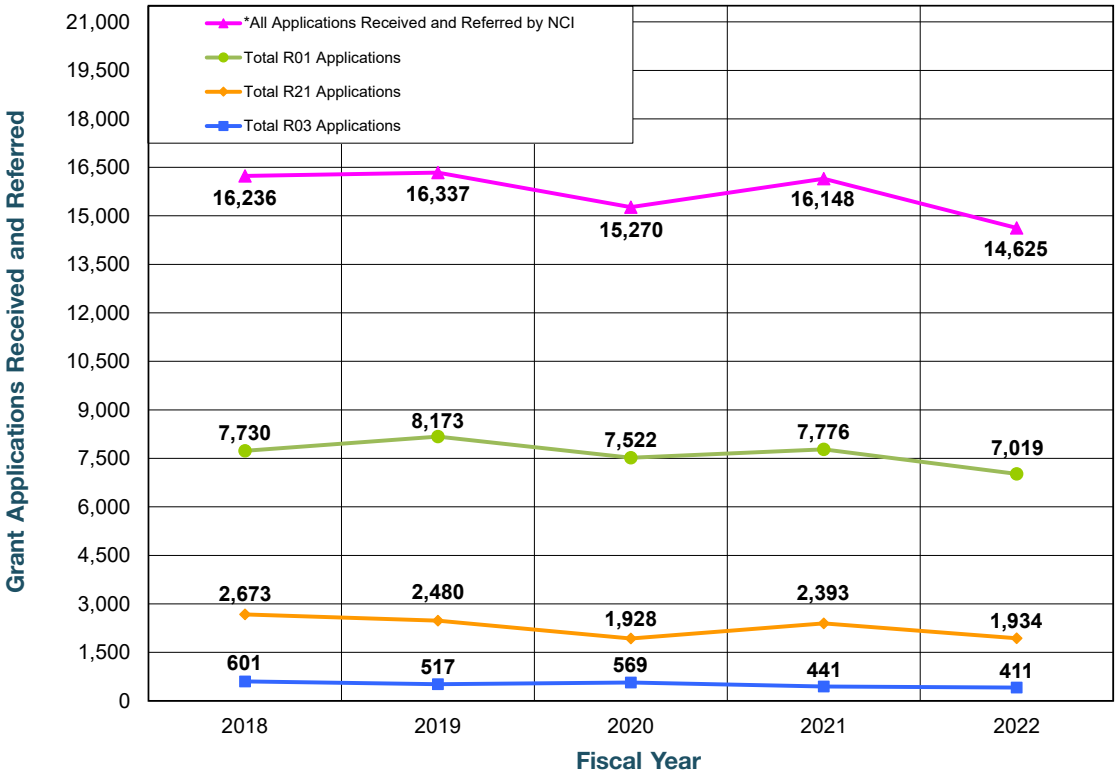
The PCRB staff members provide relevant information and timely updates to NCI extramural staff members on activities and results related to the requirements for all NOFOs, activity codes (R01, P01, F30, K08, U01, etc.), and grant applications. The Branch also serves as a direct source of guidance on 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 review of 325 student loan repayment program (LRP) applications, contract proposals, as well as 64 R13 conference grant applications and a variety of other proposals in FY2022.

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

In FY2022, a total of 14,625 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 60 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 57 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

Figure 1. Receipt and Referral of NCI Grant Applications*
FY2018 – FY2022



* Includes NCI Primary and Secondary applications received and referred.

Quality (AHRQ), 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 NOFOs, 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 NOFO. 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 NOFO.

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 NOFO. 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 study sections. Study Section A reviews Cancer Center Support Grant (CCSG) applications, Study Section F reviews Institutional Training and Education applications, Study Section I reviews Transition to Independence applications, and Study Section J reviews Career Development applications. (The membership of NCI-chartered study sections 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 FY2022, the DEA organized, managed, and reviewed a total of 3,983 research grant and cooperative agreement applications (Table 6) and 208 SBIR Special Topics and RFP contract proposals (Table 12) assigned to the NCI for funding with appropriated dollars of $1,840,169,744. The total number of grant applications, cooperative agreements, and contract proposals reviewed in FY2022 was 4,438 (Figure 2). In addition, the DEA conducted seven Cancer Center site visits, 12 IRG Study Section review meetings, 168 SEPs to review grant applications and contract

proposals, and 82 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. Also, 2,353 peer reviewers served on the NCI DEA-managed SEPs, and work groups in FY2022. Members were selected based on their demonstrated experience and expertise in relevant fields of biomedical research or their informed consumer perspectives.

Peer Review Functions

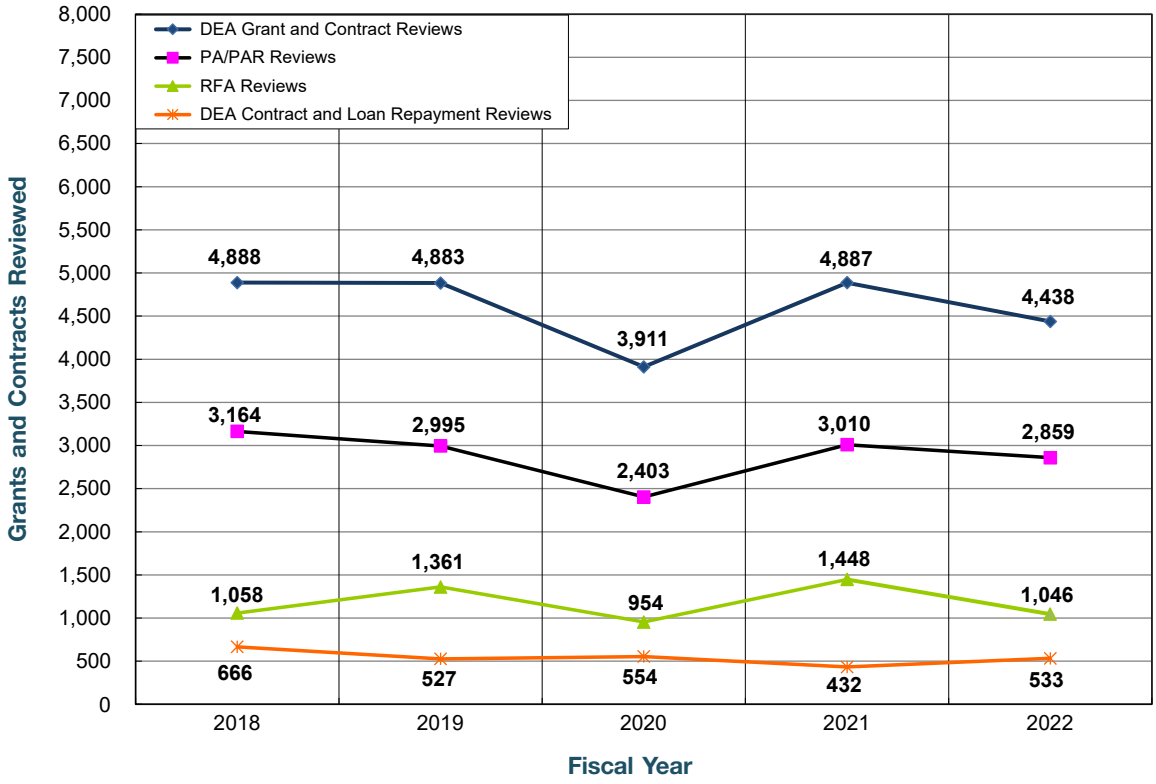
The **Office of Referral, Review, and Program Coordination** (ORRPC) is responsible for the coordination and management of the review of NCI grant applications, cooperative agreements, and contract proposals. The ORRPC is composed of four review branches, and the Program Coordination and Referral Branch. 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 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

Again, a significant effort of RPRB during FY2022 was the review of unsolicited Program Project (P01) applications. These are multi-project, collaborative programs with a well-defined unifying cancer research theme. For the review of P01s, the applications are grouped based on their scientific focus and typically clustered into groups of up to 12 applications in each group. The applications often represent a continuum of research, from basic through translational to preclinical and clinical studies.

Figure 2. DEA Review Workload*
Grants and Contracts Reviewed in FY2018 – FY2022



* Withdrawn applications are not included.

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.

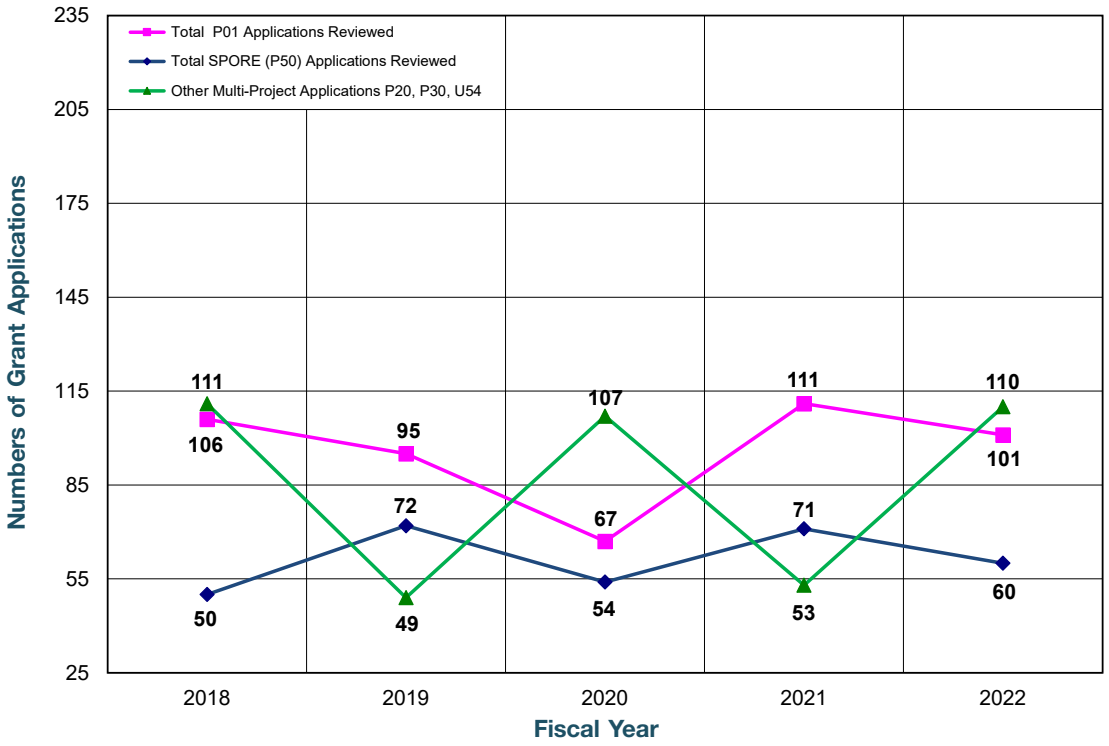
During FY2022, RPRB managed the review of 100 new, renewal (competing), resubmitted (amended) P01 applications (Table 8) and one revision (P01 for Mechanisms of Drug Resistance [RFA], Table 10) (Figure 3). Fifty-four (54%) of the applications proposed new multidisciplinary research programs, 8 (8%) were competitive renewals, and 36 (36%) of the applications (both Type 1 and 2) were resubmitted applications (Table 8). Twenty-eight (28%) of the 100 applications were referred to the NCI's Division of Cancer Biology (DCB), 48 applications (48%) were referred to the Division of Cancer Treatment and Diagnosis (DCTD), 14 applications (14%) were referred to the Division of Cancer Control and Population Sciences (DCCPS), and 10 applications (10%) were referred to the Division of Cancer Prevention (DCP) (see Table 9). The 100 applications requested $292,280,452 in total costs for the first year of support and $1,504,511,699 in total costs for 5 years (see Table 9).

Specialized Programs of Research Excellence (SPORE, P50)

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

All SPORE review panels are constituted as SEPs, with reviewers recruited based on the scientific expertise needed for the applications being reviewed. SEP review committees evaluate and assign scores to the individual components of the

Figure 3. P01, SPORE, and Other Multi-Project Research Applications Reviewed FY2018 – FY2022



* Withdrawn applications are not included.

applications (projects, cores, and developmental programs) and then, assign an overall impact score to the SPORE application as a whole.

In FY2022, the RPRB organized and managed nine SEPs for the review of 60 SPORE applications (Figure 3 and Table 11). The applications addressed multiple organ sites, with the following distribution (and numbers) of applications: Brain (4); Breast (1); Gastrointestinal (3); Pancreas (7); Head and Neck (2); Leukemia (3); Lymphoma (5); Skin (1); Multiple Myeloma (1); Ovarian (2); Endometrial (2); Prostate (8); Kidney (1); Sarcoma (2); Neuroendocrine (1); Lung (5); and Rectal (1). In addition to organ sites, there were applications focused on common biological mechanisms: Epigenetics (1); RAS (1); Immunotherapy (2); and Health Disparities (4). Overall, 33 (56%) of the 60 applications were submitted for new SPOREs, and 13 (22%) were competitive renewal applications, with 13 (22%) being resubmitted applications.

The disease sites addressed in the SPORE applications vary from round to round. For example, 9 applications addressing 10 different disease sites were reviewed for the February 2022 NCAB cycle; 38 applications addressing 18 disease sites were reviewed for the June 2022 NCAB cycle, and 13 applications addressing 10 disease sites were reviewed for the September 2022 NCAB meeting. The applications requested $141,645,552 in total costs for the first year of support (Table 11).

Other RPRB Activities

Potential applicants for P01 and P50 grant submissions are strongly encouraged to participate in a pre-submission discussion with appropriate NCI Program and DEA Review staff members so that they can fully understand the guidelines, requirements, and goals of these complex applications. The 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 FY2022, the RPRB SROs attended 55 of these pre-submission meetings.

As needed, RPRB SROs also manage review of applications submitted to the DEA in response to other initiatives. In FY2022, this included coordinating SEP review of R01, R03, R21, U24, UH2/UH3, and U01, 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 study sections: 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 Study Section A for discussion, evaluation, and final impact scoring of the application. Final impact scoring by NCI Study Section A provides a more uniform evaluation of the individual CCSG applications than scoring based solely on the initial site visit review group. During FY2022, NCI Study Section A reviewed 7 CCSG applications (site visits).

Training and Career Development

Career Development (CD) and Training and Education (T&E) grant applications are reviewed by IRG Study Sections Institutional Training and Education (F) and Career Development (I and J). The number of Career Development applications decreased to 630 in FY2022 from 727 in FY2021 (Table 6). The number of Training and Education grant applications increased from 158 in 2021 to 194 in 2022 (Figure 4). In addition, 55 applications submitted in response to the NCI Predoctoral to Postdoctoral Fellow Transition Award (F99) and 76 applications in response to NCI Pathway to Independence Award for Outstanding Early-Stage

Postdoctoral Researchers (K99/R00) were reviewed.

Other RTRB Activities

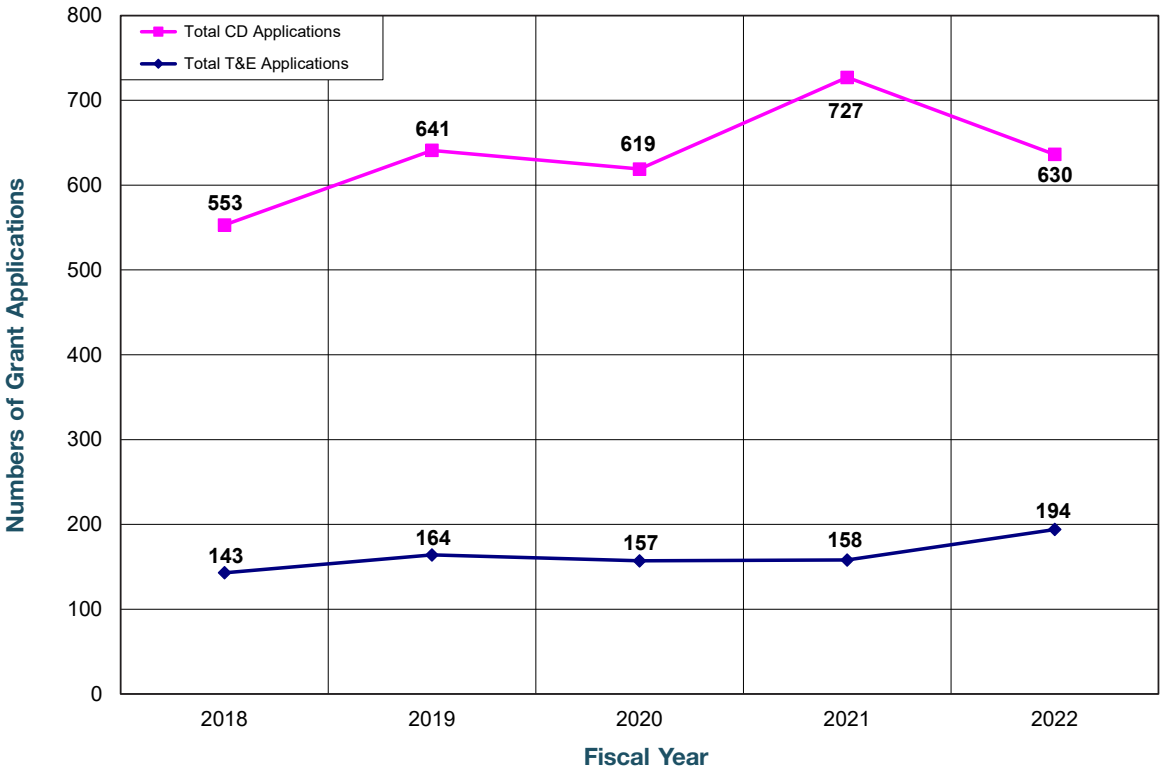
In FY2022, RTRB review staff also reviewed applications received in response to initiatives that were coordinated by the Special Review Branch (SRB), i.e., (1) Exploratory/Developmental Grant (R21); (2) Small Grant (R03); (3) Coordinating Center—Cooperative Agreement (U24); (4) Research Projects—Cooperative Agreements (U01); (5) Specialized Center—Cooperative Agreements (U54); (6) Exploratory Developmental Cooperative Agreements Phase I/Phase II UH2/UH3; (7) K22 NCI Transition Career Development Awards; and (8) R50 NCI Research Specialist (Clinician Scientist) Awards.

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 Leadership (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 FY2022, the SRB, with the assistance of the three other DEA review branches (RPRB, RTCRB, and RTRB), peer reviewed a total of 1,031 applications received in response to 59

Figure 4. Numbers of Career Development (CD) and Training and Education (T&E) Applications Reviewed, FY2018 – FY2022*



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

RFAs (Table 10) and 2,860 applications in response to 50 PAs/PARs (Table 11). All the peer review meetings were conducted by 148 SEPs.

Exploratory/Developmental Research

In FY2022, the DEA reviewed 1,108 R21 applications submitted for the NCI Clinical and Translational Exploratory/Developmental Research Grant Program in response to PAR-20-292 (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 41 SEPs over the three review cycles in FY2022.

Small Grant Programs

The small grant (R03) PAR program initiative in the NCI Omnibus R03 for cancer research (PAR-20-052) stimulated increased interest in the applicant community. In FY2022, 391 applications were submitted and reviewed by the DEA in response to this FOA (Table 11).

Other SRB Activities

As needed, SRB SROs also managed review of applications submitted to the DEA in response to other initiatives. In FY2022, 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 Innovative Molecular and Cellular Analysis Technologies (IMAT), Small Business (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 FY2022, 217 technology applications (**Figure 5** and **Table 10**) for Exploratory/Developmental Phase I (R21) grants and Exploratory/Developmental Phase II (R33) grants were reviewed for Development of Innovative Informatics Methods and Algorithms for Cancer Research and Management ([RFA CA21-013] R21 Clinical Trial Optional)]; Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (RFA CA21-006 [R33 Clinical Trials Not Allowed]); Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (RFA CA21-004 [R33 Clinical Trials Not Allowed]); Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (RFA CA21-003 [R21 Clinical Trials Not Allowed]); and Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (RFA CA21-005 [R21 Clinical Trials Not Allowed]) (Table 10).

Research and Development (R&D) Contract Proposals

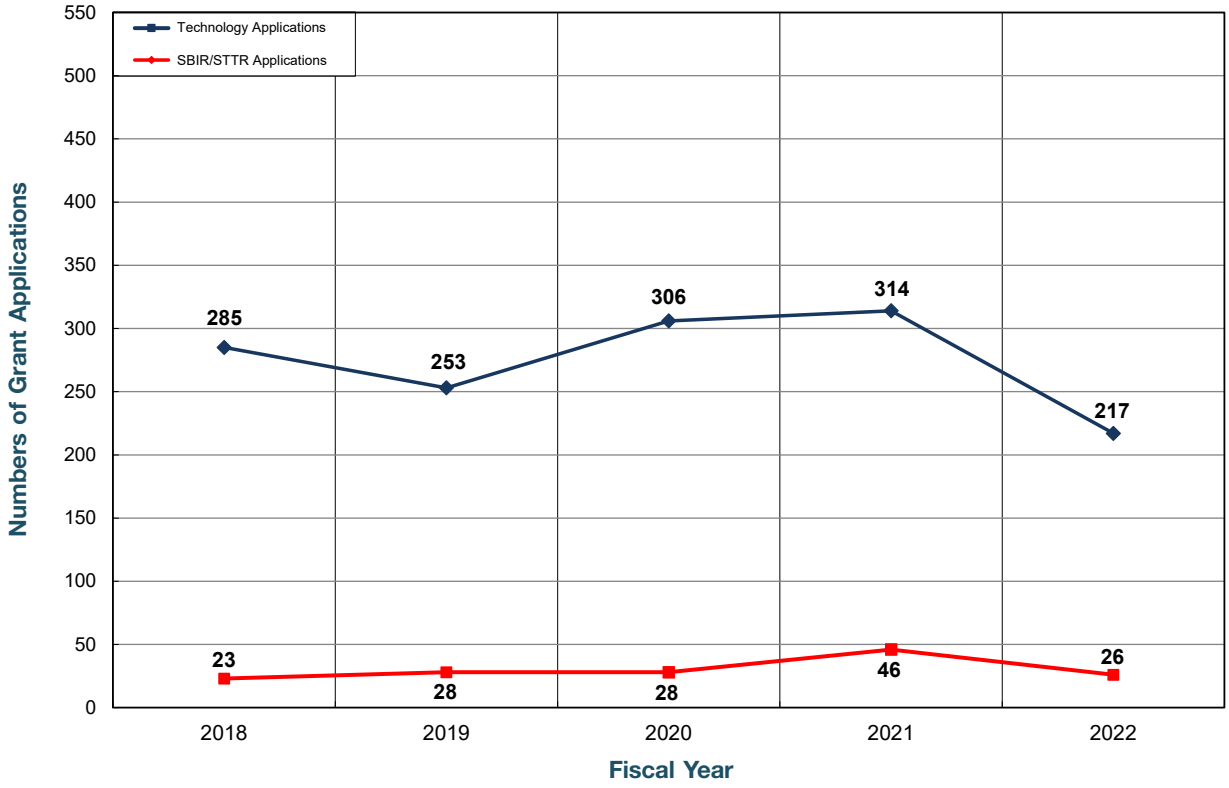
In FY2022, the RTCRB received and reviewed a total of 208 SBIR Special Topics and R&D contract proposals. The proposals were in response to SBIR Contract Solicitations—Phase I & Fast Track (143), R&D Clinical Trials Information Management and Support (CTIMS) Contract (2), R&D CCR Contract Sponsor and Regulatory Oversight Support Contract (2), Preclinical Toxicological Studies Contract (8), and R&D Preclinical Pharmacokinetic and Pharmacological Support Contract (8) (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 electronic Contract Proposal Submission (eCPS) system and are announced on the System for Award Management (SAM) website, SAM.gov.

Other RTCRB Activities

In FY2022, 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 FY2022, the RTCRB also managed reviews of U01, U24, U54, UG3, and UH2/UH3 applications.

Figure 5. Technology Initiatives Applications Reviewed FY2018 – FY2022*



* Withdrawn applications are not included.

NCI Grant and RFA Funding

The Board of Scientific Advisors (BSA) is responsible for advising the NCI Director on the extramural program and the future direction and funding of each Division's, Office's, and Center's extramural research. As such, the BSA provides concept review for NCI-sponsored RFAs. Figures 6 and 7 show total NCI Grant and RFA funding according to scientific concept area in FY2021 and FY2022. Figure 8 shows RFA concepts that the BSA approved from FY2018 through FY2022 according to the sponsoring NCI Division, Office, or Center.

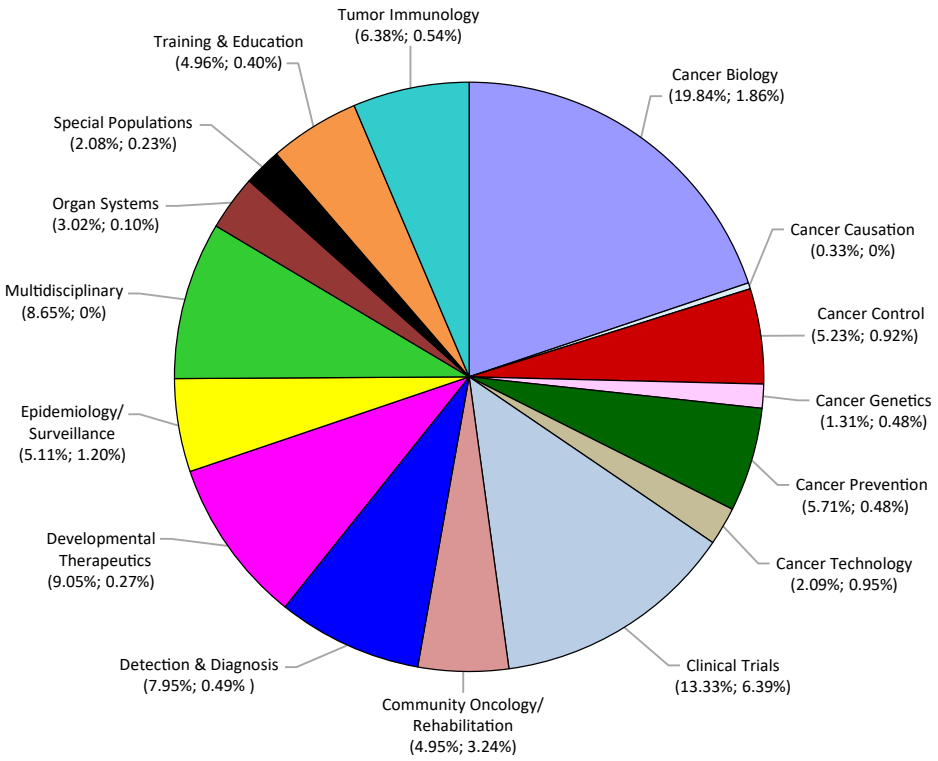
Table 13 presents a summary of total funding of NCI grant awards by mechanism and activity code for FY2022. In Table 14, a comparison is made of the average cost and number of NCI P01, P30, P50, R01, R03, R13, R21, U01/U19, U10, and U54 grants, and cooperative agreements awarded through FY2022, for each 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 FY2022, and Table 18 reports foreign components of U.S. domestic research grants in FY2022.

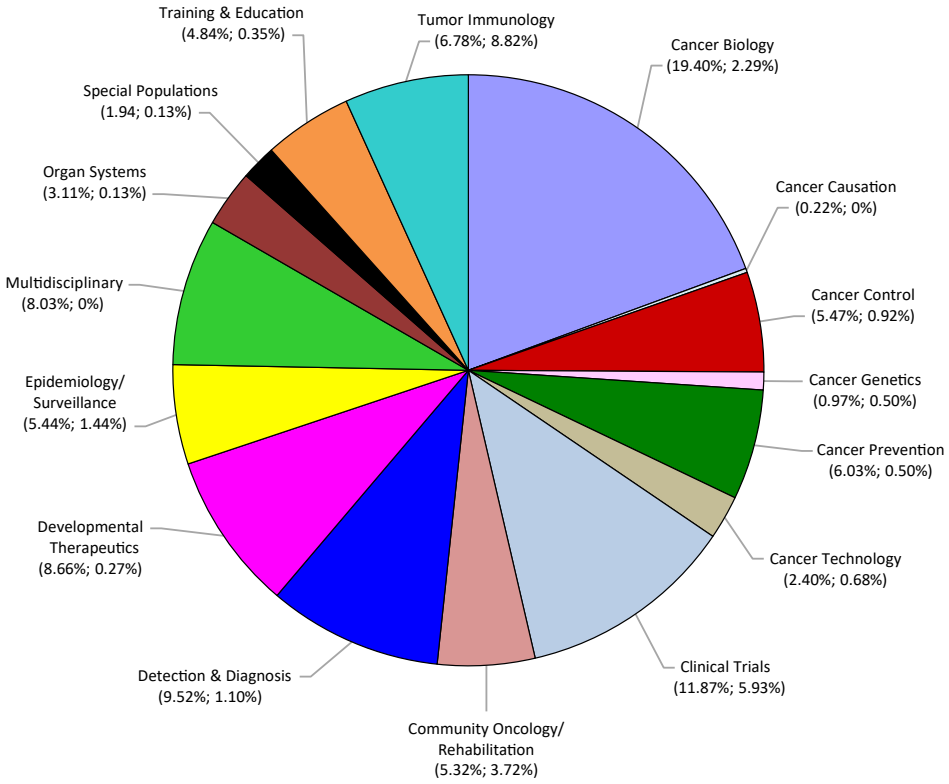
Note: Some grant awards made during a fiscal year may have been for grant applications reviewed in a prior fiscal year.

Figure 6. NCI Grant and RFA Funding Percentages, by Concept Area, FY2021



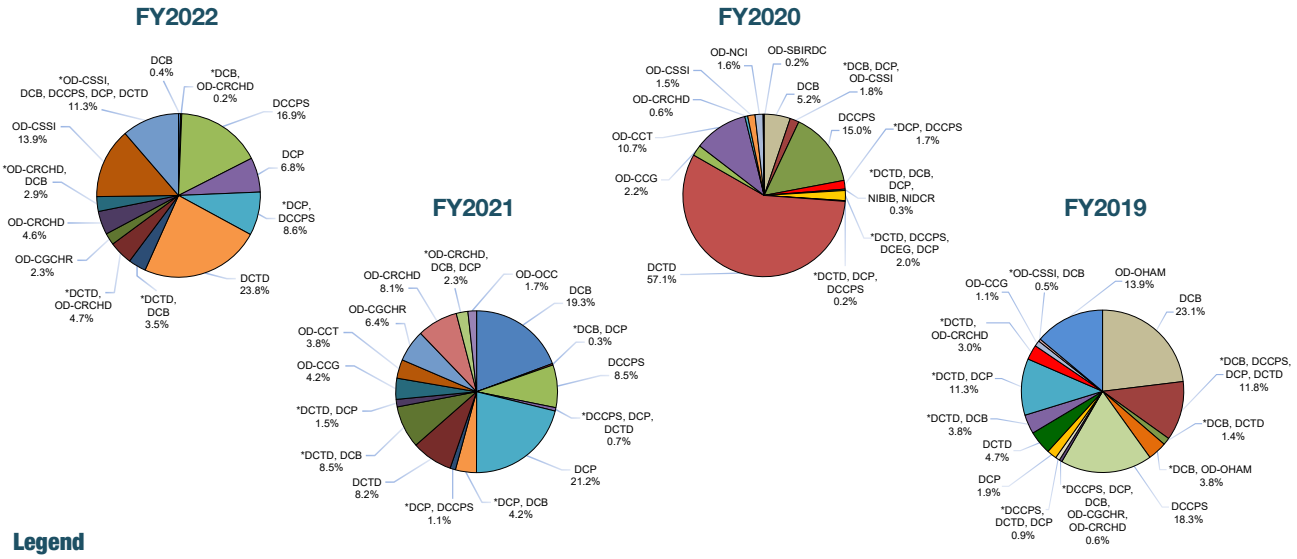
Percentages represent Total Funding and RFA Funding for the Concept Area as a percentage of Total NCI Grants. Concept Area (% of Total Funding to Total NCI Grants; % of RFA Funding to Total NCI Grants)

Figure 7. NCI Grant and RFA Funding Percentages, by Concept Area, FY2022



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 Concept Set-Asides, by Division/Office, FY2019 – FY2022



Legend

DCB	Division of Cancer Biology	OD-CCG	Office of the Director – Center for Cancer Genomics
DCCPS	Division of Cancer Control and Population Sciences	OD-CCT	Office of the Director – Center for Cancer Training
DCEG	Division of Cancer Epidemiology and Genetics	OD-CGCHR	Office of the Director – Center for Global Cancer Health Research
DCP	Division of Cancer Prevention	OD-CRCHD	Office of the Director – Center to Reduce Cancer Heath Disparities
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-OHAM	Office of the Director – Office of HIV and AIDS Malignancy
NIDCR	National Institute of Dental and Craniofacial Research	OD-NCI	Office of the Director – National Cancer Institute
OD-OCC	Office of the Director – Office of Cancers	OD-SBIRDC	Office of the Director – Small Business Innovation Research Development Center

* Indicates co-funding among NCI Divisions/Offices.

Supporting Peer Review Consultants

Ensuring that highly qualified individuals are available for expert review of grant applications and contract proposals requires an efficient administrative support system. The DEA's Scientific Review and Evaluation Activities (SREA) unit, residing within the NCI **Committee Management Office** (CMO), supports the NCI peer review process by compensating consultants for their services on the NCI IRG study sections 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 168 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 FY2022, 2,353 consultants were reimbursed honoraria and flat-rate payment for serving at more than 168 peer review meetings (**Appendix E**). There were 3,512 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 3,512 instances of honoraria and flat-rate payments to NCI peer review consultants were paid out in FY2022.

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 FY2022, three hotel contracts were processed by the SREA staff due to the COVID-19 pandemic. 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 three hotel invoices and 13 consultant travel invoices were reviewed and submitted for payment in FY2022.

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.

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 FY2022 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 U.S. 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).

Board of Scientific Counselors (BSC). Managed through the Office of the Director (OD), NCI, the **BSC** advises 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 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 study sections, review grant applications for Cancer Center Support (Study Section A), Institutional Training and Education (Study Section F), and Career Development (Study Sections 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 study sections, and a SEP. The National Institute on Drug Abuse (NIDA), which has four Federal Advisory Committees, includes an Advisory Council, a BSC, two IRG Study Sections, 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 FY2022 include the following:

- Continued to refine the 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.

- 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 CTAC *ad hoc* Working Group on Streamlining Clinical Trials and the FNLAC NCI RAS Initiative Evaluation Team *ad hoc* Working Group.
- Responded to requests from the NIH Office of Federal Advisory Committee Policy (OFACP) regarding proposed policies, processes, and other matters related to FACA advisory boards and committees.
- Provided guidance to NIH OD Staff assigned to support ACD, CoC, and ACRWH Working Groups.
- Continued to provide oversight of the NCI DEA SREA multimillion-dollar program and successfully closed out the FY2022 budget.
- Continued to participate 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 FY2022:

- Overview and Training on Department of Health and Human Services (HHS) waiver policies and procedures to NCI, NIAAA, and NIMHD SROs.
- Annual Report of Closed and Partially Closed FACA Meetings Training to the NIH Committee Management community.
- FACA Training to newly assigned Designated Federal Officials (DFOs) of the Advisory Committee to the NIH Director, the NIMHD Advisory Council, and the NIDA Board of Scientific Counselors.
- Working Group Overview and Training to newly assigned DFOs of the FNLAC *ad hoc* National Cryo-EM Facility Working Group and the FNLAC *ad hoc* RAS Working Group.
- Responded to requests from senior NCI and Client staff on various non-FACA meetings and working group concerns.

Portfolio Tracking and Analysis

DEA's **Research Analysis and Evaluation Branch** (RAEB) is the officially designated contact for scientific information on NCI-supported research. The Branch collects and maintains consistent budget-linked scientific information across all of NCI's scientific programs to analyze the Institute's research funding portfolio. The RAEB staff members assist in making budget projections as requested and 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, 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 FY2018 through FY2022 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 FY2022 include the following:

- Coordinated with the NCI Office of Budget and Finance (OBF) to update and align budget reporting categories.
- Supplied grant and research contract funding information to NCI Program Directors, NCI Budget Office and on Stomach and Esophageal Cancer.
- Responsible for entering NCI stem cell research categories into the NIH RCDC database.
- RAEB staff are DEA representatives on the NCI Communications Committee, the My NCI Users Group, and the NCI Planning Committee.
- Assisted DEA Scientific Review Officers in identifying science experts for a number of review study sections.

FY2022 Funding of Foreign Institutions

(See Table 17 for more information.)

Country	No. of Grants	Funding $
Argentina	1	$120,219
Australia	4	$2,628,593
Canada	13	$9,123,983
Denmark	1	$261,807
France	7	$2,962,265
Germany	1	$468,815
Korea, Republic of	1	$54,000
Netherlands	1	$277,686
South Africa	3	$360,865
Sweden	1	$30,752
Uganda	1	$215,806
United Kingdom	3	$1,092,916
Totals	**37**	**$17,597,707**

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

In FY2022, the NCI allocated $17 million to support 37 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 13 grants receiving more than $9.1 million. The R01s were the most common mechanisms funded, with 14 grants receiving $5.1 million. Disease areas receiving the most NCI funding to foreign institutions were Lung ($3.5 million), Not Site Specific ($2.7 million) and Colon ($2.0 million), followed by Breast ($1.6 million).

In FY2022, the NCI supported 489 U.S. domestic projects with 687 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 (106 grants), the United Kingdom (60 grants), Germany (49 grants), France (33 grants), Australia (29 grants), and Netherlands (27 grants) were the NCI's most frequent collaborators. The R01 funding mechanism is the most commonly used for collaborations, with 345 grants, followed by U01 (92 grants) and U54 (27 grants).

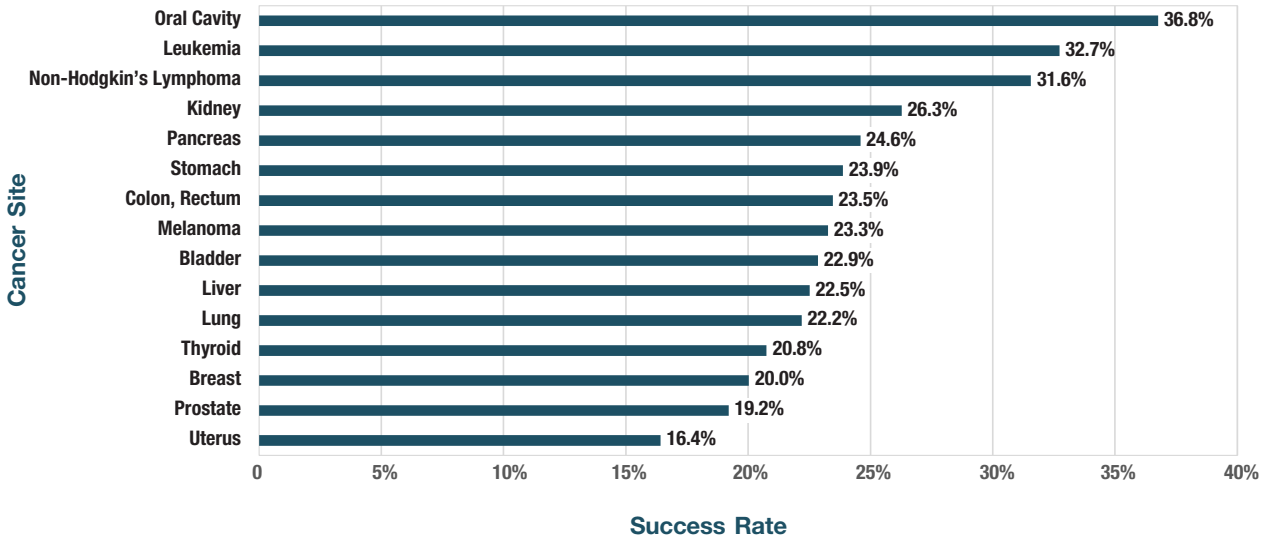
Success Rates of Extramural Science Categories

The RAEB assigns scientific indexing to both funded and unfunded applications, so it is possible to calculate success rates for funding in scientific categories. For example, the following graphs and tables illustrate FY2022 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 FY2022 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. FY2022 Success Rates for Applications in Highest Incidence Cancer

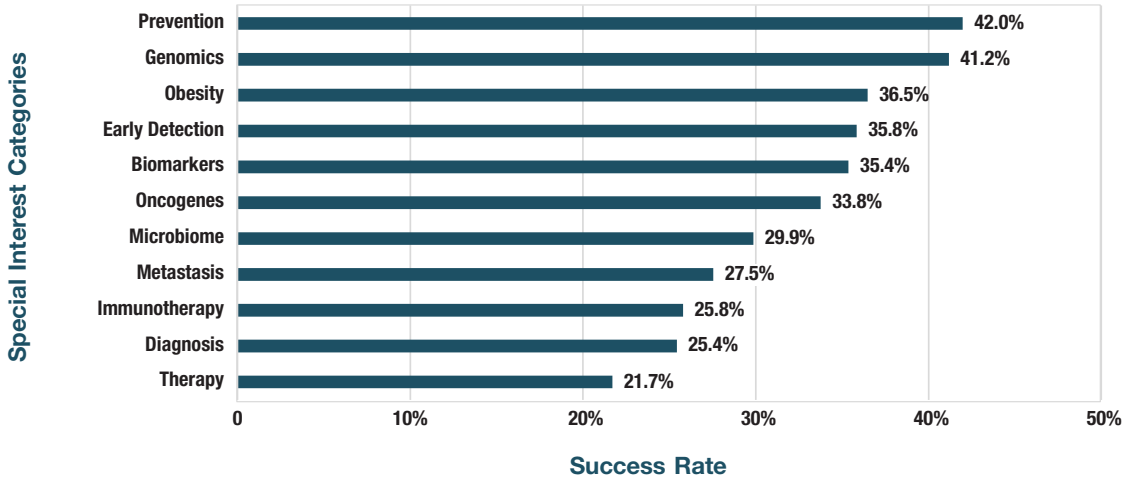
Sorted by Success Rate



Selected Oncology Sites	SEER Rank*	Types 1 & 2 Funded in 2022 for This Site	Total Applications Received in 2022 for This Site	2022 Success Rate (%) for This Site	Total Funding for Types 1 & 2 in 2022 for This Site
Oral Cavity	13	25	93	36.8%	$52,316,548
Leukemia	11	181	734	32.7%	$131,610,906
Non-Hodgkin's Lymphoma	7	77	321	31.6%	$71,821,086
Kidney	8	36	173	26.3%	$27,502,417
Pancreas	12	166	841	24.6%	$131,209,619
Stomach	15	16	83	23.9%	$8,704,106
Colon, Rectum	4	156	821	23.5%	$140,760,103
Melanoma	5	104	551	23.3%	$97,960,042
Bladder	6	32	172	22.9%	$22,947,916
Liver	14	84	457	22.5%	$71,098,051
Lung	2	225	1,239	22.2%	$183,783,014
Thyroid	9	11	64	20.8%	$7,828,889
Breast	1	349	2,091	20.0%	$226,213,837
Prostate	3	139	863	19.2%	$133,386,955
Uterus	10	11	78	16.4%	$7,084,007

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

Figure 10. FY2022 Success Rates for Applications in Selected Special Interest Categories
Sorted by Success Rate



Special Interest Category (SIC)	Types 1 & 2 Funded in 2022 for This SIC	Total Applications Received in 2022 for This SIC	2022 Success Rate (%) for This SIC	Total Funding for Types 1 & 2 in 2022 for This SIC
Prevention	225	761	42.0%	$179,739,288
Genomics	415	1,423	41.2%	$294,383,901
Obesity	58	217	36.5%	$65,165,009
Early Detection	157	595	35.8%	$151,607,022
Biomarkers	434	1,661	35.4%	$310,673,892
Oncogenes	265	1,050	33.8%	$180,742,229
Microbiome	46	200	29.9%	$57,672,446
Metastasis	404	1,871	27.5%	$253,282,524
Immunotherapy	426	2,078	25.8%	$265,374,142
Diagnosis	457	2,254	25.4%	$318,456,345
Therapy	1,233	6,915	21.7%	$639,579,894

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 and security; 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 an IT service desk team to track staff requests, manage the Division's computer equipment inventory, and provide information systems, applications, and information technology-related 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 FY2022, specific AISB accomplishments are highlighted below.

Systems Infrastructure and Service Support

- **Security Implementation, Auditing, and Reporting**—Maintained and augmented the real-time security configurations and upkeep of Division IT assets, from mobile and desktop to server and database. The Division's unified information system, DEAIS, is undergoing independent Assessment and Authorization activities and updates and has achieved a conditional Authorization to Operate.
- **Infrastructure and Operations**—Achieved **greater than 98% systems availability**; upgraded numerous key components, such as hosting environments, data center cabling, databases, and systems utilities; completed integration of federated access controls.
- **Desktop and Mobile Support**—Provided remote service desk support for DEA staff; maintained the desktop and mobility hardware refresh program; coordinated with NCI CBIIT to conduct various technology pilot and early release projects.

Application Development Projects

- Updated inventory application and database with new features and reports, expanded to be used to manage AISB equipment inventory.
- Managed and maintained the portfolio of more than 40 applications, utilities, and reporting tools through software development life cycle practices to support the Division's activities and mission. Each of the portfolio items is reviewed for maintenance, enhancement, replacement, or end-of-life action.
- Overall, there were more than 70 updates to applications and reporting tools and the supporting components. Numerous security, infrastructure, and host environment updates were made. Databases and application environments were upgraded and patched to maintain highest quality and security of information.
- Migrated application development tracking to a more robust and capable system (GitHub).

DEA Website Development and Maintenance

- Completed over 300 requests for changes to DEA Internet and Intranet websites.
- Designed and deployed a redesigned website in support of PRESTO's mission to coordinate training for NCI's extramural staff.
- Piloted a redesign of DEA Intranet website which utilizes the US Web Design System (USWDS) to improve accessibility, mobile responsiveness, and regulatory compliance.
- Coordinated with the Office of Communications and Public Liaison (OCPL) Digital Analytics Program (DAP) to collect and review analytics reports to identify traffic trends across DEA's public website.

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

Delivered numerous reports to stakeholders including biodefense cancer research data for the National Institute of Allergy and Infectious Diseases (NIAD), pancreatic cancer research numbers for PanCAN, and data calls for the Office of Policy for Extramural Research Administration (OER/OPERA).

Improved rollover indexing procedures to improve breadth of data while eliminating errors resulting in degradation of data quality.

Reviewed and updated FLARE reporting components to improve data consistency.

Upgraded server infrastructure and software components.

AISB Staff Involvement

AISB staff represented the needs and concerns of DEA Software Licensing Management Workgroup, Service, NCI Informatics and IT Advisory Group (IITAG), NIH eRA Technical Users Group (eTUG), NIH IT Tools Operations Working Group, NCI Cloud DevSecOps Team, NCI Software Development Community of Interest, and the ERA Electronic Council Book (ECB) Working Group.

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 NOFOs.
- 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
Adrian Bishop..... Program Specialist
Javon Chery..... 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 the Novel and Exceptional Technology and Research Advisory Committee (NExTRAC), as well as to seven National Institute on Alcohol Abuse and Alcoholism (NIAAA) advisory committees, five 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, General Services Administration, 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 study sections 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 ..... **Deputy Committee Management Officer**
Etsegenet Abebe ..... **Committee Management Specialist**
Shayla Beckham ..... **Committee Management Specialist**
Alonda Lord ..... **Committee Management Specialist**
Rosalind Niamke ..... **Committee Management Specialist**
Beverly Powell ..... **Committee Management Specialist**
Christine Skeens ..... **Committee Management Specialist**
Cameron Stansbury ..... **Program Specialist**
Margaret Vardanian ..... **Program Specialist**

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

* Retired December 2021
**PRESTO Associate Director effective May 2022

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
Paul Gallourakis .....Program Specialist

* Retired January 2022

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
LT Robert Gahl, Ph.D. ..... Scientific Review Officer
Sage Kim, Ph.D. ..... Scientific Review Officer
Ombretta Salvucci, Ph.D. ..... Scientific Review Officer
Cliff Schweinfest, Ph.D. ..... Scientific Review Officer
Hasan Siddiqui, Ph.D. ..... Scientific Review Officer
Shree Ram Singh, Ph.D. ..... Scientific Review Officer
Zhiqiang Zou, Ph.D. ..... Scientific Review Officer
Julia Lee ..... Staff Assistant
Micah Traurig ..... Staff Assistant

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
Nadeem Khan, Ph.D. ..... Scientific Review Officer
Susan Spence, Ph. D. ..... Scientific Review Officer
Shuli Xia, Ph.D. ..... Scientific Review Officer
Hanh "Julie" Hoang ..... Program Specialist
Alex Chyu ..... Staff Assistant

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 58 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.

Scott Chen, Ph.D. ..... **Chief**
Kamal Datta, M.D. ..... **Program Coordinator, Scientific Review Officer (SRO)**
Anandarup Gupta, Ph.D. ..... **Program Coordinator, SRO**
Shannon Doyle, Ph.D.* ..... **Referral Officer, NCI/NIH Referral Liaison, SRO**
Jeanette I. Marketon, Ph.D.** ..... **Referral Officer, NCI/NIH Referral Liaison, SRO**
Biman Paria, Ph.D. ..... **Referral Officer, NCI/NIH Referral Liaison, SRO**
Natacha P. Lassègue ..... **Program Analyst**
Quynh-Tram Chiaramonte ..... **Program Specialist**

* Transitioned to another IC October 2021.
**Transitioned to another IC October 2021.

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.

Mukesh Kumar, 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**
E. Tian, PhD.** ..... **Scientific Review Officer**
Kathy Tiong ..... **Program Analyst**
Darnett Miller ..... **Program Specialist**

* Transferred to PRESTO May 2022.
**Joined September 2022.

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
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

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.

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

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 of 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 for the conduct of review, referral, coding, advisory, and other extramural-related operations.
- Serves as the liaison with: the NCI Center for Biomedical Informatics and Information Technology (CBIIT) staff; NCI computer professionals; NCI units charged with execution of extramural IRM functions; trans-NIH functional units such as the CSR, Office of Policy for Extramural Research Administration (OPERA), and Office of Extramural Research (OER); and the IMPAC II and NIH eRA (electronic Research Administration) staff and systems.
- Supports connectivity, 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 technology refresh for the Division and conducts training for the DEA IT applications.
- Coordinates general user support and training with NCI and NIH services. Co-leads or participates in Program and Review Extramural Staff Training Office (PRESTO) training sessions.
- Provides Division-specific video teleconferencing, audiovisual services, and application support for review and National Board and Committee activities.
- Conducts continuous security monitoring and implementation of Federal Information Systems Management Act (FISMA) practices and procedures for the Division's information system. Conducts security activities and reporting to maintain the DEA Information System (DEAIS) Federal Authorization to Operate (ATO).

Todd Hardin ..... Chief

Application Development and Information Security Team

- Analyzes and coordinates life-cycle software development for the Division.
- Develops, designs, and maintains applications to support the Division's business processes.
- Develops, administers, and monitors contracts for acquisition, support, and maintenance of the Division's information systems.
- Formulates system development policy and oversees eRA/IMPAC II operations for the Division.
- Coordinates internal user groups and training for specific DEA applications.
- Aligns Division information security policies and practices with NIH and other applicable Federal requirements. Coordinate with NCI and NIH security offices to maintain operational status at or above standards.
- Oversees implementation of the security activities of the Division's information technology assets, from desktop to infrastructure and systems components.
- Authors and maintains required Assessment and Authorization (AA) documentation.

Gary Geiglein ..... Team Leader
Teresa Park ..... Information Technology Specialist
Vivien Yeh ..... Information Technology Specialist

Information Management Team

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

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

Operations Team

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

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

Table 1a. Requests for Applications (RFAs) Published by the NCI in FY2022

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office and Center
10/19/2021	CA21-063	U01	A Multilevel Approach to Connecting Underrepresented Populations to Clinical Trials (CUSP2CT) (U01 Clinical Trial Optional)	CRCHD
10/26/2021	CA21-045	U24	Coordinating Center for HIV/Cervical Cancer Prevention 'CASCADE' Clinical Trials Network (U24 Clinical Trial Required)	DCP
	CA21-046	UG1	Research Bases for HIV/Cervical Cancer Prevention 'CASCADE' Clinical Trials Network (UG1 Clinical Trial Required)	DCP
	CA21-047	UG1	Clinical Sites for HIV/Cervical Cancer Prevention 'CASCADE' Clinical Trials Network (UG1 Clinical Trial Required)	DCP
11/03/2021	CA21-060	K99, R00	NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 – Independent Clinical Trial Not Allowed)	DCP
	CA21-062	K99, R00	NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 – Independent Basic Experimental Studies with Humans Required)	CCT
	CA22-003	R61	Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (R61 Clinical Trial Not Allowed)	CSSI
	CA22-004	R33	Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (R33 Clinical Trial Not Allowed)	CSSI
11/05/2021	CA21-061	K99, R00	NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 – Independent Clinical Trial Required)	DCP
11/23/2021	CA22-001	R61	Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R61 Clinical Trial Not Allowed)	CSSI
	CA22-002	R33	Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R33 Clinical Trial Not Allowed)	CSSI
01/03/2022	CA22-005	R01	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (R01 Clinical Trial Optional)	CSSI
	CA22-006	U01	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U01 Clinical Trial Optional)	CSSI
	CA22-007	U54	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U54 Clinical Trials Optional)	CSSI
	CA22-008	P01	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (P01 Clinical Trial Optional)	CSSI
	CA22-009	P50	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (P50 Clinical Trial Optional)	CSSI
	CA22-010	U2C	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U2C Clinical Trial Optional)	CSSI
	CA22-011	U54	U.S. and Low- and Middle-Income Country (LMIC) HIV-Associated Malignancy Research Centers (U54 Clinical Trial Optional)	OHAM
02/10/2022	CA22-014	U24	Data, Evaluation and Coordinating Center for a Multilevel Approach to Connecting Underrepresented Populations to Clinical Trials (CUSP2CT) (U24 Clinical Trial Not Allowed)	CRCHD
03/08/2022	CA22-015	U54	Cancer Control Research in Persistent Poverty Areas (U54 Clinical Trial Optional)	DCCPS
03/21/2022	CA22-017	R42	Small Business Transition Grant for Early Career Scientists (R42 Clinical Trial Not Allowed)	SBIR

continued

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

Table 1a (cont'd). Requests for Applications (RFAs) Published by the NCI in FY2022

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office and Center
03/24/2022	CA22-021	R21	Development of Innovative Informatics Methods and Algorithms for Cancer Research and Management (R21 Clinical Trial Optional)	CSSI
	CA22-022	U01	Early-Stage Development of Informatics Technologies for Cancer Research and Management (U01 Clinical Trial Optional)	CSSI
	CA22-023	U24	Advanced Development of Informatics Technologies for Cancer Research and Management (U24 Clinical Trial Optional)	CSSI
	CA22-024	U24	Sustained Support for Informatics Technologies for Cancer Research and Management (U24 Clinical Trial Optional)	CSSI
03/25/2022	CA22-012	U54	Patient-Derived Xenograft (PDX) Development and Trial Centers (PDTCs) Network (U54 Clinical Trial Not Allowed)	CRCHD DCTD
	CA22-013	U24	PDX Data Commons and Coordinating Center (PDCCC) for the PDX Development and Trial Centers Research Network (PDXNet) (U24 Clinical Trial Not Allowed)	DCTD
04/05/2022	CA22-016	U01	Pediatric Immunotherapy Network (PIN) (U01 Clinical Trial Optional)	DCTD DCB
	CA22-020	U01	Cancer Prevention, Detection, Diagnosis, and Treatment Technologies for Global Health (U01 Clinical Trial Optional)	DCCPS
	CA22-025	R44	SBIR Phase IIB Bridge Awards to Accelerate the Development of Cancer-Relevant Technologies Toward Commercialization (R44 Clinical Trial Optional)	SBIR
05/12/2022	CA22-027	R01	Research to Understand and Address the Survivorship Needs of Individuals Living with Advanced Cancer (R01 Clinical Trial Optional)	DCCPS
06/14/2022	CA22-026	U24	Limited Competition: A Data Resource for Blood and Marrow Transplants and Adoptive Cellular Therapy Research (U24 Clinical Trial Not Allowed)	DCTD
07/15/2022	CA22-038	U24	Limited Competition: Cancer Immune Monitoring and Analysis Centers (CIMACs) and Cancer Immunologic Data Center (CIDC) (U24 Clinical Trial Not Allowed)	DCTD
07/18/2022	CA22-039	U01	The Early Detection Research Network: Clinical Validation Centers (U01 Clinical Trial Optional)	DCP
	CA22-040	U2C	The Early Detection Research Network: Biomarker Characterization Centers (U2C Clinical Trial Not Allowed)	DCP
07/26/2022	CA22-045	R35	NCI Outstanding Investigator Award (R35 Clinical Trial Optional)	CSSI
08/02/2022	CA22-019	U54	Global Implementation Science for Equitable Cancer Control (GlobalISE Cancer Control, U54 Clinical Trial Optional)	DCCPS CGH
08/15/2022	CA22-031	U01	Consortium on Translational Research in Early Detection of Liver Cancer: Translational Research Centers (U01 Clinical Trial Optional)	DCP
	CA22-032	U24	Consortium on Translational Research in Early Detection of Liver Cancer: Data Management and Coordinating Center (U24 Clinical Trial Not Allowed)	DCP
	CA22-046	U54	Radiation Oncology–Biology Integration Network (ROBIN) Centers (U54 Clinical Trial Required)	DCTD
08/18/2022	CA22-041	F99, K00	The NCI Predoctoral to Postdoctoral Fellow Transition Award (F99/K00 Clinical Trial Not Allowed)	CCT
08/19/2022	CA22-054	U01	The Early Detection Research Network: Clinical Validation Centers (U01 Clinical Trial Optional)	DCP

continued

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

Table 1a (cont'd). Requests for Applications (RFAs) Published by the NCI in FY2022

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office and Center
08/24/2022	CA22-028	UG3, UH3	Cancer Adoptive Cellular Therapy Network (Can-ACT) for Adult Cancers (UG3/UH3 Clinical Trial Required)	DCTD
	CA22-029	UG3, UH3	Cancer Adoptive Cellular Therapy Network (Can-ACT) for Pediatric Cancers (UG3/UH3 Clinical Trial Required)	DCTD
	CA22-030	U24	Cancer Adoptive Cellular Therapy Network (Can-ACT) Coordinating Center (U24 Clinical Trial Not Allowed)	DCTD
09/01/2022	CA22-050	R01	NCI Cancer Moonshot Scholars Diversity Program (CMSDP) (R01 Clinical Trial Optional)	ALL DIVISIONS
09/13/2022	CA22-055	U54	Cancer Prevention-Interception Targeted Agent Discovery Program (CAP-IT) Centers (U54 Clinical Trial Not Allowed)	DCP
09/15/2022	CA22-035	K99, R00	NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 – Independent Clinical Trial Not Allowed)	CCT
	CA22-036	K99, R00	NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 – Independent Clinical Trial Required)	CCT
	CA22-037	K99, R00	NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 – Independent Basic Experimental Studies with Humans Required)	CCT

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

Table 1b. Requests for Applications (RFAs) Published by the NCI in FY2022

Sorted by Division, Office, and Center

Division, Office and Center	RFA	Mechanism	Title	Date of Publication
ALL DIVISIONS	CA22-050	R01	NCI Cancer Moonshot Scholars Diversity Program (CMSDP) (R01 Clinical Trial Optional)	09/01/2022
CCT	CA21-062	K99, R00	NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 – Independent Basic Experimental Studies with Humans Required)	11/03/2021
	CA22-035	K99, R00	NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 – Independent Clinical Trial Not Allowed)	09/15/2022
	CA22-036	K99, R00	NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 – Independent Clinical Trial Required)	09/15/2022
	CA22-037	K99, R00	NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 – Independent Basic Experimental Studies with Humans Required)	09/15/2022
	CA22-041	F99, K00	The NCI Predoctoral to Postdoctoral Fellow Transition Award (F99/K00 Clinical Trial Not Allowed)	08/18/2022
CRCHD	CA21-063	U01	A Multilevel Approach to Connecting Underrepresented Populations to Clinical Trials (CUSP2CT) (U01 Clinical Trial Optional)	10/19/2021
	CA22-014	U24	Data, Evaluation and Coordinating Center for a Multilevel Approach to Connecting Underrepresented Populations to Clinical Trials (CUSP2CT) (U24 Clinical Trial Not Allowed)	02/10/2022
CRCHD DCTD	CA22-012	U54	Patient-Derived Xenograft (PDX) Development and Trial Centers (PDTCs) Network (U54 Clinical Trial Not Allowed)	03/25/2022
CSSI	CA22-001	R61	Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R61 Clinical Trial Not Allowed)	11/23/2021
	CA22-002	R33	Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R33 Clinical Trial Not Allowed)	11/23/2021
	CA22-003	R61	Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (R61 Clinical Trial Not Allowed)	11/03/2021
	CA22-004	R33	Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (R33 Clinical Trial Not Allowed)	11/03/2021
	CA22-005	R01	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (R01 Clinical Trial Optional)	01/03/2022
	CA22-006	U01	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U01 Clinical Trial Optional)	01/03/2022
	CA22-007	U54	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U54 Clinical Trials Optional)	01/03/2022
	CA22-008	P01	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (P01 Clinical Trial Optional)	01/03/2022
	CA22-009	P50	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (P50 Clinical Trial Optional)	01/03/2022
	CA22-010	U2C	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U2C Clinical Trial Optional)	01/03/2022
	CA22-021	R21	Development of Innovative Informatics Methods and Algorithms for Cancer Research and Management (R21 Clinical Trial Optional)	03/24/2022

continued

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

Table 1b (cont'd). Requests for Applications (RFAs) Published by the NCI in FY2022

Sorted by Division, Office, and Center

Division, Office and Center	RFA	Mechanism	Title	Date of Publication
CSSI (continued)	CA22-022	U01	Early-Stage Development of Informatics Technologies for Cancer Research and Management (U01 Clinical Trial Optional)	03/24/2022
	CA22-023	U24	Advanced Development of Informatics Technologies for Cancer Research and Management (U24 Clinical Trial Optional)	03/24/2022
	CA22-024	U24	Sustained Support for Informatics Technologies for Cancer Research and Management (U24 Clinical Trial Optional)	03/24/2022
	CA22-045	R35	NCI Outstanding Investigator Award (R35 Clinical Trial Optional)	07/26/2022
DCCPS	CA22-015	U54	Cancer Control Research in Persistent Poverty Areas (U54 Clinical Trial Optional)	03/08/2022
	CA22-020	U01	Cancer Prevention, Detection, Diagnosis, and Treatment Technologies for Global Health (U01 Clinical Trial Optional)	04/05/2022
	CA22-027	R01	Research to Understand and Address the Survivorship Needs of Individuals Living with Advanced Cancer (R01 Clinical Trial Optional)	05/12/2022
DCCPS CGH	CA22-019	U54	Global Implementation Science for Equitable Cancer Control (GlobalISE Cancer Control) (U54 Clinical Trial Optional)	08/02/2022
DCP	CA21-045	U24	Coordinating Center for HIV/Cervical Cancer Prevention 'CASCADE' Clinical Trials Network (U24 Clinical Trial Required)	10/26/2021
	CA21-046	UG1	Research Bases for HIV/Cervical Cancer Prevention 'CASCADE' Clinical Trials Network (UG1 Clinical Trial Required)	10/26/2021
	CA21-047	UG1	Clinical Sites for HIV/Cervical Cancer Prevention 'CASCADE' Clinical Trials Network (UG1 Clinical Trial Required)	10/26/2021
	CA21-060	K99, R00	NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 – Independent Clinical Trial Not Allowed)	11/03/2021
	CA21-061	K99, R00	NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 – Independent Clinical Trial Required)	11/05/2021
	CA22-031	U01	Consortium on Translational Research in Early Detection of Liver Cancer: Translational Research Centers (U01 Clinical Trial Optional)	08/15/2022
	CA22-032	U24	Consortium on Translational Research in Early Detection of Liver Cancer: Data Management and Coordinating Center (U24 Clinical Trial Not Allowed)	08/15/2022
	CA22-039	U01	The Early Detection Research Network: Clinical Validation Centers (U01 Clinical Trial Optional)	07/18/2022
	CA22-040	U2C	The Early Detection Research Network: Biomarker Characterization Centers (U2C Clinical Trial Not Allowed)	07/18/2022
	CA22-054	U01	The Early Detection Research Network: Clinical Validation Centers (U01 Clinical Trial Optional)	08/19/2022
	CA22-055	U54	Cancer Prevention-Interception Targeted Agent Discovery Program (CAP-IT) Centers (U54 Clinical Trial Not Allowed)	09/13/2022
DCTD	CA22-013	U24	PDX Data Commons and Coordinating Center (PDCCC) for the PDX Development and Trial Centers Research Network (PDXNet) (U24 Clinical Trial Not Allowed)	03/25/2022
	CA22-026	U24	Limited Competition: A Data Resource for Blood and Marrow Transplants and Adoptive Cellular Therapy Research (U24 Clinical Trial Not Allowed)	06/14/2022

continued

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

Table 1b (cont'd). Requests for Applications (RFAs) Published by the NCI in FY2022

Sorted by Division, Office, and Center

Division, Office and Center	RFA	Mechanism	Title	Date of Publication
DCTD (continued)	CA22-028	UG3, UH3	Cancer Adoptive Cellular Therapy Network (Can-ACT) for Adult Cancers (UG3/UH3 Clinical Trial Required)	08/24/2022
	CA22-029	UG3, UH3	Cancer Adoptive Cellular Therapy Network (Can-ACT) for Pediatric Cancers (UG3/UH3 Clinical Trial Required)	08/24/2022
	CA22-030	U24	Cancer Adoptive Cellular Therapy Network (Can-ACT) Coordinating Center (U24 Clinical Trial Not Allowed)	08/24/2022
	CA22-038	U24	Limited Competition: Cancer Immune Monitoring and Analysis Centers (CIMACs) and Cancer Immunologic Data Center (CIDC) (U24 Clinical Trial Not Allowed)	07/15/2022
	CA22-046	U54	Radiation Oncology–Biology Integration Network (ROBIN) Centers (U54 Clinical Trial Required)	08/15/2022
DCTD DCB	CA22-016	U01	Pediatric Immunotherapy Network (PIN) (U01 Clinical Trial Optional)	04/05/2022
OHAM	CA22-011	U54	U.S. and Low- and Middle-Income Country (LMIC) HIV-Associated Malignancy Research Centers (U54 Clinical Trial Optional)	01/03/2022
SBIR	CA22-017	R42	Small Business Transition Grant for Early Career Scientists (R42 Clinical Trial Not Allowed)	03/21/2022
	CA22-025	R44	SBIR Phase IIB Bridge Awards to Accelerate the Development of Cancer-Relevant Technologies Toward Commercialization (R44 Clinical Trial Optional)	04/05/2022

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

Table 2. NCI Participation in Trans-NIH Requests for Applications (RFAs) in FY2022

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center	Issuing NIH IC
10/08/2021	NS22-002	R33, R61	HEAL Initiative: Advancing Health Equity in Pain Management (R61/R33 Clinical Trial Required)	DCP	NIH
10/27/2021	AT22-002	U24	Limited Competition: NIH Health Care Systems Research Collaboratory – Coordinating Center (U24 Clinical Trial Not Allowed)	DCCPS	NIH
	RM22-005	UG3, UH3	Cellular Senescence Network: Technology Development and Application in Murine Systems (UG3/UH3 Clinical Trial Not Allowed)	DCB	NIH
12/15/2021	OD22-002	U01	Center for Rapid Surveillance of Tobacco (CRST) to Assess Changes in Use Behaviors, Product Marketing, and the Marketplace (U01 Clinical Trial Not Allowed)	DCCPS	NIH-FDA
12/17/2021	RM22-004	UG3	Cellular Senescence Network: Technology Development and Application in Human Systems (UG3/UH3 Clinical Trial Not Allowed)	DCB	NIH
01/07/2022	NS22-034	R01	HEAL Initiative: Discovery and Validation of Novel Targets for Safe and Effective Pain Treatment (R01 Clinical Trial Not Allowed)	DCP	NIH
01/10/2022	NS22-045	K12	HEAL Initiative: National K12 Clinical Pain Career Development Program (K12 Clinical Trial Not Allowed)	CCT	NIH
01/19/2022	HL23-006	R38	Stimulating Access to Research in Residency (StARR) (R38)	CCT	NIH
01/20/2022	NS22-037	R33, R61	HEAL Initiative: Advancing Health Equity in Pain and Comorbidities (R61/R33 Clinical Trial Required)	DCP	NIH
	TR22-011	R21	Emergency Awards: HEAL Initiative—Early-Stage Discovery of New Pain and Opioid Use Disorder Targets Within the Understudied Druggable Proteome (R21 Clinical Trial Not Allowed)		
	TR22-013	DP2	Emergency Awards: HEAL Initiative—New Innovator Award (DP2 Clinical Trial Not Allowed)		
01/21/2022	DE22-011	R21	HEAL Initiative: Secondary Analysis and Integration of Existing Data Related to Acute and Chronic Pain Development or Management in Humans (R21 Clinical Trials Not Allowed)	DCP	NIH
02/04/2022	NS22-018	U19	HEAL Initiative: Discovery and Functional Evaluation of Human Pain-Associated Genes and Cells (U19 Clinical Trial Not Allowed)	DCP	NIH
	NS22-021	U24	HEAL Initiative: Human Pain-Associated Genes and Cells Data Coordination and Integration Center (U24 Clinical Trial Not Allowed)		
02/08/2022	NS22-050	UG3, UH3	HEAL Initiative: Discovery of Biomarkers and Biomarker Signatures to Facilitate Clinical Trials for Pain Therapeutics (UG3/UH3 Clinical Trial Optional)	DCP	NIH
02/10/2022	MH22-130	R01	Integrating Mental Health Care into Health Care Systems in Low- and Middle-Income Countries (R01 Clinical Trial Optional)	CGH	NIH

continued

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

Table 2 (cont'd). NCI Participation in Trans-NIH Requests for Applications (RFAs) in FY2022

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center	Issuing NIH IC
02/17/2022	OD22-005	U01	Emergency Awards: RADx-UP – Social, Ethical, and Behavioral Implications (SEBI) Research on Disparities in COVID-19 Testing Among Underserved and Vulnerable Populations (U01 Clinical Trial Optional)	DCCPS	NIH
	OD22-006	U01	Emergency Award: RADx-UP Community-Engaged Research on Rapid SARS-CoV-2 Testing Among Underserved and Vulnerable Populations (U01 Clinical Trial Optional)		
	RM22-008	U54	NIH Faculty Institutional Recruitment for Sustainable Transformation (FIRST) Program: FIRST Cohort (U54 Clinical Trial Optional)	CRCHD	NIH
03/07/2022	OD22-004	U54	Tobacco Centers of Regulatory Science (TCORS) for Research Relevant to the Family Smoking Prevention and Tobacco Control Act (U54 Clinical Trial Optional)	DCCPS	NIH-FDA
03/14/2022	HL23-007	K38	Limited Competition: Stimulating Access to Research in Residency Transition Scholar (StARRTS) (K38 Clinical Trial Not Allowed)	CCT	NIH
03/22/2022	MD22-008	R01	Understanding and Addressing Misinformation Among Populations that Experience Health Disparities (R01 Clinical Trials Optional)	DCCPS	NIH
04/05/2022	OD22-007	R21	INvestigation of Co-occurring conditions across the Lifespan to Understand Down syndromE (INCLUDE) Clinical Trial Readiness (R21 Clinical Trial Not Allowed)	DCTD	NIH
	OD22-009	R01	Transformative Research Award for the INCLUDE (Investigation of Co-occurring conditions across the Lifespan to Understand Down syndrome) Project (R01 Clinical Trial Not Allowed)	DCB	NIH
	OD22-010	R33, R61	Clinical Trials Development for Co-occurring Conditions in Individuals with Down syndrome: Phased Awards for INCLUDE (R61/R33 Clinical Trial Required)	DCTD	NIH
04/08/2022	OD22-008	R03	Small Research Grants for Analysis, Curation, and/or Sharing of Down syndrome-related Research Data for the INCLUDE Project (R03 Clinical Trial Not Allowed)	DCB	NIH
04/22/2022	NS22-052	U19	HEAL Initiative: Team Research for Initial Translational Efforts in Non-addictive Analgesic Therapeutics Development [Small Molecules and Biologics] (U19 Clinical Trial Not Allowed)	DCP	NIH
06/06/2022	ES22-003	U24	Research Coordinating Center to Support Climate Change and Health Community of Practice (U24 Clinical Trial Not Allowed)	DCCPS	NIH
07/11/2022	DA23-041	R01	HEAL Initiative: Multilevel Interventions to Reduce Harm and Improve Quality of Life for Patients on Long-Term Opioid Therapy (MIRHIQL) (R01 Clinical Trial Required)	DCP	NIH
07/13/2022	DA23-051	R01	HEAL Initiative: Preventing Opioid Misuse and Co-occurring Conditions by Intervening on Social Determinants (R01 Clinical Trials Optional)	DCP	NIH
07/21/2022	NS22-053	UG3, UH3	NIH HEAL Initiative: Coordinated Approaches to Pain Care in Health Care Systems (UG3/UH3 Clinical Trial Optional)	DCP	NIH

continued

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

Table 2 (cont'd). NCI Participation in Trans-NIH Requests for Applications (RFAs) in FY2022

Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center	Issuing NIH IC
07/26/2022	DA23-048	R33, R61	HEAL Initiative: Research Studies to Develop and Implement Interventions to Prevent Opioid Misuse in Community Health Centers (R61/R33 Clinical Trial Required)	DCP	NIH
08/01/2022	NS23-003	RM1	HEAL Initiative: Interdisciplinary Team Science to Uncover the Mechanisms of Pain Relief by Medical Devices (RM1 Clinical Trial Optional)	DCP	NIH
08/09/2022	NS22-070	R01	HEAL Initiative: Development and Validation of Non-Rodent Mammalian Models of Pain(R01 Clinical Trial Not Allowed)	DCP	NIH
08/23/2022	EB22-002	R18	HEAL Initiative: Translational Development of Diagnostic and Therapeutic Devices (R18 Clinical Trial Not Allowed)	DCP	NIH
08/30/2022	OD22-017	UG3, UH3	Open Competition: Environmental influences on Child Health Outcomes (ECHO) Pregnancy Cohort Study Sites (UG3/UH3 Clinical Trial Not Allowed)	DCCPS	NIH
08/30/2022	OD22-018	UG3, UH3	Limited Competition: Environmental influences on Child Health Outcomes (ECHO) Pregnancy and Pediatric Cohort Study Sites (UG3/UH3 Clinical Trial Not Allowed)	DCCPS	NIH
	OD22-019	UG3, UH3	Limited Competition: Environmental influences on Child Health Outcomes (ECHO) Cohort Study Sites for Pediatric Follow Up (UG3/UH3 Clinical Trial Not Allowed)		
09/07/2022	HG22-008	U01	Multi-Omics for Health and Disease – Disease Study Sites (U01 Clinical Trial Optional)	DCCPS	NIH
	HG22-009	U01	Multi-Omics for Health and Disease – 'Omics Production Centers (U01 Clinical Trial Not Allowed)		
	HG22-010	U01	Multi-Omics for Health and Disease – Data Analysis and Coordination Center (U01 Clinical Trial Not Allowed)		
09/15/2022	NS23-007	R41, R42	HEAL Initiative: Development of Therapies and Technologies Directed at Enhanced Pain Management (R41/R42 Clinical Trial Not Allowed)	SBIR	NIH
09/16/2022	NR23-001	UG3, UH3	HEAL Initiative: Prevention and Management of Chronic Pain in Rural Populations (UG3/UH3, Clinical Trials Required)	DCP	NIH

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

Table 3a. Program Announcements (PAs) Published by the NCI in FY2022

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division Office, and Center
10/12/2021	PAR21-321	P30	Cancer Center Support Grants (CCSGs) for NCI-Designated Cancer Centers (P30 Clinical Trial Optional)	OCC
	PAR21-341	R21	Exploratory Grants in Cancer Control (R21 Clinical Trial Optional)	DCCPS
	PAR22-049	U01	Integrating Biospecimen Science Approaches into Clinical Assay Development (U01 Clinical Trial Not Allowed)	DCTD
11/03/2021	PAR22-061	R01	Modulating Human Microbiome Function to Enhance Immune Responses Against Cancer (R01 Clinical Trial Not Allowed)	DCB DCP
	PAR22-062	R21	Modulating Human Microbiome Function to Enhance Immune Responses Against Cancer (R21 Clinical Trial Not Allowed)	
11/19/2021	PAR22-073	333	Innovation Corps (I-Corps) at NIH Program for NIH and CDC Translational Research (Admin Supp Clinical Trial Not Allowed)	SBIR
11/23/2021	PAR22-071	R01	Toward Translation of Nanotechnology Cancer Interventions (TTNCI) (R01 Clinical Trial Not Allowed)	DCTD
01/11/2022	PAR22-090	R21	Exploratory/Developmental Bioengineering Research Grants (EBRG) (R21 Clinical Trial Not Allowed)	DCB DCTD
	PAR22-091	R21	Exploratory/Developmental Bioengineering Research Grants (EBRG) (R21 Clinical Trial Optional)	
01/21/2022	PAR22-083	R01	Epidemiologic Research on Emerging Risk Factors and Liver Cancer Susceptibility (R01 Clinical Trial Not Allowed)	DCCPS
	PAR22-084	R21	Epidemiologic Research on Emerging Risk Factors and Liver Cancer Susceptibility (R21 Clinical Trial Not Allowed)	
	PAR22-099	R01	Cancer Tissue Engineering Collaborative: Enabling Biomimetic Tissue-Engineered Technologies for Cancer Research (R01 Clinical Trial Optional)	DCB DCP DCTD
02/18/2022	PAR22-085	R01	Microbial-Based Cancer Imaging and Therapy – Bugs as Drugs (R01 Clinical Trial Not Allowed)	DCB DCTD
	PAR22-086	R21	Microbial-Based Cancer Imaging and Therapy – Bugs as Drugs (R21 Clinical Trial Not Allowed)	
02/25/2022	PAR22-114	333	Administrative Supplements to Support Cancer Disparity Collaborative Research (Clinical Trial Optional)	ALL DIVISIONS
03/18/2022	PAR22-139	R01	Systematic Testing of Radionuclides in Preclinical Experiments (STRIPE) (R01 Clinical Trial Not Allowed)	DCTD
	PAR22-140	R21	Systematic Testing of Radionuclides in Preclinical Experiments (STRIPE) (R21 Clinical Trial Not Allowed)	
04/07/2022	PAR22-161	U01	Cancer Epidemiology Cohorts: Building the Next Generation of Research Cohorts (U01 Clinical Trial Not Allowed)	DCCPS
04/08/2022	PAR22-147	U01	Research Projects in Physical Sciences-Oncology (U01 Clinical Trial Optional)	DCB
04/11/2022	PAR22-136	K12	Paul Calabresi Career Development Award for Clinical Oncology (K12 Clinical Trial Optional)	CCT
04/12/2022	PAR22-131	R01	Imaging, Biomarkers and Digital Pathomics for the Early Detection of Premetastatic Cancer and Precancerous Lesions Associated with Lethal Phenotypes (R01 Clinical Trial Optional)	DCB DCTD
04/13/2022	PAR22-162	U01	Research Opportunities in Established Cancer Epidemiology Cohort Studies (U01 Clinical Trial Not Allowed)	DCCPS

continued

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

Table 3a (cont'd). Program Announcements (PAs) Published by the NCI in FY2022

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division Office, and Center
05/09/2022	PAR22-106	R03	Dissemination and Implementation Research in Health (R03 Clinical Trial Not Allowed)	DCCPS
05/10/2022	PAR22-105	R01	Dissemination and Implementation Research in Health (R01 Clinical Trial Optional)	DCCPS
	PAR22-109	R21	Dissemination and Implementation Research in Health (R21 Clinical Trial Optional)	
05/25/2022	PAR22-187	R50	NCI Research Specialist (Laboratory-Based Scientist) Award (R50 Clinical Trial Not Allowed)	CSSI
	PAR22-188	R50	NCI Research Specialist (Core-Based Scientist) Award (R50 Clinical Trial Not Allowed)	
06/13/2022	PAR22-164	R01	Innovative Approaches to Studying Cancer Communication in the New Information Ecosystem (R01 Clinical Trial Optional)	DCCPS
	PAR22-165	R21	Innovative Approaches to Studying Cancer Communication in the New Information Ecosystem (R21 Clinical Trial Optional)	
06/14/2022	PAR22-198	R01	Precision Approaches in Radiation Synthetic Combinations (PAIRS) (R01 Clinical Trial Optional)	DCTD
	PAR22-199	R21	Precision Approaches in Radiation Synthetic Combinations (PAIRS) (R21 Clinical Trial Optional)	
06/23/2022	PAR22-173	R34	Cancer Prevention and Control Clinical Trials Planning Grant Program (R34 Clinical Trials Optional)	DCP DCTD
	PAR22-174	U34	Cancer Prevention and Control Clinical Trials Planning Grant Program (U34 Clinical Trials Optional)	DCP
07/14/2022	PAR22-216	R21	NCI Clinical and Translational Exploratory/Developmental Studies (R21 Clinical Trial Optional)	CRCHD DCP DCTD
07/26/2022	PAR22-218	R01	Biology of Bladder Cancer (R01 Clinical Trial Optional)	ALL DIVISIONS
	PAR22-219	R21	Biology of Bladder Cancer (R21 Clinical Trial Optional)	
08/25/2022	PAR22-234	U01	The Metastasis Research Network (MetNet): MetNet Research Projects (U01 Clinical Trial Not Allowed)	DCB
09/08/2022	PAR22-242	R01	Bioengineering Research Grants (BRG) (R01 Clinical Trial Not Allowed)	DCCPS DCTD
	PAR22-243	R01	Bioengineering Research Grants (BRG) (R01 Clinical Trial Optional)	

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

Table 3b. Program Announcements (PAs) Published by the NCI in FY2022

Sorted by Division, Office, and Center

Division Office, and Center	PA/PAR	Mechanism	Title	Date of Publication
ALL DIVISIONS	PAR22-114	333	Administrative Supplements to Support Cancer Disparity Collaborative Research (Clinical Trial Optional)	02/25/2022
	PAR22-218	R01	Biology of Bladder Cancer (R01 Clinical Trial Optional)	07/26/2022
	PAR22-219	R21	Biology of Bladder Cancer (R21 Clinical Trial Optional)	
CCT	PAR22-136	K12	Paul Calabresi Career Development Award for Clinical Oncology (K12 Clinical Trial Optional)	04/11/2022
CRCHD DCP DCTD	PAR22-216	R21	NCI Clinical and Translational Exploratory/Developmental Studies (R21 Clinical Trial Optional)	07/14/2022
CSSI	PAR22-187	R50	NCI Research Specialist (Laboratory-Based Scientist) Award (R50 Clinical Trial Not Allowed)	05/25/2022
	PAR22-188	R50	NCI Research Specialist (Core-Based Scientist) Award (R50 Clinical Trial Not Allowed)	
DCB	PAR22-147	U01	Research Projects in Physical Sciences-Oncology (U01 Clinical Trial Optional)	04/08/2022
	PAR22-234	U01	The Metastasis Research Network (MetNet): MetNet Research Projects (U01 Clinical Trial Not Allowed)	08/25/2022
DCB DCP	PAR22-061	R01	Modulating Human Microbiome Function to Enhance Immune Responses Against Cancer (R01 Clinical Trial Not Allowed)	11/03/2021
	PAR22-062	R21	Modulating Human Microbiome Function to Enhance Immune Responses Against Cancer (R21 Clinical Trial Not Allowed)	
DCB DCP DCTD	PAR22-099	R01	Cancer Tissue Engineering Collaborative: Enabling Biomimetic Tissue-Engineered Technologies for Cancer Research (R01 Clinical Trial Optional)	01/21/2022
DCB DCTD	PAR22-085	R01	Microbial-Based Cancer Imaging and Therapy – Bugs as Drugs (R01 Clinical Trial Not Allowed)	02/18/2022
	PAR22-086	R21	Microbial-Based Cancer Imaging and Therapy – Bugs as Drugs (R21 Clinical Trial Not Allowed)	
	PAR22-090	R21	Exploratory/Developmental Bioengineering Research Grants (EBRG) (R21 Clinical Trial Not Allowed)	01/11/2022
	PAR22-091	R21	Exploratory/Developmental Bioengineering Research Grants (EBRG) (R21 Clinical Trial Optional)	
	PAR22-131	R01	Imaging, Biomarkers and Digital Pathomics for the Early Detection of Premetastatic Cancer and Precancerous Lesions Associated with Lethal Phenotypes (R01 Clinical Trial Optional)	04/12/2022
DCCPS	PAR21-341	R21	Exploratory Grants in Cancer Control (R21 Clinical Trial Optional)	10/12/2021
	PAR22-083	R01	Epidemiologic Research on Emerging Risk Factors and Liver Cancer Susceptibility (R01 Clinical Trial Not Allowed)	01/21/2022
	PAR22-084	R21	Epidemiologic Research on Emerging Risk Factors and Liver Cancer Susceptibility (R21 Clinical Trial Not Allowed)	
	PAR22-105	R01	Dissemination and Implementation Research in Health (R01 Clinical Trial Optional)	05/10/2022
	PAR22-106	R03	Dissemination and Implementation Research in Health (R03 Clinical Trial Not Allowed)	05/09/2022

continued

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

Table 3b (cont'd). Program Announcements (PAs) Published by the NCI in FY2022

Sorted by Division, Office, and Center

Division Office, and Center	PA/PAR	Mechanism	Title	Date of Publication
DCCPS (continued)	PAR22-109	R21	Dissemination and Implementation Research in Health (R21 Clinical Trial Optional)	05/10/2022
	PAR22-161	U01	Cancer Epidemiology Cohorts: Building the Next Generation of Research Cohorts (U01 Clinical Trial Not Allowed)	04/07/2022
	PAR22-162	U01	Research Opportunities in Established Cancer Epidemiology Cohort Studies (U01 Clinical Trial Not Allowed)	04/13/2022
	PAR22-164	R01	Innovative Approaches to Studying Cancer Communication in the New Information Ecosystem (R01 Clinical Trial Optional)	06/13/2022
	PAR22-165	R21	Innovative Approaches to Studying Cancer Communication in the New Information Ecosystem (R21 Clinical Trial Optional)	
DCCPS DCTD	PAR22-242	R01	Bioengineering Research Grants (BRG) (R01 Clinical Trial Not Allowed)	09/08/2022
	PAR22-243	R01	Bioengineering Research Grants (BRG) (R01 Clinical Trial Optional)	
DCP	PAR22-174	U34	Cancer Prevention and Control Clinical Trials Planning Grant Program (U34 Clinical Trials Optional)	06/23/2022
DCP DCTD	PAR22-173	R34	Cancer Prevention and Control Clinical Trials Planning Grant Program (R34 Clinical Trials Optional)	06/23/2022
DCTD	PAR22-049	U01	Integrating Biospecimen Science Approaches into Clinical Assay Development (U01 Clinical Trial Not Allowed)	10/21/2021
	PAR22-071	R01	Toward Translation of Nanotechnology Cancer Interventions (TTNCI) (R01 Clinical Trial Not Allowed)	11/23/2021
	PAR22-139	R01	Systematic Testing of Radionuclides in Preclinical Experiments (STRIPE) (R01 Clinical Trial Not Allowed)	03/18/2022
	PAR22-140	R21	Systematic Testing of Radionuclides in Preclinical Experiments (STRIPE) (R21 Clinical Trial Not Allowed)	
	PAR22-198	R01	Precision Approaches in Radiation Synthetic Combinations (PAIRS) (R01 Clinical Trial Optional)	06/14/2022
	PAR22-199	R21	Precision Approaches in Radiation Synthetic Combinations (PAIRS) (R21 Clinical Trial Optional)	
OCC	PAR21-321	P30	Cancer Center Support Grants (CCSGs) for NCI-Designated Cancer Centers (P30 Clinical Trial Optional)	10/12/2021
SBIR	PAR22-073	333	Innovation Corps (I-Corps) at NIH Program for NIH and CDC Translational Research (Admin Supp Clinical Trial Not Allowed)	11/19/2021

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

Table 4. NCI Participation in Trans-NIH Program Announcements (PAs/PARs) in FY2022

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division Office, and Center	Issuing NIH-IC
10/05/2021	PAR21-349	R01	Research on Biopsychosocial Factors of Social Connectedness and Isolation on Health, Wellbeing, Illness, and Recovery (R01 Basic Experimental Studies with Humans Required)	DCCPS	NIH
	PAR21-350	R01	Research on Biopsychosocial Factors of Social Connectedness and Isolation on Health, Wellbeing, Illness, and Recovery (R01 Clinical Trials Not Allowed)		
	PAR21-352	R01	Research on Biopsychosocial Factors of Social Connectedness and Isolation on Health, Wellbeing, Illness, and Recovery (R01 Clinical Trial Required)		
11/16/2021	PAR22-064	R01	Patient-Clinician Relationship: Improving Health Outcomes in Populations That Experience Health Care Disparities (R01 Clinical Trial Optional)	DCP	NIH
11/19/2021	PAR21-342	X02	Pre-application: Opportunities for Collaborative Research at the NIH Clinical Center (X02 Clinical Trial Optional)	DCTD	NIH
11/20/2021	PAR22-072	R01	Measures and Methods to Advance Research on Minority Health and Health Disparities–Related Constructs (R01 Clinical Trial Not Allowed)	DCCPS	NIH
12/13/2021	PAR21-358	R01	Risk and Protective Factors of Family Health and Family-Level Interventions (R01 Clinical Trial Optional)	DCCPS	NIH
01/06/2022	PAR22-057	K18	Emergency Awards: HEAL Initiative: Translational Science Career Enhancement Awards for Early and Mid-Career Investigators (K18 Clinical Trials Not Allowed)	CCT	NIH
01/10/2022	PAR21-357	R15	Research Enhancement Award Program (REAP) for Health Professional Schools and Graduate Schools (R15 Clinical Trial Required)	CCT	NIH
	PAR22-092	R01	Health Care Models for Persons with Multiple Chronic Conditions from Populations That Experience Health Disparities: Advancing Health Care Towards Health Equity (R01 Clinical Trials Optional)	DCP DCCPS	NIH
01/21/2022	PAR22-058	K18	Emergency Awards: HEAL Initiative: Translational Science Career Enhancement Awards for Early and Mid-Career Investigators (K18 Clinical Trials Not Allowed)	CRCHD	NIH
01/26/2022	PAR22-078	R00, SI2	Lasker Clinical Research Scholars Program (Si2/R00 Clinical Trial Optional)	DCCPS	NIH
01/31/2022	PA21-259	R43, R44	PHS 2021-2 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 CDC FDA
03/08/2022	PAR22-123	U01	Bioengineering Partnerships with Industry (U01 Clinical Trial Optional)	DCTD	NIH
03/21/2022	PAR22-126	R21	Technology Development Research for Establishing Feasibility and Proof of Concept (R21 Clinical Trial Not Allowed)	DCTD	NIH
	PAR22-127	R01	Focused Technology Research and Development (R01 Clinical Trial Not Allowed)		

continued

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

Table 4 (cont'd). NCI Participation in Trans-NIH Program Announcements (PAs/PARs) in FY2022

Sorted by Date of Publication

Date of Publication	PA/PAR	Mechanism	Title	Division Office, and Center	Issuing NIH-IC
03/29/2022	PAR22-132	R01	Implementation Research to Reduce Noncommunicable Disease (NCD) Burden in Low- and Middle-Income Countries (LMICs) and Tribal Nations During Critical Life Stages and Key Transition Periods (R01 Clinical Trial Optional)	CGH	NIH
03/31/2022	PAR22-145	R01	Leveraging Health Information Technology (Health IT) to Address and Reduce Health Care Disparities (R01 Clinical Trial Optional)	DCCPS	NIH
04/21/2022	PAR22-151	D43	Fogarty HIV Research Training Program for Low- and Middle-Income Country Institutions (D43 Clinical Trial Optional)	OHAM	NIH
04/28/2022	PAR22-146	R25	Education Program on Translational Devices (R25 Clinical Trial Not Allowed)	CCT	NIH
06/02/2022	PA22-176	R43, R44	PHS 2022-2 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 CDC
	PA22-177	R43, R44	PHS 2022-2 Omnibus Solicitation of the NIH and CDC for Small Business Innovation Research Grant Applications (Parent SBIR [R43/R44] Clinical Trial Required)		NIH CDC
	PA22-178	R41, R42	PHS 2022-2 Omnibus Solicitation of the NIH for Small Business Technology Transfer Grant Applications (Parent STTR [R41/R42] Clinical Trial Not Allowed)		NIH
	PA22-179	R41, R42	PHS 2022-2 Omnibus Solicitation of the NIH for Small Business Technology Transfer Grant Applications (Parent STTR [R41/R42] Clinical Trial Required)		NIH
07/13/2022	PAR22-203	U54	Point-of-Care Technologies Research Network: Technology Research and Development Centers (TRDC) (U54 Clinical Trial Optional)	DCTD	NIH
08/24/2022	PAR23-024	DP1	Catalyst Award for Early-Stage Investigators (ESIs) Pursuing Research on HIV Comorbidities, Coinfections, and Complications (DP1 Clinical Trial Optional)	OHAM	NIH
09/01/2022	PAR22-233	R33, R61	Time-Sensitive Opportunities for Health Research (R61/R33 Clinical Trial Not Allowed)	DCCPS	NIH

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

Table 5. Applications Received for Referral by the NCI DEA in FY2022

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	47	47	0	0	$21,510,675
NIH Director's Pioneer Award (NDPA)	DP1	1	0	1	0	$3,500,000
NIH Director's New Innovator Awards	DP2	9	0	9	0	$4,353,620
Individual Predoctoral NRSA for M.D./Ph.D. Fellowships (ADAMHA)	F30	204	57	67	80	$0
Predoctoral Individual National Research Service Award	F31	647	208	238	201	$0
Postdoctoral Individual National Research Service Award	F32	163	53	55	55	$0
National Research Service Award for Senior Fellows	F33	1	1	0	0	$0
Predoctoral to Postdoctoral Transition Award	F99	55	0	55	0	$0
Research Scientist Development Award – Research & Training	K01	23	0	14	9	$3,643,996
Clinical Investigator Award	K08	229	81	77	71	$51,526,578
Physician Scientist Award (Program)	K12	19	17	0	2	$8,329,554
Career Transition Award	K22	99	35	30	34	$16,785,095
Mentored Quantitative Research Career Development	K25	6	1	0	5	$916,044
International Research Career Development Award	K43	4	0	4	0	$364,451
Career Transition Award	K99	319	91	84	144	$40,215,528
Loan Repayment Program for Health Disparities Research (HD-LRP)	L60	89	0	3	86	$0
Loan Repayment Program for Research in Emerging Areas Critical to Human Health	L70	24	0	0	24	$0
Research Project–Other Transaction Award	OT2	15	0	15	0	$0
Research Program Projects	P01	100	34	32	34	$287,592,422
Center Core Grants	P30	16	12	3	1	$55,562,284
Specialized Center	P50	73	22	38	13	$158,432,104
Comprehensive Center	P60	1	0	0	1	$1,995,608
Research Transition Award	R00	1	0	0	1	$0
Research Project	R01	7,019	2,479	2,312	2,228	$4,283,578,153
Small Research Grants	R03	411	160	119	132	$33,428,211
Conferences	R13	64	32	17	15	$1,928,191
Academic Research Enhancement Awards (AREA)	R15	180	59	63	58	$77,281,835
Research Excellence Award	R16	44	27	17	0	$7,236,511
Exploratory/Developmental Grants	R21	1,934	679	754	501	$435,230,852
Education Projects	R25	79	16	48	15	$22,677,912
Exploratory/Developmental Grants Phase II	R33	46	21	25	0	$21,016,349
Outstanding Investigator Award	R35	87	0	87	0	$85,457,618
Method to Extend Research in Time (MERIT) Award	R37	54	21	23	10	$33,525,978
Mentored Research Pathway in Residency	R38	4	0	0	4	$1,463,079

continued

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 363 withdrawn applications have been subtracted from the total count.

Table 5. (cont'd). Applications Received for Referral by the NCI DEA in FY2022

Sorted by Activity Code

Mechanism	Activity Code	Totals by Activity	Applications by NCAB			Total Costs Requested First Year
			Feb	June	Sept	
Small Business Technology Transfer (STTR) Grants – Phase I	R41	280	107	79	94	$93,182,384
Small Business Technology Transfer (STTR) Grants – Phase II	R42	58	25	17	16	$26,980,686
Small Business Innovation Research Grants (SBIR) – Phase I	R43	677	284	207	186	$220,611,500
Small Business Innovation Research Grants (SBIR) – Phase II	R44	381	179	95	107	$308,856,492
Research Specialist Award	R50	121	0	96	25	$18,065,009
High Priority, Short Term Project Award	R56	18	5	13	0	$2,778,457
Phase 1 Exploratory/Developmental Grant	R61	11	2	4	5	$7,445,029
Minority Biomedical Research Support – MBRS	S06	14	14	0	0	$17,567,517
Commercialization Readiness Program	SB1	12	6	4	2	$2,982,009
Institutional National Research Service Award	T32	120	51	40	29	$62,810,608
Research Project (Cooperative Agreements)	U01	483	186	238	59	$356,636,431
Resource-Related Research Project (Cooperative Agreements)	U24	85	46	33	6	$91,122,246
Resource-Related Research Multi-Component Projects and Centers Cooperative Agreements	U2C	20	0	20	0	$16,498,998
International Training Cooperative Agreement	U2R	15	15	0	0	$4,140,708
Small Business Innovation Research (SBIR) Cooperative Agreements – Phase II	U44	1	1	0	0	$957,635
Specialized Center (Cooperative Agreements)	U54	167	18	141	8	$200,860,907
Clinical Research Cooperative Agreements – Single Project	UG1	13	0	13	0	$5,147,310
Phase 1 Exploratory/Developmental Cooperative Agreement	UG3	17	0	17	0	$10,063,669
Exploratory/Developmental Cooperative Agreement Phase I	UH2	41	15	12	14	$10,510,917
Exploratory/Developmental Cooperative Agreement Phase II	UH3	7	4	1	2	$2,810,525
Research Project with Complex Structure Cooperative Agreement	UM1	4	0	4	0	$13,838,787
Small Business Technology Transfer (STTR) Cooperative Agreements Phase II	UT2	1	1	0	0	$959,115
Resource Access Program	X01	6	0	0	6	$0
Pre-application	X02	6	0	6	0	$0
Overall Totals		**14,625**	**5,112**	**5,230**	**4,283**	**$7,132,379,587**

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 363 withdrawn applications have been subtracted from the total count.

Table 6. Grant and Cooperative Agreement Applications Reviewed by the NCI DEA in FY2022

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	35	35	0	0	$9,321,968
Predoctoral to Postdoctoral Transition Award	F99	55	0	55	0	$0
Research Scientist Development Award – Research & Training	K01	9	0	6	3	$1,333,846
Clinical Investigator Award	K08	213	77	68	68	$48,456,472
Physician Scientist Award (Program)	K12	16	16	0	0	$5,307,710
Career Transition Award	K22	99	35	30	34	$16,785,095
Mentored Quantitative Research Career Development	K25	6	1	0	5	$916,044
Career Transition Award	K99	276	75	67	134	$35,223,400
Loan Repayment Program for Health Disparities Research (HD-LRP)	L60	60	0	0	60	$0
Loan Repayment Program for Research in Emerging Areas Critical to Human Health	L70	18	0	0	18	$0
Research Project – Other Transaction Award	OT2	15	0	15	0	$0
Research Program Projects	P01	100	34	32	34	$287,592,422
Center Core Grants	P30	8	4	3	1	$37,847,524
Specialized Center	P50	73	22	38	13	$158,432,104
Research Transition Award	R00	1	0	0	1	$0
Research Project	R01	89	52	17	20	$68,626,099
Small Research Grants	R03	391	153	112	126	$31,144,603
Conferences	R13	44	23	10	11	$1,364,168
Exploratory/Developmental Grants	R21	1,310	474	483	353	$293,911,007
Education Projects	R25	78	15	48	15	$22,461,926
Exploratory/Developmental Grants Phase II	R33	46	21	25	0	$21,016,349
Outstanding Investigator Award	R35	87	0	87	0	$85,457,618
Mentored Research Pathway in Residency	R38	2	0	0	2	$951,643
Small Business Innovation Research Grants (SBIR) – Phase II	R44	26	26	0	0	$40,441,894
Research Specialist Award	R50	121	0	96	25	$18,065,009
Institutional National Research Service Award	T32	100	39	36	25	$35,684,785
Research Project (Cooperative Agreements)	U01	450	157	237	56	$341,130,813
Resource-Related Research Project (Cooperative Agreements)	U24	67	37	28	2	$72,742,782
Resource-Related Research Multi-component Projects and Centers Cooperative Agreements	U2C	20	0	20	0	$16,498,998
Specialized Center (Cooperative Agreements)	U54	102	18	76	8	$170,986,713
Clinical Research Cooperative Agreements – Single Project	UG1	13	0	13	0	$5,147,310
Exploratory/Developmental Cooperative Agreement Phase I	UH2	41	15	12	14	$10,510,917
Exploratory/Developmental Cooperative Agreement Phase II	UH3	7	4	1	2	$2,810,525
Pre-application	X02	5	0	5	0	$0
Overall Totals		**3,983**	**1,333**	**1,620**	**1,030**	**$1,840,169,744**

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 103 withdrawn applications have been subtracted from the total count.

Table 7. Applications Reviewed by NCI IRG Study Sections and Special Emphasis Panels (SEPs) in FY2022

NCI IRG Study Section	Types of Applications Reviewed	Total by Committee	Total Costs Requested First Year
A – Cancer Centers	P30	7	$34,002,071
F – Institutional Training and Education	K12, R25, T32	191	$62,682,401
I – Transition to Independence	K99	198	$25,319,676
J – Career Development	K01, K08, K22, K25, K99, U01	236	$57,872,808
Totals – NCI IRG Study Sections		**632**	**$179,876,956**
Total SEPs	D43, F99, K12, K22, K99, L60, L70, OT2, P01, P30, P50, R00, R01, R03, R13, R21, R25, R33, R35, R38, R44, R50, T32, U01, U24, U2C, U54, UG1, UH2, UH3, X02	3,351	$1,660,292,788
Totals		**3,983**	**$1,840,169,744**

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 83 withdrawn applications have been subtracted from the total count of the SEPs, and 20 withdrawn applications have been subtracted from the total count of the NCI IRG Study Sections.

Table 8. Summary of Investigator-Initiated P01 Applications Reviewed in FY2022

Sorted by NCAB Meeting

Type of Application	February	June	September	FY Total
New	18	17	19	54
Resubmitted New	9	9	10	28
Renewal	3	3	2	8
Resubmitted Renewal	2	3	3	8
Revisions	2	0	0	2
Total	**34**	**32**	**34**	**100**

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. No withdrawn applications have been subtracted from the total count.

Table 9. Summary of Investigator-Initiated P01 Applications Reviewed in FY2022

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)	28	$70,601,677	$353,219,762
Division of Cancer Control and Population Sciences (DCCPS)	14	$44,606,405	$205,530,132
Division of Cancer Prevention (DCP)	10	$26,626,664	$137,208,747
Division of Cancer Treatment and Diagnosis (DCTD)	48	$150,445,706	$808,553,058
Totals	**100**	**$292,280,452**	**$1,504,511,699**

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 FY2022

Title of Initiative	RFA Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	June	Sept	
Revision Applications for Mechanisms of Drug Resistance (R01 Clinical Trials Not Allowed)	CA19-049	R01	15	15	0	0	$5,883,223
Revision Applications for Mechanisms of Drug Resistance (P01 Clinical Trials Not Allowed)	CA19-052	P01	1	1	0	0	$314,898
Research to Reduce Morbidity and Improve Care for Pediatric and Adolescent and Young Adult (AYA) Cancer Survivors (R01 Clinical Trial Optional)	CA20-027	R01	33	33	0	0	$26,986,334
Research to Reduce Morbidity and Improve Care for Pediatric and Adolescent and Young Adult (AYA) Cancer Survivors (R21 Clinical Trial Optional)	CA20-028	R21	31	31	0	0	$7,411,983
Metastasis Research Network (U54 Clinical Trial Not Allowed)	CA20-029	U54	18	18	0	0	$34,927,501
Strengthening Institutional Capacity to Conduct Global Cancer Research in Low- and Middle-Income Countries (D43 Clinical Trial Not Allowed)	CA20-031	D43	35	35	0	0	$9,321,968
Investigation of the Transmission of Kaposi Sarcoma–Associated Herpesvirus (KSHV) (R01 Clinical Trial Optional)	CA20-046	R01	3	0	3	0	$2,415,526
Social and Behavioral Intervention Research to Address Modifiable Risk Factors for Cancer in Rural Populations (R01 Clinical Trial Required)	CA20-051	R01	20	0	0	20	$19,583,998
Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R21 Clinical Trial Not Allowed)	CA21-003	R21	85	39	46	0	$19,511,418
Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R33 Clinical Trial Not Allowed)	CA21-004	R33	42	18	24	0	$19,037,850
Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (R21 Clinical Trial Not Allowed)	CA21-005	R21	10	5	5	0	$2,338,977
Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (R33 Clinical Trial Not Allowed)	CA21-006	R33	4	3	1	0	$1,978,499
Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (R01 Clinical Trial Optional)	CA21-007	R01	2	2	0	0	$467,575
Development of Innovative Informatics Methods and Algorithms for Cancer Research and Management (R21 Clinical Trial Optional)	CA21-013	R21	76	35	41	0	$17,129,615
Early-Stage Development of Informatics Technologies for Cancer Research and Management (U01 Clinical Trial Optional)	CA21-014	U01	61	34	27	0	$29,098,106

continued

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 35 withdrawn applications have been subtracted from the total count.

Table 10 (cont'd). Requests for Applications (RFAs) Reviewed by the NCI DEA in FY2022

Title of Initiative	RFA Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	June	Sept	
Advanced Development of Informatics Technologies for Cancer Research and Management (U24 Clinical Trial Optional)	CA21-015	U24	13	6	7	0	$12,393,528
Sustained Support for Informatics Technologies for Cancer Research and Management (U24 Clinical Trial Optional)	CA21-016	U24	6	2	4	0	$7,431,480
Revision Applications to Support the Application of Informatics Technology for Cancer Research (R01 Clinical Trials Optional)	CA21-017	R01	2	2	0	0	$316,678
Revision Applications to Support the Application of Informatics Technology for Cancer Research (U01 Clinical Trials Optional)	CA21-018	U01	1	1	0	0	$166,000
National Cancer Institute Youth Enjoy Science Research Education Program (R25 Clinical Trial Not Allowed)	CA21-020	R25	32	0	32	0	$11,058,995
Metabolic Dysregulation and Cancer Risk Program, Research Grants: A Transdisciplinary Approach to Obesity-Associated Research (U01 Clinical Trial Optional)	CA21-021	U01	25	0	25	0	$30,248,663
Coordinating Center for the Metabolic Dysregulation and Cancer Risk Program: A Transdisciplinary Approach to Obesity-Associated Cancer Research (U24 Clinical Trial Not Allowed)	CA21-022	U24	1	0	1	0	$694,693
Proteome Characterization Centers (PCCs) for Clinical Proteomic Tumor Analysis Consortium (U24 Clinical Trial Not Allowed)	CA21-023	U24	6	6	0	0	$7,250,843
Proteogenomic Data Analysis Centers (PGDACs) for Clinical Proteomic Tumor Analysis Consortium (U24 Clinical Trial Not Allowed)	CA21-024	U24	12	12	0	0	$10,511,655
Proteogenomic Translational Research Centers (PTRCs) for Clinical Proteomic Tumor Analysis Consortium (U01 Clinical Trial Not Allowed)	CA21-025	U01	10	10	0	0	$12,483,900
Program on the Origins of Gastroesophageal Cancers (R01 Clinical Trial Optional)	CA21-026	R01	14	0	14	0	$12,972,765
Coordinating Center for the Program on the Origins of Gastroesophageal Cancers (U24 Clinical Trial Not Allowed)	CA21-027	U24	2	0	2	0	$1,741,120
Centers on Telehealth Research for Cancer-Related Care (P50 Clinical Trial Required)	CA21-029	P50	13	13	0	0	$16,786,552
Cancer Prevention, Detection, Diagnosis, and Treatment Technologies for Global Health (U01 Clinical Trial Optional)	CA21-030	U01	44	44	0	0	$29,042,295
Exercise and Nutrition Interventions to Improve Cancer Treatment–Related Outcomes (ENICTO) in Cancer Survivors Consortium (U01 Clinical Trial Required)	CA21-031	U01	20	20	0	0	$23,851,229

continued

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 35 withdrawn applications have been subtracted from the total count.

Table 10 (cont'd). Requests for Applications (RFAs) Reviewed by the NCI DEA in FY2022

Title of Initiative	RFA Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	June	Sept	
Coordinating Center for Exercise and Nutrition Interventions to Improve Cancer Treatment–Related Outcomes (ENICTO) in Cancer Survivors Consortium (U24 Clinical Trial Not Allowed)	CA21-032	U24	3	3	0	0	$3,851,470
The Early Detection Research Network: Clinical Validation Centers (U01 Clinical Trial Optional)	CA21-033	U01	20	0	20	0	$18,369,963
The Early Detection Research Network: Data Management and Coordinating Center (U24 Clinical Trial Not Allowed)	CA21-034	U24	1	0	1	0	$7,665,824
The Early Detection Research Network: Biomarker Characterization Centers (U2C Clinical Trial Not Allowed)	CA21-035	U2C	20	0	20	0	$16,498,998
SBIR Phase IIB Bridge Awards to Accelerate the Development of Cancer-Relevant Technologies Toward Commercialization (R44 Clinical Trial Optional)	CA21-036	R44	26	26	0	0	$40,441,894
Cancer Prevention-Interception Targeted Agent Discovery Program (CAP-IT) Centers (U54 Clinical Trial Not Allowed)	CA21-038	U54	10	0	10	0	$11,927,077
Cancer Prevention-Interception Targeted Agent Discovery Program (CAP-IT) Data and Resource Coordination Center (CAP-IT DRCC) (U24 Clinical Trial Not Allowed)	CA21-039	U24	0	0	0	0	$0
Radiation Oncology-Biology Integration Network (ROBIN) Centers (U54 Clinical Trial Required)	CA21-040	U54	26	0	26	0	$42,247,040
Pancreatic Ductal Adenocarcinoma (PDAC) Stromal Reprogramming Consortium (PSRC) (U01 Clinical Trial Not Allowed)	CA21-041	U01	16	0	16	0	$15,897,494
Pancreatic Ductal Adenocarcinoma Stromal Reprogramming Consortium Coordinating and Data Management Center (PSRC CDMC) (U24 Clinical Trial Not Allowed)	CA21-042	U24	2	0	2	0	$1,909,252
Coordinating Center for HIV/Cervical Cancer Prevention 'CASCADE' Clinical Trials Network (U24 Clinical Trial Required)	CA21-045	U24	2	0	2	0	$2,146,875
Research Bases for HIV/Cervical Cancer Prevention 'CASCADE' Clinical Trials Network (UG1 Clinical Trial Required)	CA21-046	UG1	5	0	5	0	$3,114,533
Clinical Sites for HIV/Cervical Cancer Prevention 'CASCADE' Clinical Trials Network (UG1 Clinical Trial Required)	CA21-047	UG1	8	0	8	0	$2,032,777
Research Centers for Cancer Systems Biology (U54 Clinical Trial Not Allowed)	CA21-048	U54	14	0	14	0	$34,443,536
Division of Cancer Biology Multi-Consortia Coordinating Center (U24 Clinical Trial Not Allowed)	CA21-049	U24	1	0	1	0	$2,081,766
Canine Cancer Immunotherapy Network (K9CIN) (U01 Clinical Trial Not Allowed)	CA21-050	U01	22	0	22	0	$12,419,297

continued

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 35 withdrawn applications have been subtracted from the total count.

Table 10 (cont'd). Requests for Applications (RFAs) Reviewed by the NCI DEA in FY2022

Title of Initiative	RFA Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	June	Sept	
Coordinating Center for Canine Cancer Immunotherapy Network (K9CIN) (U24 Clinical Trial Not Allowed)	CA21-051	U24	1	0	1	0	$609,375
Acquired Resistance to Therapy Network (ARTNet) (U54 Clinical Trial Not Allowed)	CA21-052	U54	14	0	14	0	$18,821,415
Coordinating and Data Management Center for Acquired Resistance to Therapy Network (ARTNet) (U24 Clinical Trial Not Allowed)	CA21-053	U24	1	0	1	0	$1,018,315
Translational and Basic Science Research in Early Lesions (TBEL) (U54 Clinical Trial Not Allowed)	CA21-054	U54	12	0	12	0	$19,859,940
Translational and Basic Science Research in Early Lesions (TBEL) Coordinating and Data Management Center (U24 Clinical Trial Not Allowed)	CA21-055	U24	3	0	3	0	$2,460,832
Implementation Science for Cancer Control in People Living with HIV in Low- and Middle-Income Countries (U01 Clinical Trial Optional)	CA21-056	U01	30	0	30	0	$19,757,441
The NCI Predoctoral to Postdoctoral Fellow Transition Award (F99/K00 Clinical Trial Not Allowed)	CA21-059	F99	55	0	55	0	$0
NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 Independent Clinical Trial Not Allowed)	CA21-060	K99	63	0	0	63	$8,134,513
NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 Independent Clinical Trial Required)	CA21-061	K99	13	0	0	13	$1,538,632
A Multilevel Approach to Connecting Underrepresented Populations to Clinical Trials (CUSP2CT) (U01 Clinical Trial Optional)	CA21-063	U01	14	0	14	0	$9,984,580
U.S. and Low- and Middle-Income Country (LMIC) HIV-Associated Malignancy Research Centers (U54 Clinical Trial Optional)	CA22-011	U54	8	0	0	8	$8,760,204
Data, Evaluation and Coordinating Center for: A Multilevel Approach to Connecting Underrepresented Populations to Clinical Trials (CUSP2CT) (U24 Clinical Trial Not Allowed)	CA22-014	U24	2	0	0	2	$1,131,905
Stimulating Access to Research in Residency (StARR) (R38)	HL23-006	R38	2	0	0	2	$951,643
Totals			**1,031**	**414**	**524**	**108**	**$681,434,458**

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 35 withdrawn applications have been subtracted from the total count.

Table 11. Program Announcements (PAs) Reviewed by the NCI DEA in FY2022

Title of Initiative	PA/PAR Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	June	Sept	
Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant (Parent T32)	PA20-142	T32	100	39	36	25	$35,684,785
NIH Pathway to Independence Award (Parent K99/R00 Independent Clinical Trial Required)	PA20-187	K99	8	3	3	2	$1,052,822
NIH Pathway to Independence Award (Parent K99/R00 Independent Clinical Trial Not Allowed)	PA20-188	K99	191	72	64	55	$24,373,516
NIH Pathway to Independence Award (Parent K99/R00 Independent Basic Experimental Studies with Humans Required)	PA20-189	K99	1	0	0	1	$123,917
Mentored Quantitative Research Development Award (Parent K25 Independent Clinical Trial Not Allowed)	PA20-199	K25	6	1	0	5	$916,044
Mentored Clinical Scientist Research Career Development Award (Parent K08 Independent Clinical Trial Required)	PA20-202	K08	48	15	18	15	$10,452,867
Mentored Clinical Scientist Research Career Development Award (Parent K08 Independent Clinical Trial Not Allowed)	PA20-203	K08	153	62	44	47	$35,198,896
NIH Support for Conferences and Scientific Meetings (Parent R13 Clinical Trial Not Allowed)	PA21-151	R13	44	23	10	11	$1,364,168
Oncology Co-Clinical Imaging Research Resources to Encourage Consensus on Quantitative Imaging Methods and Precision Medicine (U24 Clinical Trial Optional)	PAR18-841	U24	7	7	0	0	$5,710,474
Utilizing the PLCO Biospecimens Resource to Bridge Gaps in Cancer Etiology and Early Detection Research (U01 Clinical Trial Not Allowed)	PAR18-913	U01	9	0	9	0	$7,133,670
Integrating Biospecimen Science Approaches into Clinical Assay Development (U01 Clinical Trial Not Allowed)	PAR18-947	U01	22	22	0	0	$8,765,507
Paul Calabresi Career Development Award for Clinical Oncology (K12 Clinical Trial Optional)	PAR19-242	K12	16	16	0	0	$5,307,710
Research Projects in Cancer Systems Biology (U01 Clinical Trial Optional)	PAR19-287	U01	51	25	26	0	$32,416,418
Small-Cell Lung Cancer (SCLC) Consortium: Therapeutic Development and Mechanisms of Resistance (U01 Clinical Trial Not Allowed)	PAR19-361	U01	21	0	9	12	$14,379,870
Cancer Center Support Grants (CCSGs) for NCI-Designated Cancer Centers (P30 Clinical Trial Optional)	PAR20-043	P30	7	4	3	0	$35,578,861
NCI Small Grants Program for Cancer Research for Years 2020, 2021, and 2022 (NCI Omnibus R03 Clinical Trial Optional)	PAR20-052	R03	391	153	112	126	$31,144,603
National Cancer Institute Program Project Applications (P01 Clinical Trial Optional)	PAR20-077	P01	100	34	32	34	$287,277,524
New Informatics Tools and Methods to Enhance U.S. Cancer Surveillance Research (U01 Clinical Trial Optional)	PAR20-170	U01	2	1	1	0	$1,288,998

continued

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 65 withdrawn applications have been subtracted from the total count.

Table 11 (cont'd). Program Announcements (PAs) Reviewed by the NCI DEA in FY2022

Title of Initiative	PA/PAR Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	June	Sept	
NCI Clinical and Translational Exploratory/Developmental Studies (R21 Clinical Trial Optional)	PAR20-292	R21	1,108	364	391	353	$247,519,014
Core Infrastructure Support for Cancer Epidemiology Cohorts (U01 Clinical Trial Not Allowed)	PAR20-294	U01	10	0	3	7	$17,730,190
Specialized Programs of Research Excellence (SPOREs) in Human Cancers for Years 2021, 2022, and 2023 (P50 Clinical Trial Required)	PAR20-305	P50	60	9	38	13	$141,645,552
Assay Validation of High Quality Markers for Clinical Studies in Cancer (UH2/UH3 Clinical Trial Not Allowed)	PAR20-313	UH2	41	15	12	14	$10,510,917
Assay Validation of High Quality Markers for Clinical Studies in Cancer (UH3 Clinical Trials Not Allowed)	PAR20-314	UH3	7	4	1	2	$2,810,525
Limited Competition: Lasker Clinical Research Scholars Transition Award (R00 Clinical Trial Optional)	PAR20-315	R00	1	0	0	1	$0
Cancer Research Education Grants Program – Curriculum or Methods Development (R25 Clinical Trial Not Allowed)	PAR21-065	R25	8	4	2	2	$1,359,032
Cancer Research Education Grants Program – Courses for Skills Development (R25 Clinical Trial Not Allowed)	PAR21-066	R25	6	6	0	0	$1,674,710
Cancer Research Education Grants Program – Research Experiences (R25 Clinical Trial Not Allowed)	PAR21-067	R25	5	5	0	0	$1,439,712
The NCI Transition Career Development Award (K22 Independent Clinical Trial Not Allowed)	PAR21-128	K22	96	35	29	32	$16,307,273
Cancer Target Discovery and Development (CTD2) (U01 Clinical Trial Not Allowed)	PAR21-274	U01	19	0	14	5	$22,445,542
Cancer Research Education Grants Program – Courses for Skills Development (R25 Clinical Trial Not Allowed)	PAR21-278	R25	16	0	6	10	$4,302,794
Cancer Research Education Grants Program – Research Experiences (R25 Clinical Trial Not Allowed)	PAR21-279	R25	11	0	8	3	$2,626,683
NCI Research Specialist (Laboratory-Based Scientist) Award (R50 Clinical Trial Not Allowed)	PAR21-285	R50	74	0	74	0	$10,742,828
NCI Research Specialist (Core-Based Scientist) Award (R50 Clinical Trial Not Allowed)	PAR21-286	R50	22	0	22	0	$3,914,998
NCI Mentored Research Scientist Development Award to Promote Diversity (K01 Independent Clinical Trial Not Allowed)	PAR21-295	K01	4	0	3	1	$520,339
NCI Mentored Research Scientist Development Award to Promote Diversity (K01 Clinical Trial Required)	PAR21-296	K01	5	0	3	2	$813,507
NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity (K08 Clinical Trial Required)	PAR21-299	K08	6	0	3	3	$1,375,274
NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity (K08 Independent Clinical Trial Not Allowed)	PAR21-300	K08	6	0	3	3	$1,429,435
NCI Transition Career Development Award to Promote Diversity (K22 Independent Clinical Trial Not Allowed)	PAR21-301	K22	2	0	1	1	$315,863

continued

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 65 withdrawn applications have been subtracted from the total count.

Table 11 (cont'd). Program Announcements (PAs) Reviewed by the NCI DEA in FY2022

Title of Initiative	PA/PAR Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Totals	Feb	June	Sept	
NCI Transition Career Development Award to Promote Diversity (K22 Clinical Trial Required)	PAR21-302	K22	1	0	0	1	$161,959
NCI Research Specialist (Clinician Scientist) Award (R50 Clinical Trial Not Allowed)	PAR21-306	R50	25	0	0	25	$3,407,183
Cancer Center Support Grants (CCSGs) for NCI-Designated Cancer Centers (P30 Clinical Trial Optional)	PAR21-321	P30	1	0	0	1	$2,268,663
Utilizing the PLCO Biospecimens Resource to Bridge Gaps in Cancer Etiology and Early Detection Research (U01 Clinical Trial Not Allowed)	PAR21-330	U01	5	0	0	5	$3,536,869
NCI Outstanding Investigator Award (R35 Clinical Trial Not Allowed)	PAR21-333	R35	87	0	87	0	$85,457,618
Pancreatic Cancer Detection Consortium: Research Units (U01 Clinical Trial Optional)	PAR21-334	U01	6	0	6	0	$5,929,822
Pancreatic Cancer Detection Consortium: Management and Data Coordination Unit (U24 Clinical Trial Not Allowed)	PAR21-335	U24	3	0	3	0	$2,480,075
Pre-application: Opportunities for Collaborative Research at the NIH Clinical Center (X02 Clinical Trial Optional)	PAR21-342	X02	5	0	5	0	$0
Opportunities for Collaborative Research at the NIH Clinical Center (U01 Clinical Trial Optional)	PAR21-343	U01	12	0	0	12	$8,511,158
Limited Competition: Coordinating Center (CC) for the Small Cell Lung Cancer (SCLC) Consortium (U24 Clinical Trial Not Allowed)	PAR21-346	U24	1	1	0	0	$1,653,300
The Role of Epstein Barr Virus (EBV) Infection in Non-Hodgkin's Lymphoma (NHL) and Hodgkin Disease (HD) Development with or Without an Underlying HIV infection (U01 Clinical Trial Optional)	PAR21-348	U01	15	0	15	0	$11,579,091
Integrating Biospecimen Science Approaches into Clinical Assay Development (U01 Clinical Trial Not Allowed)	PAR22-049	U01	15	0	0	15	$6,094,710
Totals			**2,860**	**920**	**1,096**	**844**	**$1,158,735,286**

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 65 withdrawn applications have been subtracted from the total count.

Table 12. SBIR Topics and Requests for Proposals (RFPs) Reviewed by the NCI DEA in FY2022*

Announcement Topic Number	Announcement Title	Review Round	No. of Proposals
RFP 75N91021R00014	Clinical Trials Monitoring Support TEP	Jan-22	1
RFP 75N91021R00043	Drug Development Support for the Cancer Therapy Evaluation Program	Jan-22	2
RFP 75N91021R000045	DCEG Support Services	Jan-22	5
RFP 75N91021R00021	Cancer Trials Support Unit (CTSU) TEP-1A (TA 2 & 6)	Jan-22	5
RFP 75N91021R00021	Cancer Trials Support Unit (CTSU) TEP-1B (TA 3, 4, & 5)	Jan-22	6
RFP 75N91020R00043	Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R33 Clinical Trials Not Allowed)	Jan-22	46
Topic 430 Phase I	Development of Senotherapeutic Agents for Cancer Treatment	May-22	3
Topic 431 Phase I	Cancer Treatment Technologies for Low-Resource Settings	May-22	17
Topic 432 Phase I	Synthetic Biology Gene Circuits for Cancer Therapy	May-22	1
Topic 433 Phase I	Developing Unbiased Medical Technologies to Reduce Disparities in Cancer Outcomes	May-22	2
Topic 434 Phase I	Ultra-fast Dose Rate (FLASH) Radiation Detectors and Safety Systems	May-22	13
Topic 435 Phase I	Devices to Treat Secondary Lymphedema Following Cancer Treatment	May-22	7
Topic 436 Phase I	New Technologies to Analyze Extra-chromosomal DNA in Cancer	May-22	4
Topic 438 Phase I	Understanding Cancer Tumor Genomic Results: Technology Applications for Community Providers	May-22	4
Topic 439 Phase I	Advanced Sample Processing Platforms for Downstream Single-Cell Multi-omic Analysis	May-22	3
Topic 440 Phase I	Cancer Prevention and Diagnosis Technologies for Low-Resource Settings	May-22	14
Topic 441 Phase I	At-Home Screening for Hepatitis C Virus	May-22	16
Topic 442 Phase I	Quantitative Biomarkers as Medical Device Development Tools for Cancer	May-22	8
Topic 443 Phase I	Development of Computer-Aided Diagnosis Tools for Upper and Lower Gastrointestinal Tract Cancer Prevention	May-22	3
Topic 444 Phase I	Evaluation Datasets as Medical Device Development Tools for Testing Cancer Technologies	May-22	4
Topic 445 Phase I	Advanced Manufacturing to Speed Availability of Emerging Autologous Cell-Based Therapies	May-22	10
	Phase II Proposals from Earlier Phase I Awards		
Topic 383 Phase II	Smart, Multi-core Biopsy Needle	May-22	1
Topic 386 Phase II	Novel Approaches for Local Delivery of Chemopreventive Agents	May-22	2

continued

* NCI reviewed a total of 533 proposals. The proposals were in response to SBIR Special Topics Contract Solicitations — Phase I (109), Direct to Phase II (34), R&D (65), and Loan Repayment (325).

Table 12 (cont'd). SBIR Topics and Requests for Proposals (RFPs) Reviewed by the NCI DEA in FY2022*

Announcement Topic Number	Announcement Title	Review Round	No. of Proposals
Topic 388 Phase II	In vitro Diagnostic for the Liver Flukes *Opisthorchis viverrini* and *Clonorchis sinensis*	May-22	1
Topics 393 & 400 Phase II	Sensing Tools to Measure Biological Response to Radiotherapy	May-22	2
Topic 396 Phase II	Imaging for Cancer Immunotherapies	May-22	2
Topic 397 Phase II	Manufacturing Innovation for the Production of Cell-Based Cancer Immunotherapies	May-22	3
Topic 401 Phase II	Quantitative Biomimetic Phantoms for Cancer Imaging	May-22	1
Topic 402 Phase II	Artificial Intelligence-Aided Imaging for Cancer Prevention, Diagnosis, and Monitoring	May-22	3
Topic 403 Phase II	Spatial Sequencing Technologies with Single-Cell Resolution for Cancer Research	May-22	2
Topic 405 Phase II	Intra-tumor Sensing Technologies for Tumor Pharmacotyping	May-22	1
Topic 406 Phase II	Software for Patient Navigation Through the Cancer Care Continuum	May-22	4
Topic 407 Phase II	Cloud-Based Software for the Cancer Research Data Commons	May-22	3
Topic 408 Phase II	Intra-tumor Sensing Technologies for Tumor Pharmacotyping	May-22	1
Topic 410 Phase II	Cancer Clinical Trials Recruitment and Retention Tools for Participant Engagement	May-22	4
Topic 411 Phase II	De-identification Software Tools for Cancer Imaging Research	May-22	2
Topic 412 Phase II	Software Enabling Data Integration from Wearable Sensors for Cancer Patients	May-22	2
	Other Solicitations Reviewed in DEA		
L30 (NOT-OD-21-139)	Extramural Loan Repayment Program for Clinical Researchers (LRP-CR)	Oct-22	178
L40 (NOT-OD-21-140)	Extramural Loan Repayment Program for Pediatric Researchers (LRP-PR)	Oct-22	67
L60 (NOT-OD-21-141)	Extramural Loan Repayment Program for Health Disparities Researchers (LRP-HDR)	Oct-22	60
L70 (NOT-OD-21-144)	Extramural Loan Repayment Program for Research in Emerging Areas Critical to Human Health (LRP-REACH)	Oct-22	20
TOTAL			**533**

* NCI reviewed a total of 533 proposals. The proposals were in response to SBIR Special Topics Contract Solicitations — Phase I (109), Direct to Phase II (34), R&D (65), and Loan Repayment (325).

Table 13. Summary of NCI Grant Awards, by Mechanism in FY2022*

Fund Type: Appropriated Cost Centers Mechanisms	Awards Count	Awards Dollars	Average Cost	% of NCI Total Grants		Fiscal Year: 2022		
				Number	Dollars	Competing Requested	Competing Awarded	Success Rate
Research Project Grants								
Traditional Research Grants – R01	3,413	1,643,606,261	481,572	45.8%	39.1%	5,500	738	13.4%
Exploratory/Developmental Research – R21	376	82,862,723	220,380	5.0%	2.0%	1,601	218	13.6%
Merit Awards – R37	277	128,583,407	464,200	3.7%	3.1%	64	65	101.6%
Request for Applications	261	115,778,798	443,597	3.5%	2.8%	440	76	17.3%
Cooperative Agreements – U01/U19	186	134,620,847	723,768	2.5%	3.2%	164	41	25.0%
Small Business Innovative Research – R43/R44/U44	157	127,771,400	813,831	2.1%	3.0%	824	89	10.8%
Outstanding Investigators – R35	152	146,781,023	965,665	2.0%	3.5%	87	24	27.6%
Cooperative Agreements – RFA-U01/U19	150	156,158,947	1,041,060	2.0%	3.7%	281	51	18.1%
Small Grants – R03	115	9,243,874	80,382	1.5%	0.2%	382	59	15.4%
Program Projects – P01	98	199,606,855	2,036,805	1.3%	4.8%	103	19	18.4%
Pathway to Independence – R00/Si2	93	22,788,151	245,034	1.2%	0.5%	1	0	0.0%
Research Specialist Award – R50	72	12,715,587	176,605	1.0%	0.3%	97	17	17.5%
Small Business Technology Transfer – R41/R42/SB1	48	22,787,223	474,734	0.6%	0.5%	285	42	14.7%
Exploratory/Development Coop Agreements – UH2/UH3	25	9,515,807	380,632	0.3%	0.2%	39	7	17.9%
Academic Research Enhancement Awards (AREA) – R15	24	10,620,169	442,507	0.3%	0.3%	152	24	15.8%
Bridge Award – R56	4	968,986	242,247	0.1%	0.0%	6	4	66.7%
Phased Innovation Grant (Phase 2) – R33	3	982,764	327,588	0.0%	0.0%	0	0	
Exploratory/Developmental Grants – UG3	2	691,878	345,939	0.0%	0.0%	0	0	
Phase 1 Exploratory/Developmental Grants – R61	1	437,203	437,203	0.0%	0.0%	2	1	50.0%
Multi-Component Research Proj Coop Agreements – UM1/RM1	1	3,262,537	3,262,537	0.0%	0.1%	0	0	
NIH Director New Innovator Awards – DP2	0	525,631	525,631	0.0%	0.0%	0	0	
Program Evaluation – R01	0	102,470,878	102,470,878	0.0%	2.4%	0	0	
Subtotal Research Project Grants	**5,458**	**2,932,780,949**	**5,300,127**	**73.3%**	**69.8%**	**10,028**	**1,475**	**14.7%**
NRSA								
NRSA Fellowships – F31/F32/F33	396	18,163,795	45,868	5.3%	0.4%	677	116	17.1%
NRSA Fellowships – F30	218	10,030,295	46,011	2.9%	0.2%	161	39	24.2%

continued

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

Source: Office of Extramural Finance and Information Analysis.

Table 13 (cont'd). Summary of NCI Grant Awards, by Mechanism in FY2022*

Fund Type: Appropriated				% of NCI Total Grants		Fiscal Year: 2022		
Cost Centers Mechanisms	Awards Count	Awards Dollars	Average Cost	Number	Dollars	Competing Requested	Competing Awarded	Success Rate
NRSA Institution – T32	165	60,881,150	368,977	2.2%	1.4%	93	31	33.3%
NRSA TAP	0	2,033,370	2,033,370	0.0%	0.0%	0	0	
Subtotal NRSA	**779**	**91,108,610**	**623,557**	**10.5%**	**2.2%**	**931**	**186**	**20.0%**
Careers								
Mentored Clinical Scientist – K08	258	58,476,774	226,654	3.5%	1.4%	198	61	30.8%
Postdoctoral Fellow Awards – K00	84	7,822,967	93,131	1.1%	0.2%	0	0	
Pathway to Independence – K99	79	10,790,356	136,587	1.1%	0.3%	236	42	17.8%
Clinical Research Track – K22	62	11,438,718	184,495	0.8%	0.3%	105	24	22.9%
Mentored Rsch Scient Devel Awds/ Mentrd Career Dev.../Temin – K01/Intl.Career – K43	32	5,956,462	186,139	0.4%	0.1%	18	3	16.7%
Mentored Career Award – K12	23	15,163,222	659,271	0.3%	0.4%	15	5	33.3%
Preventive Oncology Award – K07	17	2,530,667	148,863	0.2%	0.1%	0	0	
Mentored Patient-Oriented Research Career Dev. Awd. – K23	2	357,480	178,740	0.0%	0.0%	0	0	
Mentored Quantitative Resch. Career Dev. Awd. – K25	0	0		0.0%	0.0%	3	0	0.0%
Subtotal Careers	**557**	**112,536,646**	**226,735**	**7.5%**	**2.7%**	**575**	**135**	**23.5%**
Other Research								
Cooperative Clinical Research – U10/UG1	112	308,016,146	2,750,144	1.5%	7.3%	13	6	46.2%
Research/Resource Grant – R24/U24/U2C	95	122,443,602	1,288,880	1.3%	2.9%	83	37	44.6%
Cancer Education Awards – R25	75	20,667,723	275,570	1.0%	0.5%	74	15	20.3%
Predoctoral to Postdoctoral Transition Award – F99	46	1,884,253	40,962	0.6%	0.0%	55	27	49.1%
Conference Grants – R13/U13	41	511,382	12,473	0.6%	0.0%	48	35	72.9%
Other Transaction Authority – Non-grant – OT2	37	18,763,775	507,129	0.5%	0.4%	36	36	100.0%
International Research Training Grants Conference – D43/U2R	8	3,895,417	486,927	0.1%	0.1%	36	4	11.1%
Research Education Cooperative Agreement – UE5	5	1,978,680	395,736	0.1%	0.0%	0	0	
Research Pathway in Residency – R38	2	738,776	369,388	0.0%	0.0%	0	0	
Minority Biomedical Research Support – S06	0	2,294,057	2,294,057	0.0%	0.1%	0	0	
Subtotal Other Research	**421**	**481,193,811**	**842,127**	**5.7%**	**11.5%**	**345**	**160**	**46.4%**

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 FY2022*

Fund Type: Appropriated Cost Centers Mechanisms	Awards Count	Awards Dollars	Average Cost	% of NCI Total Grants		Fiscal Year: 2022		
				Number	Dollars	Competing Requested	Competing Awarded	Success Rate
Centers								
Specialized Center (Cooperative Agreement) – U54/U41	87	115,667,112	1,329,507	1.2%	2.8%	94	18	19.1%
Centers – P30	71	336,585,296	4,740,638	1.0%	8.0%	15	13	86.7%
Spore Grants – P50	58	120,060,379	2,070,007	0.8%	2.9%	61	11	18.0%
Centers – P20	12	2,871,648	239,304	0.2%	0.1%	0	0	
Spore Grants – P20	8	8,161,955	1,020,244	0.1%	0.2%	0	0	
Other P50/P20	0	258,394	258,394	0.0%	0.0%	0	0	
Specialized Center (Cooperative Agreement) – BD2K	0	406,698	406,698	0.0%	0.0%	0	0	
Subtotal Centers	**236**	**584,011,482**	**1,437,827**	**3.2%**	**13.9%**	**170**	**42**	**24.7%**
Totals	**7,451**	**4,201,631,498**	**2,733,274**	**100.0%**	**100.0%**	**12,049**	**1,998**	**16.6%**

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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 Mechanism and by Division, Office, or Center, FY2018 – FY2022

Budget Mechanism/ Division	2018		2019		2020		2021		2022		Percent Change 2021 vs. 2022	
	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost
R01 Average Cost of Award												
Total	**2,950**	**442**	**3,014**	**442**	**3,136**	**468**	**3,264**	**469**	**3,413**	**482**	**4.6%**	**7.5%**
DCB	1,291	395	1,297	397	1,340	423	1,368	432	1,407	439	2.9%	4.5%
DCCPS	339	573	372	550	400	584	410	563	439	574	7.1%	9.2%
DCP	210	495	219	496	216	524	224	509	235	529	4.9%	9.1%
DCTD	1,102	435	1,116	436	1,165	462	1,247	468	1,318	486	5.7%	9.7%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	8	1,909	10	1,752	15	1,085	15	602	14	590	-6.7%	-8.5%
P01 Average Cost of Award												
Total	**81**	**1,931**	**90**	**1,889**	**90**	**2,021**	**93**	**2,044**	**98**	**2,037**	**5.4%**	**5.0%**
DCB	38	1,812	37	1,696	38	1,838	39	1,854	42	1,933	7.7%	12.3%
DCCPS	10	2,174	12	2,182	10	2,196	12	2,180	13	2,071	8.3%	3.0%
DCP	2	1,948	3	1,562	3	1,351	3	1,185	4	1,070	33.3%	20.4%
DCTD	31	1,982	38	1,989	39	2,195	39	2,259	39	2,236	0.0%	-1.0%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	0		0		0							
R03 Average Cost of Award												
Total	**149**	**82**	**121**	**80**	**119**	**98**	**93**	**90**	**115**	**80**	**23.7%**	**10.3%**
DCB	71	80	56	78	43	92	34	85	46	78	35.3%	24.5%
DCCPS	30	92	27	88	30	111	20	102	31	84	55.0%	27.0%
DCP	9	77	6	76	7	82	5	79	5	77	0.0%	-2.5%
DCTD	39	80	32	80	39	98	34	90	33	81	-2.9%	-12.7%
R21 Average Cost of Award												
Total	**302**	**191**	**359**	**190**	**320**	**236**	**299**	**242**	**376**	**220**	**25.8%**	**14.8%**
DCB	27	186	43	193	46	217	37	242	25	213	-32.4%	-40.3%
DCCPS	57	192	69	194	68	233	32	239	26	265	-18.8%	-9.9%
DCP	25	194	36	177	28	234	22	269	34	229	54.5%	31.2%
DCTD	165	191	191	188	156	240	188	236	264	213	40.4%	26.6%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	28	188	20	209	22	263	20	266	27	246	35.0%	25.2%

continued

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† In thousands of dollars.

Source: Office of Extramural Finance and Information Analysis.

Table 14 (cont'd). Average Total Cost*† and Number of Research Project Grant Awards, by Mechanism and by Division, Office, or Center, FY2018 – FY2022

Budget Mechanism/ Division	2018		2019		2020		2021		2022		Percent Change 2021 vs. 2022	
	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost
U01/U19 Average Cost of Award												
Total	**72**	**1,010**	**71**	**1,013**	**71**	**1,084**	**79**	**959**	**116**	**768**	**46.8%**	**17.6%**
DCB	7	771	6	988	3	1,848	11	408	15	486	36.4%	62.3%
DCCPS	7	1,661	8	1,533	13	1,531	13	1,078	22	1,014	69.2%	59.2%
DCP	38	912	36	852	37	781	13	1,476	26	748	100.0%	1.4%
DCTD	5	335	6	353	3	491	21	613	34	641	61.9%	69.1%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	15	1,291	15	1,396	15	1,411	21	1,198	19	960	-9.5%	-27.5%
R13 Average Cost of Award												
Total	**46**	**16**	**59**	**14**	**46**	**14**	**25**	**17**	**41**	**13**	**64.0%**	**18.2%**
DCB	19	6	28	6	19	6	9	7	25	6	177.8%	137.3%
DCCPS	7	18	4	23	8	17	2	28	3	24	50.0%	30.9%
DCP	5	20	8	16	5	20	3	28	2	20	-33.3%	-52.9%
DCTD	10	7	13	7	7	8	5	6	6	9	20.0%	93.1%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	5	62	6	53	7	36	6	34	5	41	-16.7%	-0.5%
U10 Average Cost of Award												
Total	**48**	**2,966**	**11**	**12,170**	**11**	**11,955**	**11**	**12,670**	**11**	**11,855**	**0.0%**	**-6.4%**
DCTD	48	2,966	11	12,170	11	11,955	11	12,670	11	11,855	0.0%	-6.4%
P30 Average Cost of Award												
Total	**70**	**4,501**	**71**	**4,526**	**71**	**5,067**	**71**	**4,751**	**71**	**4,715**	**0.0%**	**-0.8%**
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	70	4,501	71	4,526	71	5,067	71	4,751	71	4,715	0.0%	-0.8%
P50 Average Cost of Award												
Total	**50**	**2,191**	**52**	**2,128**	**52**	**2,183**	**55**	**2,022**	**58**	**2,074**	**5.5%**	**8.2%**
DCCPS					0		0		0			-40.4%
DCTD	50	2,188	52	2,123	52	2,168	55	2,014	58	2,070	5.5%	8.4%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	0		0		0							

continued

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† In thousands of dollars.

Source: Office of Extramural Finance and Information Analysis.

Table 14 (cont'd). Average Total Cost*† and Number of Research Project Grant Awards, by Mechanism and by Division, Office, or Center, FY2018 – FY2022

Budget Mechanism/ Division	2018		2019		2020		2021		2022		Percent Change 2021 vs. 2022	
	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost
SBIR Average Cost of Award												
Total	**231**	**516**	**207**	**555**	**170**	**759**	**189**	**719**	**157**	**814**	**-16.9%**	**-5.9%**
SBIR					170	759	189	719	157	814	-16.9%	-5.9%
SBIRDC	231	516	207	555								
SBIR Average Cost of Award												
Total	**43**	**449**	**35**	**560**	**45**	**475**	**47**	**459**	**48**	**475**	**2.1%**	**5.6%**
SBIR					45	475	47	459	48	475	2.1%	5.6%
SBIRDC	43	449	35	560								
SBIR/STTR Average Cost of Award												
Total	**274**	**506**	**242**	**556**	**215**	**699**	**236**	**667**	**205**	**734**	**-13.1%**	**-4.3%**
SBIR					215	699	236	667	205	734	-13.1%	-4.3%
SBIRDC	274	506	242	556								
U54 Average Cost of Award												
Total	**61**	**1,532**	**62**	**1,486**	**63**	**1,324**	**52**	**1,348**	**55**	**1,398**	**5.8%**	**9.7%**
CRCHD	36	1,214	38	1,185	38	1,156	33	1,270	31	1,204	-6.1%	-10.9%
DCB	25	1,974	24	1,944	24	1,620	19	1,485	24	1,648	26.3%	40.2%
DCCPS	0		0		1	579	0					
Total	**4,377**	**580**	**4,394**	**587**	**4,409**	**636**	**4,514**	**631**	**4,764**	**627**	**5.5%**	**4.9%**

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

Table 15. NCI Organ and Related Site-Specific Dollars for FY2018 – FY2022 — Annual Percent Change

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

Anatomical Site	Counts and Relevant Dollars*	2018	2019	2020	2021	2022	Average Percent Change/ Year
Adrenal	***Number of Grants***	***1***	***1***	***1***	***4***	***5***	
	Relevant Grant Dollars	209,995	209,995	209,995	2,129,407	1,645,749	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***1***	***1***	***1***	***4***	***5***	
	Total Relevant Dollars	209,995	209,995	209,995	2,129,407	1,645,749	222.82
Anus	***Number of Grants***	***25***	***31***	***32***	***31***	***38***	
	Relevant Grant Dollars	5,489,383	7,928,587	12,288,551	11,795,331	11,839,229	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***31***	***36***	***32***	***31***	***38***	
	Total Relevant Dollars	5,489,383	7,928,587	12,288,551	11,795,331	11,839,229	23.94
Bladder	***Number of Grants***	***114***	***80***	***93***	***92***	***104***	
	Relevant Grant Dollars	30,288,601	27,645,833	35,657,505	39,157,733	45,747,854	
	Number of Contracts	***9***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	4,183,614	1,088,691	‡	‡	‡	
	Total Count	***123***	***81***	***93***	***92***	***104***	
	Total Relevant Dollars	34,472,215	28,734,524	35,657,505	39,157,733	45,747,854	8.52
Bone Marrow	***Number of Grants***	***6***	***9***	***10***	***7***	***9***	
	Relevant Grant Dollars	2,803,956	4,833,724	4,515,041	4,092,143	4,499,166	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***6***	***9***	***10***	***7***	***9***	
	Total Relevant Dollars	2,803,956	4,833,724	4,515,041	4,092,143	4,499,166	16.59
Bone — Cartilage	***Number of Grants***	***5***	***9***	***13***	***16***	***18***	
	Relevant Grant Dollars	2,706,328	3,671,705	4,589,421	6,100,496	7,400,585	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***5***	***9***	***13***	***16***	***18***	
	Total Relevant Dollars	2,706,328	3,671,705	4,589,421	6,100,496	7,400,585	28.72
Brain	***Number of Grants***	***485***	***483***	***480***	***501***	***522***	
	Relevant Grant Dollars	195,752,964	201,366,277	206,657,077	217,746,945	235,198,757	
	Number of Contracts	***1***	***‡***	***3***	***1***	***‡***	
	Relevant Contract Dollars	50,007	‡	383,428,240	399,559	‡	
	Total Count	***486***	***483***	***483***	***502***	***522***	
	Total Relevant Dollars	195,802,971	201,366,277	590,085,317	218,146,504	235,198,757	35.17

continued

* Relevant Dollars = portion of the funded amount relevant to a specific Site.
‡ Coding not required or requested. FY2022 Contract data not provided.
Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2018 – FY2022 — Annual Percent Change

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

Anatomical Site	Counts and Relevant Dollars*	2018	2019	2020	2021	2022	Average Percent Change/ Year
Breast	***Number of Grants***	***1333***	***1368***	***1348***	***1346***	***1361***	
	Relevant Grant Dollars	527,293,687	500,009,641	541,778,994	519,251,196	545,048,627	
	Number of Contracts	***15***	***4***	***7***	***1***	***‡***	
	Relevant Contract Dollars	8,187,849	4,020,068	1,411,032	398,604	‡	
	Total Count	***1348***	***1372***	***1355***	***1347***	***1361***	
	Total Relevant Dollars	535,481,536	504,029,709	543,190,026	519,649,800	545,048,627	0.61
Central Nervous System	***Number of Grants***	***9***	***8***	***9***	***6***	***8***	
	Relevant Grant Dollars	1,001,486	1,919,978	2,145,042	1,729,033	2,553,139	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***9***	***8***	***9***	***6***	***8***	
	Total Relevant Dollars	1,001,486	1,919,978	2,145,042	1,729,033	2,553,139	32.92
Cervix	***Number of Grants***	***169***	***151***	***167***	***157***	***194***	
	Relevant Grant Dollars	56,529,769	55,801,427	66,395,225	65,477,459	78,817,298	
	Number of Contracts	***2***	***1***	***1***	***1***	***‡***	
	Relevant Contract Dollars	855,852	622,604	761,776	835,869	‡	
	Total Count	***171***	***152***	***168***	***158***	***194***	
	Total Relevant Dollars	57,385,621	56,424,031	67,157,001	66,313,328	78,817,298	8.74
Childhood Leukemia	***Number of Grants***	***145***	***218***	***243***	***203***	***258***	
	Relevant Grant Dollars	65,760,928	77,503,021	74,146,240	62,928,651	84,926,941	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***145***	***218***	***243***	***203***	***258***	
	Total Relevant Dollars	65,760,928	77,503,021	74,146,240	62,928,651	84,926,941	8.34
Colon — Rectum	***Number of Grants***	***608***	***599***	***625***	***637***	***652***	
	Relevant Grant Dollars	234,480,747	218,560,623	224,088,330	226,406,951	242,867,347	
	Number of Contracts	***12***	***7***	***2***	***2***	***‡***	
	Relevant Contract Dollars	3,410,116	2,976,017	2,043,423	1,267,587	‡	
	Total Count	***620***	***606***	***627***	***639***	***652***	
	Total Relevant Dollars	237,890,863	221,536,640	226,131,753	227,674,538	242,867,347	0.64
Esophagus	***Number of Grants***	***92***	***64***	***53***	***55***	***60***	
	Relevant Grant Dollars	25,721,355	22,683,369	19,853,591	20,998,406	24,663,141	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***92***	***64***	***53***	***55***	***60***	
	Total Relevant Dollars	25,721,355	22,683,369	19,853,591	20,998,406	24,663,141	-0.27

continued

* Relevant Dollars = portion of the funded amount relevant to a specific Site.
‡ Coding not required or requested. FY2022 Contract data not provided.
Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2018 – FY2022 — Annual Percent Change

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

Anatomical Site	Counts and Relevant Dollars*	2018	2019	2020	2021	2022	Average Percent Change/ Year
Eye	***Number of Grants***	***23***	***24***	***22***	***21***	***20***	
	Relevant Grant Dollars	4,540,263	4,941,626	6,611,738	6,380,154	6,686,888	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***23***	***24***	***22***	***21***	***20***	
	Total Relevant Dollars	4,540,263	4,941,626	6,611,738	6,380,154	6,686,888	10.98
Gall Bladder	***Number of Grants***	***5***	***5***	***6***	***5***	***2***	
	Relevant Grant Dollars	1,217,986	1,225,202	1,536,444	211,290	1,637,198	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***5***	***5***	***6***	***5***	***2***	
	Total Relevant Dollars	1,217,986	1,225,202	1,536,444	2,112,090	1,637,198	10.24
Gastrointestinal Stromal Tumor	***Number of Grants***	***12***	***13***	***16***	***10***	***10***	
	Relevant Grant Dollars	3,155,373	3,411,602	3,878,417	2,519,363	3,167,261	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***12***	***13***	***16***	***10***	***10***	
	Total Relevant Dollars	3,155,373	3,411,602	3,878,417	2,519,363	3,167,261	3.12
Gastrointestinal Tract	***Number of Grants***	***20***	***23***	***22***	***21***	***30***	
	Relevant Grant Dollars	4,019,325	10,623,733	10,670,783	11,509,389	13,356,390	
	Number of Contracts	***1***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	894,832	‡	‡	‡	‡	
	Total Count	***21***	***23***	***22***	***21***	***30***	
	Total Relevant Dollars	4,914,157	10,623,733	10,670,783	11,509,389	13,356,390	35.13
Head and Neck	***Number of Grants***	***172***	***155***	***148***	***152***	***165***	
	Relevant Grant Dollars	40,445,671	47,171,588	46,369,930	52,429,001	59,586,151	
	Number of Contracts	***3***	***1***	***1***	***1***	***‡***	
	Relevant Contract Dollars	128,865	1,999,989	400,000	20,000	‡	
	Total Count	***175***	***156***	***149***	***153***	***165***	
	Total Relevant Dollars	40,574,536	49,171,577	46,769,930	52,449,001	59,586,151	10.51
Hodgkin's Lymphoma	***Number of Grants***	***29***	***28***	***35***	***33***	***30***	
	Relevant Grant Dollars	8,711,348	7,827,737	9,501,025	9,301,234	8,770,176	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***29***	***28***	***35***	***33***	***30***	
	Total Relevant Dollars	8,711,348	7,827,737	9,501,025	9,301,234	8,770,176	0.86

continued

* Relevant Dollars = portion of the funded amount relevant to a specific Site.
‡ Coding not required or requested. FY2022 Contract data not provided.
Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2018 – FY2022 — Annual Percent Change

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

Anatomical Site	Counts and Relevant Dollars*	2018	2019	2020	2021	2022	Average Percent Change/ Year
Kaposi Sarcoma	***Number of Grants***	***60***	***65***	***69***	***64***	***69***	
	Relevant Grant Dollars	26,360,868	24,244,764	28,892,855	28,026,573	29,651,469	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***60***	***65***	***69***	***64***	***69***	
	Total Relevant Dollars	26,360,868	24,244,764	28,892,855	28,026,573	29,651,469	3.48
Kidney	***Number of Grants***	***145***	***116***	***122***	***118***	***122***	
	Relevant Grant Dollars	35,202,508	35,514,093	35,076,660	34,360,376	41,124,746	
	Number of Contracts	***‡***	***‡***	***‡***	***1***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	131,128	‡	
	Total Count	***145***	***116***	***122***	***119***	***122***	
	Total Relevant Dollars	35,202,508	35,514,093	35,076,660	34,491,504	41,124,746	4.30
Larynx	***Number of Grants***	***2***	***1***	***4***	***2***	***1***	
	Relevant Grant Dollars	431,926	82,322	349,888	113,482	93,464	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	***‡***	***‡***	***‡***	***‡***	***‡***	
	Total Count	***2***	***1***	***4***	***2***	***1***	
	Total Relevant Dollars	431,926	82,322	349,888	113,482	93,464	39.72
Leukemia	***Number of Grants***	***560***	***556***	***603***	***575***	***618***	
	Relevant Grant Dollars	237,381,418	235,759,795	251,524,364	248,103,498	269,200,607	
	Number of Contracts	***2***	***‡***	***‡***	***1***	***‡***	
	Relevant Contract Dollars	19,191	‡	‡	1,999,993	‡	
	Total Count	***562***	***556***	***603***	***576***	***618***	
	Total Relevant Dollars	237,400,609	235,759,795	251,524,364	250,103,491	269,200,607	3.26
Liver	***Number of Grants***	***258***	***269***	***270***	***272***	***298***	
	Relevant Grant Dollars	84,863,828	93,301,235	92,885,952	94,198,945	107,662,468	
	Number of Contracts	***3***	***7***	***1***	***3***	***‡***	
	Relevant Contract Dollars	99,772	2,411,664	80,000	2,211,089	‡	
	Total Count	***261***	***276***	***271***	***275***	***298***	
	Total Relevant Dollars	84,963,600	95,712,899	92,965,952	96,410,034	107,662,468	6.29
Lung	***Number of Grants***	***726***	***777***	***862***	***930***	***929***	
	Relevant Grant Dollars	297,030,756	329,758,879	372,958,789	389,825,964	432,361,141	
	Number of Contracts	***16***	***20***	***9***	***6***	***‡***	
	Relevant Contract Dollars	17,215,341	55,613,583	15,793,532	5,823,050	‡	
	Total Count	***742***	***797***	***871***	***936***	***929***	
	Total Relevant Dollars	314,246,097	385,372,462	388,752,321	395,649,014	432,361,141	8.64

continued

* Relevant Dollars = portion of the funded amount relevant to a specific Site.
‡ Coding not required or requested. FY2022 Contract data not provided.
Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2018 – FY2022 — Annual Percent Change

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

Anatomical Site	Counts and Relevant Dollars*	2018	2019	2020	2021	2022	Average Percent Change/ Year
Lymph Node	***Number of Grants***	***3***	***3***	***2***	***3***	***3***	
	Relevant Grant Dollars	650,917	571,254	493,999	383,072	157,635	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***3***	***3***	***2***	***3***	***3***	
	Total Relevant Dollars	650,917	571,254	493,999	383,072	157,635	
Melanoma	***Number of Grants***	***433***	***431***	***459***	***462***	***459***	
	Relevant Grant Dollars	141,106,072	151,332,731	155,296,220	159,782,469	163,780,433	
	Number of Contracts	***‡***	***14***	***‡***	***1***	***‡***	
	Relevant Contract Dollars	‡	23,242,523	‡	100,000	‡	
	Total Count	***433***	***445***	***459***	***463***	***459***	
	Total Relevant Dollars	141,106,072	174,575,254	155,296,220	159,882,469	163,780,433	4.52
Mesothelioma	***Number of Grants***	***20***	***23***	***22***	***18***	***17***	
	Relevant Grant Dollars	8,166,842	9,722,032	7,662,841	5,701,409	5,600,674	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***20***	***23***	***22***	***18***	***17***	
	Total Relevant Dollars	8,166,842	9,722,032	7,662,841	5,701,409	5,600,674	-7.38
Muscle	***Number of Grants***	***3***	***2***	***1***	***‡***	***1***	
	Relevant Grant Dollars	440,899	314,850	64,926	‡	64,926	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***3***	***2***	***1***	***‡***	***1***	
	Total Relevant Dollars	440,899	314,850	64,926	‡	64,926	-35.98
Myeloma	***Number of Grants***	***171***	***144***	***141***	***119***	***137***	
	Relevant Grant Dollars	55,081,460	51,396,312	41,853,952	44,441,690	46,833,644	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***171***	***144***	***141***	***119***	***137***	
	Total Relevant Dollars	55,081,460	51,396,312	41,853,952	44,441,690	46,833,644	-3.42
Nervous System	***Number of Grants***	***14***	***15***	***9***	***10***	***16***	
	Relevant Grant Dollars	4,747,277	5,526,718	2,482,137	3,700,853	6,708,355	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***14***	***15***	***9***	***10***	***16***	
	Total Relevant Dollars	4,747,277	5,526,718	2,482,137	3,700,853	6,708,355	22.92

continued

* Relevant Dollars = portion of the funded amount relevant to a specific Site.
‡ Coding not required or requested. FY2022 Contract data not provided.
Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2018 – FY2022 — Annual Percent Change

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

Anatomical Site	Counts and Relevant Dollars*	2018	2019	2020	2021	2022	Average Percent Change/ Year
Neuroblastoma	***Number of Grants***	***71***	***75***	***76***	***71***	***72***	
	Relevant Grant Dollars	26,308,199	22,793,475	23,684,550	23,445,301	22,715,945	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***71***	***75***	***76***	***71***	***72***	
	Total Relevant Dollars	26,308,199	22,793,475	23,684,550	23,445,301	22,715,945	-3.39
Non-Hodgkin's Lymphoma	***Number of Grants***	***299***	***278***	***295***	***291***	***308***	
	Relevant Grant Dollars	99,973,050	99,025,255	109,152,695	113,533,062	120,812,661	
	Number of Contracts	***‡***	***1***	***1***	***1***	***‡***	
	Relevant Contract Dollars	‡	54,994	2,000,000	399,962	‡	
	Total Count	***299***	***279***	***296***	***292***	***308***	
	Total Relevant Dollars	99,973,050	99,080,249	111,152,695	113,933,024	120,812,661	4.95
Not Site Specific**	***Number of Grants***	***1,435***	***1,511***	***1,526***	***1,524***	***1,608***	
	Relevant Grant Dollars	770,712,588	856,175,303	951,968,145	877,750,465	1,014,485,696	
	Number of Contracts	***160***	***125***	***172***	***174***	***‡***	
	Relevant Contract Dollars	736,337,943	522,054,442	339,232,245	633,724,984	‡	
	Total Count	***1,595***	***1,636***	***1,698***	***1,698***	***1,608***	
	Total Relevant Dollars	1,507,050,531	1,378,229,745	1,291,200,390	1,511,475,449	1,014,485,696	-7.67
Oral Cavity	***Number of Grants***	***40***	***43***	***74***	***65***	***77***	
	Relevant Grant Dollars	12,182,738	12,325,550	18,840,504	16,634,211	20,739,587	
	Number of Contracts	***‡***	***1***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	‡	15,000	15,000	‡	‡	
	Total Count	***40***	***43***	***75***	***65***	***77***	
	Total Relevant Dollars	12,182,738	12,340,550	18,855,504	16,634,211	20,739,587	16.75
Ovary	***Number of Grants***	***335***	***342***	***337***	***350***	***352***	
	Relevant Grant Dollars	106,717,144	108,940,938	116,728,532	120,285,614	124,621,907	
	Number of Contracts	***1***	***1***	***‡***	***1***	***‡***	
	Relevant Contract Dollars	215,329	4,863	‡	1,167,587	‡	
	Total Count	***336***	***343***	***337***	***351***	***352***	
	Total Relevant Dollars	106,932,473	108,945,801	116,728,532	121,453,201	124,621,907	3.92
Pancreas	***Number of Grants***	***486***	***484***	***525***	***544***	***563***	
	Relevant Grant Dollars	169,736,794	172,139,086	189,985,200	203,216,987	222,310,129	
	Number of Contracts	***9***	***2***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	789,909	1,291,099	398,711	‡	‡	
	Total Count	***495***	***486***	***526***	***544***	***563***	
	Total Relevant Dollars	170,526,703	173,430,185	190,383,911	203,216,987	222,310,129	6.90

continued

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

** 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.

‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2018 – FY2022 — Annual Percent Change

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

Anatomical Site	Counts and Relevant Dollars*	2018	2019	2020	2021	2022	Average Percent Change/ Year
Parathyroid	***Number of Grants***	***2***	***3***	***6***	***4***	***3***	
	Relevant Grant Dollars	652,252	1,268,612	1,958,217	1,383,619	777,296	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***2***	***3***	***6***	***4***	***3***	
	Total Relevant Dollars	652,252	1,268,612	1,958,217	1,383,619	777,296	18.92
Penis	***Number of Grants***	***2***	***7***	***8***	***7***	***11***	
	Relevant Grant Dollars	263,025	656,490	885,380	873,240	894,192	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***2***	***7***	***8***	***7***	***11***	
	Total Relevant Dollars	263,025	656,490	885,380	873,240	894,192	46.37
Pharynx	***Number of Grants***	***7***	***8***	***17***	***16***	***12***	
	Relevant Grant Dollars	1,456,420	2,928,133	4,406,488	5,316,112	3,227,262	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***7***	***8***	***17***	***16***	***12***	
	Total Relevant Dollars	1,456,420	2,928,133	4,406,488	5,316,112	3,227,262	33.22
Pituitary	***Number of Grants***	***5***	***6***	***6***	***6***	***5***	
	Relevant Grant Dollars	1,572,297	1,546,588	1,524,157	1,628,815	1,551,955	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***5***	***6***	***6***	***6***	***5***	
	Total Relevant Dollars	1,572,297	1,546,588	1,524,157	1,628,815	1,551,955	-23.00
Prostate	***Number of Grants***	***552***	***533***	***532***	***551***	***561***	
	Relevant Grant Dollars	203,996,788	210,896,342	208,342,580	213,750,605	229,532,204	
	Number of Contracts	***16***	***7***	***5***	***1***	***‡***	
	Relevant Contract Dollars	7,118,212	5,553,063	1,702,340	1,167,587	‡	
	Total Count	***568***	***540***	***537***	***552***	***561***	
	Total Relevant Dollars	211,115,001	216,449,404	210,044,920	214,918,192	229,532,204	2.17
Retinoblastoma	***Number of Grants***	***10***	***10***	***12***	***7***	***7***	
	Relevant Grant Dollars	3,485,869	2,233,623	2,778,359	1,842,227	2,221,539	
	Number of Contracts	***‡***	***‡***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	398,149	‡	‡	
	Total Count	***10***	***10***	***13***	***7***	***7***	
	Total Relevant Dollars	3,485,869	2,233,623	3,176,508	1,842,227	2,221,539	-3.78

continued

* Relevant Dollars = portion of the funded amount relevant to a specific Site.
‡ Coding not required or requested. FY2022 Contract data not provided.
Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2018 – FY2022 — Annual Percent Change

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

Anatomical Site	Counts and Relevant Dollars*	2018	2019	2020	2021	2022	Average Percent Change/ Year
Sarcoma — Bone	***Number of Grants***	***70***	***66***	***73***	***66***	***79***	
	Relevant Grant Dollars	32,624,063	16,332,850	15,137,493	18,059,775	21,835,183	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***70***	***66***	***73***	***66***	***79***	
	Total Relevant Dollars	32,624,063	16,332,850	15,137,493	18,059,775	21,835,183	-4.26
Sarcoma — Soft Tissue	***Number of Grants***	***99***	***99***	***103***	***105***	***108***	
	Relevant Grant Dollars	40,785,034	31,903,104	24,661,666	30,208,118	33,118,068	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***99***	***99***	***103***	***105***	***108***	
	Total Relevant Dollars	40,785,034	31,903,104	24,661,666	30,208,118	33,118,068	-3.09
Skin	***Number of Grants***	***127***	***116***	***123***	***113***	***114***	
	Relevant Grant Dollars	33,633,922	34,112,959	44,553,911	40,001,783	42,180,232	
	Number of Contracts	***1***	***3***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	288,945	643,548	‡	‡	‡	
	Total Count	***128***	***119***	***123***	***113***	***114***	
	Total Relevant Dollars	33,922,867	34,756,507	44,553,911	40,001,783	42,180,232	6.47
Small Intestine	***Number of Grants***	***6***	***8***	***7***	***5***	***3***	
	Relevant Grant Dollars	2,264,455	2,202,945	1,165,582	1,184,868	295,794	
	Number of Contracts	***‡***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	510,195	‡	‡	‡	
	Total Count	***6***	***8***	***7***	***5***	***3***	
	Total Relevant Dollars	2,264,455	2,713,140	1,165,582	1,184,868	295,794	-27.65
Stomach	***Number of Grants***	***56***	***41***	***50***	***47***	***64***	
	Relevant Grant Dollars	11,759,946	10,761,813	12,464,266	13,850,275	21,510,117	
	Number of Contracts	***‡***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	510,195	‡	‡	‡	
	Total Count	***56***	***42***	***50***	***47***	***64***	
	Total Relevant Dollars	11,759,946	11,272,008	12,464,266	13,850,275	21,510,117	18.21
Testis	***Number of Grants***	***6***	***6***	***16***	***14***	***15***	
	Relevant Grant Dollars	1,660,195	1,568,860	5,260,190	4,363,846	5,214,844	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***6***	***6***	***16***	***14***	***15***	
	Total Relevant Dollars	1,660,195	1,568,860	5,260,190	4,363,846	5,214,844	58.06

continued

* Relevant Dollars = portion of the funded amount relevant to a specific Site.
‡ Coding not required or requested. FY2022 Contract data not provided.
Source: Research Analysis and Evaluation Branch.

Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2018 – FY2022 — Annual Percent Change

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

Anatomical Site	Counts and Relevant Dollars*	2018	2019	2020	2021	2022	Average Percent Change/ Year
Thymus	***Number of Grants***	***6***	***6***	***6***	***3***	***3***	
	Relevant Grant Dollars	1,081,389	1,065,371	1,183,335	845,886	803,261	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***6***	***6***	***6***	***3***	***3***	
	Total Relevant Dollars	1,081,389	1,065,371	1,183,335	845,886	803,261	-5.99
Thyroid	***Number of Grants***	***46***	***44***	***49***	***46***	***47***	
	Relevant Grant Dollars	12,105,222	10,794,911	12,627,725	13,543,963	13,719,110	
	Number of Contracts	***‡***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	49,394	‡	‡	‡	
	Total Count	***46***	***45***	***49***	***46***	***47***	
	Total Relevant Dollars	12,105,222	10,844,305	12,627,725	13,543,963	13,719,110	3.64
Uterus	***Number of Grants***	***84***	***59***	***58***	***47***	***49***	
	Relevant Grant Dollars	15,069,028	13,819,141	14,403,143	12,119,866	11,914,927	
	Number of Contracts	***‡***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	1,231,648	‡	‡	‡	
	Total Count	***84***	***60***	***58***	***47***	***49***	
	Total Relevant Dollars	15,069,028	15,050,789	14,403,143	12,119,866	11,914,927	-5.49
Vagina	***Number of Grants***	***2***	***4***	***3***	***6***	***8***	
	Relevant Grant Dollars	524,157	583,872	769,655	562,667	1,246,170	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***2***	***4***	***3***	***6***	***8***	
	Total Relevant Dollars	524,157	583,872	769,655	562,667	1,246,170	34.45
Vascular	***Number of Grants***	***2***	***3***	***6***	***4***	***4***	
	Relevant Grant Dollars	837,968	1,344,206	1,680,268	1,488,561	1,037,247	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***2***	***3***	***6***	***4***	***4***	
	Total Relevant Dollars	837,968	1,344,206	1,680,268	1,488,561	1,037,247	10.92
Wilms Tumor	***Number of Grants***	***9***	***7***	***6***	***5***	***2***	
	Relevant Grant Dollars	4,160,103	1,940,000	1,756,390	1,183,742	364,983	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***9***	***7***	***6***	***5***	***2***	
	Total Relevant Dollars	4,160,103	1,940,000	1,756,390	1,183,742	364,983	-41.15

continued

* Relevant Dollars = portion of the funded amount relevant to a specific Site.
‡ Coding not required or requested. FY2022 Contract data not provided.
Source: Research Analysis and Evaluation Branch.

Table 16. NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Adolescent and Young Adults Cancer	***Number of Grants***	***172***	***231***	***293***	***313***	***353***	
	Relevant Grant dollars	80,608,475	118,127,498	122,204,317	128,983,654	155,814,597	
	Number of Contracts	***‡***	***2***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	442,938	‡	‡	‡	
	Total count	***172***	***233***	***293***	***313***	***353***	
	Total Relevant Dollars	80,608,475	118,570,436	122,204,317	128,983,654	155,814,597	19.13
Adoptive Cell Immunotherapy	***Number of Grants***	***178***	***211***	***258***	***280***	***321***	
	Relevant Grant dollars	65,668,061	87,631,798	86,391,555	100,646,024	115,302,551	
	Number of Contracts	***‡***	***1***	***1***	***2***	***‡***	
	Relevant Contract Dollars	‡	27,497	399,299	2,399,955	‡	
	Total count	***178***	***212***	***259***	***282***	***321***	
	Total Relevant Dollars	65,668,061	87,659,295	86,790,854	103,045,979	115,302,551	15.78
Advanced Manufacturing Technology	***Number of Grants***	***3***	***3***	***4***	***5***	***13***	
	Relevant Grant dollars	1,493,003	845,428	1,829,119	2,016,956	4,611,911	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***3***	***3***	***4***	***5***	***13***	
	Total Relevant Dollars	1,493,003	845,428	1,829,119	2,016,956	4,611,911	52.98
Aging	***Number of Grants***	***196***	***215***	***238***	***218***	***227***	
	Relevant Grant dollars	49,513,188	64,340,550	77,241,267	72,529,506	89,936,753	
	Number of Contracts	***5***	***6***	***2***	***‡***	***‡***	
	Relevant Contract Dollars	524,756	690,838	1,152,930	‡	‡	
	Total count	***201***	***221***	***240***	***218***	***227***	
	Total Relevant Dollars	50,037,944	65,031,388	78,394,197	72,529,506	89,936,753	16.75
Alternative Medicine	***Number of Grants***	***148***	***145***	***145***	***152***	***171***	
	Relevant Grant dollars	45,018,152	46,859,296	43,374,202	49,802,758	55,838,168	
	Number of Contracts	***2***	***2***	***1***	***1***	***‡***	
	Relevant Contract Dollars	3,855,644	928,436	181,500	199,976	‡	
	Total Count	***150***	***147***	***146***	***153***	***171***	
	Total Relevant Dollars	48,873,796	47,787,732	43,555,702	50,002,734	55,838,168	3.84
Alzheimer's Dementia	***Number of Grants***	***1***	***1***	***3***	***2***	***4***	
	Relevant Grant dollars	215,229	207,809	467,294	480,430	1,076,615	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***1***	***1***	***3***	***2***	***4***	
	Total Relevant Dollars	215,229	207,809	467,294	480,430	1,076,615	62.08

continued

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

‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Arctic Research	***Number of Grants***	***5***	***9***	***17***	***13***	***13***	
	Relevant Grant dollars	1,238,465	4,280,761	7,890,282	5,711,933	5,011,048	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***5***	***9***	***17***	***13***	***13***	
	Total Relevant Dollars	1,238,465	4,280,761	7,890,282	5,711,933	5,011,048	72.52
Asbestos	***Number of Grants***	***7***	***5***	***4***	***6***	***4***	
	Relevant Grant dollars	3,065,315	1,716,100	1,478,421	2,204,411	1,723,166	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***7***	***5***	***4***	***6***	***4***	
	Total Relevant Dollars	3,065,315	1,716,100	1,478,421	2,204,411	1,723,166	-7.65
Ataxia Telangiectasia	***Number of Grants***	***3***	***3***	***3***	***1***	***1***	
	Relevant Grant dollars	439,541	632,185	646,859	241,275	250,320	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***3***	***3***	***3***	***1***	***1***	
	Total Relevant Dollars	439,541	632,185	646,859	241,275	250,320	-3.20
Autoimmune Diseases	***Number of Grants***	***9***	***10***	***11***	***9***	***10***	
	Relevant Grant dollars	2,402,185	2,129,342	2,852,373	1,976,270	2,245,670	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***9***	***10***	***11***	***9***	***10***	
	Total Relevant Dollars	2,402,185	2,129,342	2,852,373	1,976,270	2,245,670	1.38
Behavior Research	***Number of Grants***	***630***	***680***	***799***	***802***	***824***	
	Relevant Grant dollars	238,643,771	248,036,698	299,047,617	307,388,720	381,917,308	
	Number of Contracts	***7***	***5***	***7***	***2***	***‡***	
	Relevant Contract Dollars	4,155,657	35,595,028	6,869,266	1,022,930	‡	
	Total Count	***637***	***685***	***806***	***804***	***824***	
	Total Relevant Dollars	242,799,428	283,631,726	305,916,884	308,411,650	381,917,308	12.33
Bioengineering	***Number of Grants***	***445***	***498***	***517***	***561***	***579***	
	Relevant Grant dollars	164,170,593	192,613,667	214,148,983	234,398,214	256,603,472	
	Number of Contracts	***6***	***17***	***10***	***7***	***‡***	
	Relevant Contract Dollars	5,021,564	15,537,305	3,547,308	2,789,513	‡	
	Total Count	***451***	***515***	***527***	***568***	***579***	
	Total Relevant Dollars	169,192,157	208,150,972	217,696,291	237,187,727	256,603,472	11.19

continued

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

‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Bioinformatics	***Number of Grants***	***641***	***755***	***819***	***820***	***816***	
	Relevant Grant dollars	282,603,451	314,616,007	342,712,693	342,864,476	372,062,540	
	Number of Contracts	***25***	***26***	***119***	***40***	***‡***	
	Relevant Contract Dollars	43,412,556	243,812,997	174,223,520	76,257,031	‡	
	Total Count	***666***	***781***	***938***	***860***	***816***	
	Total Relevant Dollars	326,016,007	558,429,004	516,936,213	419,121,507	372,062,540	8.43
Biological Carcinogenesis, Non-Viral	***Number of Grants***	***69***	***75***	***92***	***89***	***100***	
	Relevant Grant dollars	21,398,045	23,221,779	25,360,950	28,608,038	32,255,829	
	Number of Contracts	***‡***	***‡***	***‡***	***1***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	1,999,961	‡	
	Total Count	***69***	***75***	***92***	***90***	***100***	
	Total Relevant Dollars	21,398,045	23,221,779	25,360,950	30,607,999	32,255,829	10.95
Biologics/Biological Response Modifiers	***Number of Grants***	***901***	***1,040***	***1,215***	***1,271***	***1,369***	
	Relevant Grant dollars	360,770,365	421,827,794	480,327,415	490,484,192	535,852,401	
	Number of Contracts	***9***	***18***	***9***	***4***	***‡***	
	Relevant Contract Dollars	39,559,578	7,000,911	9,399,568	4,091,098	‡	
	Total Count	***910***	***1,058***	***1,224***	***1,274***	***1,369***	
	Total Relevant Dollars	400,329,942	428,828,705	489,726,983	494,575,290	535,852,401	7.66
Biomarkers	***Number of Grants***	***1420***	***1533***	***1,496***	***1,661***	***1,710***	
	Relevant Grant dollars	491,516,348	507,662,741	502,778,212	538,519,084	585,049,774	
	Number of Contracts	***13***	***25***	***9***	***10***	***‡***	
	Relevant Contract Dollars	7,203,277	14,609,257	5,069,362	12,318,509	‡	
	Total count	***1433***	***1558***	***1,505***	***1,671***	***1,710***	
	Total Relevant Dollars	498,719,625	522,271,998	507,847,574	550,837,593	585,049,774	4.16
Biomaterials Research	***Number of Grants***	***64***	***76***	***72***	***70***	***71***	
	Relevant Grant dollars	16,497,668	23,344,253	19,950,191	21,852,233	23,559,385	
	Number of Contracts	***1***	***‡***	***2***	***‡***	***‡***	
	Relevant Contract Dollars	149,905	‡	400,000	‡	‡	
	Total count	***65***	***76***	***74***	***70***	***71***	
	Total Relevant Dollars	16,647,573	23,344,253	20,350,191	21,852,233	23,559,385	10.65
Biomedical Computing	***Number of Grants***	***573***	***686***	***768***	***804***	***920***	
	Relevant Grant dollars	252,725,128	269,476,921	300,632,446	313,421,927	385,762,631	
	Number of Contracts	***52***	***36***	***123***	***47***	***‡***	
	Relevant Contract Dollars	61,946,642	249,348,654	175,830,676	60,014,598	‡	
	Total count	***625***	***722***	***891***	***851***	***920***	
	Total Relevant Dollars	314,671,770	518,825,575	476,463,122	373,436,525	385,762,631	9.59

continued

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

‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Bone Marrow Transplantation	***Number of Grants***	***74***	***67***	***73***	***62***	***62***	
	Relevant Grant dollars	34,712,978	29,046,389	32,837,598	31,774,199	32,159,025	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***74***	***67***	***73***	***62***	***62***	
	Total Relevant Dollars	34,712,978	29,046,389	32,837,598	31,774,199	32,159,025	-1.32
Breast Cancer Detection	***Number of Grants***	***236***	***247***	***227***	***222***	***216***	
	Relevant Grant dollars	93,964,637	81,438,411	83,444,810	79,628,066	82,745,365	
	Number of Contracts	***2***	***‡***	***3***	***1***	***‡***	
	Relevant Contract Dollars	53,073	‡	999,778	279,023	‡	
	Total count	***238***	***247***	***230***	***223***	***216***	
	Total Relevant Dollars	94,017,710	81,438,411	84,444,588	79,907,089	82,745,365	-2.88
Breast Cancer Early Detection	***Number of Grants***	***142***	***146***	***132***	***104***	***99***	
	Relevant Grant dollars	41,663,384	41,392,617	42,906,961	34,227,936	34,407,422	
	Number of Contracts	***‡***	***‡***	***2***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	799,778	‡	‡	
	Total count	***142***	***146***	***134***	***104***	***99***	
	Total Relevant Dollars	41,663,384	41,392,617	43,706,739	34,227,936	34,407,422	-4.05
Breast Cancer Education	***Number of Grants***	***28***	***29***	***28***	***28***	***23***	
	Relevant Grant dollars	5,439,597	4,543,456	4,829,069	7,592,960	4,692,521	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***28***	***29***	***28***	***28***	***23***	
	Total Relevant Dollars	5,439,597	4,543,456	4,829,069	7,592,960	4,692,521	2.21
Breast Cancer Epidemiology	***Number of Grants***	***92***	***94***	***87***	***71***	***60***	
	Relevant Grant dollars	30,273,776	26,836,612	28,355,007	25,140,881	22,719,193	
	Number of Contracts	***7***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	37,205	‡	‡	‡	‡	
	Total count	***99***	***94***	***87***	***71***	***60***	
	Total Relevant Dollars	30,310,981	26,836,612	28,355,007	25,140,881	22,719,193	-6.69
Breast Cancer Genetics	***Number of Grants***	***218***	***198***	***172***	***137***	***125***	
	Relevant Grant dollars	66,472,567	54,942,258	56,347,830	43,018,502	38,410,986	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***218***	***198***	***172***	***137***	***125***	
	Total Relevant Dollars	66,472,567	54,942,258	56,347,830	43,018,502	38,410,986	-12.29

continued

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

‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Breast Cancer Prevention	***Number of Grants***	***79***	***92***	***89***	***80***	***80***	
	Relevant Grant dollars	18,347,556	20,549,191	19,734,699	22,991,008	26,771,957	
	Number of Contracts	***3***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	4,562,338	‡	‡	‡	‡	
	Total count	***82***	***92***	***89***	***80***	***80***	
	Total Relevant Dollars	22,909,894	20,549,191	19,734,699	22,991,008	26,771,957	4.67
Breast Cancer Rehabilitation	***Number of Grants***	***62***	***69***	***72***	***54***	***63***	
	Relevant Grant dollars	16,157,094	19,374,865	23,648,591	16,308,963	21,091,005	
	Number of Contracts	***1***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	1,499,993	‡	‡	‡	‡	
	Total count	***63***	***69***	***72***	***54***	***63***	
	Total Relevant Dollars	17,657,087	19,374,865	23,648,591	16,308,963	21,091,005	7.52
Breast Cancer Screening	***Number of Grants***	***57***	***57***	***52***	***49***	***43***	
	Relevant Grant dollars	15,132,034	14,338,947	19,922,792	20,246,637	18,616,897	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***57***	***57***	***52***	***49***	***43***	
	Total Relevant Dollars	15,132,034	14,338,947	19,922,792	20,246,637	18,616,897	6.82
Breast Cancer Treatment	***Number of Grants***	***618***	***619***	***625***	***667***	***690***	
	Relevant Grant dollars	209,590,194	196,387,826	213,770,728	228,920,318	240,687,155	
	Number of Contracts	***2***	***4***	***‡***	***1***	***‡***	
	Relevant Contract Dollars	2,035,240	4,020,068	‡	119,581	‡	
	Total count	***620***	***623***	***625***	***668***	***690***	
	Total Relevant Dollars	211,625,433	200,407,894	213,770,728	229,039,899	240,687,155	3.39
Breast Cancer — Basic	***Number of Grants***	***556***	***567***	***567***	***515***	***519***	
	Relevant Grant dollars	158,766,455	155,259,816	172,808,076	151,747,531	152,036,610	
	Number of Contracts	***3***	***‡***	***6***	***‡***	***‡***	
	Relevant Contract Dollars	40,722	‡	411,254	‡	‡	
	Total count	***559***	***567***	***573***	***515***	***519***	
	Total Relevant Dollars	158,807,177	155,259,816	173,219,330	151,747,531	152,036,610	-0.72
Cancer Stem Cells	***Number of Grants***	***417***	***411***	***397***	***373***	***359***	
	Relevant Grant dollars	114,972,296	111,157,005	115,958,620	109,027,113	107,382,238	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***417***	***411***	***397***	***373***	***359***	
	Total Relevant Dollars	114,972,296	111,157,005	115,958,620	109,027,113	107,382,238	-1.62

continued

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

‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Cancer Survivorship	***Number of Grants***	***385***	***441***	***482***	***508***	***571***	
	Relevant Grant dollars	203,631,879	238,044,537	285,280,496	278,047,831	331,554,007	
	Number of Contracts	***9***	***11***	***37***	***2***	***‡***	
	Relevant Contract Dollars	16,014,755	11,940,379	27,004,668	4,165,030	‡	
	Total count	***394***	***452***	***519***	***510***	***571***	
	Total Relevant Dollars	219,646,634	249,984,916	312,285,164	282,212,861	331,554,007	11.65
Carcinogenesis — Environmental	***Number of Grants***	***626***	***687***	***751***	***742***	***734***	
	Relevant Grant dollars	262,220,786	283,174,495	299,484,274	287,988,698	339,684,342	
	Number of Contracts	***20***	***8***	***8***	***5***	***‡***	
	Relevant Contract Dollars	16,494,997	33,723,167	12,438,407	5,105,285	‡	
	Total count	***646***	***695***	***759***	***747***	***734***	
	Total Relevant Dollars	278,715,783	316,897,661	311,922,681	293,093,983	339,684,342	5.49
Cervical Cancer Education	***Number of Grants***	***20***	***24***	***27***	***26***	***33***	
	Relevant Grant dollars	4,612,220	5,742,343	6,253,073	12,015,098	13,623,695	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***20***	***24***	***27***	***26***	***33***	
	Total Relevant Dollars	4,612,220	5,742,343	6,253,073	12,015,098	13,623,695	34.73
Chemoprevention	***Number of Grants***	***199***	***203***	***183***	***171***	***166***	
	Relevant Grant dollars	71,362,862	72,507,610	67,095,872	67,969,703	63,627,962	
	Number of Contracts	***13***	***21***	***9***	***10***	***‡***	
	Relevant Contract Dollars	19,797,086	20,876,960	16,710,594	11,478,053	‡	
	Total count	***212***	***224***	***192***	***181***	***166***	
	Total Relevant Dollars	91,159,948	93,384,569	83,806,466	79,447,756	63,627,962	-8.23
Chemoprevention — Clinical	***Number of Grants***	***10***	***9***	***7***	***7***	***8***	
	Relevant Grant dollars	7,445,837	7,669,943	2,409,765	3,361,908	3,225,242	
	Number of Contracts	***‡***	***2***	***‡***	***5***	***‡***	
	Relevant Contract Dollars	‡	3,114,962	‡	2,762,879	‡	
	Total count	***10***	***11***	***7***	***12***	***8***	
	Total Relevant Dollars	7,445,837	10,784,905	2,409,765	6,124,787	3,225,242	18.50
Chemotherapy	***Number of Grants***	***802***	***871***	***893***	***909***	***928***	
	Relevant Grant dollars	316,933,597	337,533,318	375,420,336	367,026,459	367,530,814	
	Number of Contracts	***13***	***6***	***2***	***17***	***‡***	
	Relevant Contract Dollars	7,708,690	5,184,714	941,602	20,432,978	‡	
	Total count	***815***	***877***	***895***	***926***	***928***	
	Total Relevant Dollars	324,642,287	342,718,031	376,361,938	387,459,437	367,530,814	3.29

continued

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

‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Child Health	***Number of Grants***	***58***	***80***	***91***	***78***	***85***	
	Relevant Grant dollars	13,942,846	35,168,895	34,948,659	35,682,264	43,406,815	
	Number of Contracts	***2***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	2,037,698	418,241	‡	‡	‡	
	Total count	***60***	***81***	***91***	***78***	***85***	
	Total Relevant Dollars	15,980,544	35,587,136	34,948,659	35,682,264	43,406,815	36.16
Childhood Cancers	***Number of Grants***	***438***	***585***	***623***	***594***	***704***	
	Relevant Grant dollars	249,037,676	306,475,154	299,355,101	294,987,177	326,328,472	
	Number of Contracts	***2***	***1***	***6***	***‡***	***‡***	
	Relevant Contract Dollars	2,476,618	1,878,258	388,536,294	‡	‡	
	Total count	***440***	***586***	***629***	***594***	***704***	
	Total Relevant Dollars	251,514,294	308,353,412	687,891,395	294,987,177	326,328,472	24.79
Chronic Myeloproliferative Disorders	***Number of Grants***	***55***	***60***	***62***	***49***	***37***	
	Relevant Grant dollars	18,840,695	19,099,884	18,456,267	17,244,931	15,620,422	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***55***	***60***	***62***	***49***	***37***	
	Total Relevant Dollars	18,840,695	19,099,884	18,456,267	17,244,931	15,620,422	-4.49
Clinical Trials — Diagnosis	***Number of Grants***	***154***	***151***	***124***	***116***	***110***	
	Relevant Grant dollars	59,253,323	65,733,617	70,973,138	67,737,052	62,272,225	
	Number of Contracts	***1***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	2,939,599	‡	‡	‡	‡	
	Total count	***155***	***151***	***124***	***116***	***110***	
	Total Relevant Dollars	62,192,922	65,733,617	70,973,138	67,737,502	62,272,225	0.26
Clinical Trials — Other	***Number of Grants***	***252***	***294***	***354***	***367***	***431***	
	Relevant Grant dollars	160,552,594	188,858,909	219,973,910	216,555,147	276,572,696	
	Number of Contracts	***6***	***9***	***11***	***3***	***‡***	
	Relevant Contract Dollars	24,412,496	26,874,654	22,657,772	8,415,546	‡	
	Total count	***258***	***303***	***365***	***370***	***431***	
	Total Relevant Dollars	184,965,089	215,733,563	242,631,682	224,970,693	276,572,696	11.19
Clinical Trials — Prevention	***Number of Grants***	***104***	***139***	***133***	***143***	***152***	
	Relevant Grant dollars	37,773,781	58,723,603	62,505,857	72,456,414	73,836,555	
	Number of Contracts	***6***	***6***	***5***	***1***	***‡***	
	Relevant Contract Dollars	7,682,165	7,566,893	5,078,890	1,354,809	‡	
	Total count	***110***	***145***	***138***	***144***	***152***	
	Total Relevant Dollars	45,455,946	66,290,495	67,584,747	73,811,223	73,836,555	14.26

continued

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‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Clinical Trials — Therapy	***Number of Grants***	***462***	***496***	***459***	***467***	***502***	
	Relevant Grant dollars	369,134,221	343,190,499	388,573,083	361,476,520	361,485,773	
	Number of Contracts	***7***	***4***	***2***	***‡***	***‡***	
	Relevant Contract Dollars	136,563,624	10,446,636	3,746,120	‡	‡	
	Total count	***469***	***500***	***461***	***467***	***502***	
	Total Relevant Dollars	505,697,845	353,637,135	392,319,203	361,476,520	361,485,773	-6.75
Combination Therapy	***Number of Grants***	***1,193***	***1,388***	***1,491***	***1,581***	***1,681***	
	Relevant Grant dollars	408,506,690	466,604,392	540,731,253	545,533,623	590,928,061	
	Number of Contracts	***2***	***7***	***5***	***1***	***‡***	
	Relevant Contract Dollars	993,782	2,658,989	943,735	659,998	‡	
	Total count	***1,195***	***1,395***	***1,496***	***1,582***	***1,681***	
	Total Relevant Dollars	409,500,472	469,263,381	541,674,988	546,193,621	590,928,061	9.76
Cost Effectiveness	***Number of Grants***	***122***	***139***	***161***	***153***	***175***	
	Relevant Grant dollars	29,227,852	41,549,580	46,576,856	4,784,889	54,169,591	
	Number of Contracts	***‡***	***1***	***2***	***‡***	***‡***	
	Relevant Contract Dollars	‡	149,996	219,978	‡	‡	
	Total count	***122***	***140***	***163***	***153***	***175***	
	Total Relevant Dollars	29,227,852	41,699,576	46,796,834	47,884,889	54,169,591	17.59
Diabetes	***Number of Grants***	***66***	***58***	***64***	***44***	***44***	
	Relevant Grant dollars	12,640,219	10,809,850	13,739,652	11,239,982	11,643,039	
	Number of Contracts	***‡***	***‡***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	79,857	‡	‡	
	Total Count	***66***	***58***	***65***	***44***	***44***	
	Total Relevant Dollars	12,640,219	10,809,850	13,819,509	11,239,982	11,643,039	-0.43
Diagnosis	***Number of Grants***	***1,272***	***1,398***	***1,487***	***1,550***	***1,654***	
	Relevant Grant dollars	666,808,403	701,913,262	809,810,970	801,031,329	921,250,570	
	Number of Contracts	***31***	***21***	***42***	***20***	***‡***	
	Relevant Contract Dollars	53,282,401	19,276,242	47,937,100	19,959,292	‡	
	Total count	***1,303***	***1,419***	***1,529***	***1,570***	***1,654***	
	Total Relevant Dollars	720,090,804	721,189,504	857,748,070	820,990,621	921,250,570	6.75
DNA Repair	***Number of Grants***	***422***	***426***	***443***	***458***	***472***	
	Relevant Grant dollars	119,158,685	120,767,193	137,329,333	139,979,184	146,971,509	
	Number of Contracts	***1***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	150,000	991,300	‡	‡	‡	
	Total count	***423***	***427***	***443***	***458***	***472***	
	Total Relevant Dollars	119,308,685	121,758,492	137,329,333	139,979,184	146,971,509	5.44

continued

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‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Drug Development	***Number of Grants***	***1,787***	***1,882***	***1,978***	***2,111***	***2,191***	
	Relevant Grant dollars	729,568,548	754,132,073	835,004,564	847,379,964	903,487,997	
	Number of Contracts	***28***	***40***	***33***	***29***	***‡***	
	Relevant Contract Dollars	110,388,736	32,805,210	45,279,687	27,616,592	‡	
	Total count	***1,815***	***1,922***	***2,011***	***2,140***	***2,191***	
	Total Relevant Dollars	839,957,283	786,937,283	880,284,251	874,996,556	903,487,997	2.05
Drug Discovery	***Number of Grants***	***314***	***360***	***374***	***381***	***369***	
	Relevant Grant dollars	102,664,482	119,635,952	106,976,631	117,017,878	112,796,714	
	Number of Contracts	***9***	***8***	***13***	***5***	***‡***	
	Relevant Contract Dollars	7,086,104	5,167,352	11,366,705	6,003,411	‡	
	Total count	***323***	***368***	***387***	***386***	***369***	
	Total Relevant Dollars	109,750,585	124,803,304	118,343,336	123,021,289	112,796,714	
Drug Resistance	***Number of Grants***	***926***	***1,012***	***1,064***	***1,133***	***1,179***	
	Relevant Grant dollars	286,366,510	316,801,615	352,946,475	361,374,134	374,064,261	
	Number of Contracts	***‡***	***1***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	‡	204,459	400,000	‡	‡	
	Total count	***926***	***1,013***	***1,065***	***1,133***	***1,179***	
	Total Relevant Dollars	286,366,510	317,006,074	353,346,475	361,374,134	374,064,261	6.99
Drugs — Natural Products	***Number of Grants***	***216***	***221***	***203***	***184***	***161***	
	Relevant Grant dollars	53,923,677	53,238,699	55,002,966	45,918,850	42,291,541	
	Number of Contracts	***3***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	3,660,194	‡	‡	‡	‡	
	Total count	***219***	***221***	***203***	***184***	***161***	
	Total Relevant Dollars	57,583,871	53,238,699	55,002,966	45,918,850	42,291,541	-7.16
Early Detection	***Number of Grants***	***570***	***586***	***606***	***584***	***591***	
	Relevant Grant dollars	303,451,666	300,040,995	334,435,841	292,867,415	336,772,741	
	Number of Contracts	***6***	***6***	***9***	***3***	***‡***	
	Relevant Contract Dollars	6,666,906	4,213,675	6,145,473	5,195,745	‡	
	Total count	***576***	***592***	***615***	***587***	***591***	
	Total Relevant Dollars	310,118,572	304,254,670	340,581,314	298,063,160	336,772,741	2.63
Effectiveness Research	***Number of Grants***	***129***	***127***	***137***	***157***	***179***	
	Relevant Grant dollars	47,924,884	38,294,394	45,611,226	52,828,008	66,545,772	
	Number of Contracts	***7***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	186,026	‡	‡	‡	‡	
	Total count	***136***	***127***	***137***	***157***	***179***	
	Total Relevant Dollars	48,110,910	38,294,394	45,611,226	52,828,008	66,545,772	

continued

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‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Endocrinology	***Number of Grants***	***360***	***384***	***392***	***365***	***381***	
	Relevant Grant dollars	100,568,890	107,119,244	114,683,474	109,371,735	113,163,984	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***360***	***384***	***392***	***365***	***381***	
	Total Relevant Dollars	100,568,890	107,119,244	114,683,474	109,371,735	113,163,984	3.10
Energy Balance	***Number of Grants***	***16***	***16***	***21***	***19***	***19***	
	Relevant Grant dollars	3,473,865	3,258,250	4,022,239	4,314,181	5,319,593	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***16***	***16***	***21***	***19***	***19***	
	Total Relevant Dollars	3,473,865	3,258,250	4,022,239	4,314,181	5,319,593	11.95
Epidemiology	***Number of Grants***	***173***	***222***	***279***	***325***	***391***	
	Relevant Grant dollars	95,193,416	104,428,768	130,163,763	162,071,238	195,513,951	
	Number of Contracts	***32***	***23***	***27***	***35***	***‡***	
	Relevant Contract Dollars	117,745,294	49,300,160	58,819,693	48,906,630	‡	
	Total count	***205***	***245***	***306***	***360***	***391***	
	Total Relevant Dollars	212,938,710	153,728,928	188,983,456	210,977,868	195,513,951	-0.14
Epidemiology — Biochemical	***Number of Grants***	***255***	***223***	***214***	***207***	***186***	
	Relevant Grant dollars	118,461,821	101,679,585	102,980,053	94,156,274	95,607,209	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***255***	***223***	***214***	***207***	***186***	
	Total Relevant Dollars	118,461,821	101,679,585	102,980,053	94,156,274	95,607,209	-4.98
Epidemiology — Environmental	***Number of Grants***	***147***	***138***	***129***	***106***	***90***	
	Relevant Grant dollars	66,673,242	55,754,307	49,583,836	44,722,488	46,396,042	
	Number of Contracts	***1***	***1***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	157,967	49,394	24,996	‡	‡	
	Total count	***148***	***139***	***130***	***106***	***90***	
	Total Relevant Dollars	66,831,209	55,803,701	49,608,832	44,722,488	46,396,042	-8.43
Epigenetics	***Number of Grants***	***859***	***946***	***1,013***	***1,013***	***1,049***	
	Relevant Grant dollars	269,515,321	293,352,295	326,883,216	320,315,076	347,794,398	
	Number of Contracts	***1***	***1***	***2***	***1***	***‡***	
	Relevant Contract Dollars	80,000	80,000	5,648,943	80,000	‡	
	Total count	***860***	***947***	***1,015***	***1,014***	***1,049***	
	Total Relevant Dollars	269,595,321	293,432,295	332,532,159	320,395,076	347,794,398	

continued

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

‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Gene Mapping — Human	***Number of Grants***	***97***	***105***	***123***	***118***	***132***	
	Relevant Grant dollars	30,940,689	31,753,493	40,211,045	38,387,946	52,150,397	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***97***	***105***	***123***	***118***	***132***	
	Total Relevant Dollars	30,940,689	31,753,493	40,211,045	38,387,946	52,150,397	15.14
Gene Mapping — Nonhuman	***Number of Grants***	***37***	***33***	***26***	***15***	***15***	
	Relevant Grant dollars	7,412,413	6,119,601	4,756,997	3,885,119	4,060,389	
	Number of Contracts	***‡***	***‡***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	2,784,472	‡	‡	
	Total Count	***37***	***33***	***27***	***15***	***15***	
	Total Relevant Dollars	7,412,413	6,119,601	7,541,469	3,885,119	4,060,389	
Gene Transfer Clinical	***Number of Grants***	***6***	***5***	***5***	***4***	***3***	
	Relevant Grant dollars	1,318,434	1,607,239	1,722,613	2,280,925	622,327	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***6***	***5***	***5***	***4***	***3***	
	Total Relevant Dollars	1,318,434	1,607,239	1,733,613	2,280,925	622,327	-2.84
Genetic Testing Research — Human	***Number of Grants***	***62***	***59***	***77***	***61***	***74***	
	Relevant Grant dollars	22,217,351	32,028,580	42,371,901	25,406,864	30,724,501	
	Number of Contracts	***‡***	***‡***	***‡***	***1***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	131,984	‡	
	Total count	***62***	***59***	***77***	***62***	***74***	
	Total Relevant Dollars	22,217,351	32,028,580	42,371,901	25,538,848	30,724,501	14.26
Genomics	***Number of Grants***	***1,156***	***1,274***	***1,465***	***1,541***	***1,608***	
	Relevant Grant dollars	491,680,665	519,129,670	560,876,543	560,327,175	619,174,447	
	Number of Contracts	***4***	***5***	***13***	***7***	***‡***	
	Relevant Contract Dollars	83,218,582	1,644,854	199,094,102	2,506,455	‡	
	Total count	***1,160***	***1,279***	***1,478***	***1,548***	***1,608***	
	Total Relevant Dollars	574,899,247	520,774,524	759,970,645	562,833,630	619,174,447	5.15
Health Literacy	***Number of Grants***	***58***	***64***	***60***	***55***	***67***	
	Relevant Grant dollars	15,380,028	27,404,885	19,017,234	25,926,634	29,640,540	
	Number of Contracts	***1***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	1,200,000	‡	‡	‡	‡	
	Total count	***59***	***64***	***60***	***55***	***67***	
	Total Relevant Dollars	16,580,028	27,404,885	19,017,234	25,926,634	29,640,540	21.33

continued

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

‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Health Promotion	***Number of Grants***	***191***	***195***	***179***	***163***	***168***	
	Relevant Grant dollars	62,959,503	74,943,015	69,938,681	69,980,193	87,619,832	
	Number of Contracts	***2***	***5***	***1***	***1***	***‡***	
	Relevant Contract Dollars	790,283	301,128	2,000,000	390,181	‡	
	Total count	***193***	***200***	***180***	***164***	***168***	
	Total Relevant Dollars	63,749,786	75,244,143	71,938,681	70,370,374	87,619,832	8.99
Health Care Delivery	***Number of Grants***	***305***	***361***	***427***	***476***	***534***	
	Relevant Grant dollars	230,065,054	251,771,190	281,554,926	294,950,384	364,255,690	
	Number of Contracts	***28***	***14***	***8***	***4***	***‡***	
	Relevant Contract Dollars	35,343,565	8,317,853	1,447,821	805,667	‡	
	Total count	***333***	***375***	***435***	***480***	***534***	
	Total Relevant Dollars	265,408,619	260,089,043	283,002,747	295,756,051	364,255,690	8.62
Helicobacter	***Number of Grants***	***11***	***11***	***9***	***15***	***19***	
	Relevant Grant dollars	5,287,620	5,686,397	4,433,641	6,711,959	6,627,220	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***11***	***11***	***9***	***15***	***19***	
	Total Relevant Dollars	5,287,620	5,686,397	4,433,641	6,711,959	6,627,220	8.91
Hematology	***Number of Grants***	***964***	***969***	***1,038***	***1,010***	***1,069***	
	Relevant Grant dollars	481,919,759	471,321,194	498,168,234	491,448,314	527,785,703	
	Number of Contracts	***2***	***1***	***1***	***2***	***‡***	
	Relevant Contract Dollars	19,191	54,994	2,000,000	2,399,955	‡	
	Total count	***966***	***970***	***1,039***	***1,012***	***1,069***	
	Total Relevant Dollars	481,938,950	471,376,188	500,168,234	493,848,269	527,785,703	2.38
Hematopoietic Stem Cell Research	***Number of Grants***	***204***	***196***	***201***	***172***	***178***	
	Relevant Grant dollars	77,798,511	80,767,226	80,839,744	73,009,199	77,941,445	
	Number of Contracts	***‡***	***‡***	***1***	***1***	***‡***	
	Relevant Contract Dollars	‡	‡	406,676	999,997	‡	
	Total count	***204***	***196***	***202***	***173***	***178***	
	Total Relevant Dollars	77,798,511	80,767,226	81,246,420	74,009,196	77,941,445	0.20
Hormone Replacement Therapy	***Number of Grants***	***15***	***13***	***9***	***2***	***5***	
	Relevant Grant dollars	2,958,043	3,029,573	2,506,125	394,227	2,176,994	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***15***	***13***	***9***	***2***	***5***	
	Total Relevant Dollars	2,958,043	3,029,573	2,506,125	394,227	2,176,994	88.27

continued

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

‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Hospice	***Number of Grants***	***23***	***28***	***38***	***38***	***39***	
	Relevant Grant dollars	7,051,315	13,027,467	14,857,743	13,937,941	15,745,768	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***23***	***28***	***38***	***38***	***39***	
	Total Relevant Dollars	7,051,315	13,027,467	14,857,743	13,937,941	15,745,768	26.39
Human Genome	***Number of Grants***	***726***	***886***	***1,117***	***1,150***	***1,188***	
	Relevant Grant dollars	294,842,598	328,436,799	405,138,714	386,043,889	446,307,744	
	Number of Contracts	***3***	***4***	***13***	***5***	***‡***	
	Relevant Contract Dollars	4,896,980	640,754	199,094,102	1,931,455	‡	
	Total count	***729***	***890***	***1,130***	***1,155***	***1,188***	
	Total Relevant Dollars	299,739,578	329,077,553	604,232,816	387,975,344	446,307,744	18.16
Iatrogenesis	***Number of Grants***	***228***	***273***	***284***	***272***	***287***	
	Relevant Grant dollars	92,238,911	110,764,086	122,909,843	112,135,347	131,194,278	
	Number of Contracts	***14***	***1***	***2***	***‡***	***‡***	
	Relevant Contract Dollars	4,245,161	951,548	5,964,026	‡	‡	
	Total count	***242***	***274***	***286***	***272***	***287***	
	Total Relevant Dollars	96,484,072	111,715,633	128,873,869	112,135,347	131,194,278	8.79
Imaging	***Number of Grants***	***861***	***912***	***931***	***962***	***987***	
	Relevant Grant dollars	419,041,652	425,798,706	456,223,373	463,487,283	507,959,053	
	Number of Contracts	***5***	***7***	***16***	***9***	***‡***	
	Relevant Contract Dollars	31,825,401	5,313,249	7,655,508	4,772,729	‡	
	Total count	***866***	***919***	***947***	***971***	***987***	
	Total Relevant Dollars	450,867,052	431,111,955	463,878,881	468,260,012	507,959,053	3.16
Immunization	***Number of Grants***	***366***	***476***	***682***	***740***	***883***	
	Relevant Grant dollars	145,386,052	202,878,668	274,472,194	280,856,188	347,236,067	
	Number of Contracts	***8***	***18***	***7***	***4***	***‡***	
	Relevant Contract Dollars	39,543,607	6,065,548	8,949,888	4,091,098	‡	
	Total count	***374***	***494***	***689***	***744***	***883***	
	Total Relevant Dollars	184,929,659	208,944,216	283,422,082	284,947,286	347,236,067	17.76
Immunology	***Number of Grants***	***1,631***	***1,853***	***2,122***	***2,287***	***2,505***	
	Relevant Grant dollars	698,892,998	793,159,253	953,323,965	967,866,802	1,117,325,104	
	Number of Contracts	***15***	***24***	***13***	***5***	***‡***	
	Relevant Contract Dollars	91,031,557	8,326,879	12,737,661	4,146,098	‡	
	Total count	***1,646***	***1,877***	***2,135***	***2,292***	***2,505***	
	Total Relevant Dollars	789,924,555	801,486,132	966,061,626	972,012,900	1,117,325,104	9.39

continued

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

‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Immunotherapy	***Number of Grants***	***842***	***1,011***	***1,221***	***1,394***	***1,541***	
	Relevant Grant dollars	368,977,475	450,135,415	522,207,389	581,473,096	656,953,552	
	Number of Contracts	***6***	***18***	***12***	***5***	***‡***	
	Relevant Contract Dollars	2,288,367	6,643,093	12,646,911	4,146,098	‡	
	Total count	***848***	***1,029***	***1,233***	***1,399***	***1,541***	
	Total Relevant Dollars	371,265,842	456,778,507	534,854,300	585,619,194	656,953,552	15.45
Inflammation	***Number of Grants***	***493***	***509***	***537***	***556***	***595***	
	Relevant Grant dollars	120,560,329	128,327,461	155,890,802	143,742,888	172,956,989	
	Number of Contracts	***3***	***2***	***3***	***‡***	***‡***	
	Relevant Contract Dollars	19,519,964	134,109	422,519	‡	‡	
	Total count	***496***	***511***	***540***	***556***	***595***	
	Total Relevant Dollars	140,080,293	128,461,570	156,313,321	143,742,888	172,956,989	6.42
Information Dissemination	***Number of Grants***	***514***	***523***	***495***	***448***	***451***	
	Relevant Grant dollars	228,167,349	234,086,074	221,362,664	214,304,749	209,974,999	
	Number of Contracts	***16***	***2***	***1***	***3***	***‡***	
	Relevant Contract Dollars	15,220,485	260,226	49,816	3,199,244	‡	
	Total count	***530***	***525***	***496***	***451***	***451***	
	Total Relevant Dollars	243,387,833	234,346,300	221,412,480	217,503,993	209,974,999	-3.62
Metastasis	***Number of Grants***	***1,337***	***1,385***	***1,448***	***1,497***	***1,571***	
	Relevant Grant dollars	422,657,303	439,046,764	495,046,289	500,232,706	548,648,304	
	Number of Contracts	***2***	***2***	***5***	***1***	***‡***	
	Relevant Contract Dollars	112,339	299,537	2,568,042	399,559	‡	
	Total count	***1,339***	***1,387***	***1,453***	***1,498***	***1,571***	
	Total Relevant Dollars	422,769,641	439,346,301	497,614,331	500,632,265	548,648,304	6.84
Microbiome	***Number of Grants***	***135***	***153***	***179***	***182***	***188***	
	Relevant Grant dollars	56,410,998	49,546,365	56,460,175	62,462,791	64,631,932	
	Number of Contracts	***2***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	130,750	‡	‡	‡	‡	
	Total count	***137***	***153***	***179***	***182***	***188***	
	Total Relevant Dollars	56,541,748	49,546,365	56,460,175	62,462,791	64,631,932	3.92
Mind/Body Research	***Number of Grants***	***21***	***24***	***16***	***18***	***26***	
	Relevant Grant dollars	6,812,260	7,568,135	5,603,617	5,810,586	7,078,049	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***21***	***24***	***16***	***18***	***26***	
	Total Relevant Dollars	6,812,260	7,568,135	5,603,617	5,810,586	7,078,049	2.66

continued

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Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Molecular Disease	***Number of Grants***	***4,312***	***4,072***	***3,991***	***3,809***	***3,746***	
	Relevant Grant dollars	2,053,008,956	1,925,663,390	2,003,778,069	1,819,786,941	1,883,948,157	
	Number of Contracts	***52***	***59***	***98***	***45***	***‡***	
	Relevant Contract Dollars	175,671,451	50,132,155	464,026,699	31,842,217	‡	
	Total count	***4,364***	***4,131***	***4,089***	***3,854***	***3,746***	
	Total Relevant Dollars	2,228,680,407	1,975,795,545	2,467,804,768	1,851,629,158	1,883,948,157	-2.42
Molecular Imaging	***Number of Grants***	***354***	***327***	***318***	***277***	***259***	
	Relevant Grant dollars	133,169,439	126,093,554	129,883,142	111,237,535	112,096,363	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***354***	***327***	***318***	***277***	***259***	
	Total Relevant Dollars	133,169,439	126,093,554	129,883,142	111,237,535	112,096,363	-3.97
Molecular Targeted Prevention	***Number of Grants***	***136***	***158***	***163***	***155***	***152***	
	Relevant Grant dollars	46,200,693	52,588,843	57,762,149	56,686,403	59,069,112	
	Number of Contracts	***1***	***2***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	526,781	299,499	‡	‡	‡	
	Total count	***137***	***160***	***163***	***155***	***152***	
	Total Relevant Dollars	46,727,473	52,888,342	57,762,149	56,686,403	59,069,112	6.18
Molecular Targeted Therapy	***Number of Grants***	***2,257***	***2,519***	***2,738***	***2,962***	***3,113***	
	Relevant Grant dollars	865,086,938	943,018,481	1,095,915,792	1,148,120,993	1,233,244,409	
	Number of Contracts	***4***	***8***	***5***	***5***	***‡***	
	Relevant Contract Dollars	128,114,856	3,150,081	1,104,926	3,149,983	‡	
	Total count	***2,261***	***2,527***	***2,743***	***2,967***	***3,113***	
	Total Relevant Dollars	993,201,794	946,168,562	1,097,020,718	1,151,270,976	1,233,244,409	5.82
Nanotechnology	***Number of Grants***	***443***	***449***	***437***	***420***	***384***	
	Relevant Grant dollars	131,776,237	137,795,320	139,824,379	132,207,257	128,140,244	
	Number of Contracts	***4***	***3***	***4***	***1***	***‡***	
	Relevant Contract Dollars	78,759,554	398,887	991,607	200,000	‡	
	Total count	***447***	***452***	***441***	***421***	***384***	
	Total Relevant Dollars	210,535,791	138,194,206	140,815,986	132,407,257	128,140,244	-10.41
Neurofibromatosis	***Number of Grants***	***18***	***20***	***16***	***14***	***20***	
	Relevant Grant dollars	3,791,093	6,683,411	3,777,508	6,092,521	8,355,892	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***18***	***20***	***16***	***14***	***20***	
	Total Relevant Dollars	3,791,093	6,683,411	3,777,508	6,092,521	8,355,892	32.81

continued

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Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Non-Hematopoietic Stem Cell Research	***Number of Grants***	***143***	***132***	***137***	***131***	***132***	
	Relevant Grant dollars	40,471,293	34,680,251	36,147,893	33,988,637	36,579,962	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***143***	***132***	***137***	***131***	***132***	
	Total Relevant Dollars	40,471,293	34,680,251	36,147,893	33,988,637	36,579,962	-2.11
Nursing Research	***Number of Grants***	***27***	***28***	***31***	***27***	***25***	
	Relevant Grant dollars	9,848,194	12,283,637	12,696,338	13,932,167	12,850,225	
	Number of Contracts	***‡***	***‡***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	16,500	‡	‡	
	Total Count	***27***	***28***	***32***	***27***	***25***	
	Total Relevant Dollars	9,848,194	12,283,637	12,712,838	13,932,167	12,850,225	7.51
Nutrition	***Number of Grants***	***305***	***321***	***335***	***319***	***349***	
	Relevant Grant dollars	101,297,729	100,499,788	99,414,309	100,483,752	120,951,098	
	Number of Contracts	***9***	***5***	***11***	***6***	***‡***	
	Relevant Contract Dollars	3,462,874	1,880,590	1,618,855	3,344,789	‡	
	Total count	***314***	***326***	***346***	***325***	***349***	
	Total Relevant Dollars	104,760,603	102,380,378	101,033,164	103,828,541	120,951,098	3.92
Nutrition Monitoring	***Number of Grants***	***21***	***24***	***22***	***11***	***16***	
	Relevant Grant dollars	8,999,541	7,573,449	5,674,690	4,355,796	5,785,819	
	Number of Contracts	***1***	***1***	***3***	***2***	***‡***	
	Relevant Contract Dollars	604,252	448,385	135,356	535,925	‡	
	Total count	***22***	***25***	***25***	***13***	***16***	
	Total Relevant Dollars	9,603,793	8,021,834	5,810,046	4,891,721	5,785,819	-10.39
Obesity	***Number of Grants***	***194***	***196***	***200***	***195***	***210***	
	Relevant Grant dollars	51,223,096	51,490,956	59,380,632	63,992,184	71,037,636	
	Number of Contracts	***2***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	2,232,122	504,052	‡	‡	‡	
	Total count	***196***	***197***	***200***	***195***	***210***	
	Total Relevant Dollars	53,455,218	51,995,008	59,380,632	63,992,184	71,037,636	7.56
Occupational Cancer	***Number of Grants***	***12***	***11***	***12***	***9***	***9***	
	Relevant Grant dollars	3,482,526	3,068,747	2,694,395	3,328,128	3,749,343	
	Number of Contracts	***1***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	87,500	‡	‡	‡	‡	
	Total count	***13***	***11***	***12***	***9***	***9***	
	Total Relevant Dollars	3,570,026	3,068,747	2,694,395	3,328,128	3,749,343	2.48

continued

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Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Oncogenes	***Number of Grants***	***1,141***	***1,108***	***1,111***	***1,131***	***1,115***	
	Relevant Grant dollars	359,141,456	357,538,899	355,591,456	365,065,952	357,655,654	
	Number of Contracts	***3***	***2***	***2***	***‡***	***‡***	
	Relevant Contract Dollars	1,213,234	155,151	2,393,180	‡	‡	
	Total count	***1,144***	***1,110***	***1,113***	***1,131***	***1,115***	
	Total Relevant Dollars	360,354,689	357,694,050	357,984,636	365,065,952	357,655,654	-0.18
Oncolytic Virotherapy	***Number of Grants***	***70***	***82***	***66***	***54***	***53***	
	Relevant Grant dollars	24,746,324	34,053,494	23,944,711	19,810,363	17,660,159	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***70***	***82***	***66***	***54***	***53***	
	Total Relevant Dollars	24,746,324	34,053,494	23,944,711	19,810,363	17,660,159	-5.05
Organ Transplant Research	***Number of Grants***	***103***	***103***	***112***	***98***	***97***	
	Relevant Grant dollars	47,912,539	52,525,631	56,209,753	49,406,660	49,523,901	
	Number of Contracts	***‡***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	149,849	‡	‡	‡	
	Total count	***103***	***104***	***112***	***98***	***97***	
	Total Relevant Dollars	47,912,539	52,675,480	56,209,753	49,406,660	49,523,901	1.19
Pain	***Number of Grants***	***58***	***76***	***96***	***90***	***112***	
	Relevant Grant dollars	19,794,438	20,812,196	30,284,534	32,953,857	44,524,086	
	Number of Contracts	***‡***	***3***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	‡	1,920,403	131,575	‡	‡	
	Total count	***58***	***79***	***97***	***90***	***112***	
	Total Relevant Dollars	19,794,438	22,732,599	30,416,109	32,953,857	44,524,086	23.02
Palliative Care	***Number of Grants***	***54***	***73***	***78***	***77***	***88***	
	Relevant Grant dollars	17,555,810	32,957,338	34,561,422	35,452,173	42,433,513	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***54***	***73***	***78***	***77***	***88***	
	Total Relevant Dollars	17,555,810	32,957,338	34,561,422	35,452,173	42,433,513	28.72
Pap Testing	***Number of Grants***	***18***	***18***	***12***	***9***	***11***	
	Relevant Grant dollars	4,379,452	4,575,890	3,696,262	3,506,991	4,689,158	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***18***	***18***	***12***	***9***	***11***	
	Total Relevant Dollars	4,379,452	4,575,890	3,696,262	3,506,991	4,689,158	3.46

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 Category.

‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Pediatric Research	***Number of Grants***	***499***	***588***	***717***	***695***	***810***	
	Relevant Grant dollars	280,431,656	347,361,731	357,289,363	352,660,656	399,923,713	
	Number of Contracts	***4***	***2***	***6***	***‡***	***‡***	
	Relevant Contract Dollars	4,514,316	2,296,499	388,536,294	‡	‡	
	Total count	***503***	***590***	***723***	***695***	***810***	
	Total Relevant Dollars	284,945,972	349,658,230	745,825,657	352,660,656	399,923,713	24.17
Personalized Health Care	***Number of Grants***	***490***	***501***	***542***	***559***	***573***	
	Relevant Grant dollars	170,539,038	174,575,204	213,353,043	195,755,985	210,233,826	
	Number of Contracts	***3***	***2***	***8***	***3***	***‡***	
	Relevant Contract Dollars	63,079,767	398,964	1,406,732	995,963	‡	
	Total count	***493***	***503***	***550***	***562***	***573***	
	Total Relevant Dollars	233,618,805	174,974,168	214,759,775	196,751,948	210,233,826	-0.97
Pharmacogenetics	***Number of Grants***	***124***	***109***	***93***	***64***	***59***	
	Relevant Grant dollars	33,417,628	29,010,516	32,095,254	14,036,011	13,713,092	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***124***	***109***	***93***	***64***	***59***	
	Total Relevant Dollars	33,417,628	29,010,516	32,095,254	14,036,011	13,713,092	-15.28
Prevention	***Number of Grants***	***778***	***877***	***979***	***1,010***	***1,067***	
	Relevant Grant dollars	373,997,908	426,375,012	485,610,230	486,424,143	573,259,783	
	Number of Contracts	***29***	***33***	***27***	***38***	***‡***	
	Relevant Contract Dollars	33,218,787	29,446,792	36,427,168	60,282,743	‡	
	Total count	***807***	***910***	***1,006***	***1,048***	***1,067***	
	Total Relevant Dollars	407,216,695	455,821,804	522,037,398	546,706,886	573,259,783	9.01
Proteomics	***Number of Grants***	***559***	***594***	***602***	***586***	***569***	
	Relevant Grant dollars	158,420,435	161,344,098	154,626,572	138,046,167	156,781,635	
	Number of Contracts	***2***	***2***	***2***	***2***	***‡***	
	Relevant Contract Dollars	78,521,602	111,702	2,300,581	800,000	‡	
	Total count	***561***	***596***	***604***	***588***	***569***	
	Total Relevant Dollars	236,942,036	161,455,800	156,927,153	138,846,167	156,781,635	-8.31
Radiation — Electromagnetic Fields	***Number of Grants***	***4***	***3***	***4***	***4***	***3***	
	Relevant Grant dollars	989,649	692,156	1,187,780	693,663	1,261,511	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***4***	***3***	***4***	***4***	***3***	
	Total Relevant Dollars	989,649	692,156	1,187,780	693,663	1,261,511	20.45

continued

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‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Radiation — Ionizing	***Number of Grants***	***55***	***56***	***46***	***35***	***26***	
	Relevant Grant dollars	16,441,421	16,222,082	12,687,670	11,463,129	10,546,598	
	Number of Contracts	***2***	***2***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	2,157,951	199,394	‡	‡	‡	
	Total count	***57***	***58***	***46***	***35***	***26***	
	Total Relevant Dollars	18,599,372	16,421,476	12,687,670	11,463,129	10,546,598	-13.02
Radiation — Ionizing Diagnosis	***Number of Grants***	***199***	***208***	***206***	***209***	***211***	
	Relevant Grant dollars	70,963,666	71,915,134	68,820,937	74,004,028	81,456,456	
	Number of Contracts	***‡***	***1***	***2***	***‡***	***‡***	
	Relevant Contract Dollars	‡	982,108	532,000	‡	‡	
	Total count	***199***	***209***	***208***	***209***	***211***	
	Total Relevant Dollars	70,963,666	72,897,242	69,352,937	74,004,028	81,456,456	3.66
Radiation — Ionizing Radiotherapy	***Number of Grants***	***389***	***419***	***416***	***441***	***493***	
	Relevant Grant dollars	133,404,212	146,440,571	157,102,772	175,889,519	208,193,736	
	Number of Contracts	***9***	***8***	***2***	***1***	***‡***	
	Relevant Contract Dollars	3,495,309	4,058,840	1,883,202	399,779	‡	
	Total count	***398***	***427***	***418***	***442***	***493***	
	Total Relevant Dollars	136,899,521	150,499,411	158,985,974	176,289,298	208,193,736	11.13
Radiation — Low-Level Ionizing	***Number of Grants***	***2***	***2***	***3***	***2***	***2***	
	Relevant Grant dollars	298,779	431,578	502,743	433,388	398,581	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***2***	***2***	***3***	***2***	***2***	
	Total Relevant Dollars	298,779	431,578	502,743	433,388	398,581	9.78
Radiation — Magnetic Resonance Imaging	***Number of Grants***	***249***	***260***	***266***	***270***	***279***	
	Relevant Grant dollars	85,378,228	87,648,412	98,331,963	105,027,714	117,654,015	
	Number of Contracts	***1***	***‡***	***2***	***1***	***‡***	
	Relevant Contract Dollars	281,104	‡	599,778	199,302	‡	
	Total count	***250***	***260***	***268***	***271***	***279***	
	Total Relevant Dollars	85,659,332	87,648,412	98,931,741	105,227,016	117,654,015	8.34
Radiation — Mammography	***Number of Grants***	***56***	***61***	***66***	***58***	***59***	
	Relevant Grant dollars	14,531,883	15,006,659	20,782,348	22,063,293	24,347,084	
	Number of Contracts	***1***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	12,500	‡	‡	‡	‡	
	Total count	***57***	***61***	***66***	***58***	***59***	
	Total Relevant Dollars	14,544,383	15,006,659	20,782,348	22,063,293	24,347,084	14.54

continued

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‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Radiation — Non-Ionizing	***Number of Grants***	***96***	***84***	***78***	***62***	***59***	
	Relevant Grant dollars	26,339,672	24,358,812	24,033,685	20,707,532	20,237,843	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***96***	***84***	***78***	***62***	***59***	
	Total Relevant Dollars	26,339,672	24,358,812	24,033,685	20,707,532	20,237,843	-6.24
Radiation — Non-Ionizing Diagnosis	***Number of Grants***	***307***	***310***	***314***	***316***	***336***	
	Relevant Grant dollars	112,998,401	117,939,604	132,914,143	135,688,018	155,195,164	
	Number of Contracts	***1***	***2***	***3***	***1***	***‡***	
	Relevant Contract Dollars	281,104	1,132,090	799,778	199,302	‡	
	Total count	***308***	***312***	***317***	***317***	***336***	
	Total Relevant Dollars	113,279,505	119,071,694	133,713,921	135,887,320	155,195,164	8.31
Radiation — Non-Ionizing Radiotherapy	***Number of Grants***	***156***	***163***	***162***	***160***	***183***	
	Relevant Grant dollars	59,155,854	63,806,196	60,179,423	63,958,645	74,953,410	
	Number of Contracts	***2***	***10***	***7***	***2***	***‡***	
	Relevant Contract Dollars	321,677	6,071,668	2,253,949	796,918	‡	
	Total count	***158***	***173***	***169***	***162***	***183***	
	Total Relevant Dollars	59,477,531	69,877,865	62,433,372	64,755,563	74,953,410	6.58
Radiation — UV	***Number of Grants***	***63***	***57***	***60***	***49***	***49***	
	Relevant Grant dollars	16,770,517	16,613,599	17,738,292	16,067,424	16,564,595	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***63***	***57***	***60***	***49***	***49***	
	Total Relevant Dollars	16,770,517	16,613,599	17,738,292	16,067,424	16,564,595	-0.12
Rare Diseases	***Number of Grants***	***38***	***54***	***45***	***40***	***48***	
	Relevant Grant dollars	10,401,147	38,288,227	25,262,960	30,949,180	41,773,977	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***38***	***54***	***45***	***40***	***48***	
	Total Relevant Dollars	10,401,147	38,288,227	25,262,960	30,949,180	41,773,977	72.89
Rehabilitation	***Number of Grants***	***139***	***152***	***158***	***125***	***140***	
	Relevant Grant dollars	55,517,413	61,304,559	69,345,592	56,728,138	64,634,378	
	Number of Contracts	***1***	***‡***	***2***	***‡***	***‡***	
	Relevant Contract Dollars	1,499,993	‡	799,682	‡	‡	
	Total count	***140***	***152***	***160***	***125***	***140***	
	Total Relevant Dollars	57,017,406	61,304,559	70,145,274	56,728,138	64,634,378	4.19

continued

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‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Rural Populations	***Number of Grants***	***90***	***120***	***162***	***166***	***191***	
	Relevant Grant dollars	58,851,993	98,480,127	122,332,054	121,483,169	139,768,148	
	Number of Contracts	***1***	***‡***	***3***	***‡***	***‡***	
	Relevant Contract Dollars	56,000	‡	229,861	‡	‡	
	Total count	***91***	***120***	***165***	***166***	***191***	
	Total Relevant Dollars	58,907,993	98,480,127	122,561,915	121,483,169	139,768,148	26.45
Sexually Transmitted Diseases	***Number of Grants***	***35***	***39***	***36***	***31***	***32***	
	Relevant Grant dollars	10,790,237	10,654,262	9,772,150	7,727,602	9,500,898	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***35***	***39***	***36***	***31***	***32***	
	Total Relevant Dollars	10,790,237	10,654,262	9,772,150	7,727,602	9,500,898	-1.88
Sleep Disorders	***Number of Grants***	***60***	***70***	***79***	***78***	***87***	
	Relevant Grant dollars	18,354,414	16,970,680	22,152,566	20,934,724	22,841,200	
	Number of Contracts	***‡***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	678,153	‡	‡	‡	
	Total Count	***60***	***71***	***79***	***78***	***87***	
	Total Relevant Dollars	18,354,414	17,648,833	22,152,566	20,934,724	22,841,200	6.32
Small Molecules	***Number of Grants***	***592***	***646***	***645***	***626***	***593***	
	Relevant Grant dollars	139,220,927	166,827,632	172,925,404	169,049,159	171,641,666	
	Number of Contracts	***3***	***6***	***1***	***5***	***‡***	
	Relevant Contract Dollars	3,818,665	2,109,100	535,791	823,756	‡	
	Total count	***595***	***652***	***646***	***631***	***593***	
	Total Relevant Dollars	143,039,592	168,936,732	173,461,195	169,872,915	171,641,666	4.94
Smoking	***Number of Grants***	***223***	***239***	***308***	***307***	***298***	
	Relevant Grant dollars	89,089,847	99,065,410	118,950,299	116,262,224	135,795,687	
	Number of Contracts	***5***	***3***	***3***	***4***	***‡***	
	Relevant Contract Dollars	14,152,035	31,499,932	6,144,385	3,105,324	‡	
	Total count	***228***	***242***	***311***	***311***	***298***	
	Total Relevant Dollars	103,241,882	130,565,342	125,094,684	119,367,548	135,795,687	
Smoking Behavior	***Number of Grants***	***166***	***169***	***187***	***174***	***167***	
	Relevant Grant dollars	63,263,716	68,754,459	72,779,870	66,232,558	82,658,673	
	Number of Contracts	***4***	***2***	***2***	***1***	***‡***	
	Relevant Contract Dollars	1,268,250	30,989,737	6,143,845	995,470	‡	
	Total count	***170***	***171***	***189***	***175***	***167***	
	Total Relevant Dollars	64,531,966	99,744,196	78,923,715	67,228,028	82,658,673	10.46

continued

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

‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Smoking Cessation	***Number of Grants***	***109***	***133***	***155***	***154***	***157***	
	Relevant Grant dollars	38,423,410	50,868,931	61,529,655	65,216,626	67,915,656	
	Number of Contracts	***1***	***1***	***1***	***1***	***‡***	
	Relevant Contract Dollars	12,883,785	29,089,986	5,343,845	995,470	‡	
	Total count	***110***	***134***	***156***	***155***	***157***	
	Total Relevant Dollars	51,307,195	79,958,917	66,873,500	66,212,096	67,915,656	
Smoking — Passive	***Number of Grants***	***16***	***12***	***14***	***15***	***16***	
	Relevant Grant dollars	5,088,594	3,165,300	6,396,292	6,984,143	7,179,258	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***16***	***12***	***14***	***15***	***16***	
	Total Relevant Dollars	5,088,594	3,165,300	6,396,292	6,984,143	7,179,258	19.06
Smokeless Tobacco	***Number of Grants***	***15***	***13***	***46***	***36***	***40***	
	Relevant Grant dollars	1,882,785	1,609,491	7,843,378	6,793,258	7,091,243	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***15***	***13***	***46***	***36***	***40***	
	Total Relevant Dollars	1,882,785	1,609,491	7,843,378	6,793,258	7,091,243	90.95
Structural Biology	***Number of Grants***	***580***	***573***	***547***	***537***	***526***	
	Relevant Grant dollars	160,511,867	170,136,965	153,305,173	140,135,037	138,653,503	
	Number of Contracts	***1***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	78,321,602	‡	‡	‡	‡	
	Total count	***581***	***573***	***547***	***537***	***526***	
	Total Relevant Dollars	238,833,468	170,136,965	153,305,173	140,135,037	138,653,503	-12.08
Surgery	***Number of Grants***	***195***	***215***	***217***	***207***	***246***	
	Relevant Grant dollars	61,508,704	66,631,920	70,639,872	67,853,858	86,376,091	
	Number of Contracts	***2***	***1***	***3***	***1***	***‡***	
	Relevant Contract Dollars	14,539	1,137,419	2,800,331	399,559	‡	
	Total count	***197***	***216***	***220***	***208***	***246***	
	Total Relevant Dollars	61,523,242	67,769,339	73,440,203	68,253,417	86,376,091	9.50
Taxol	***Number of Grants***	***121***	***123***	***117***	***108***	***97***	
	Relevant Grant dollars	23,999,046	24,567,763	25,130,952	19,839,123	18,754,544	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***121***	***123***	***117***	***108***	***97***	
	Total Relevant Dollars	23,999,046	24,567,763	25,130,952	19,839,123	18,754,544	

continued

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

‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Telehealth	***Number of Grants***	***273***	***312***	***366***	***365***	***402***	
	Relevant Grant dollars	110,288,390	118,727,319	139,905,356	138,812,031	176,784,892	
	Number of Contracts	***8***	***6***	***15***	***1***	***‡***	
	Relevant Contract Dollars	6,077,680	680,057	14,345,827	995,470	‡	
	Total count	***281***	***318***	***381***	***366***	***402***	
	Total Relevant Dollars	116,366,070	119,407,376	154,251,183	139,807,501	176,784,892	12.22
Therapy	***Number of Grants***	***3,830***	***4,112***	***4,309***	***4,544***	***4,728***	
	Relevant Grant dollars	1,919,432,271	2,021,576,346	2,211,866,079	2,230,951,920	2,425,750,818	
	Number of Contracts	***68***	***88***	***71***	***81***	***‡***	
	Relevant Contract Dollars	187,721,808	162,718,386	93,260,341	89,693,861	‡	
	Total count	***3,898***	***4,200***	***4,380***	***4,625***	***4,728***	
	Total Relevant Dollars	2,107,154,079	2,184,294,732	2,305,126,420	2,320,645,781	2,425,750,818	3.59
Tropical Diseases	***Number of Grants***	***8***	***8***	***12***	***11***	***11***	
	Relevant Grant dollars	1,846,880	1,282,015	3,962,719	4,810,384	4,556,265	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***8***	***8***	***12***	***11***	***11***	
	Total Relevant Dollars	1,846,880	1,282,015	3,962,719	4,810,384	4,556,265	48.66
Tumor Markers	***Number of Grants***	***55***	***50***	***39***	***25***	***14***	
	Relevant Grant dollars	14,174,253	10,847,303	10,087,428	6,773,536	3,276,593	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***55***	***50***	***39***	***25***	***14***	
	Total Relevant Dollars	14,174,253	10,847,303	10,087,428	6,773,536	3,276,593	-28.73
Underserved and Disparities	***Number of Grants***	***540***	***639***	***743***	***795***	***913***	
	Relevant Grant dollars	324,687,212	412,442,362	493,849,542	510,652,633	633,930,908	
	Number of Contracts	***4***	***2***	***6***	***1***	***‡***	
	Relevant Contract Dollars	3,581,740	522,094	1,090,111	180,716	‡	
	Total count	***544***	***641***	***749***	***796***	***913***	
	Total Relevant Dollars	328,268,952	412,964,456	494,939,653	510,833,349	633,930,908	18.24
Vaccine Development	***Number of Grants***	***84***	***86***	***77***	***66***	***68***	
	Relevant Grant dollars	20,212,226	23,709,448	20,809,287	20,383,737	23,016,496	
	Number of Contracts	***1***	***3***	***1***	***1***	***‡***	
	Relevant Contract Dollars	230,734	27,903	761,776	855,274	‡	
	Total count	***85***	***89***	***78***	***67***	***68***	
	Total Relevant Dollars	20,442,960	23,737,350	21,571,063	21,239,011	23,016,496	3.45

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 Category.

‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Vaccine Production	***Number of Grants***	***2***	***3***	***4***	***6***	***7***	
	Relevant Grant dollars	119,047	407,323	1,040,548	2,262,714	2,036,179	
	Number of Contracts	***‡***	***‡***	***3***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	4,717,231	‡	‡	
	Total count	***2***	***3***	***7***	***6***	***7***	
	Total Relevant Dollars	119,047	407,323	5,757,779	2,262,714	2,036,179	371.25
Vaccine Research	***Number of Grants***	***106***	***112***	***108***	***124***	***142***	
	Relevant Grant dollars	28,024,644	29,756,398	42,394,025	44,598,186	51,773,409	
	Number of Contracts	***7***	***12***	***1***	***1***	***‡***	
	Relevant Contract Dollars	37,638,643	4,840,694	1,071,582	835,869	‡	
	Total count	***113***	***124***	***109***	***125***	***142***	
	Total Relevant Dollars	65,663,287	34,597,091	43,465,607	45,434,055	51,773,409	
Vaccine Testing	***Number of Grants***	***42***	***47***	***52***	***34***	***47***	
	Relevant Grant dollars	11,061,812	11,899,523	17,996,942	12,197,045	17,910,808	
	Number of Contracts	***2***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	1,674,230	‡	‡	‡	‡	
	Total count	***44***	***47***	***52***	***34***	***47***	
	Total Relevant Dollars	12,736,042	11,899,523	17,996,942	12,197,045	17,910,808	14.82
Virus Cancer Research	***Number of Grants***	***285***	***308***	***343***	***333***	***369***	
	Relevant Grant dollars	131,441,807	130,328,650	159,960,903	160,679,335	183,639,213	
	Number of Contracts	***3***	***2***	***1***	***1***	***‡***	
	Relevant Contract Dollars	33,092,240	928,436	761,776	835,869	‡	
	Total count	***288***	***310***	***344***	***334***	***369***	
	Total Relevant Dollars	164,534,046	131,257,086	160,722,679	161,515,204	183,639,213	4.10
Virus — Epstein-Barr	***Number of Grants***	***48***	***51***	***51***	***44***	***52***	
	Relevant Grant dollars	18,236,645	18,415,472	21,951,062	21,267,201	27,182,005	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***48***	***51***	***51***	***44***	***52***	
	Total Relevant Dollars	18,236,645	18,415,472	21,951,062	21,267,201	27,182,005	11.22
Virus — Hepatitis B	***Number of Grants***	***19***	***17***	***19***	***17***	***17***	
	Relevant Grant dollars	2,974,267	2,605,999	4,216,083	4,240,042	4,741,182	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***19***	***17***	***19***	***17***	***17***	
	Total Relevant Dollars	2,974,267	2,605,999	4,216,083	4,240,042	4,741,182	15.45

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 Category.

‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Virus — Hepatitis C	***Number of Grants***	***23***	***19***	***9***	***9***	***7***	
	Relevant Grant dollars	4,349,788	2,845,741	1,273,208	1,665,830	1,551,212	
	Number of Contracts	***‡***	***1***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	510,195	‡	‡	‡	
	Total count	***23***	***20***	***9***	***9***	***7***	
	Total Relevant Dollars	4,349,788	3,355,936	1,273,208	1,665,830	1,551,212	-15.24
Virus — Herpes	***Number of Grants***	***101***	***107***	***113***	***104***	***116***	
	Relevant Grant dollars	41,145,977	39,272,062	45,601,103	44,045,826	52,839,130	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***101***	***107***	***113***	***104***	***116***	
	Total Relevant Dollars	41,145,977	39,272,062	45,601,103	44,045,826	52,839,130	7.03
Virus — HHV8	***Number of Grants***	***51***	***51***	***58***	***54***	***62***	
	Relevant Grant dollars	23,175,112	19,425,311	23,438,247	22,756,659	26,402,561	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***51***	***51***	***58***	***54***	***62***	
	Total Relevant Dollars	23,175,112	19,425,311	23,438,247	22,756,659	26,402,561	4.39
Virus — HTLV-1	***Number of Grants***	***10***	***7***	***7***	***9***	***10***	
	Relevant Grant dollars	3,980,369	1,535,971	3,524,763	4,227,759	4,046,212	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***10***	***7***	***7***	***9***	***10***	
	Total Relevant Dollars	3,980,369	1,535,971	3,524,763	4,227,759	4,046,212	20.93
Virus — Papilloma	***Number of Grants***	***142***	***156***	***175***	***156***	***192***	
	Relevant Grant dollars	54,043,721	55,609,372	67,736,091	65,583,437	81,151,166	
	Number of Contracts	***1***	***1***	***1***	***1***	***‡***	
	Relevant Contract Dollars	1,697,599	418,241	761,776	835,869	‡	
	Total count	***143***	***157***	***176***	***157***	***192***	
	Total Relevant Dollars	55,741,320	56,027,613	68,497,867	66,419,306	81,151,166	10.48
Virus — Papova	***Number of Grants***	***151***	***166***	***183***	***167***	***203***	
	Relevant Grant dollars	56,892,866	59,441,700	72,600,571	69,824,723	86,047,143	
	Number of Contracts	***1***	***1***	***1***	***1***	***‡***	
	Relevant Contract Dollars	1,697,599	418,241	761,776	835,869	‡	
	Total count	***152***	***167***	***184***	***168***	***203***	
	Total Relevant Dollars	58,590,465	59,859,941	73,362,347	70,660,592	86,047,143	10.70

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 Category.

‡ Coding not required or requested. FY2022 Contract data not provided.

Source: Research Analysis and Evaluation Branch.

Table 16 (cont'd). NCI Special Interest Category (SIC) Dollars for FY2018 – FY2022 — Annual Percent Change*

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

Special Interest Categories	Counts and Relevant Dollars**	2018	2019	2020	2021	2022	Average Percent Change/ Year
Vitamin A	***Number of Grants***	***9***	***12***	***10***	***6***	***4***	
	Relevant Grant dollars	2,199,510	2,362,430	2,545,642	1,594,121	975,507	
	Number of Contracts	***‡***	***‡***	***1***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	90,750	‡	‡	
	Total count	***9***	***12***	***11***	***6***	***4***	
	Total Relevant Dollars	2,199,510	2,362,430	2,636,392	1,594,121	975,507	-14.83
Vitamin C	***Number of Grants***	***4***	***4***	***6***	***4***	***4***	
	Relevant Grant dollars	3,288,782	3,034,224	4,127,482	3,003,519	2,925,734	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total Count	***4***	***4***	***6***	***4***	***4***	
	Total Relevant Dollars	3,288,782	3,034,224	4,127,482	3,003,519	2,925,734	-0.38
Vitamin D	***Number of Grants***	***38***	***34***	***27***	***17***	***18***	
	Relevant Grant dollars	13,343,235	11,208,500	7,069,913	4,301,733	5,211,332	
	Number of Contracts	***‡***	***‡***	***‡***	***‡***	***‡***	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	Total count	***38***	***34***	***27***	***17***	***18***	
	Total Relevant Dollars	13,343,235	11,208,500	7,069,913	4,301,733	5,211,332	-17.73

* 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 Category.
‡ Coding not required or requested. FY2022 Contract data not provided.
Source: Research Analysis and Evaluation Branch.

Table 17. NCI Funding of Foreign Research Grants in FY2022

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

Country/Cancer Site													
Argentina	**F31**	**K43**	**R01**	**R03**	**R21**	**R37**	**U01**	**U10**	**U24**	**UG1**	**UH3**	**UM1**	**Totals**
Grants #					***1***								***1***
Funding $					***120,219***								***120,219***
Melanoma					120,219								120,219
Australia	**F31**	**K43**	**R01**	**R03**	**R21**	**R37**	**U01**	**U10**	**U24**	**UG1**	**UH3**	**UM1**	**Totals**
Grants #			***1***	***1***			***2***						***4***
Funding $			***260,106***	***54,000***			***2,314,487***						***2,628,593***
Colon, Rectum							1,868,610						1,868,610
Leukemia							445,877						445,877
Melanoma			260,106										260,106
Neuroblastoma				54,000									54,000
Canada	**F31**	**K43**	**R01**	**R03**	**R21**	**R37**	**U01**	**U10**	**U24**	**UG1**	**UH3**	**UM1**	**Totals**
Grants #			***6***		***1***	***1***	***2***	***1***	***1***			***1***	***13***
Funding $			***2,239,922***		***202,611***	***423,319***	***1,933,539***	***3,425,845***	***526,601***			***372,146***	***9,123,983***
Brain			410,441										410,441
Breast								856,462					856,462
Cervix			285,914										285,914
Gastrointestinal Tract								856,461					856,461
Leukemia			285,712										285,712
Lung					202,611		1,933,539	856,461					2,992,611
Not Site Specific			455,057						526,601			372,146	1,353,804
Pancreas			369,337										369,337
Prostate			433,461										433,461
Testis						423,319							423,319
Urinary System								856,461					856,461
Denmark	**F31**	**K43**	**R01**	**R03**	**R21**	**R37**	**U01**	**U10**	**U24**	**UG1**	**UH3**	**UM1**	**Totals**
Grants #			***1***										***1***
Funding $			***261,807***										***261,807***
Testis			261,807										261,807
France	**F31**	**K43**	**R01**	**R03**	**R21**	**R37**	**U01**	**U10**	**U24**	**UG1**	**UH3**	**UM1**	**Totals**
Grants #			***3***		***1***	***1***	***1***				***1***		***7***
Funding $			***1,656,863***		***90,081***	***242,998***	***529,422***				***442,901***		***2,962,265***
Breast			355,881			242,998							598,879
Eye					90,081								90,081
Cervix											442,901		442,901
Hodgkin's Lymphoma							180,004						180,004
Lung			430,982										430,982
Myeloma							174,709						174,709
Not Site Specific			870,000										870,000
Non-Hodgkin's Lymphoma							174,709						174,709

continued

Source: Research Analysis and Evaluation Branch.

Table 17 (cont'd). NCI Funding of Foreign Research Grants in FY2022

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

Country/Cancer Site													
Germany	**F31**	**K43**	**R01**	**R03**	**R21**	**R37**	**U01**	**U10**	**U24**	**UG1**	**UH3**	**UM1**	**Totals**
Grants #									***1***				***1***
Funding $									***468,815***				***468,815***
Not Site Specific									468,815				468,815
Korea, Republic of	**F31**	**K43**	**R01**	**R03**	**R21**	**R37**	**U01**	**U10**	**U24**	**UG1**	**UH3**	**UM1**	**Totals**
Grants #				***1***									***1***
Funding $				***54,000***									***54,000***
Head and Neck				27,000									27,000
Lung				27,000									27,000
Netherlands	**F31**	**K43**	**R01**	**R03**	**R21**	**R37**	**U01**	**U10**	**U24**	**UG1**	**UH3**	**UM1**	**Totals**
Grants #					***1***								***1***
Funding $					***277,686***								***277,686***
Melanoma					277,686								277,686
South Africa	**F31**	**K43**	**R01**	**R03**	**R21**	**R37**	**U01**	**U10**	**U24**	**UG1**	**UH3**	**UM1**	**Totals**
Grants #		***1***	***2***										***3***
Funding $		***60,520***	***300,345***										***360,865***
Breast			156,017										156,017
Cervix			144,328										144,328
Colon, Rectum		60,520											60,520
Sweden	**F31**	**K43**	**R01**	**R03**	**R21**	**R37**	**U01**	**U10**	**U24**	**UG1**	**UH3**	**UM1**	**Totals**
Grants #	***1***												***1***
Funding $	***30,752***												***30,752***
Lung	15,376												15,376
Melanoma	15,376												15,376
Uganda	**F31**	**K43**	**R01**	**R03**	**R21**	**R37**	**U01**	**U10**	**U24**	**UG1**	**UH3**	**UM1**	**Totals**
Grants #										***1***			***1***
Funding $										***215,806***			***215,806***
Cervix										215,806			215,806
United Kingdom	**F31**	**K43**	**R01**	**R03**	**R21**	**R37**	**U01**	**U10**	**U24**	**UG1**	**UH3**	**UM1**	**Totals**
Grants #			***1***				***2***						***3***
Funding $			***328,710***				***764,206***						***1,092,916***
Brain			164,355										164,355
Cervix							228,694						228,694
Head and Neck			164,355				228,694						393,049
Kidney							306,818						306,818
Total Grants	***1***	***1***	***14***	***2***	***4***	***2***	***7***	***1***	***2***	***1***	***1***	***1***	***37***
Total $ Per Grant Type	***30,752***	***60,520***	***5,047,753***	***108,000***	***690,597***	***666,317***	***5,541,654***	***3,425,845***	***995,416***	***215,806***	***442,901***	***372,146***	***17,597,707***

Source: Research Analysis and Evaluation Branch.

Table 18. Foreign Components of U.S. Domestic Research Grants in FY2022

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

Country	Funding Mechanism																																			Sub-total
	D43	DP1	F30	F31	F32	F99	K00	K07	K08	K99	P01	P30	P50	R00	R01	R03	R13	R15	R21	R25	R33	R35	R37	R42	R43	R44	R50	R56	U01	U19	U24	U2C	U54	UG1	UG3	UH3	UM1	
Argentina															1											1							1	1			1	**5**
Australia															19								2	1					5	1	1							**29**
Austria		1									1								1																			**3**
Bahamas																				1																		**1**
Bangladesh																													1									**1**
Belarus																															1							**1**
Belgium										1				1	8								1			1												**12**
Botswana									2						1														2				1	1				**7**
Brazil													1		6														1								1	**9**
Burkina Faso																	1																					**1**
Cambodia																													1									**1**
Cameroon					1												1												1									**3**
Canada			1	1			2			1	5		2		55		6	1	3	1		1	3	1		3			8	1	2	3	1	3	1	1		**106**
Chile															1																							**1**
China															16				1				2			1			3									**23**
Colombia	1														1											1													**3**
Congo																																	1					**1**
Croatia															1																							**1**
Czech Republic															2																							**2**
Denmark				1											9						1		1			1			2		2							**17**
Ecuador															1																							**1**
Egypt															2		1			1																		**4**
El Salvador															2																							**2**
Eswatini (Swaziland)															1												1											**2**
Ethiopia															1		1																					**2**
France															20	1	1		2			1	2						4	1			1					**33**
Germany					1						3				24				1		1	1	5				1		7	1	1	1	2					**49**
Ghana	1														3		1								1													**6**
Guatemala												1																										**1**
Honduras																										2												**2**
Hong Kong															2																							**2**
Hungary															2																							**2**
Iceland																													1									**1**
India															4											1			2		1					2		**10**
Indonesia																										1												**1**
Ireland															2														1									**3**

continued

* Because many grants have multiple foreign contributors, the total count (687) is greater than the total number of grants (489).
Source: Research Analysis and Evaluation Branch.

Table 18 (cont'd). Foreign Components of U.S. Domestic Research Grants in FY2022

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

Country	Funding Mechanism																																					Sub-total
	D43	DP1	F30	F31	F32	F99	K00	K07	K08	K99	P01	P30	P50	R00	R01	R03	R13	R15	R21	R25	R33	R35	R37	R42	R43	R44	R50	R56	U01	U19	U24	U2C	U54	UG1	UG3	UH3	UM1	
Israel															8				4				1						1			1							**15**
Italy											1				10	1	1		1										1				2						**17**
Japan			1											1	10	1							1						1				1		1				**17**
Kenya									1						4		1		1							1		1	2				2	1			1		**15**
Lebanon															2																								**2**
Malawi	1																		1									1	1				2	1			1		**8**
Mali	1																												1										**2**
Mauritius															1																								**1**
Mexico															3				1										4								1		**9**
Mozambique																													1										**1**
Netherlands						1									13								1			1			10						1				**27**
New Zealand															2																								**2**
Nigeria	2							1	1			1			6		1		1	1					1				4								1		**20**
Norway															4														2	1				1					**8**
Paraguay																										1														**1**
Peru	1														1														1										**3**
Poland															2																								**2**
Portugal															1																								**1**
Qatar											1																												**1**
Russia															1																								**1**
Rwanda								1											1														1						**3**
Saudi Arabia																1																							**1**
Senegal	1														2																		1						**4**
Sierra Leone																	1																						**1**
Singapore															6																								**6**
South Africa	1														7		1												1				1				1		**12**
South Korea															3								1						2					1					**7**
Spain											1				12				1										2		1								**17**
Sweden			1			1									7														5	1									**15**
Switzerland											1				12	1										1							1				1		**17**
Taiwan															4																								**4**
Tanzania United Republic					1				1						1		1		1														2						**7**
Thailand											1				1																								**2**
Uganda	2														3		1		1										4				5				1		**17**
United Kingdom		1	1						1	1	5		1	1	33					1	1		3						5	1	2		1	1		1			**60**
Vietnam															1				1										1										**3**
Zambia	1														1		1												4				1						**8**
Zimbabwe	1																																				1	**2**
Totals	**13**	**2**	**4**	**2**	**3**	**2**	**2**	**2**	**6**	**3**	**19**	**1**	**5**	**3**	**345**	**5**	**20**	**1**	**22**	**5**	**3**	**3**	**23**	**2**	**2**	**16**	**2**	**2**	**92**	**7**	**11**	**5**	**27**	**9**	**4**	**6**	**8**	**687**

* Because many grants have multiple foreign contributors, the total count (687) is greater than the total number of grants (489).
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 13,359 applications in FY2022 requesting $4,945,876,136 in direct costs with appropriated funds. Additionally, the Board reviewed 11 FDA SBIR applications in FY2022.

The Board heard presentations, discussed, and provided advice on a variety of topics and NCI activities in FY2022, such as:

- NCI Director's Report
- NCI Acting Director's Report
- President's Cancer Panel Report: Closing Gaps in Cancer Screening
- Legislative Report
- Recognition of Retiring NCAB Members
- Cancer Moonshot™: Looking Ahead
- The NIH Common Fund: Faculty Institutional Recruitment for Sustainable Transformation (FIRST) Program
- Challenges and Opportunities in Cancer Control and Population Sciences
- Division of Cancer Prevention: Vision
- Achieving Health Equity through Prevention and Implementation Science of Patient Navigation in Underserved Populations
- Implementing Program-Based Interventions to Improve Population-level Lung Cancer Outcomes: The Mid-South Miracle
- Annual Delegations of Authority
- Triennial Gender & Minority in Clinical Trials Inclusion Report
- The Natural Products Program
- Myeloid Malignancies: The Journey from Basic Molecular Biology to Clinical Application
- Human Tumor Atlas Network (HTAN) Update
- HPV Epidemiology Predicts Cost Effective Cervical Screening
- *Ad Hoc* Subcommittee on Experimental Therapeutics
- *Ad Hoc* Subcommittee on Global Cancer Research
- Subcommittee on Planning and Budget
- *Ad Hoc* Subcommittee on Population Science, Epidemiology, and Disparities

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

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

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

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

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

In addition to approving a number of extramural program initiatives (see below), the BSA also heard presentations on the following in FY2021:

- NCI Director's Report
- President's Cancer Panel Report
- Legislative Report
- Why and How NCI Uses the U01 Mechanism
- Status Report: Childhood Cancer Data Initiative
- BSA Prevention Working Group Report
- NCI Center for Global Health—Celebrating Ten Years and Looking Ahead
- Recognition of Retiring BSA Members
- COVID-19: Developing a Vaccine During a Pandemic
- NCI Equity Inclusion Program
- Update: NCI Surveillance, Epidemiology, and End Results (SEER) Program

RFA Concepts Approved

Division of Cancer Biology

- Integrating Health Disparities into Immuno-Oncology Research (HDIO)
- Basic/Translational Research on Health Disparities in HIV/AIDS and Cancer

Division of Cancer Prevention

- Cancer Screening Research Network (CSRN) to Evaluate Multi-Cancer Early Detection Assays for Clinical Utility in Cancer Screening

Division of Cancer Control and Population Sciences

- Research to Understand and Address the Survivorship Needs of Individuals Living with Advanced Cancer
- Advancing Adolescent Tobacco Cessation Intervention Research
- Cannabis and Cannabinoid Use in Adult Cancer Patients During Treatment: Assessing Benefits and Harms

Office of the Director

- Outstanding Investigator Award (R35)
- Transformative Educational Advancement and Mentoring Network (TEAM)
- Cancer Moonshot Scholars Diversity Program

RFA/Cooperative Agreements Approved

Division of Cancer Control and Population Sciences

- Cancer Control Research in Persistent Poverty Areas

Division of Cancer Treatment and Diagnosis

- Pediatric Immunotherapy Network (PIN)—together with DCB
- Cancer Adoptive Cellular Therapy Network (Can-ACT)

Office of the Director

- Global Implementation Science for Equitable Cancer Control (GlobalISE Cancer Control)

RFA Re-Issuances Approved

Division of Cancer Treatment and Diagnosis

- Patient-Derived Xenograft (PDX) Development and Trial Centers (PDTCs) Network (U54) and PDX Data Commons and Coordinating Center (PDCCC) for PDXNet

RFA/Cooperative Agreement Re-Issuances Approved

Division of Cancer Prevention

- Precompetitive Collaboration on Liquid Biopsy for Early Cancer Assessment
- Consortium on Translational Research in Early Detection of Liver Cancer (TLC)

Division of Cancer Treatment and Diagnosis

- A Data Resource for Analyzing and Supporting Blood and Marrow Transplants and Cellular Immunotherapy Research Center for International Blood and Marrow Transplant Research (CIBMTR)
- Cancer Immune Monitoring and Analysis Centers and Cancer Immunologic Data Commons (CIMAC-CIDC) Network

Office of the Director

- Informatics Technology for Cancer Research

RFP Concepts Approved

Office of the Director

- Small Business Innovation Research (SBIR) Contract Topics

Program Announcements Approved

Division of Cancer Biology

- The Metastasis Research Network (MetNet): MetNet Research Projects
- Mechanistic Links Between Diet, Lipid Metabolism, and Tumor Growth and Progression

Division of Cancer Control and Population Sciences

- Cancer Epidemiology Cohorts: Research Opportunities in Established Studies
- Cancer Epidemiology Cohorts: Building the Next Generation of Research Cohorts
- Pragmatic Trials Across the Cancer Control Continuum

Division of Cancer Treatment and Diagnosis

- Systematic Testing of Radionuclides in Preclinical Experiments (STRIPE)
- Precision Approaches in Radiation Synthetic Combinations (PAIRS)

Program Announcements Re-Issuance Approved

- Note: Nine PAR re-issuances were approved unanimously.

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; non-voting *ex officio* members include a representative from the National Cancer Advisory Board, the NCI Board of Scientific Advisors, and the NCI Board of Scientific Counselors. The NCI Facility in Frederick, Maryland, was established in 1972 as a government-Owned Contractor-Operated (GOCO) facility. In 1975, the facility was designated 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 the Frederick National Laboratory for Cancer Research (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 and Deputy Directors of NCI and the Associate Director of FNLCR about the intrinsic merit of the projects and whether they should be performed at FNLCR. In addition, the Committee periodically reviews the existing portfolio of projects at FNLCR; evaluates their productivity; and 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 FY2022, including the following:

- NCI Director's Report
- NCI Acting Director's Report
- Acting Associate Director – Frederick Update
- Update on the National Cryo-EM Facility (NCEF)
- The Human P97 Complex
- Mouse Models for Cancer Research – An NCI Resource
- Nanotechnology Characterization Laboratory: Supporting Translation of Cancer Nanomedicines
- Update: NCI/Department of Energy (DOE) Collaboration
- The Cancer Imaging Archive (TCIA)
- Update on Frederick National Laboratory for Cancer Research (FNLCR) Awareness Campaign
- Frederick National Laboratory (FNL) – Operations and Update
- Chemical Biology Consortium (CBC) Update – Review of CBC and WDR5 Inhibitors for the Treatment of Cancer
- Diversity and Determinants of the Immune Response to SARS-COV-2 in Immunocompromised Populations
- FNLCR New Initiatives Ideas

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 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

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Edith P. Mitchell, M.D., M.A.C.P., F.C.P.P. ..... Thomas Jefferson University

Executive Secretary

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

National Cancer Advisory Board

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Anna D. Barker, Ph.D. ..... University of Southern California
Luis Alberto Diaz, M.D. ..... Memorial Sloan Kettering Cancer Center
Howard J. Fingert, M.D., F.A.C.P. ..... Consultant
Christopher R. Friese, Ph.D., R.N. ..... University of Michigan
Lawrence O. Gostin, J.D. ..... Georgetown University
Andrea A. Hayes-Jordan, M.D., F.A.C.S., F.A.A.P. ..... Howard University
Amy B. Heimberger, M.D. ..... Northwestern University Feinberg School of Medicine
Scott W. Hiebert, Ph.D. ..... Vanderbilt University
Nikan Khatibi, M.D., M.B.A. ..... Ahura Healthcare Corporation
Electra D. Paskett, Ph.D. ..... Ohio State University
Nancy J. Raab-Traub, Ph.D. ..... University of North Carolina at Chapel Hill
Margaret R. Spitz, M.D., M.P.H. ..... Baylor College of Medicine
Susan T. Vadaparampil, Ph.D., M.P.H. ..... Moffitt Cancer Center
Ashani T. Weeraratna, Ph.D. ..... Johns Hopkins University
Karen M. Winkfield, M.D., Ph.D. ..... Vanderbilt University

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The Honorable Llyod J. Austin III ..... U.S. Department of Defense
The Honorable Xavier Becerra ..... U.S. Department of Health and Human Services
Robert M. Califf, M.D. ..... U.S. Food and Drug Administration
Francis S. Collins, M.D., Ph.D ..... National Institutes of Health

The Honorable Jennifer M. Granholm, J.D. ..... U.S. Department of Energy
Alexander Hoehn-Saric, J.D. ..... U.S. Consumer Product Safety Commission
John Howard, M.D., M.P.H., J.D., LL.M. ..... National Institute for Occupational Safety and Health
The Honorable Eric S. Lander, Ph.D. ..... Office of Science and Technology Policy
The Honorable Denis Richard McDonough ..... U.S. Department of Veterans Affairs
Alondra Nelson, Ph.D ..... Office of Science and Technology Policy
Michael S. Regan ..... U.S. Environmental Protection Agency
Lawrence A. Tabak, D.D.S., Ph.D. ..... National Institutes of Health
The Honorable Martin J. Walsh ..... U.S. Department of Labor
Janet Woodcock, M.D. ..... U.S. Food and Drug Administration
Richard Woychik, Ph.D. ..... National Institute of Environmental Health Sciences, NIH

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* Pending appointment.

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* Pending appointment.

Scientific Review Officer

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Subbarao Bondada, Ph.D. ..... University of Kentucky
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Elizabeth Claire Dees, M.D. ..... University of North Carolina at Chapel Hill
Jeremy S. Edwards, Ph.D. ..... University of New Mexico
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Lisa C. Flowers, M.D. ..... Emory University
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Chunhai "Charlie" Hao, M.D., Ph.D. ..... Indiana University School of Medicine
Michael T. Hemann, Ph.D. ..... Massachusetts Institute of Technology
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Michael I. Nishimura, Ph.D. ..... Loyola University Medical Center

Past Chair

Jennifer D. Black, Ph.D. ..... University of Nebraska Medical Center

Members

Asfar S. Azmi, Ph.D. ..... Wayne State University
Christopher J. Bakkenist, Ph.D. ..... University of Pittsburgh
Eli E. Bar, Ph.D. ..... University of Maryland School of Medicine
Carma L. Bylund, Ph.D. ..... University of Florida
Chun-Wei David Chen, Ph.D. ..... Beckman Research Institute of City of Hope
Jay Fitzgerald Dorsey, M.D., Ph.D. ..... University of Pennsylvania
Natalia A. Ignatenko, Ph.D. ..... University of Arizona
Tanya V. Kalin, M.D., Ph.D. ..... University of Cincinnati
Pawel Kalinski, M.D., Ph.D. ..... Roswell Park Cancer Institute
Steven J. Kridel, Ph.D. ..... Wake Forest University
Addanki Pratap Kumar, Ph.D. ..... University of Texas Health Science Center at San Antonio
Danny Manor, Ph.D. ..... Case Western Reserve University
Catherine Handy Marshall, M.D., M.P.H. ..... Johns Hopkins University
Elizabeth Angela Murphy, Ph.D. ..... University of South Carolina, Columbia
William J. Murphy, Ph.D. ..... University of California, Davis
Michael F. Ochs, Ph.D. ..... The College of New Jersey
Dinesh S. Rao, M.D., Ph.D. ..... University of California, Los Angeles
Veronica Rodriguez-Bravo, Ph.D. ..... Mayo Clinic, Rochester
Edward E. Schmidt, Ph.D. ..... Montana State University
Bakhos A. Tannous, Ph.D. ..... Massachusetts General Hospital
Douglas D. Thomas, Ph.D. ..... University of Illinois at Chicago
Jessie Villanueva, Ph.D. ..... The Wistar Institute
Muhammad Raza Zaidi, Ph.D. ..... Temple University
Wei Zhou, M.D. . ..... Emory University

Scientific Review Officer

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

Study Section J—Career Development

Chair

Andrew C. Dudley, Ph.D. ..... University of Virginia

Past Chair

Meira Epplein, Ph.D. ..... Duke University

Members

Rajesh Agarwal, Ph.D. ..... University of Colorado Cancer Center
Mark Andrew Applebaum, M.D. ..... University of Chicago
Kathrin M. Bernt, M.D. ..... Children's Hospital of Philadelphia
Neil A. Bhowmick, Ph.D. ..... Cedars-Sinai Medical Center
Katherine Bakshian Chiappinelli, Ph.D. ..... George Washington University

Victoria E. Cosgrove, Ph.D. ..... Stanford University
Lorraine Tiera Dean, Sc.D. ..... Johns Hopkins University
Yibin Deng, M.D., Ph.D. ..... University of Minnesota
Dan A. Dixon, Ph.D. ..... University of Kansas Cancer Center
Neil J. Ganem, Ph.D. ..... Boston University
Don L. Gibbons, M.D., Ph.D. ..... University of Texas MD Anderson Cancer Center
Maneesh Jain, Ph.D. ..... University of Nebraska
Lisa Schum Kahalley, Ph.D. ..... Baylor College of Medicine
Michelle Krogsgaard, Ph.D. ..... New York University
Hui-Wen Lo, Ph.D. ..... Wake Forest University
Meghan E. McGrady, Ph.D. ..... Cincinnati Children's Hospital Medical Center
Lori Rink, Ph.D. ..... Fox Chase Cancer Center
Charles R. Rogers, Ph.D., M.P.H. ..... Medical College of Wisconsin
Veronica Wendy Setiawan, Ph.D. ..... University of Southern California
Li Tang, M.D., Ph.D. ..... Roswell Park Cancer Institute
David D. Tran, M.D., Ph.D. ..... University of Southern California
Arun P. Wiita, M.D., Ph.D. ..... University of California, San Francisco
Jennifer A. Woyach, M.D. ..... Ohio State University
Gang Zhou, Ph.D. ..... Augusta University

Scientific Review Officer

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

Appendix E: NCI Initial Review Group Consultants

1. Consultants Serving as Temporary Members on IRG Study Sections in FY2022

A

Applebaum, Mark A., M.D. ..... University of Chicago
Attwood, Kristopher, Ph.D. ..... Roswell Park Cancer Institute

B

Bachoo, Robert M., M.D., Ph.D. ..... University of Texas Southwestern Medical Center
Bagci, Ulas, Ph.D., R.N. ..... Northwestern University at Chicago
Baker, Justin N., M.D. ..... St. Jude Children's Research Hospital
Banerjee, Imon, Ph.D. ..... Mayo Clinic, Arizona
Barrett, Michael T., Ph.D. ..... Mayo Clinic, Arizona
Becker, Michael W., M.D. ..... University of Rochester
Behrns, Kevin E., M.D. ..... University of Florida
Berezin, Mikhail Y., Ph.D. ..... Washington University
Bernt, Kathrin M., M.D. ..... Children's Hospital of Philadelphia
Bock, Cathryn H., Ph.D. ..... Wayne State University
Bogdanov, Vladimir, Ph.D. ..... University of Cincinnati
Brekken, Rolf A., Ph.D. ..... University of Texas Southwestern Medical Center

C

Carson, William E., M.D. ..... Ohio State University
Caswell-Jin, Jennifer, M.D. ..... Stanford University
Chan, Chia-Hsin (Lori), Ph.D. ..... Roswell Park Cancer Institute
Chang, Susan M., M.D. ..... University of California, San Francisco
Chen, Herbert, M.D. ..... University of Alabama at Birmingham
Chiappinelli, Katherine B., Ph.D. ..... George Washington University
Coffman, Lan, M.D., Ph.D. ..... University of Pittsburgh
Cosgrove, Victoria E., Ph.D. ..... Stanford University
Costanzo, Erin, Ph.D. ..... University of Wisconsin-Madison
Cunningham-Rundles, Susanna, Ph.D. ..... Weill Medical College of Cornell University

D

Dai, Mu-Shui, Ph.D. ..... Oregon Health and Science University
Dasgupta, Abhijit, Ph.D. ..... Zansors, LLC
Dent, Paul, Ph.D. ..... Virginia Commonwealth University
Denzin, Lisa K., Ph.D. ..... Rutgers, Robert Wood Johnson Medical School
Deriemer, Susan A., Ph.D. ..... Meharry Medical College
DiPersio, C. Michael, Ph.D. ..... Albany Medical College

F

Fitzgibbon, Marian L., Ph.D. ..... University of Illinois at Chicago
Frazier, Anne L., M.D. ..... Dana-Farber Cancer Institute
Friedman, Debra L., R.N., M.D. ..... Vanderbilt University

G

Gibbons, Don Lynn, M.D., Ph.D. ..... University of Texas MD Anderson Cancer Center
Gillespie, Erin Faye, M.D. ..... Memorial Sloan Kettering Cancer Center
Goff, Stephen P., Ph.D. ..... Columbia University Health Sciences
Goldinger, Stephen D., Ph.D. ..... Arizona State University-Tempe Campus
Green, Mark A., Ph.D. ..... Indiana University-Purdue University at Indianapolis
Gronemeyer, Suzanne A., Ph.D. ..... St. Jude Children's Research Hospital
Guevara-Patino, Jose Alejandro, M.D., Ph.D. ..... Moffitt Cancer Center

H

Hagensee, Michael E., M.D., Ph.D. ..... Louisiana State University Health Sciences Center
Hall, Sharon M., Ph.D. ..... University of California, San Francisco
Hearing, Patrick, Ph.D. ..... State University New York Stony Brook
Huang, Alexander, M.D. ..... University of Pennsylvania
Hunger, Stephen P., M.D. ..... Children's Hospital of Philadelphia

I

Ito, Fumito, M.D., Ph.D. ..... University of Southern California

J

Ji, Andrew, M.D. ..... Icahn School of Medicine at Mount Sinai
Jin, Moonsoo M., Sc.D. ..... Weill Medical College of Cornell University

K

Kapadia, Farzana, Ph.D., M.P.H. ..... New York University
Kim, Karen E., M.D. ..... University of Chicago
Kimple, Randall J., M.D., Ph.D., M.B.A. ..... University of Wisconsin-Madison
Kitlinska, Joanna B., Ph.D. ..... Georgetown University
Kushi, Lawrence H., Sc.D. ..... Kaiser Foundation Research Institute

L

Lathia, Justin D., Ph.D. ..... Cleveland Clinic Lerner College of Medicine
Li, Lang, Ph.D. ..... Ohio State University
Loerzel, Victoria, Ph.D. ..... University of Central Florida
Lowe, Devin B., Ph.D. ..... Texas Technical University Health Sciences Center

M

Maciejewski, Paul K., Ph.D. ..... Weill Medical College of Cornell University
Maihle, Nita J., Ph.D. ..... University of Mississippi Medical Center
McCombie, William R., Ph.D. ..... Cold Spring Harbor Laboratory
McWeeney, Shannon K., Ph.D. ..... Oregon Health and Science University
Mehrotra, Shikhar, Ph.D. ..... Medical University of South Carolina
Mullinax, John, M.D. ..... Moffitt Cancer Center

N

Nencka, Andrew S., Ph.D. ..... Medical College of Wisconsin

O

O'Dorisio, M. Sue, M.D., Ph.D. ..... University of Iowa
Ostroff, Jamie S., Ph.D. ..... Memorial Sloan Kettering Cancer Center

P

Plon, Sharon E., M.D., Ph.D. ..... Baylor College of Medicine

R

Radhakrishnan, Senthil K., Ph.D. ..... Virginia Commonwealth University
Romesser, Paul B., M.D. ..... Memorial Hospital for Cancer and Allied Diseases

S

Safran, Howard, M.D. ..... Rhode Island Hospital
Salz, Talya, Ph.D. ..... Memorial Sloan Kettering Cancer Center
Satpathy, Ansuman, M.D., Ph.D. ..... Stanford University Hospital

T

Thomson, Maria D., Ph.D. ..... Virginia Commonwealth University
Timchenko, Nikolai A., Ph.D. ..... Cincinnati Children's Hospital Medical Center
Tomlinson, Gail E., M.D., Ph.D. ..... University of Texas Health Science Center
Trivedi, Hari, M.D. ..... Emory University

V

Van Dyk, Kathleen, Ph.D. ..... University of California, Los Angeles
Vasquez, Juan C., M.D. ..... Yale University

W

Wahl, Daniel R., M.D., Ph.D. ..... University of Michigan
Wang, Pin, Ph.D. ..... University of Southern California
Wang, Sam C., M.D. ..... University of Texas Southwestern Medical Center
Weigel, Ronald J., M.D., Ph.D., M.B.A. ..... University of Iowa

X

Xi, Yaguang, M.D., Ph.D. ..... Louisiana State University Health Sciences Center

Y

Yin, Fang-Fang, Ph.D. ..... Duke University

Z

Zakrzewski, Johannes, M.D. ..... Hackensack University Medical Center
Zloza, Andrew, M.D., Ph.D. ..... Rush University Medical Center

Total number of Reviewers: 86
Total number of times reviewers served: 109

2. Consultants Serving as Ad Hoc Committee Members on IRG Site Visit Teams in FY2022

A

Adjei, Alex A., M.D., Ph.D. ..... Cleveland Clinic Lerner College of Medicine
Adusumilli, Prasad S., M.D. ..... Memorial Sloan Kettering Cancer Center
Akinyemiju, Tomi F., Ph.D. ..... Duke University
Anant, Shrikant, Ph.D. ..... University of Kansas Medical Center

B

Bergan, Raymond C., M.D. ..... University of Nebraska Medical Center
Brat, Daniel J., M.D., Ph.D. ..... Northwestern University at Chicago
Buatti, John M., M.D. ..... University of Iowa

C

Cancelas, Jose A., M.D., Ph.D. ..... University of Cincinnati
Chen, Xi Steven, Ph.D. ..... University of Miami School of Medicine
Chuang, Jeffrey Hsu-Min, Ph.D. ..... Jackson Laboratory
Coombes, Kevin R., Ph.D. ..... Ohio State University

D

Darr, David, M.B.A. ..... Duke University
Demark-Wahnefried, Wendy, Ph.D. ..... University of Alabama at Birmingham
Dou, Yali, Ph.D. ..... University of Southern California
Dubois, Raymond N., M.D., Ph.D. ..... Medical University of South Carolina

E

El-Deiry, Wafik S., M.D., Ph.D. ..... Brown University

F

Flemington, Erik K., Ph.D. ..... Tulane University of Louisiana

G

Giordano, Sharon H., M.D., M.P.H. ..... University of Texas MD Anderson Cancer Center
Glunde, Kristine, Ph.D. ..... Johns Hopkins Hospital
Govindan, Ramaswamy, M.D. ..... Washington University

H

Hartman, Terryl J., Ph.D., M.P.H. ..... Emory University
Heslop, Helen E., M.D. ..... Baylor College of Medicine
Hoopes, Jack, Ph.D., D.V.M. ..... Dartmouth College
Hull, Pamela C., Ph.D. ..... University of Kentucky
Hutcheson, Laurie. ..... Lobular Breast Cancer Alliance

J

Johnson, Candace S., Ph.D. ..... Roswell Park Cancer Institute

K

Kabanov, Alexander V., Ph.D., D.SC. ..... University of North Carolina Chapel Hill
Kim, Karen E., M.D. ..... University of Chicago

Knutson, Keith L., Ph.D. ..... Mayo Clinic, Jacksonville
Kooperberg, Charles L., Ph.D. ..... Fred Hutchinson Cancer Center

L

Lee, Sunmin, Sc.D., M.P.H. ..... University of California, Irvine
Lee, Zhenghong, Ph.D. ..... Case Western Reserve University
Libutti, Steven K., M.D. ..... Rutgers, The State University of New Jersey
Licht, Jonathan D., M.D. ..... University of Florida
Liu, Chen, M.D., Ph.D. ..... Yale University
Lu-Yao, Grace, Ph.D., M.P.H. ..... Thomas Jefferson University

M

Madabhushi, Anant, Ph.D. ..... Emory University
Maity, Amit, M.D., Ph.D. ..... University of Utah
Marks, Daniel L., M.D., Ph.D. ..... Oregon Health and Science University
McCarthy, James B., Ph.D. ..... University of Minnesota
McNeil, Ann S., B.S.N. ..... Miami Children's Hospital
Mercurio, Anne Marie ..... Patient Advocate
Mermelstein, Robin J., Ph.D. ..... University of Illinois at Chicago
Mesa, Ruben A., M.D. ..... University of Texas Health Science Center
Messersmith, Wells A., M.D. ..... University of Colorado, Denver
Mori, Motomi, Ph.D., M.B.A. ..... St. Jude Children's Research Hospital

N

Nathanson, Katherine L., M.D. ..... University of Pennsylvania
Nikitin, Alexander Y., M.D., Ph.D. ..... Cornell University

O

Ozbun, Michelle A., Ph.D. ..... University of New Mexico Health Sciences Center

P

Person, Sharina D., Ph.D. ..... University of Massachusetts Medical School, Worcester
Pestell, Richard G., M.D., Ph.D., M.B.A., M.B.B.S. ..... Baruch S. Blumberg Institute
Pieper, Russell O., Ph.D. ..... University of California, San Francisco
Pokhrel, Pallav, Ph.D., M.P.H. ..... University of Hawaii at Manoa
Pollak, Kathryn I., Ph.D. ..... Duke University
Pounardjian, John, M.B.A. ..... Case Western Reserve University
Provenzano, Paolo, Ph.D. ..... University of Minnesota

R

Rao, Jianghong, Ph.D. ..... Stanford University
Rathmell, Jeffrey C., Ph.D. ..... Vanderbilt University Medical Center
Ratliff, Timothy L., Ph.D. ..... Purdue University

S

Schaum, Julia C., M.S. ..... Vanderbilt University Medical Center
Schmitz, Kathryn H., Ph.D., M.P.H. ..... Pennsylvania State University Hershey Medical Center
Shibata, Darryl K., M.D. ..... University of Southern California

Shields, Anthony F., M.D., Ph.D. ..... Wayne State University
Shimizu, Yoji, Ph.D. ..... University of Minnesota
Stapleton, Jerod L., Ph.D. ..... University of Kentucky
Sulikowski, Gary A., Ph.D. ..... Vanderbilt University
Sun, Duxin, Ph.D. ..... University of Michigan at Ann Arbor

T

Tycko, Benjamin, M.D., Ph.D. ..... Hackensack University Medical Center

V

Viola, Nerissa T., Ph.D. ..... Wayne State University

W

Walsh, Kyle M., Ph.D. ..... Duke University
Wang, Shaomeng, Ph.D. ..... University of Michigan at Ann Arbor
Washington, Mary K., M.D., Ph.D. ..... Vanderbilt University Medical Center
Weiner, George J., M.D. ..... University of Iowa
Wiley, Patti, M.B.A. ..... Patient Advocate
Willett, Christopher G., M.D. ..... Duke University
Witkiewicz, Agnieszka, M.D. ..... Roswell Park Cancer Institute

Z

Zafirovski, Aleksandar, M.B.A. ..... Northwestern University at Chicago
Zahrbock, Cary, M.O.T.H., O.T.H. ..... National Coalition for Cancer Survivorship

Total number of Reviewers: 78
Total number of times reviewers served: 83

3. Consultants Serving on Special Emphasis Panels (SEPs) in FY2022

A

Abazeed, Mohamed E., M.D., Ph.D. ..... Northwestern University at Chicago
Abbott, Karen L., Ph.D. ..... Florida International University
Abbruzzese, James L., M.D. ..... Duke University
Abdel-Wahab, Omar, M.D. ..... Memorial Sloan Kettering Cancer Center
Abdulkadir, Sarki A., M.D., Ph.D. ..... Northwestern University at Chicago
Abdulmalik, Osheiza Y., D.V.M. ..... Children's Hospital of Philadelphia
Ablordeppey, Seth Y., Ph.D. ..... Florida Agricultural and Mechanical University
Abounader, Roger, M.D., Ph.D. ..... University of Virginia
Abrams, Judith, Ph.D. ..... Wayne State University
Abrams, Julian, M.D. ..... Columbia University Health Sciences
Abrantes, Ana M., Ph.D. ..... Butler Hospital
Abu-Remaileh, Monther, Ph.D. ..... Stanford University
Abu-Rmeileh, Niveen, Ph.D. ..... Birzeit University
Acharyya, Swarnali, Ph.D. ..... Columbia University Health Sciences
Ackerman, Joseph J. H., Ph.D. ..... Washington University
Adalsteinsson, Viktor, Ph.D. ..... Broad Institute
Adams, Paul D., Ph.D. ..... University of Arkansas at Fayetteville
Adedimeji, Adebola, Ph.D., M.P.H. ..... Albert Einstein College of Medicine
Adeegbe, Dennis O., Ph.D. ..... Moffitt Cancer Center
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Adusumilli, Prasad S., M.D. ..... Memorial Sloan Kettering Cancer Center
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Agarwal, Rajesh, Ph.D. ..... University of Colorado, Denver
Agarwal, Shailesh, M.D. ..... Brigham and Women's Hospital
Agazie, Yehenew M., Ph.D., D.V.M. ..... West Virginia University
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Agoulnik, Irina, Ph.D. ..... Florida International University
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Ahrens, Eric T., Ph.D. ..... University of California, San Diego
Ahuja, Nita, M.D. ..... Yale University
Aifantis, Iannis, Ph.D. ..... New York University School of Medicine
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Allen, Irving C., Ph.D. ..... Virginia Polytechnic Institute and State University
Allen, Jennifer D., D.SC., M.P.H. ..... Tufts University Boston
Allen, Michele L., M.D. ..... University of Minnesota
Allen, Peter J., M.D. ..... Duke University
Alli, Elizabeth, Ph.D. ..... Wake Forest University Health Sciences
Allicock, Marlyn A., Ph.D., M.P.H. ..... University of Texas Health Science Center, Houston
Allred, Clinton D., Ph.D. ..... University of North Carolina, Greensboro
Alonzo, Todd A., Ph.D. ..... University of Southern California
Altieri, Dario C., M.D. ..... Wistar Institute
Amaravadi, Ravi K., M.D. ..... University of Pennsylvania
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Ambrosone, Christine B., Ph.D. ..... Roswell Park Cancer Institute
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Andersen, Bogi, M.D. ..... University of California, Irvine
Anderson, Karen S., M.D., Ph.D. ..... Arizona State University-Tempe Campus
Anderson, Roger T., Ph.D. ..... University of Virginia
Andl, Claudia D., Ph.D. ..... University of Central Florida
Andreassen, Paul R., Ph.D. ..... Cincinnati Children's Hospital Medical Center
Andrechek, Eran Robert, Ph.D. ..... Michigan State University
Andreeff, Michael, M.D., Ph.D. ..... University of Texas MD Anderson Cancer Center
Andres-Martin, Laura, Ph.D. ..... New York Stem Cell Foundation
Angeletti, Peter C., Ph.D. ..... University of Nebraska Lincoln
Anthony, Lowell B., M.D. ..... University of Kentucky
Aplin, Andrew E., Ph.D. ..... Thomas Jefferson University
Arbab, Ali Syad, M.D., Ph.D. ..... Henry Ford Health System
Archer, Kellie J., Ph.D. ..... Ohio State University
Arem, Hannah, Ph.D. ..... Medstar Health Research Institute
Armaiz-Pena, Guillermo N., Ph.D. ..... Ponce School of Medicine

Armitage, Bruce A., Ph.D. ..... Carnegie-Mellon University
Armstrong, Alissa R., Ph.D. ..... University of South Carolina at Columbia
Armstrong, Deborah K., M.D. ..... Johns Hopkins University
Armstrong, Floyd D., Ph.D. ..... University of Miami School of Medicine
Arnold, Connie L., Ph.D. ..... Louisiana State University Health Science, Shreveport
Aronson, William J., M.D. ..... University of California, Los Angeles
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Artz, David, M.D. ..... Memorial Sloan Kettering Cancer Center
Arun, Gayatri, Ph.D. ..... Envisagenics, Inc.
Arvanitis, Konstantinos-Costas, Ph.D. ..... Georgia Institute of Technology
Asgary, Ramin, M.D., M.P.H. ..... George Washington University
Ashktorab, Hassan, Ph.D. ..... Howard University
Askelson, Natoshia M., Ph.D., M.P.H. ..... University of Iowa
Asmann, Yan W., Ph.D. ..... Mayo Clinic, Jacksonville
Aster, Jon C., M.D., Ph.D. ..... Brigham and Women's Hospital
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Au, Kin Fai, Ph.D. ..... Ohio State University
Augenlicht, Leonard H., Ph.D. ..... Albert Einstein College of Medicine
Aune, Gregory J., M.D., Ph.D. ..... University of Texas Health Science Center
Avigan, David E., M.D. ..... Beth Israel Deaconess Medical Center
Awan, Musaddiq, M.D. ..... Medical College of Wisconsin
Ayer, Donald E., Ph.D. ..... University of Utah
Azam, Mohammad, Ph.D. ..... Cincinnati Children's Hospital Medical Center

B

Bachelder, Robin E., Ph.D. ..... Duke University
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Badr, Christian E., Ph.D. ..... Massachusetts General Hospital
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Badve, Sunil S., M.D., M.B.B.S. ..... Indiana University-Purdue University at Indianapolis
Bae, Sejong, Ph.D. ..... University of Alabama at Birmingham
Baer, Amanda, M.P.H. ..... University of Pennsylvania
Baer, Maria R., M.D. ..... University of Maryland, Baltimore
Bagci, Ulas, Ph.D. ..... Northwestern University at Chicago
Bagiella, Emilia, Ph.D. ..... Icahn School of Medicine at Mount Sinai
Bailey, Jennifer M., Ph.D. ..... University of Texas Health Science Center, Houston
Baker, Justin N., M.D. ..... St. Jude Children's Research Hospital
Baladandayuthapani, Veerabhadran, Ph.D. ..... University of Michigan at Ann Arbor
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Balk, Steven P., M.D., Ph.D. ..... Beth Israel Deaconess Medical Center
Balko, Justin M., Ph.D. ..... Vanderbilt University Medical Center
Ballman, Karla V., Ph.D. ..... Weill Medical College of Cornell University
Balyasnikova, Irina V., Ph.D. ..... Northwestern University at Chicago
Bandeira, Nuno, Ph.D. ..... University of California, San Diego
Banerjee, Imon, Ph.D. ..... Mayo Clinic, Arizona
Banerjee, Priya R., Ph.D. ..... State University of New York at Buffalo
Bankson, James A., Ph.D. ..... University of Texas MD Anderson Cancer Center
Baranda, Joaquina C., M.D. ..... University of Kansas Medical Center

Baranowska-Kortylewicz, Janina, Ph.D. ..... University of Nebraska Medical Center
Baratt, Arie, Ph.D. ..... Oregon Health and Science University
Barbera-Guillem, Emilio, M.D., Ph.D. ..... Biocrystal Limited
Barbie, David A., M.D. ..... Dana-Farber Cancer Institute
Barbieri, Eveline, M.D., Ph.D. ..... Baylor College of Medicine
Barbolina, Maria V., Ph.D. ..... University of Illinois at Chicago
Barcellos-Hoff, Mary Helen, Ph.D. ..... University of California, San Francisco
Barrett, Michael T., Ph.D. ..... Mayo Clinic, Arizona
Bartee, Eric Carter, Ph.D. ..... University of New Mexico Health Sciences Center
Barton, Debra L., R.N., Ph.D. ..... University of Tennessee, Knoxville
Barua, Animesh, Ph.D. ..... Rush University Medical Center
Basik, Mark, M.D. ..... McGill University
Baskaran, Harihara, Ph.D. ..... Case Western Reserve University
Bassik, Michael C., Ph.D. ..... Stanford University
Bastiaans, Glenn John, Ph.D. ..... Nanooptical Materials, Inc.
Batlevi, Connie Wing-Ching, M.D., Ph.D. ..... Memorial Sloan Kettering Cancer Center
Battle, Michele A., Ph.D. ..... Medical College of Wisconsin
Bauer, Joshua A., Ph.D. ..... Vanderbilt University
Baumann, William T., Ph.D. ..... Virginia Polytechnic Institute and State University
Bayani, Jane, Ph.D. ..... Ontario Institutes for Cancer Research
Bazzaro, Martina, Ph.D. ..... University of Minnesota
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Wang, Ting, Ph.D. ..... Washington University
Wang, Xinjiang, Ph.D. ..... Roswell Park Cancer Institute
Wang, Xinlei, Ph.D. ..... Southern Methodist University
Wang, Yinghong, M.D., Ph.D. ..... University of Texas MD Anderson Cancer Center
Wang, Zhaoming, Ph.D. ..... St. Jude Children's Research Hospital
Wang, Zhihui, Ph.D. ..... Methodist Hospital Research Institute
Ware, Carl F., Ph.D. ..... Sanford Burnham Prebys Medical Discovery Institute
Wargo, Jennifer A., M.D. ..... University of Texas MD Anderson Cancer Center
Warren, Edus Houston, M.D., Ph.D. ..... Fred Hutchinson Cancer Center
Warren Andersen, Shaneda, Ph.D. ..... University of Wisconsin-Madison
Wasik, Mariusz A., M.D. ..... Fox Chase Cancer Center
Watabe, Kounosuke, Ph.D. ..... Wake Forest University Health Sciences

Watkins, Simon C., Ph.D. ..... University of Pittsburgh
Watson, Mark A., M.D., Ph.D. ..... Washington University
Wattenberg, Brian W., Ph.D. ..... Virginia Commonwealth University
Weber, Griffin M., M.D., Ph.D. ..... Harvard Medical School
Weichert, Jamey P., Ph.D. ..... University of Wisconsin-Madison
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Weigel, Brenda J., M.D. ..... Public Health Institute
Weinberg, Armin D., Ph.D. ..... Baylor College of Medicine
Weinberg, David S, M.D. ..... Fox Chase Cancer Center
Weir, Scott James, M.D., Ph.D. ..... University of Kansas Medical Center
Weiss, Geoffrey R., M.D. ..... University of Virginia
Weiss, Heidi L., Ph.D. ..... University of Kentucky
Weiss, Kurt Richard, M.D. ..... University of Pittsburgh
Weiss, William A., M.D., Ph.D. ..... University of California, San Francisco
Weissman, Bernard E., Ph.D. ..... University of North Carolina at Chapel Hill
Welch, Danny R., Ph.D. ..... University of Kansas Medical Center
Wellberg, Elizabeth, Ph.D. ..... University of Oklahoma Health Sciences Center
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Wen, Hong, Ph.D. ..... Van Andel Research Institute
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Wenzel, Lari, Ph.D. ..... University of California, Irvine
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Wesa, Amy K., Ph.D. ..... Vita Therapeutics, Inc.
West, Robert B., M.D., Ph.D. ..... Stanford University
Westerly, David C., Ph.D. ..... University of Colorado, Denver
Wheeler, Stephanie B., Ph.D., M.P.H. ..... University of North Carolina at Chapel Hill
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White, Rebekah, M.D. ..... University of California, San Diego
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Williams, Jacqueline P., Ph.D. ..... University of Rochester
Williamson, Stephen K., M.D. ..... University of Kansas Medical Center
Wilson, John Tanner, Ph.D. ..... Vanderbilt University
Wilson, Stephen Jeffrey, Ph.D. ..... Pennsylvania State University
Wingard, John R., M.D. ..... University of Florida
Winn, Robert A., M.D. ..... Virginia Commonwealth University
Winter, Jordan M., M.D. ..... Case Western Reserve University
Winters-Stone, Kerri M., Ph.D. ..... Oregon Health and Science University
Wise-Draper, Trisha, M.D., Ph.D. ..... University of Cincinnati

Withycombe, Janice S., R.N., Ph.D. ..... Clemson University
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Wu, Qingrong Jackie, Ph.D. ..... Duke University
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X

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Xing, Lei, Ph.D. ..... Stanford University
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Zhao, Yongxin, Ph.D. ..... Carnegie-Mellon University
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Zhu, Timothy C., Ph.D. ..... University of Pennsylvania

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Total number of Reviewers: 2,290
Total number of times reviewers served: 2,984

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 webpage 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 multi-project 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

ACD	Advisory Committee to the Director
ACRWH	Advisory Committee on Research on Women's Health
AHRQ	Agency for Healthcare Research and Quality
AIDS	Acquired Immune Deficiency Syndrome
AISB	Applied Information Systems Branch
ARA	Awaiting Receipt of Application
AREA	Academic Research Enhancement Award
BRSG	Biomedical Research Support Grant
BSA	Board of Scientific Advisors
BSC	Board of Scientific Counselors
CATS	Concept to Award Tracking System
CBIIT	NCI Center for Biomedical Informatics and Information Technology
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
CISNET	Cancer Intervention and Surveillance Modeling Network
CIT	Center for Information Technology
CMO	Committee Management Office
CoC	Council of Councils
CRCHD	Center to Reduce Cancer Health Disparities
CSR	Center for Scientific Review
CSRA	Clinician Scientist Research Award
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
DEAIS	DEA Information System
DFO	Designated Federal Official
DPDU	DEA Processing and Distribution Unit
DRR	Division of Receipt and Referral
eCPS	electronic Contract Proposal Submission
EDRN	Early Detection Research Network
EPMC	Extramural Program Management Committee
eRA	Electronic Research Administration
ESI	Early-Stage Investigator
eTUG	eRA Technical Users Group
FACA	Federal Advisory Committee Act
FDA	U.S. Food and Drug Administration
FFRDC	Federally Funded Research and Development Center
FLARE	Fiscal Linked Analysis of Research Emphasis
FNLAC	Frederick National Laboratory Advisory Committee
FNLCR	Frederick National Laboratory for Cancer Research
FOA	Funding Opportunity Announcement
FOIA	Freedom of Information Act
FY	Fiscal Year
HHS	Department of Health and Human Services
IC	Institute/Center
IMAT	Innovative Molecular and Cellular 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

NCI	National Cancer Institute
NCRA	NCI Council of Research Advocates (replaces DCLG)
NCRR	National Center for Research Resources
NDPA	NIH Director Pioneer Award
NExTRAC	Novel and Exceptional Technology and Research Advisory Council
NIAAA	National Institute on Alcohol Abuse and Alcoholism
NIBIB	National Institute of Biomedical Imaging and Bioengineering
NIDA	National Institute on Drug Abuse
NIH	National Institutes of Health
NIMHD	National Institute on Minority Health and Health Disparities
NOFO	Notice of Funding Opportunity
NRSA	National Research Service Award
OBF	Office of Budget and Finance
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 Malignancy
OIA	Outstanding Investigator Award
OPERA	Office of Policy for Extramural Research Administration
ORRPC	Office of Referral, Review, and Program Coordination
PA	Program Announcement
PAR	Reviewed Program Announcement
PCP	President's Cancer Panel
PCRB	Program Coordination and Referral Branch
PHS	Public Health Service (HHS)
PI	Principal Investigator
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
RO	Referral Officer
RPG	Research Project Grant
RPRB	Research Programs Review Branch
RTCRB	Research Technology and Contracts Review Branch
RTRB	Resources and Training Review Branch
SA	Staff Assistant
SAM	System for Award Management
SBIR	Small Business Innovation Research
SBIRDC	SBIR Development Center
SEER	Surveillance, Epidemiology, and End Results
SEP	Special Emphasis Panel
SIC	Special Interest Category
SIG	Shared Instrumentation Grant
SPL	Scientific Program Leadership
SPORE	Specialized Program of Research Excellence
SPRS	Secure Payee Registration System
SRB	Special Review Branch
SREA	Scientific Review and Evaluation Activities
SRO	Scientific Review Officer (formerly Scientific Review Administrator)
STTR	Small Business Technology Transfer Research
T&E	Training and Education
TEP	Technical Evaluation Panel

Appendix H: Cancer Information Sources on the Internet

NCI Website

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

DEA Websites

The following websites are maintained by the DEA to provide detailed information to researchers and the public about NCI funding opportunities and Advisory Boards and groups. Links to the individual DEA Web pages via the DEA home page are listed below.

Funding Opportunities/Policies

https://deainfo.nci.nih.gov/funding.htm
Comprehensive information about external funding opportunities for cancer research; lists of active PAs and RFAs; recently cleared concepts; grant policies and guidelines; downloadable application forms.

https://deais.nci.nih.gov/foastatus/?nt=P
Active PAs, with links to detailed descriptions.

https://deais.nci.nih.gov/foastatus
Active RFAs, with links to detailed descriptions.

https://deainfo.nci.nih.gov/grantspolicies/index.htm
Links to full-text NCI and NIH policies related to grants and grant review (e.g., Guidelines on the Inclusion of Women and Minorities as Subjects in Clinical Research and Instructions to Reviewers for Evaluating Research Involving Human Subjects in Grant and Cooperative Agreement Applications).

https://grants.nih.gov/policy/early-investigators/index.htm
New and Early Stage Investigator Policies.

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

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

Advisory Boards and Groups

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

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

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

https://deainfo.nci.nih.gov/advisory/ncab/ncabmeetings.htm
NCAB meeting information (agenda, minutes, and presentations).

https://deainfo.nci.nih.gov/advisory/bsa/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/index.htm
Board of Scientific Counselors 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.

October 2023