

## THERAPEUTIC IMMUNE APPROACHES TO TACKLING HPV-ASSOCIATED MALIGNANCIES

Human papillomavirus (HPV) can cause many different types of tumors. Although work at the National Cancer Institute (NCI) has greatly facilitated important prevention efforts through vaccines, HPV-associated malignancies are still a frequent cause of cancer-related mortality worldwide; however, the non-self viral antigens that remain in these cancers (i.e., E6 and E7) are very immunogenic. The [Center for Immuno-Oncology](#) (CIO) has developed a multipronged effort to address new and better treatments for these cancers.

Initial studies with bintrafusp alfa, an anti-PD-L1 antibody that also sequesters TGF- $\beta$ , has demonstrated a response rate of 30% in patients with immune checkpoint inhibitor-naïve, HPV-associated malignancies.<sup>1</sup> Patients who had an objective response to treatment had higher levels of HPV 16-specific CD8+ T cells.<sup>2</sup> This led to a combination study with an HPV vaccine (PDS0101), targeting HPV 16 E6 and E7), bintrafusp alfa, and a tumor-targeted immunocytokine (NHS-IL12) in patients who, in contrast to the first study, had progressed after immune checkpoint inhibition. This combination demonstrated a response rate of 22%, whereas immune checkpoint inhibitor therapy alone would be expected to have a response rate of less than 5%.<sup>3</sup> Another ongoing CIO study is evaluating pembrolizumab with and without PRGN-2009—a vaccine targeting E6 and E7 in both HPV 16 and HPV 18—in cervical cancer patients who progress on immune checkpoint inhibitors.<sup>4</sup>

While HPV 16 and HPV 18 are viral clades that pose a high risk of cancer development, other HPV types can cause tumors. HPV 6 and HPV 11 cause genital warts and a rare condition called recurrent respiratory papillomatosis (RRP). Patients with RRP can develop multiple papillomas in the upper respiratory tract that require numerous sequential debulking procedures to maintain voice and airway function. With Clint Allen and Scott Norberg, CIO has co-developed a vaccine (PRGN-2012) that targets HPV 6 and HPV 11 and has been shown to dramatically decrease the need for surgical intervention.<sup>5</sup>

Cellular therapy offers another approach to targeting cancers. CIO has developed a TCR-engineered T-cell therapy (TCR-T) targeting HPV 16 E7. An initial study demonstrated a 50% response rate, even in patients with anti-PD-1-refractory disease.<sup>6</sup> A multicenter study is ongoing.<sup>7</sup>

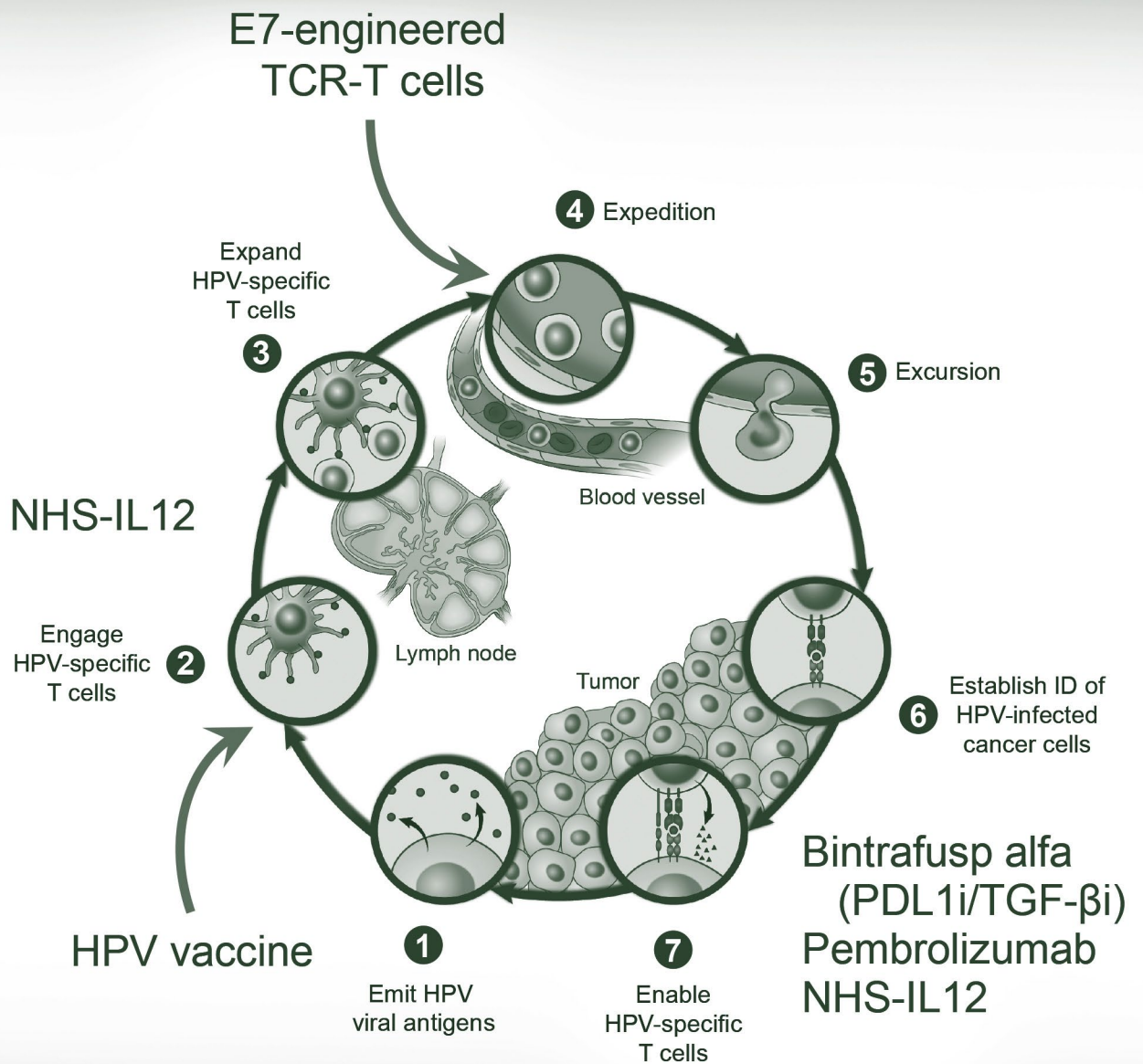
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### References

- 1 Strauss J, et al. Bintrafusp alfa, a bifunctional fusion protein targeting TGF- and PD-L1, in patients with human papillomavirus-associated malignancies. *J Immunother Cancer*. 2020 Dec;8(2):e001395.
- 2 Tsai YT, et al. Immune correlates of clinical parameters in patients with HPV-associated malignancies treated with bintrafusp alfa. *J Immunother Cancer*. 2022 Apr;10(4):e004601.
- 3 Floudas C. Combination immunotherapy in subjects with advanced HPV-associated malignancies. 2020 Feb 26 [last updated 2023 Oct 18]. In: ClinicalTrials.gov [Internet]. Bethesda (MD): U.S. National Library of Medicine. 2000-. Available from: <https://clinicaltrials.gov/study/NCT04287868> ClinicalTrials.gov ID NCT04287868.
- 4 Precigen, Inc. PRGN-2009 in combination with pembrolizumab versus pembrolizumab in patients with recurrent or metastatic cervical cancer. 2023 Nov 27 [last updated 2024 Apr 17]. In: ClinicalTrials.gov [Internet]. Bethesda (MD): U.S. National Library of Medicine. 2000-. Available from: <https://clinicaltrials.gov/study/NCT06157151> ClinicalTrials.gov ID NCT06157151.
- 5 Norberg SM, et al. The tumor microenvironment state associates with response to HPV therapeutic vaccination in patients with respiratory papillomatosis. *Sci Transl Med*. 2023 Oct 25; 15(719). doi: [10.1126/scitranslmed.adj0740](https://doi.org/10.1126/scitranslmed.adj0740)
- 6 Nagarsheth NB, et al. TCR-engineered T cells targeting E7 for patients with metastatic HPV-associated epithelial cancers. *Nat Med*. 2021 Mar;27(3):419-425.
- 7 National Institutes of Health Clinical Center. E7 TCR T cells for human papillomavirus-associated cancers. 2016 Aug 4 [last updated 2024 Apr 11]. In: ClinicalTrials.gov [Internet]. Bethesda (MD): U.S. National Library of Medicine. 2000-. Available from: <https://clinicaltrials.gov/study/NCT02858310> ClinicalTrials.gov ID NCT02858310.

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# Division of Extramural Activities Annual Report 2023





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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 surveil-

lance 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 (FNLRCR); 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

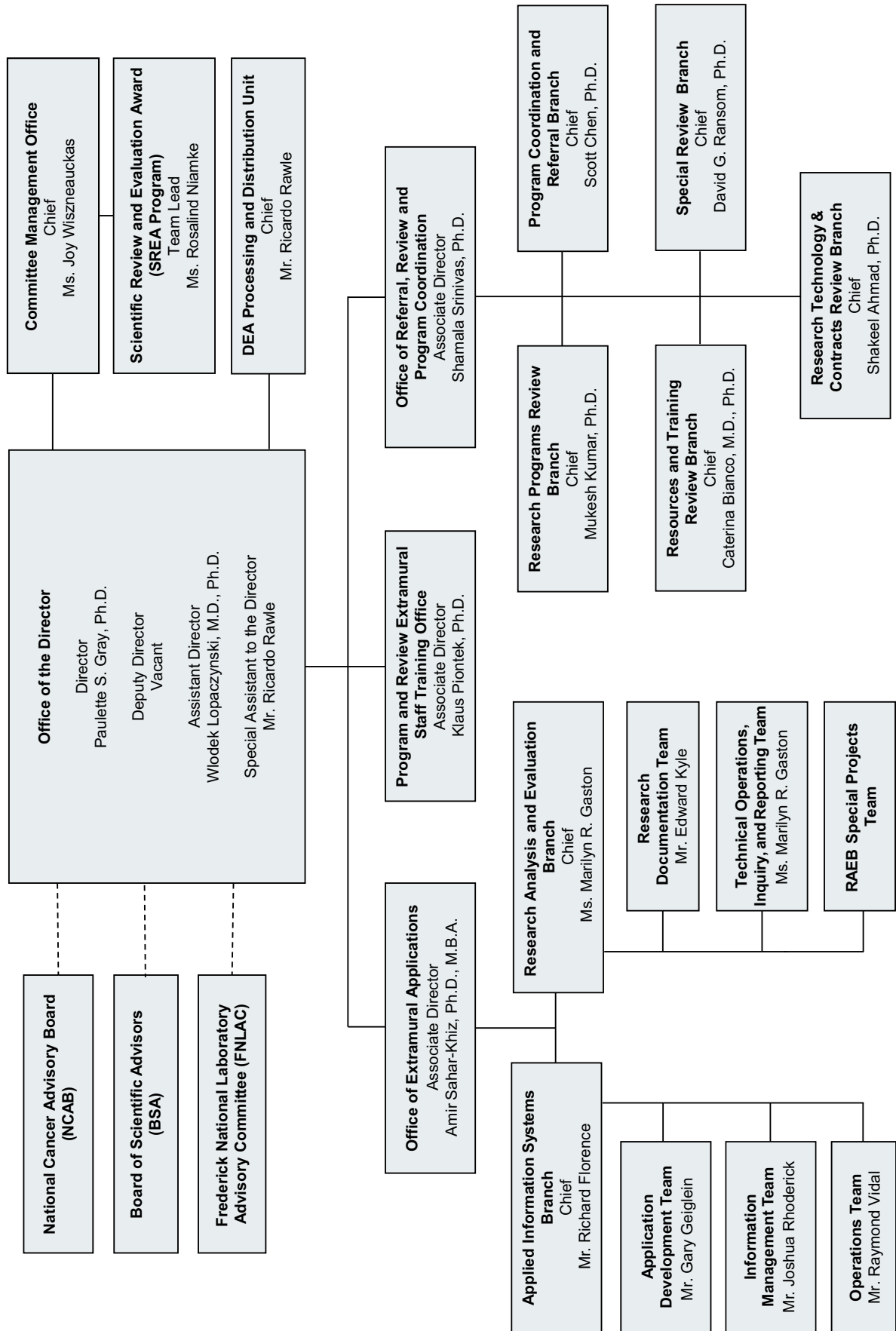
basis for budget projections; maintaining extensive records of this research; providing specialized analyses of the costs, goals, and accomplishments of the research; and serving as an NCI resource to others for reporting and dissemination of the NCI's research portfolio. The DEA monitors budgetary limitations 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) 2023 (1 October 2022 – 30 September 2023) 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 2,470 researchers, clinicians, and advocates who gave unselfishly of their time in FY2023. 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 (FNLRC).

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), 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), the National Institute of General Medical Sciences (NIGMS), 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 requests for R&D contract 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 FY2023, 23 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 also functions as the NCI Research Integrity Officer (RIO) and considers all documents related to research misconduct for transmittal and reporting to the NIH. In FY2023, 29 cases of research integrity—including alleged research misconduct, foreign interference, harassment and other irregularities involving NCI funding—were opened and referred to the DEA Director for review by the Office of Extramural Research, NIH, and/or the Office of Research Integrity, U.S. Department of Health and Human Services (HHS). Fifteen cases were completed and closed, and three cases were found to involve research misconduct.<sup>1</sup>

### Extramural Staff Training

#### Program and Review Extramural Staff Training Office (PRESTO)

The **Program and Review Extramural Staff Training Office (PRESTO)**, which resides in the DEA OD, develops and coordinates the training of NCI Program, Review, and other extramural staff members. The mission of PRESTO is to increase the knowledge base of new and experienced staff members and optimize their effectiveness in supporting the goals of the NCI. To accomplish this mission, PRESTO: (1) designs and implements a broad-based curriculum for Program and Review staff; (2) provides training on specialized topics related to understanding of and compliance with NIH policies; (3) identifies and develops resources to facilitate individual learning and performance; and (4) tracks the participation of extramural staff in NIH- and NCI-sponsored training activities as well as continuously evaluates the efficacy of these activities.

<sup>1</sup> Cases found to involve research misconduct are published in the *Federal Register* and *HHS Office of Research Integrity*.

During FY2023, 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 Resources for Identifying Experts in Cancer Fields and the I2E YourGrants Module.
- A Notice of Funding Opportunity (NOFO) Spotlight Series, including presentations on an Overview of the NCI R15 Academic Research Enhancement Award (AREA) and Research Enhancement Award Program (REAP), the Global Research Training Programs at NCI by the Center for Global Health Initiatives, a Bioengineering Research Grant in Cancer Research and Trans-NIH Bioengineering Collaboration, Practical Approaches to Writing an Effective Funding Opportunity Announcement (FOA), Global Clinical Trials focused on Prevention of Cervical Cancer in Women Living with HIV, the Early Investigator Advancement Program to guide junior investigators from diverse backgrounds to independence, the Collaborative Program: Expanding Cancer Health Disparity (CHD) Research Through New Partnerships, and Infrastructure Support for Drug Discovery and Development in NCI-designated Cancer Centers.
- PRESTO Scientific Review Officers (SRO) Boot Camps introducing new SROs to the role of an SRO from pre-meeting related activities (such as Administrative Review, Scientific Needs Assessment, and the other Identification of Reviewers and Conflict of Interest Screening) to meeting-focused topics (such as Introduction, Meeting Orientation, and signing of Scientific Review Group Meeting Minutes) to post-meeting actions (such as Meeting Close-out, Checking and Releasing Scores, and Writing and Releasing Summary Statements). Demonstrations of all relevant electronic modules like Internet Assisted Review (IAR), Peer Review (REV), Committee Management (CM), Online Critique Templates (OCT), and Query, View, and Report (QVR) provided a true hands-on experience.

- PRESTO-sponsored training focused on administrative and scientific topics, including Vertebrate Animal Use in NIH-Funded Research, and Program Project (P01) Grant Development Guidance and Peer Review.

During FY2024, 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 revamping of the PRESTO recordings of training sessions and seminars. PRESTO will continue to support the NCI by providing Program and Review related trainings and seminars, including the NCI Predoctoral to Postdoctoral Fellow Transition Award, the Pediatric Immunotherapy Network at the NCI, funding opportunities for Bladder Cancer Program, 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 Camp 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 electronic Research Administration (eRA) Commons modules like Internet-Assisted Review, Office of Extramural Research policy changes like the Simplified Review Framework, and Best Practices to Ensure Reviewers of Contracts are registered in SPRS. PRESTO also plans to host presentations, in collaboration with the Trans-NCI Extramural Awareness Group (TEAG), on the impact of the simplification of the review framework for program officers and on solving and avoiding issues with the Human Subjects System.

### **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 Requests for Applications (RFAs) and Program Announcements (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 FY2023, 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 FY2023, 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 267 student loan repayment program (LRP) applications ([Table 12](#)), contract proposals, as well as 72 R13 conference grant applications ([Table 5](#)) and a variety of other proposals in FY2023.

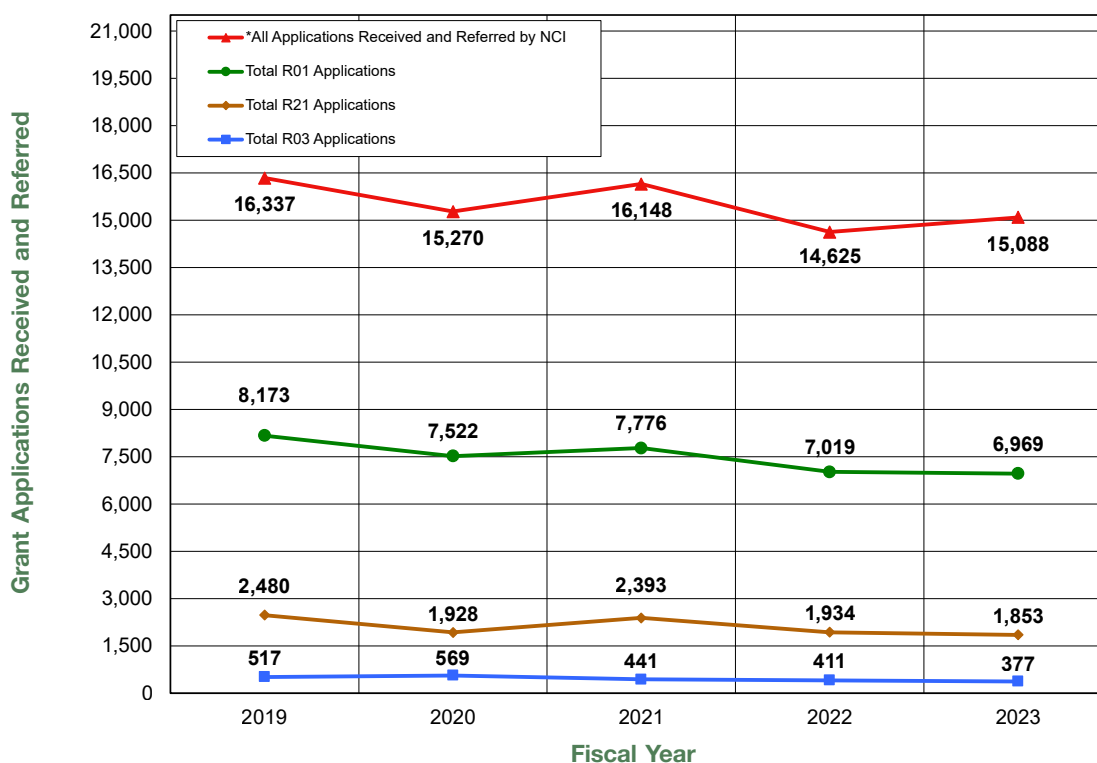


## Grant Referral: A First Point of Contact for NCI Grantees and Applications

In FY2023, a total of 15,088 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 61 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 Quality (AHRQ), the Centers for Disease Control and

**Figure 1. Receipt and Referral of NCI Grant Applications\*  
FY2019 – FY2023**



\* Includes NCI Primary and Secondary applications received and referred.

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 PCRFB 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 PCRFB 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 educational 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 PCRFB 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 grant–funding 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 Study Section 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 FY2023, the DEA organized, managed, and reviewed a total of 4,021 research grant and cooperative agreement applications ([Table 6](#)) and 109 SBIR Special Topics and RFP contract proposals ([Table 12](#)) assigned to the NCI for funding with appropriated dollars of \$1,773,465,625. The total number of grant applications, cooperative agreements, and contract proposals reviewed in FY2023 was 4,037 ([Figure 2](#)). In addition, the DEA conducted 13 Cancer Center site visits, 12 IRG Study Section review meetings, 176 SEPs to review grant applications and contract proposals,

and 111 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, 2,471 peer reviewers served on the NCI DEA-managed SEPs, and work groups in FY2023. 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,

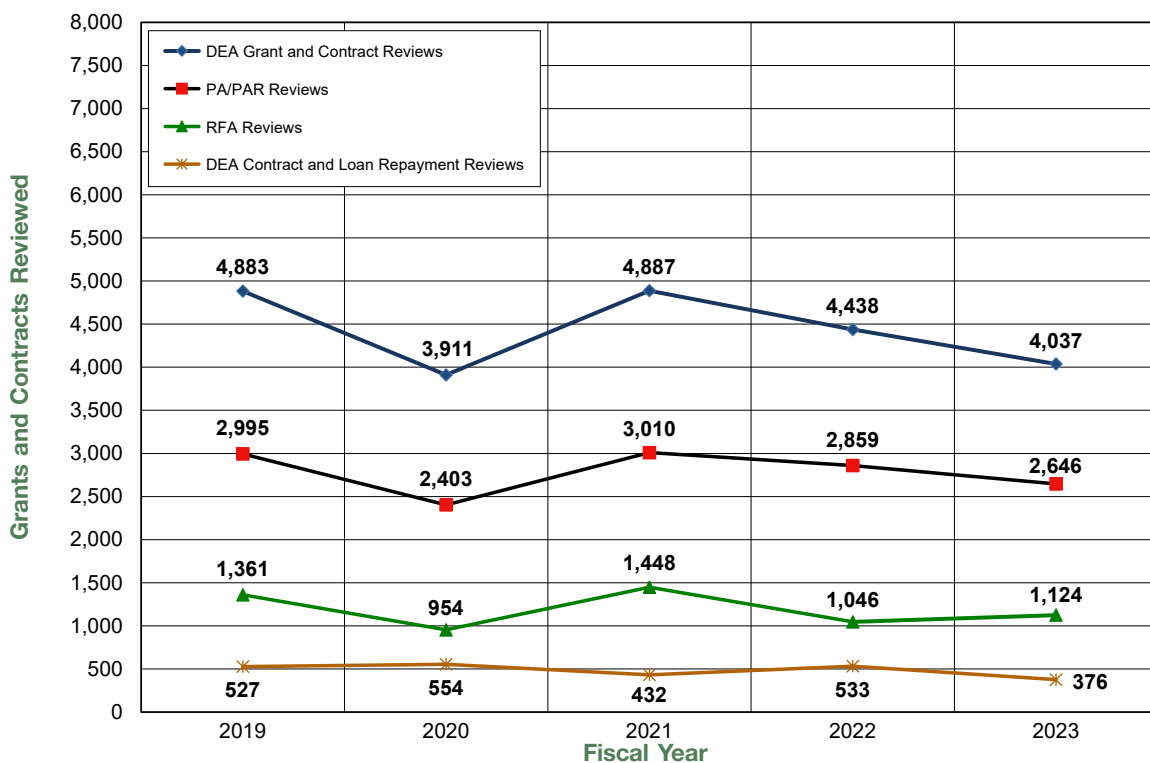
and R&D proposals for a wide variety of grant mechanisms and topics. Reviews of grant applications are conducted by specially convened SEPs, as shown in [Table 7](#). Contract proposals and Small Business Innovation Research (SBIR) Special Topics, shown in [Table 12](#), are reviewed by Technical Evaluation Panels (TEPs).

### Research Programs Review Branch (RPRB)

#### Program Project (P01) Applications

Again, a significant effort of RPRB during FY2023 is 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, Cooperative Agreements, and Contracts Reviewed in FY2019 – FY2023**



\* 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 FY2023, RPRB managed the review of 85 new, renewal (competing), resubmitted (amended) P01 applications (Table 8) and one revision (Figure 3). Forty-one (48%) of the applications proposed new multidisciplinary research programs, 11 (13%) were competitive renewals, and 33 (38%) of the applications (both Type 1 and 2) were resubmitted applications (Table 8). Thirty-two (37%) of the 86 applications were referred to the NCI's Division of Cancer Biology (DCB), 37 applications (43%) were referred to the Division of Cancer Treatment and Diagnosis (DCTD), 10 applications (12%) were referred to the Division of Cancer Control and Population Sciences (DCCPS), and seven applications (8%) were referred to the Division

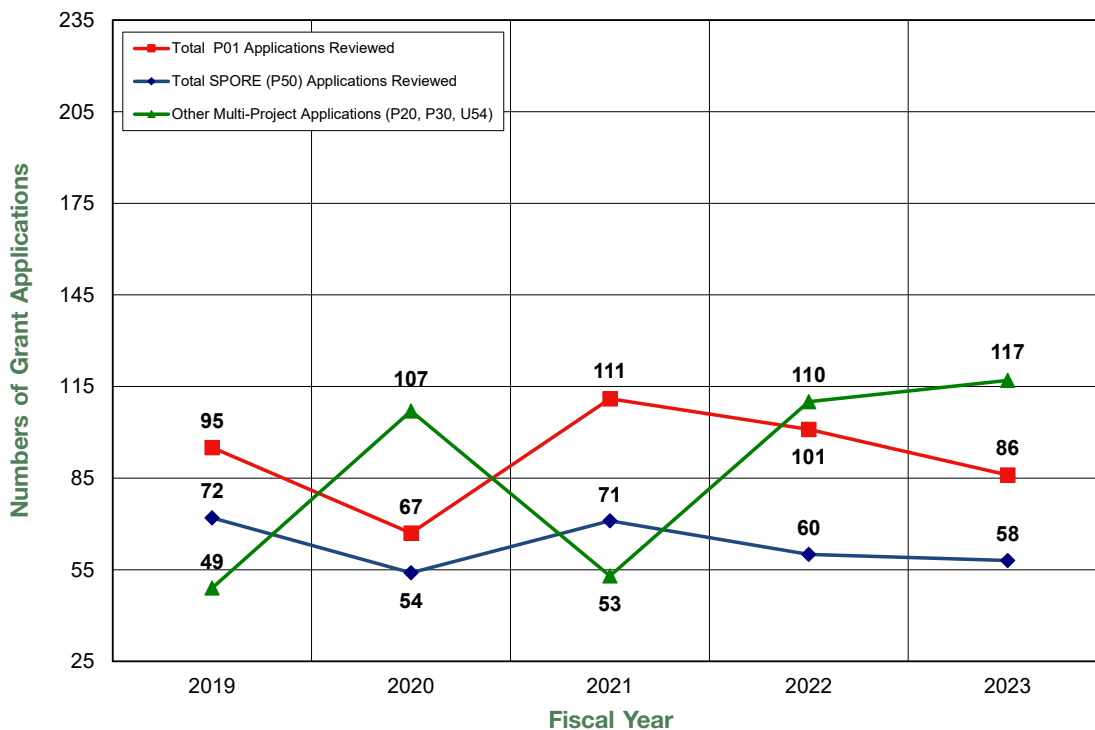
of Cancer Prevention (DCP) (see Table 9). The 86 applications requested \$236,912,056 in total costs for the first year of support and \$1,188,723,598 in total costs for 5 years (see Table 9).

### 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, multiproject, multidisciplinary, translational applications focus on research that is directly applicable to human disease in specific organ sites or that focuses on a common biological mechanism critical for promoting tumorigenesis and/or cancer progression.

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

**Figure 3. P01, SPORE, and Other Multi-Project Research Applications Reviewed FY2019 – FY2023**



then, assign an overall impact score to the SPORE application as a whole.

In FY2023, the RPRB organized and managed nine SEPs for the review of 58 SPORE applications and one revision ([Figure 3](#) and [Tables 10](#) and [11](#)). The applications addressed multiple organ sites, with the following distribution (and numbers) of applications: Brain (3); Breast (1); Gastrointestinal (3); Pancreas (5); Head and Neck (4); Leukemia (4); Lymphoma (2); Skin (1); Ovarian (3); Endometrial (4); Prostate (5); Kidney (1); Sarcoma (2); Neuroendocrine (2); Lung (7); and Bladder (2). In addition to organ sites, there were applications focused on common biological mechanisms: Epigenetics (1); RAS (1); Immunotherapy (1); and Health Disparities (6). Overall, 40 (69%) of the 58 applications were submitted for new SPOREs, and 18 (31%) were competitive renewal applications, with 21 (36%) being resubmitted applications.

The disease sites addressed in the SPORE applications vary from round to round. For example, ten applications addressing nine different disease sites were reviewed for the February 2023 NCAB cycle; 38 applications addressing 18 disease sites were reviewed for the June 2023 NCAB cycle, and ten applications addressing seven disease sites were reviewed for the September 2023 NCAB meeting. The applications requested \$138,721,629 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 FY2023, the RPRB SROs attended 70 of these pre-submission meetings.

As needed, RPRB SROs also manage review of applications submitted to the DEA in response

to other initiatives. In FY2023, 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 the 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 FY2023, NCI Study Section A reviewed 13 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), Transition to Independence (I), and Career Development (J). The number of Career Development applications increased to 900 in FY2023 from 630 in FY2022 ([Table 6](#)). The number of Training and Education grant applications increased from 194 in FY2022 to 209 in FY2023 ([Figure 4](#)). In addition, 46 applications submitted in response to the NCI Predoctoral to Postdoctoral Fellow Transition Award (F99)

and 46 applications in response to NCI Pathway to Independence Award for Outstanding Early-Stage Postdoctoral Researchers (K99/R00) were reviewed.

### Other RTRB Activities

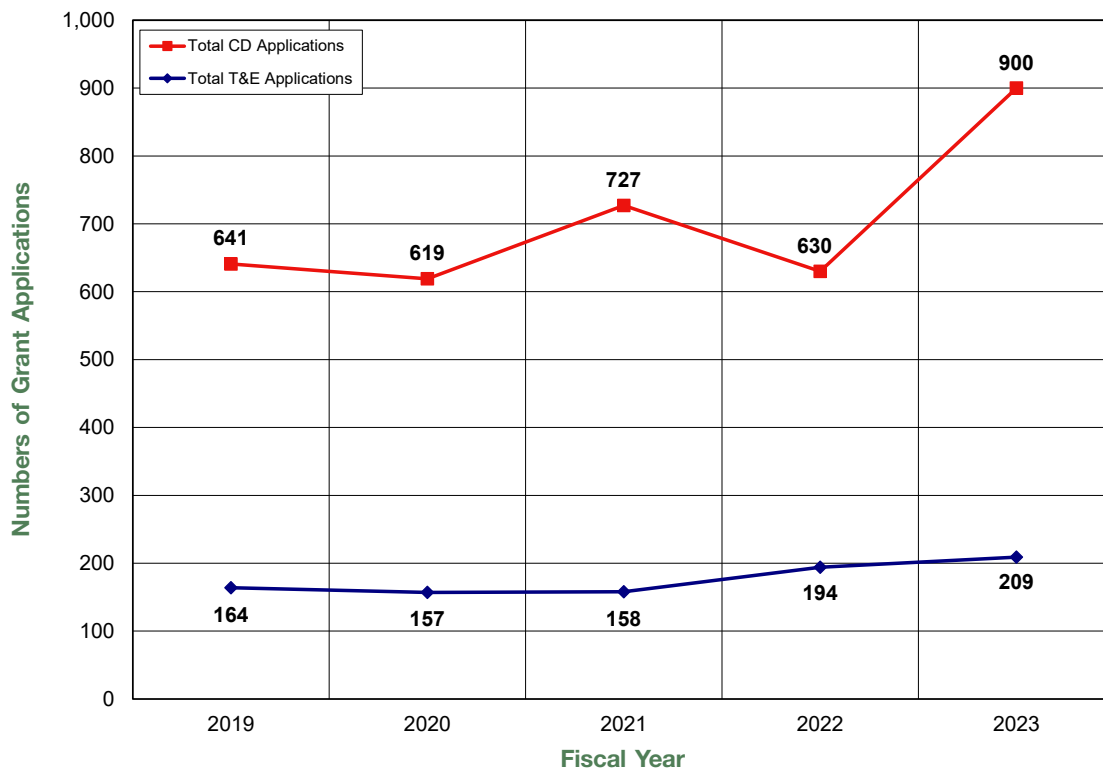
In FY2023, RTRB staff also reviewed applications received in response to initiatives that were coordinated by the Special Review Branch (SRB): (1) Exploratory/Developmental Grant (R21); (2) Small Grant (R03); (3) Coordinating Center—Cooperative Agreement (U24); (4) Research Projects—Cooperative Agreements (U01); (5) Specialized Center—Cooperative Agreements (U54); (6) Exploratory Developmental Cooperative Agreements Phase I UG3/UH3 and UH2; (7) K22 NCI Transition Career Development Awards; and (8) R38 Stimulating Access to Research Independence 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 FY2023, the SRB, with the assistance of the three other DEA review branches (RPRB, RTCRB, and RTRB), peer reviewed a total of 1,124 applications received in response to 60 RFAs ([Table 10](#)) and 2,646 applications in response to 53 PAs/PARs ([Table 11](#)). All the SRB peer review meetings were conducted by 44 SEPs.

**Figure 4. Numbers of Career Development (CD) and Training and Education (T&E) Applications Reviewed, FY2019 – FY2023\***



\* CD mechanisms: K01, K08, K22, K25, K99, and U01.  
T&E mechanisms: K12, R25, and T32.



## Exploratory/Developmental Research

In FY2023, the DEA reviewed 1,014 R21 applications submitted for the NCI Clinical and Translational Exploratory/Developmental Research Grant Program in response to PAR-20-292 and PAR-22-216 ([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 32 SEPs over the three review cycles in FY2023.

## Small Grant Programs

The small grant (R03) PAR program initiative in the NCI Omnibus R03 for cancer research (PAR-20-052 and PAR-23-058) stimulated increased interest in the applicant community. In FY2023, 337 applications were submitted and reviewed by the DEA in response to these NOFOs ([Table 11](#)).

## Other SRB Activities

As needed, SRB SROs also managed review of applications submitted to the DEA in response to other initiatives. In FY2023, this included coordinating review of P01, P20, 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 FY2023, 283 technology applications ([Figure 5](#) and [Table 10](#)) for Exploratory/Developmental Phase I (R21), Exploratory/Developmental Phase II (R33), and Phase I Exploratory/Developmental (R61) grants were reviewed for Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (RFA CA22-004 [R33 Clinical Trial Not Allowed]); Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (RFA CA23-003 [R33 Clinical Trial Not Allowed]); Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (RFA CA 22-001 [R61 Clinical Trial Not Allowed]); Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (RFA CA22-003 [R61 Clinical Trial Not Allowed]); Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (RFA CA23-004 [R61 Clinical Trial Not Allowed]) ([Table 10](#)).

## Research and Development (R&D) Contract Proposals

In FY2023, the RTCRB received and reviewed a total of 109 SBIR Special Topics and R&D contract proposals. The proposals were in response to SBIR Contract Solicitations—Phase I and Fast Track with Phase II (78), and R&D Innovative Concept Award [Therapeutics (22) and Diagnostic Devices (4)]; PREVENT Cancer Preclinical Drug Development Program – CGMP Pool (2), and PREVENT Toxicology and Pharmacology Pool (3) ([Table 12](#)). During review, specific elements of each proposal are individually evaluated and scored, with the combined score indicating the overall merit.

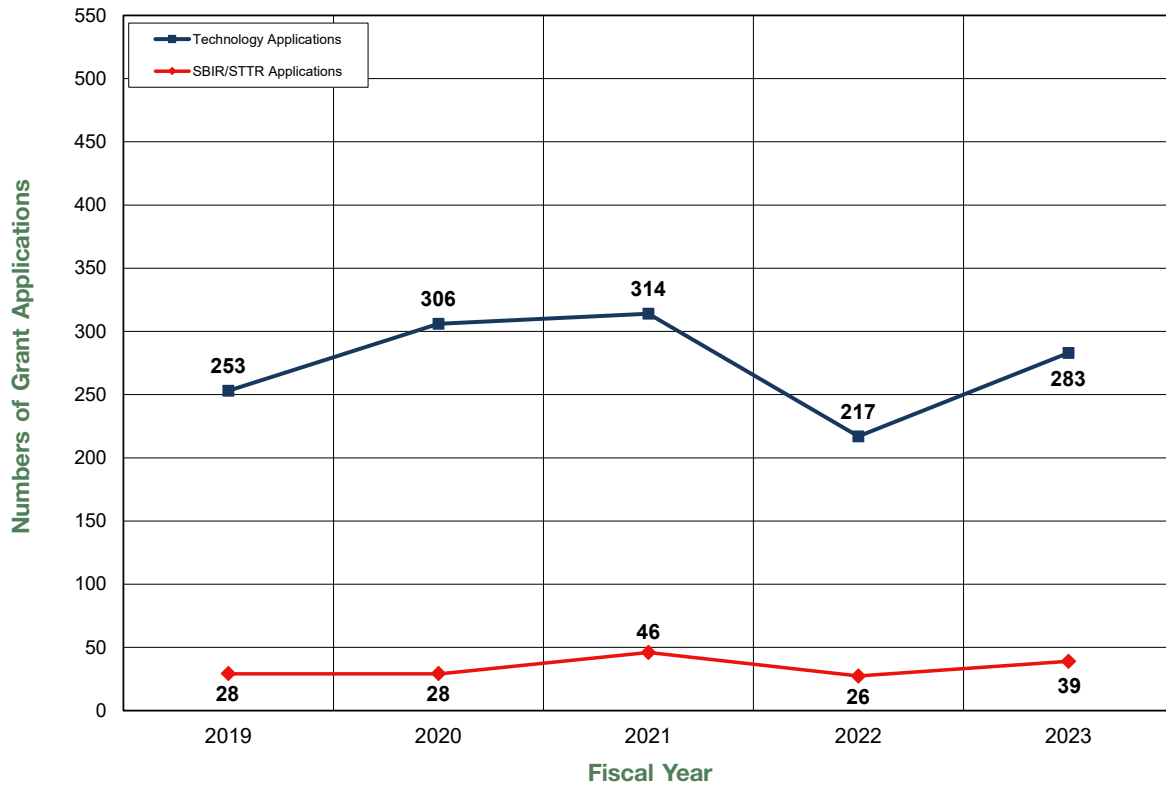


After negotiations, contract awards are made for the specific RFP solicitation. Phase II SBIR proposals are submitted to the electronic Contract Proposal Submission (eCPS) system and are announced on the System for Award Management (SAM) website, [SAM.gov](https://sam.gov).

### Other RTCRB Activities

In FY2023, 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 FY2023, the RTCRB also managed reviews of U01, U24, UG3, and UH2/UH3 applications.

**Figure 5. Technology Initiatives Applications Reviewed  
FY2019 – FY2023\***



\* 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 FY2022 and FY2023, respectively. [Figure 8](#) shows RFA concepts that the BSA approved from FY2020 through FY2023 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 FY2023. In [Table 14](#), a comparison is made of the average cost and number of NCI P01, P30,

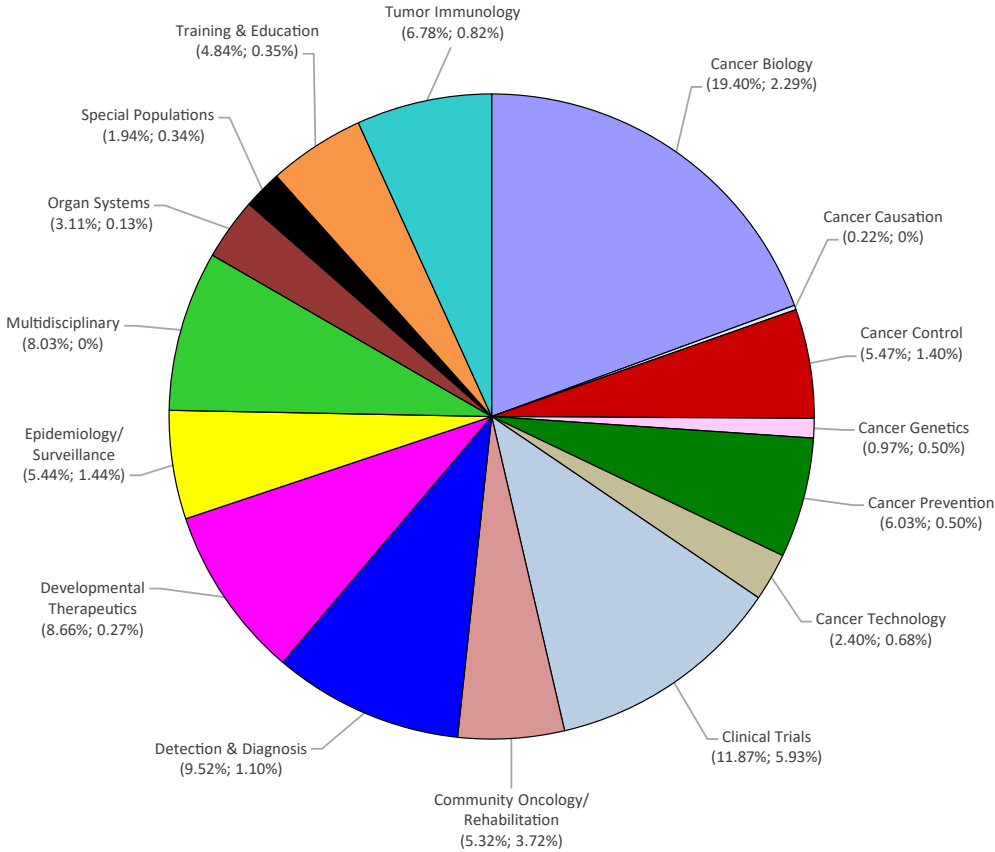
P50, R01, R03, R13, R21, U01/U19, U10, and U54 grants, and cooperative agreements awarded through FY2023, for each of the extramural Divisions, Offices, and Centers.

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 FY2023, and [Table 18](#) reports foreign components of U.S. domestic research grants in FY2023.

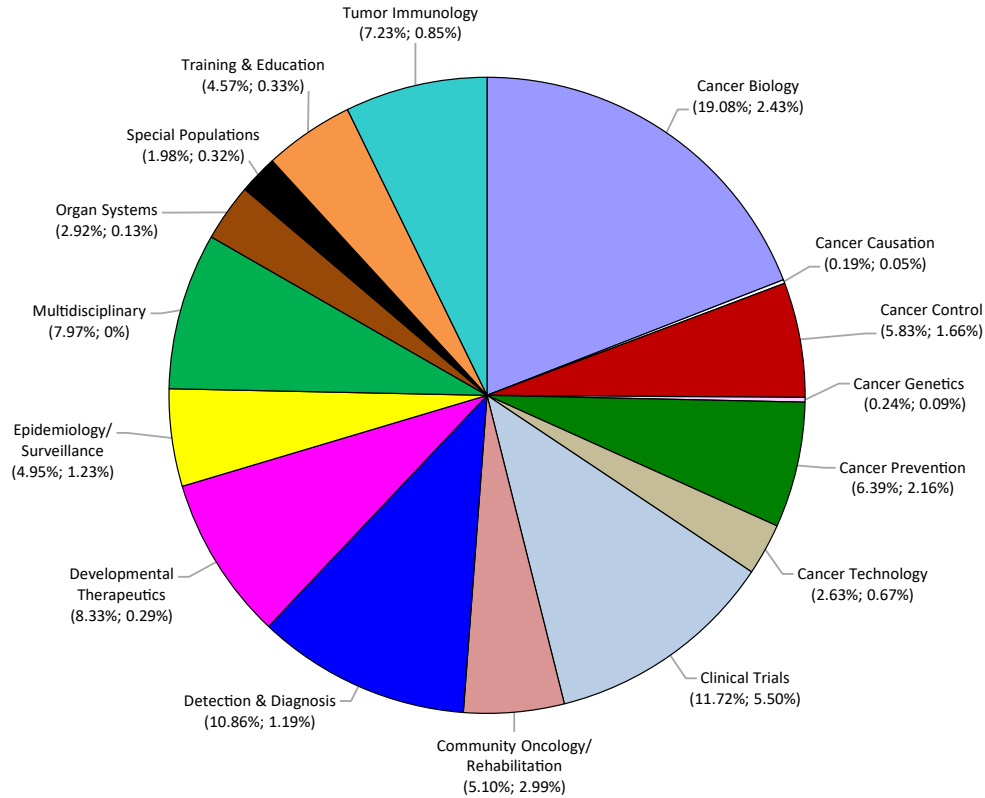
**Note:** Some grant awards made during a fiscal year may have been for grant applications reviewed in a prior fiscal year.

**Figure 6. NCI Grant and RFA Funding Percentages, by Concept Area, FY2022**



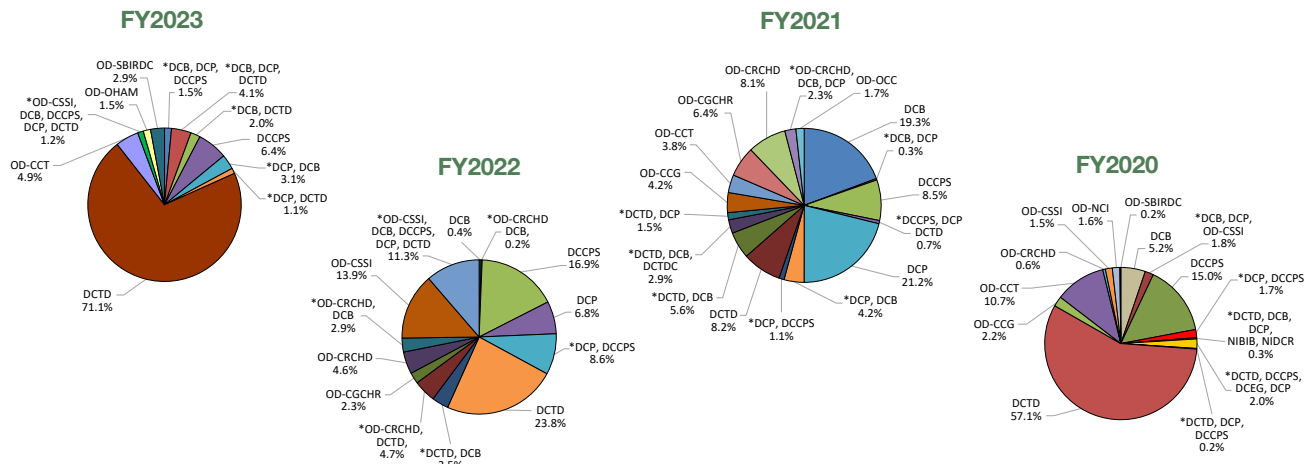
Percentages represent Total Funding and RFA Funding for the Concept Area as a percentage of Total NCI Grants. Concept Area (% of Total Funding to Total NCI Grants; % of RFA Funding to Total NCI Grants)

**Figure 7. NCI Grant and RFA Funding Percentages, by Concept Area, FY2023**



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, FY2020 – FY2023**



**Legend**

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

\* 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 176 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 FY2023, 2,471 consultants were reimbursed honoraria and flat-rate payment for serving at more than 176 peer review meetings ([Appendix E](#)). There were 3,662 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 to complete their Secure Payee Registration System (SPRS) registration. Due to these proactive efforts by the SREA staff, only two out of the 3,662 instances of honoraria and flat-rate payments to NCI peer review consultants were not paid out in FY2023.

Throughout the year, the SREA staff ensures the timely review and processing of hotel contracts to secure lodging and meeting room space for face-to-face peer review meetings. In FY2023, 16 hotel contracts were processed by the SREA staff. SREA staff are 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 16 hotel invoices and 42 consultant travel invoices were reviewed and submitted for payment in FY2023.

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 and receipt 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 (FNLRCR)**. 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 FY2023 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). FNLCR 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, and procedures, 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 Advisory Committee to the Director, NIH (ACD) located in the 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 four NIH Institutes/Centers (ICs). The National Institute on Alcohol Abuse and Alcoholism (NIAAA) has seven Federal Advisory Committees: an Advisory Council, a BSC, four IRG study sections, and a SEP. The National Institute on Drug Abuse (NIDA) has four Federal Advisory Committees: an Advisory Council, a BSC, two IRG Study Sections, and a SEP. The National Institute of General Medical Sciences (NIGMS) has five Federal Advisory committees: an Advisory Council, four IRG Study Sections, and a SEP. The National Institute on Minority Health and Health Disparities (NIMHD) has two Federal Advisory Committees: an Advisory Council and a SEP.

In all, CMO successfully manages 32 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 in person or via videoconference, webinar, or teleconference. The Office also provides logistical support for three NIAAA Council 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 ACD, NExTRAC, NIDA, NIGMS, 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 FY2023 include the following:

- Increased the NCI CMO Service Center to include one additional NIH Institute—the National Institute of General Medical Sciences (NIGMS) which has five Federal Advisory Committees: an Advisory Council, four IRG Study Sections, and a SEP.
- Coordinated the committee management transition of the NIH Council of Councils (CoC) and the Advisory Committee on Research on Women's Health (ACRWH) to

- the newly established NIH OD Committee Management Office.
- 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 of the NIH Enterprise Ethics System (NEES) to submit their OGE-450s electronically versus completing paper forms.
  - CMO Staff were recognized by the NCI Director for providing exceptional and innovative committee management services and peer review support to NCI and the NIH Client-Institutes.
  - 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.

- Continued to provide oversight of the NCI DEA SREA multimillion-dollar program and successfully closed out the FY2023 budget.
- Oversaw travel authorizations and vouchering of more than 30 Special Government Employee (SGE) travel instances, many of which were complex and required negotiating with the board member.
- 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 FY2023:

- Overview and Training on HHS waiver policies and procedures to NCI and NIMHD SROs.
- 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 FY2019 through FY2023 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 FY2023 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, the NCI Budget Office and other requestors, including Pancreatic Neuroendocrine Tumor and Complementary and Alternative Medicine.
- 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.

### FY2023 Funding of Foreign Institutions

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

Country	No. of Grants	Funding \$
Argentina	1	\$246,493
Australia	4	\$2,766,718
Canada	12	\$10,377,589
France	7	\$3,425,300
Germany	1	\$459,648
Israel	1	\$191,085
Kenya	2	\$466,000
Rwanda	1	\$226,299
South Africa	4	\$693,714
Switzerland	1	\$143,231
Uganda	1	\$214,361
United Kingdom	2	\$631,937
<b>Totals</b>	<b>37</b>	<b>\$19,842,374</b>

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

In FY2023, the NCI allocated \$19.8 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 12 grants receiving more than \$10 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 Not Site Specific (\$4.5 million), Lung (\$3 million), Cervix (\$2.2 million) and Colon (\$2.1 million), followed by Breast (\$1.8 million).

In FY2023, the NCI supported 531 U.S. domestic projects with 793 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 (100 grants), the United Kingdom (72 grants), Germany (67 grants), France (37 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 393 grants, followed by R37 (54 grants), U01 (93 grants), and U54 (43 grants).

### **Success Rates of Extramural Science Categories**

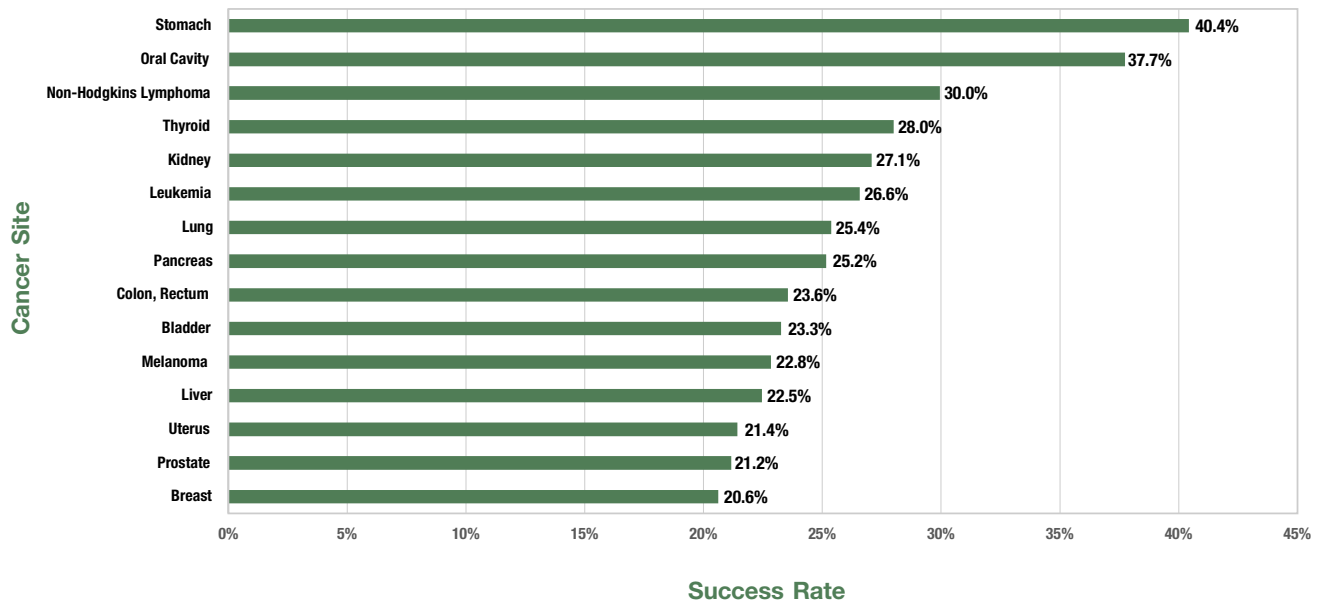
The RAEB assigns scientific indexing to both funded and unfunded applications, so it is possible to calculate success rates for funding in scientific categories. For example, the following graphs and tables illustrate FY2023 success rates for selected Special Interest Categories (SIC) and for the highest 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 FY2023 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. FY2023 Success Rates for Applications in High Incidence Cancer**  
Sorted by Success Rate

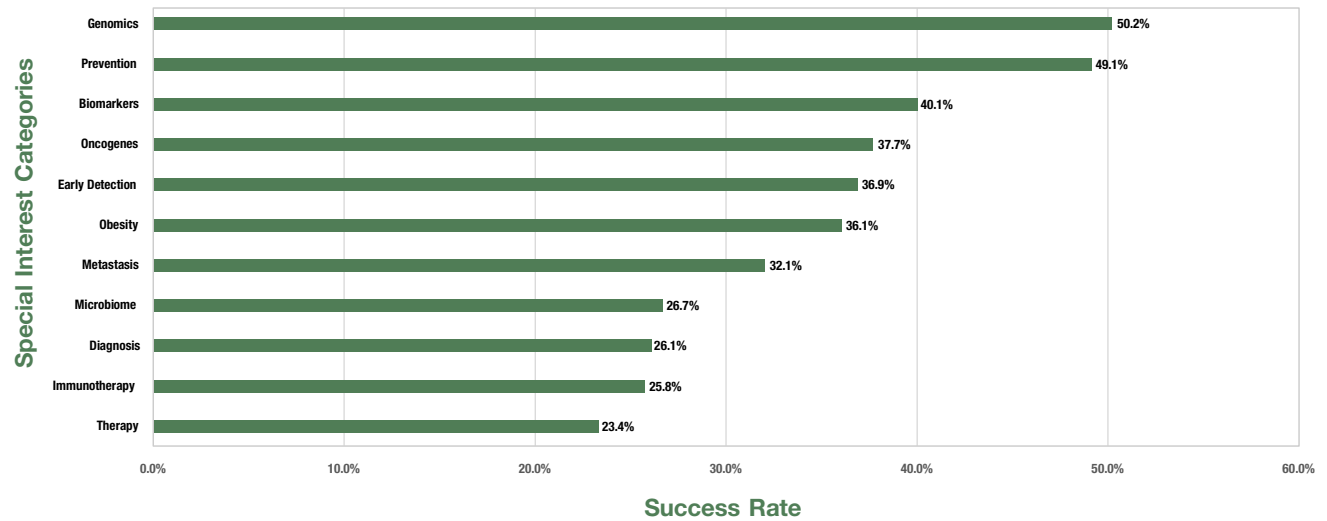
Selected Oncology Sites	SEER Rank*	Types 1 & 2 Funded in 2023 for This Site	Total Applications Received in 2023 for This Site	2023 Success Rate (%) for This Site	Total Funding for Types 1 & 2 in 2023 for This Site
Stomach	15	19	66	40.4%	\$13,513,695
Oral Cavity	13	20	73	37.7%	\$40,765,289
Non-Hodgkins Lymphoma	7	65	282	30.0%	\$53,136,792
Thyroid	9	14	64	28.0%	\$12,128,605
Kidney	8	39	183	27.1%	\$28,023,888
Leukemia	11	139	662	26.6%	\$100,487,467
Lung	2	257	1,270	25.4%	\$182,444,597
Pancreas	12	154	766	25.2%	\$111,510,627
Colon, Rectum	4	138	724	23.6%	\$99,896,473
Bladder	6	30	159	23.3%	\$25,745,921
Melanoma	5	90	484	22.8%	\$72,399,027
Liver	14	84	458	22.5%	\$51,397,375
Uterus	10	12	68	21.4%	\$7,755,640
Prostate	3	142	813	21.2%	\$103,024,681
Breast	1	340	1,989	20.6%	\$197,368,683

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



**Figure 10. FY2023 Success Rates for Applications in Selected Special Interest Categories**  
*Sorted by Success Rate*

Special Interest Category (SIC)	Types 1 & 2 Funded in 2023 for This SIC	Total Applications Received in 2023 for This SIC	2023 Success Rate (%) for This SIC	Total Funding for Types 1 & 2 in 2023 for This SIC
Genomics	419	1,254	50.2%	\$269,194,480
Prevention	225	683	49.1%	\$173,441,914
Biomarkers	441	1,542	40.1%	\$299,115,423
Oncogenes	238	870	37.7%	\$157,744,669
Early Detection	169	627	36.9%	\$140,138,709
Obesity	53	200	36.1%	\$39,873,706
Metastasis	416	1,714	32.1%	\$236,535,471
Microbiome	40	190	26.7%	\$35,300,412
Diagnosis	426	2,059	26.1%	\$283,555,383
Immunotherapy	453	2,212	25.8%	\$269,736,872
Therapy	1,264	6,675	23.4%	\$652,122,120





## 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 FY2023, 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.
- **Server Migration**—Began implementing a VM server environment to replace physical servers in operation.
- **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. Desktop Support completed more than 800 trouble tickets submitted by Division staff.

### Application Development Projects

- 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 80 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.

### DEA Website Development and Maintenance

- Completed more than 250 requests for changes to DEA Internet and Intranet websites.

- Refined the landscape of the DEA Intranet website to utilize the U.S. Web Design System (USWDS); thus, improving accessibility, 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. Initiated discussions with OCPL to migrate DEA's web content to their digital platform.

### **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 (NIAID), 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** ..... **Chief of Staff**  
**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 Advisory Committee to the Director, NIH (ACD) 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, five National Institute of General Medical Sciences (NIGMS) 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 Office of Science Policy; Office of the Director, National Institutes of Health; NIAAA; NIDA; NIGMS; 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 Wiszneaukas ..... 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.

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

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

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

**Shamala Srinivas, Ph.D.** .....Associate Director  
**Paul Gallourakis**.....Program Specialist



## Special Review Branch (SRB)

- Plans, manages, and assists in the scientific and technical review of grant and cooperative agreement applications received in response to RFAs, PAs, and PARs.
- Identifies and recommends appropriate review committee members as required for the review of assigned applications.
- Provides 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  
**LCDR 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  
**Prashant Sharma, 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** .....Program Specialist  
**Micah Traurig** .....Program Specialist  
**Cierra Wallace\*\*** .....Program Specialist

\* Joined August 2023  
\*\* Joined July 2023

## 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  
**Tiffany Bermudez\*** ..... Program Specialist  
**Alex Chyu\*\*** ..... Staff Assistant

\* Joined February 2023  
\*\* Left August 2023

## Program Coordination and Referral Branch (PCRB)

- Serves as the information and coordination point within the NCI for the development, clearance, publication, and tracking of NCI extramural program (funding) initiatives, which include RFAs, PAs, and Notices submitted for publication in the *NIH Guide for Grants and Contracts*, and also for posting and availability on Grants.gov, 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 to 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.

<b>Scott Chen, Ph.D.</b> .....	<b>Chief</b>
<b>Kamal Datta, M.D.</b> .....	<b>Program Coordinator, Scientific Review Officer (SRO)</b>
<b>Anandarup Gupta, Ph.D.</b> .....	<b>Program Coordinator, SRO</b>
<b>Xiaozhong “Alex” Bao, Ph.D.*</b> .....	<b>Referral Officer, SRO</b>
<b>Howard Boudreau, Ph.D.**</b> .....	<b>Referral Officer, SRO</b>
<b>Yang Liu, Ph.D.</b> .....	<b>Referral Officer, SRO</b>
<b>Biman Paria, Ph.D.</b> .....	<b>Referral Officer, SRO</b>
<b>Natacha P. Lassègue</b> .....	<b>Program Analyst</b>
<b>Quynh-Tram Chiaramonte</b> .....	<b>Program Specialist</b>

\* Joined May 2023

\*\*Joined September 2023

## 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.

<b>Mukesh Kumar, Ph.D.</b> .....	<b>Chief</b>
<b>Paul Cairns, Ph.D.</b> .....	<b>Scientific Review Officer</b>
<b>Amr Ghaleb*</b> .....	<b>Scientific Review Officer</b>
<b>Majed Hamawy, Ph.D., M.B.A.</b> .....	<b>Scientific Review Officer</b>
<b>Michael Lindquist, Ph.D.</b> .....	<b>Scientific Review Officer</b>
<b>Anita Tandle, Ph.D.</b> .....	<b>Scientific Review Officer</b>
<b>E. Tian, Ph.D.</b> .....	<b>Scientific Review Officer</b>
<b>Kathy Tiong</b> .....	<b>Program Analyst</b>
<b>Kendall Hill**</b> .....	<b>Program Specialist</b>
<b>Darnett Miller</b> .....	<b>Program Specialist</b>

\* Joined December 2022

\*\* Joined April 2023

## 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**  
**Bruce Hissong, Ph.D. .... Scientific Review Officer**  
**Byeong-Chel Lee, Ph.D. .... Scientific Review Officer**  
**Priya Srinivasan, 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 Branch (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).

**Richard Florence ..... 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**

\* Left December 2022



**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 FY2023**  
Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center
10/03/2022	CA22-042	R34	Advancing Adolescent Tobacco Cessation Intervention Research (R34 Clinical Trial Optional)	DCCPS
	CA22-043	R01	Advancing Adolescent Tobacco Cessation Intervention Research (R01 Clinical Trial Required)	
	CA22-051	UG1	Clinical Sites for HIV/Cervical Cancer Prevention 'CASCADE' Clinical Trials Network (UG1 Clinical Trial Required)	DCP
	CA22-052	U01	Cannabis and Cannabinoid Use in Adult Cancer Patients During Treatment: Assessing Benefits and Harms (U01 Clinical Trial Not Allowed)	DCCPS
	CA22-053	U24	Coordinating Center for Cannabis and Cannabinoid Use in Adult Cancer Patients During Treatment: Assessing Benefits and Harms (U24 Clinical Trial Not Allowed)	
	CA22-056	R01	Basic/Translational Research on Health Disparities in Underrepresented People Living with HIV (PLWH) and Cancer (R01 Clinical Trial Not Allowed)	
	CA22-057	R21	Basic/Translational Research on Health Disparities in Underrepresented People Living with HIV (PLWH) and Cancer (R21 Clinical Trial Not Allowed)	
10/31/2022	CA23-018	U01	Precompetitive Collaboration on Liquid Biopsy for Early Cancer Assessment: Liquid Biopsy Research Laboratories (U01 Clinical Trial Not Allowed)	DCP
	CA23-019	U24	Precompetitive Collaboration on Liquid Biopsy for Early Cancer Assessment: Data Management and Coordinating Unit (U24 Clinical Trial Not Allowed)	
11/08/2022	CA23-013	R25	Transformative Educational Advancement and Mentoring Network (TEAM) (R25 Clinical Trial Not Allowed)	CRCHD
11/17/2022	CA23-020	UG1	NCI Cancer Screening Research Network: ACCrual, Enrollment, and Screening Sites (ACCESS) Hub (UG1 Clinical Trial Required)	DCP
	CA23-021	UG1	NCI Cancer Screening Research Network: Statistics and Data Management Center (UG1 Clinical Trial Required)	
	CA23-022	UG1	NCI Cancer Screening Research Network: Coordinating and Communication Center (UG1 Clinical Trial Required)	
12/02/2022	CA23-002	R61	Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R61 Clinical Trial Not Allowed)	CSSI
	CA23-003	R33	Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R33 Clinical Trial Not Allowed)	
	CA23-004	R61	Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (R61 Clinical Trial Not Allowed)	
	CA23-005	R33	Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (R33 Clinical Trial Not Allowed)	
	CA23-006	R01	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (R01 Clinical Trial Optional)	
	CA23-007	U01	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U01 Clinical Trial Optional)	

continued

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

**Table 1a (cont'd). Requests for Applications (RFAs) Published by the NCI in FY2023**  
Sorted by Date of Publication

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center
12/02/2022 (continued)	CA23-008	U54	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U54 Clinical Trials Optional)	CSSI
	CA23-009	P01	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (P01 Clinical Trial Optional)	
	CA23-010	P50	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (P50 Clinical Trial Optional)	
	CA23-011	U2C	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U2C Clinical Trial Optional)	
12/22/2022	CA23-014	R21	Development of Innovative Informatics Methods and Algorithms for Cancer Research and Management (R21 Clinical Trial Optional)	CSSI
	CA23-015	U01	Early-Stage Development of Informatics Technologies for Cancer Research and Management (U01 Clinical Trial Optional)	
	CA23-016	U24	Advanced Development of Informatics Technologies for Cancer Research and Management (U24 Clinical Trial Optional)	
	CA23-017	U24	Sustained Support for Informatics Technologies for Cancer Research and Management (U24 Clinical Trial Optional)	
03/09/2023	CA23-025	U01	Addressing the Primary Care Needs of Cancer Survivors (U01 Clinical Trial Required)	DCCPS
03/14/2023	CA23-031	U24	Precompetitive Collaboration on Liquid Biopsy for Early Cancer Assessment: Data Management and Coordinating Unit (U24 Clinical Trial Not Allowed)	DCP
03/23/2023	CA23-028	UG3, UH3	Discovery and Development of Natural Products for Cancer Interception and Prevention (UG3/UH3 Clinical Trial Not Allowed)	DCP
03/30/2023	CA23-023	U01	Liver Cancer Collaborative Projects with the Liver Cirrhosis Network (U01 Clinical Trial Optional)	DCB
04/06/2023	CA23-033	U01	Implementation Science for Cancer Control in People Living with HIV in Low- and Middle-Income Countries (U01 Clinical Trial Optional)	CCT
04/20/2023	CA23-029	UG3, UH3	Cancer Immunoprevention Network (CIP-Net) Research Projects (UG3/UH3 Clinical Trials Not Allowed)	DCP
	CA24-005	U01	Cancer Prevention, Detection, Diagnosis, and Treatment Technologies for Global Health (U01 Clinical Trial Optional)	CGH
04/21/2023	CA23-034	R44	SBIR Phase IIB Bridge Awards to Accelerate the Development of Cancer-Relevant Technologies Toward Commercialization (R44 Clinical Trial Optional)	SBIR
	CA23-035	R42	Small Business Transition Grant for Early Career Scientists (R42 Clinical Trial Not Allowed)	
04/27/2023	CA23-038	P20	Integrating Health Disparities into Immuno-Oncology (HDIO) (P20 Clinical Trial Not Allowed)	DCB
05/31/2023	CA23-024	UM1	Limited Competition: Cooperative Human Tissue Network (CHTN) (UM1 Clinical Trial Not Allowed)	DCTD
06/28/2023	CA23-026	U19	Advancing Cancer Control Equity Research Through Transformative Solutions (U19 Clinical Trial Optional)	DCCPS
	CA23-027	U24	Advancing Cancer Control Equity Research Through Transformative Solutions Coordination Center (U24 Clinical Trial Optional)	

continued

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

**Table 1a (cont'd). Requests for Applications (RFAs) Published by the NCI in FY2023**  
*Sorted by Date of Publication*

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center
07/17/2023	CA23-036	U01	Mechanisms of Fusion-Driven Oncogenesis in Childhood Cancers (U01 Clinical Trial Not Allowed)	DCB
	CA23-037	UM1	Next-Generation Chemistry Centers for Fusion Oncoproteins (UM1 Clinical Trial Not Allowed)	DCTD
08/21/2023	CA23-042	F99, K00	The NCI Predoctoral to Postdoctoral Fellow Transition Award (F99/K00 Clinical Trial Not Allowed)	CCT
08/25/2023	CA24-007	UM1	Single Source: Pediatric Early Phase Clinical Trials Network (PEP-CTN) (UM1 Clinical Trial Required)	DCTD

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

**Table 1b. Requests for Applications (RFAs) Published by the NCI in FY2023**  
*Sorted by Division, Office, and Center*

Division, Office, and Center	RFA	Mechanism	Title	Date of Publication
CCT	CA23-033	U01	Implementation Science for Cancer Control in People Living with HIV in Low- and Middle-Income Countries (U01 Clinical Trial Optional)	04/06/2023
	CA23-042	F99, K00	The NCI Predoctoral to Postdoctoral Fellow Transition Award (F99/K00 Clinical Trial Not Allowed)	08/21/2023
CGH	CA24-005	U01	Cancer Prevention, Detection, Diagnosis, and Treatment Technologies for Global Health (U01 Clinical Trial Optional)	04/20/2023
CRCHD	CA23-013	R25	Transformative Educational Advancement and Mentoring Network (TEAM) (R25 Clinical Trial Not Allowed)	11/08/2022
CSSI	CA23-002	R61	Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R61 Clinical Trial Not Allowed)	12/02/2022
	CA23-003	R33	Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R33 Clinical Trial Not Allowed)	12/02/2022
	CA23-004	R61	Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (R61 Clinical Trial Not Allowed)	12/02/2022
	CA23-005	R33	Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (R33 Clinical Trial Not Allowed)	12/02/2022
	CA23-006	R01	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (R01 Clinical Trial Optional)	12/02/2022
	CA23-007	U01	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U01 Clinical Trial Optional)	12/02/2022
	CA23-008	U54	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U54 Clinical Trials Optional)	12/02/2022
	CA23-009	P01	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (P01 Clinical Trial Optional)	12/02/2022
	CA23-010	P50	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (P50 Clinical Trial Optional)	12/02/2022
	CA23-011	U2C	Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (U2C Clinical Trial Optional)	12/02/2022
	CA23-014	R21	Development of Innovative Informatics Methods and Algorithms for Cancer Research and Management (R21 Clinical Trial Optional)	12/22/2022
	CA23-015	U01	Early-Stage Development of Informatics Technologies for Cancer Research and Management (U01 Clinical Trial Optional)	12/22/2022
	CA23-016	U24	Advanced Development of Informatics Technologies for Cancer Research and Management (U24 Clinical Trial Optional)	12/22/2022
	CA23-017	U24	Sustained Support for Informatics Technologies for Cancer Research and Management (U24 Clinical Trial Optional)	12/22/2022

*continued*

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



**Table 1b (cont'd). Requests for Applications (RFAs) Published by the NCI in FY2023**  
Sorted by Division, Office, and Center

Division, Office, and Center	RFA	Mechanism	Title	Date of Publication
DCB	CA22-056	R01	Basic/Translational Research on Health Disparities in Underrepresented People Living with HIV (PLWH) and Cancer (R01 Clinical Trial Not Allowed)	10/03/2022
	CA22-057	R21	Basic/Translational Research on Health Disparities in Underrepresented People Living with HIV (PLWH) and Cancer (R21 Clinical Trial Not Allowed)	10/03/2022
	CA23-023	U01	Liver Cancer Collaborative Projects with the Liver Cirrhosis Network (U01 Clinical Trial Optional)	03/30/2023
	CA23-036	U01	Mechanisms of Fusion-Driven Oncogenesis in Childhood Cancers (U01 Clinical Trial Not Allowed)	07/17/2023
	CA23-038	P20	Integrating Health Disparities into Immuno-Oncology (HDIO) (P20 Clinical Trial Not Allowed)	04/27/2023
DCCPS	CA22-042	R34	Advancing Adolescent Tobacco Cessation Intervention Research (R34 Clinical Trial Optional)	10/03/2022
	CA22-043	R01	Advancing Adolescent Tobacco Cessation Intervention Research (R01 Clinical Trial Required)	10/03/2022
	CA22-052	U01	Cannabis and Cannabinoid Use in Adult Cancer Patients During Treatment: Assessing Benefits and Harms (U01 Clinical Trial Not Allowed)	10/03/2022
	CA22-053	U24	Coordinating Center for Cannabis and Cannabinoid Use in Adult Cancer Patients During Treatment: Assessing Benefits and Harms (U24 Clinical Trial Not Allowed)	10/03/2022
	CA23-025	U01	Addressing the Primary Care Needs of Cancer Survivors (U01 Clinical Trial Required)	03/09/2023
	CA23-026	U19	Advancing Cancer Control Equity Research Through Transformative Solutions (U19 Clinical Trial Optional)	06/28/2023
	CA23-027	U24	Advancing Cancer Control Equity Research Through Transformative Solutions Coordination Center (U24 Clinical Trial Optional)	06/28/2023
DCP	CA22-051	UG1	Clinical Sites for HIV/Cervical Cancer Prevention 'CASCADE' Clinical Trials Network (UG1 Clinical Trial Required)	10/03/2022
	CA23-018	U01	Precompetitive Collaboration on Liquid Biopsy for Early Cancer Assessment: Liquid Biopsy Research Laboratories (U01 Clinical Trial Not Allowed)	10/31/2022
	CA23-019	U24	Precompetitive Collaboration on Liquid Biopsy for Early Cancer Assessment: Data Management and Coordinating Unit (U24 Clinical Trial Not Allowed)	10/31/2022
	CA23-020	UG1	NCI Cancer Screening Research Network: ACCrual, Enrollment, and Screening Sites (ACCESS) Hub (UG1 Clinical Trial Required)	11/17/2022
	CA23-021	UG1	NCI Cancer Screening Research Network: Statistics and Data Management Center (UG1 Clinical Trial Required)	11/17/2022
	CA23-022	UG1	NCI Cancer Screening Research Network: Coordinating and Communication Center (UG1 Clinical Trial Required)	11/17/2022
	CA23-028	UG3, UH3	Discovery and Development of Natural Products for Cancer Interception and Prevention (UG3/UH3 Clinical Trial Not Allowed)	03/23/2023

continued

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

**Table 1b (cont'd). Requests for Applications (RFAs) Published by the NCI in FY2023**  
*Sorted by Division, Office, and Center*

Division, Office, and Center	RFA	Mechanism	Title	Date of Publication
DCP (continued)	CA23-029	UG3, UH3	Cancer Immunoprevention Network (CIP-Net) Research Projects (UG3/UH3 Clinical Trials Not Allowed)	04/20/2023
	CA23-031	U24	Precompetitive Collaboration on Liquid Biopsy for Early Cancer Assessment: Data Management and Coordinating Unit (U24 Clinical Trial Not Allowed)	03/14/2023
DCTD	CA23-024	UM1	Limited Competition: Cooperative Human Tissue Network (CHTN) (UM1 Clinical Trial Not Allowed)	5/31/2023
	CA23-037	UM1	Next-Generation Chemistry Centers for Fusion Oncoproteins (UM1 Clinical Trial Not Allowed)	07/17/2023
	CA24-007	UM1	Single Source: Pediatric Early Phase Clinical Trials Network (PEP-CTN) (UM1 Clinical Trial Required)	08/25/2023
SBIR	CA23-034	R44	SBIR Phase IIB Bridge Awards to Accelerate the Development of Cancer-Relevant Technologies Toward Commercialization (R44 Clinical Trial Optional)	04/21/2023
	CA23-035	R42	Small Business Transition Grant for Early Career Scientists (R42 Clinical Trial Not Allowed)	

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

**Table 2. NCI Participation in NIH-Wide Requests for Applications (RFAs) in FY2023**

*Sorted by Date of Publication*

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center	Issuing NIH IC
10/03/2022	OD22-027	T32	Advanced Training in Artificial Intelligence for Precision Nutrition Science Research (AIPrN) Institutional Research Training Programs (T32)	CCT	NIH
10/13/2022	DE23-013	U01	AHEAD (Advancing Head and Neck Cancer Early Detection Research) (U01 Clinical Trial Not Allowed)	DCP	NIH
11/04/2022	NS22-069	RM1	HEAL Initiative Integrated Basic and Clinical Team-Based Research in Pain (RM1 Clinical Trial Optional)	DCP	NIH
11/10/2022	OD22-024	K01	Mentored Research Scientist Career Development Award in Tobacco Regulatory Research (K01 Independent Clinical Trial Required)	CCT DCCPS	NIH FDA
	OD22-025	K99, R00	Pathway to Independence Award in Tobacco Regulatory Research (K99/R00 Independent Clinical Trial Not Allowed)		
	OD22-026	K99, R00	Pathway to Independence Award in Tobacco Regulatory Research (K99/R00 Independent Clinical Trial Required)		
12/2/2022	OD23-005	U01	NIH Research Evaluation and Commercialization Hubs (REACH) Awards (U01 Clinical Trial Optional)	OD	NIH
12/13/2022	OD23-003	R25	Short Courses on Innovative Methodologies and Approaches in the Behavioral and Social Sciences (R25 Independent Clinical Trial Not Allowed)	CCT	NIH
12/15/2022	NS22-022	K99, R00	HEAL Initiative Advanced Postdoctoral-to-Independent Career Transition Award in PAIN and SUD Research (K99/R00 Independent Clinical Trial Not Allowed)	CCT	NIH
	NS22-023	K99, R00	HEAL Initiative Advanced Postdoctoral-to-Independent Career Transition Award in PAIN and SUD Research (Independent Basic Experimental Studies with Humans Required)		
	NS22-024	K99, R00	HEAL Initiative Advanced Postdoctoral-to-Independent Career Transition Award in PAIN and SUD Research to Promote Diversity (K99/R00 Independent Basic Experimental Studies with Humans Required)		
	NS22-025	K99, R00	HEAL Initiative Advanced Postdoctoral-to-Independent Career Transition Award in PAIN and SUD Research to Promote Diversity (K99/R00 Independent Clinical Trial Not Allowed)		
12/23/2022	PM23-001	R21	Enhancing the Use of the <i>All of Us</i> Research Programs Data (R21 Clinical Trial Not Allowed)	DCCPS	NIH
	PM23-002	R03	Small Grants to Enhance the Use of the <i>All of Us</i> Research Programs Data (R03 Clinical Trial Not Allowed)		
12/27/2022	TR23-001	U2C	Translational Centers for Microphysiological Systems (TraCe MPS) (U2C Clinical Trials Not Allowed)	DCTD	NIH FDA
02/15/2023	NS24-018	UG3, UH3	HEAL Initiative: Discovery of Biomarkers and Biomarker Signatures to Facilitate Clinical Trials for Pain Therapeutics (UG3/UH3 Clinical Trial Optional)	DCP	NIH
03/01/2023	ES23-007	P20	Exploratory Grants for Climate Change and Health Research Center Development (P20 Clinical Trial Optional)	DCCPS	NIH
03/08/2023	OD23-014	R01	Understanding Chronic Conditions Understudied Among Women (R01 Clinical Trial Optional)	DCP	NIH

*continued*

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

**Table 2 (cont'd). NCI Participation in NIH-Wide Requests for Applications (RFAs) in FY2023**

*Sorted by Date of Publication*

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center	Issuing NIH IC
03/09/2023	OD23-013	R21	Understanding Chronic Conditions Understudied Among Women (R21 Clinical Trial Optional)	DCP	NIH
03/30/2023	OD23-015	R01	Request for Applications (RFA): Revision Applications to Support Research on Prevention and Cessation of Menthol Cigarette Use in Populations that Experience Health Disparities (R01 Clinical Trial Optional)	DCCPS	NIH
04/07/2023	DE24-001	R01	Understanding Persistent Oral Human Papillomavirus and Human Immunodeficiency Virus Co-infection and Its Role with Oropharyngeal Cancer Induction (R01 Clinical Trial Not Allowed)	OHAM	NIH
04/19/2023	TR23-011	DP2	Emergency Awards: HEAL Initiative – New Innovator Award (DP2 Clinical Trial Not Allowed)	DCP	NIH
04/27/2023	NS23-028	RM1	HEAL Initiative: Interdisciplinary Team Science to Uncover the Mechanisms of Pain Relief by Medical Devices (RM1 Clinical Trial Optional)	DCP	NIH
05/02/2023	OD23-050	R21	Emergency Award: Novel Insights Through Cross-Site Analyses of Existing RADx-UP Data (R21 Clinical Trial Not Allowed)	DCCPS	NIH
	OD23-051	R01	Emergency Award: RADx-UP Dissemination and Implementation (D and I) Research on COVID-19 Testing Interventions Among Underserved and Vulnerable Populations (R01 Clinical Trial Optional)		
05/03/2023	OD23-017	R01	Tobacco Regulatory Science (R01 Clinical Trial Optional)	DCCPS	NIH FDA
05/09/2023	NS24-015	R90, T90	HEAL Initiative Partnerships to Advance Interdisciplinary (PAIN) Training in Clinical Pain Research: The HEAL PAIN Cohort Program (T90/R90 Independent Clinical Trial Not Allowed)	CCT	NIH
06/05/2023	HG23-017	R01	Investigator-Initiated Research in Genomics and Health Equity (R01 Clinical Trial Optional)	DCCPS	NIH
06/08/2023	AG24-025	R01	Leveraging Social Networks to Promote Widespread Individual Behavior Change (R01 Clinical Trial Optional)	DCCPS	NIH
	AG24-026	R34	Leveraging Social Networks to Promote Widespread Individual Behavior Change (R34 Clinical Trial Optional)		
	AT24-003	R33, R61	HEAL Initiative: Toward Developing Quantitative Imaging and Other Relevant Biomarkers of Myofascial Tissues for Clinical Pain Management (R61/R33 Clinical Trial Required)	DCP	NIH
06/20/2023	HL24-010	UG1	The Blood and Marrow Transplant Clinical Trials Network – Core Clinical Centers (UG1 Clinical Trial Optional)	DCTD	NIH
	HL24-011	U24	The Blood and Marrow Transplant Clinical Trials Network – Data Coordinating Center (U24 Clinical Trial Not Allowed)		
07/06/2023	OD23-018	T32	ADVANCE Predoctoral T32 Training Program to Promote Diversity in Health Disparities Research, Preventive Interventions, and Methodology (T32 Clinical Trial Not Allowed)	CCT	NIH
08/01/2023	OD23-021	U01	Public Health Communication Messaging About the Continuum of Risk for Tobacco Products (U01 Clinical Trial Required)	DCCPS	NIH FDA
08/10/2023	NS24-021	R01	HEAL Initiative: Understanding Individual Differences in Human Pain Conditions (R01 Clinical Trial Optional)	DCP	NIH

*continued*

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

**Table 2 (cont'd). NCI Participation in NIH-Wide Requests for Applications (RFAs) in FY2023**

*Sorted by Date of Publication*

Date of Publication	RFA	Mechanism	Title	Division, Office, and Center	Issuing NIH IC
08/14/2023	HD24-007	R01	Understanding and Mitigating Health Disparities Experienced by People with Disabilities Caused by Ableism (R01 Clinical Trial Optional)	DCCPS	NIH
08/18/2023	HD24-011	U01	HEAL Initiative: HEAL KIDS (Knowledge, Innovation, and Discovery Studies) Pain: Acute Pain Clinical Trials Program (U01 Clinical Trial Required)	DCP	NIH
09/01/2023	NS24-023	UG3, UH3	HEAL Initiative: Development and Validation of Remote or Patient Wearable Device Derived Objective Biosignatures or Functional Assessments to Monitor Pain for Use as Endpoints in Clinical Trials (UG3/UH3 Clinical Trial Optional)	DCP	NIH
09/11/2023	ES23-010	U24	Center for Exposome Research Coordination to Accelerate Precision Environmental Health (U24 Clinical Trial Not Allowed)	DCCPS	NIH

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



**Table 3a. Program Announcements (PAs/PARs) Published by the NCI  
in FY2023**

*Sorted by Date of Publication*

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center
10/26/2022	PAR22-239	P20	Feasibility Studies to Build Collaborative Partnerships in Cancer Research (P20 Clinical Trial Not Allowed)	CRCHD
	PAR22-249	U54	Comprehensive Partnerships to Advance Cancer Health Equity (CPACHE) (U54 Clinical Trial Optional)	
11/21/2022	PAR23-051	U01	Mechanistic Links Between Diet, Lipid Metabolism, and Tumor Growth and Progression (U01 Clinical Trial Not Allowed)	DCB
	PAR23-052	UH2	Mechanistic Links Between Diet, Lipid Metabolism, and Tumor Growth and Progression (UH2 Clinical Trial Not Allowed)	
11/23/2022	PAR22-256	UG3, UH3	Pragmatic Trials Across the Cancer Control Continuum (UG3/UH3 Clinical Trial Required)	DCCPS
12/05/2022	PAR23-058	R03	NCI Small Grants Program for Cancer Research for Years 2023, 2024, and 2025 (NCI Omnibus) (R03 Clinical Trial Optional)	ALL DIVISIONS
12/14/2022	PAR23-055	R01	Co-infection and Cancer (R01 Clinical Trial Not Allowed)	DCCPS
	PAR23-056	R21	Co-infection and Cancer (R21 Clinical Trial Not Allowed)	
	PAR23-059	P01	National Cancer Institute Program Project Applications for the Years 2023, 2024, and 2025 (P01 Clinical Trial Optional)	ALL DIVISIONS
01/06/2023	PAR23-088	R01	Revision Applications for Validation of Biomarker Assays Developed Through NIH-Supported Research Grants (R01 Clinical Trial Not Allowed)	DCTD
03/30/2023	PAR23-152	R21	Impacts of Climate Change Across the Cancer Control Continuum (R21 Clinical Trial Optional)	DCCPS
	PAR23-153	R01	Impacts of Climate Change Across the Cancer Control Continuum (R01 Clinical Trial Optional)	
04/12/2023	PAR23-155	R01	Understanding Expectancies in Cancer Symptom Management (R01 Clinical Trial Required)	DCCPS
07/20/2023	PAR23-246	R01	Innovative Research in Cancer Nanotechnology (IRCN) (R01 Clinical Trial Not Allowed)	DCTD
08/01/2023	PAR23-254	R01	Secondary Analysis and Integration of Existing Data to Elucidate Cancer Risk and Related Outcomes (R01 Clinical Trial Not Allowed)	DCCPS
	PAR23-255	R21	Secondary Analysis and Integration of Existing Data to Elucidate Cancer Risk and Related Outcomes (R21 Clinical Trials Not Allowed)	
08/08/2023	PAR23-259	R01	Academic-Industrial Partnerships (AIP) to Translate and Validate <i>In Vivo</i> Imaging Systems (R01 Clinical Trial Optional)	ALL DIVISIONS
08/09/2023	PAR23-242	R50	NCI Research Specialist (Laboratory-Based Scientist) Award (R50 Clinical Trial Not Allowed)	CSSI
	PAR23-243	R50	NCI Research Specialist (Core-Based Scientist) Award (R50 Clinical Trial Not Allowed)	
08/10/2023	PAR23-264	R01	Assay Development and Screening for Discovery of Chemical Probes, Drugs or Immunomodulators (R01 Clinical Trial Not Allowed)	DCTD
	PAR23-273	R01	Understanding Expectancies in Cancer Symptom Management (R01 Clinical Trial Required)	DCCPS
08/15/2023	PAR23-244	R01	Population Approaches to Reducing Alcohol-Related Cancer Risk (R01 Clinical Trial Optional)	DCCPS

*continued*

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

**Table 3a (cont'd). Program Announcements (PAs/PARs) Published by the NCI  
in FY2023**

*Sorted by Date of Publication*

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center
08/18/2023	PAR23-281	R01	Research Projects to Enhance Applicability of Mammalian Models for Translational Research (R01 Clinical Trial Not Allowed)	DCCPS
08/23/2023	PAR23-279	R01	Mechanisms That Impact Cancer Risk with Use of Incretin Mimetics (R01 Clinical Trial Optional)	DCP
08/24/2023	PAR23-280	R21	Mechanisms That Impact Cancer Risk with Use of Incretin Mimetics (R21 Clinical Trial Not Allowed)	DCP
09/07/2023	PAR23-292	R01	Improving Care and Outcomes for Cancer Survivors from Sexual and Gender Minority (SGM) Populations (R01 Clinical Trial Optional)	DCCPS
09/22/2023	PAR23-284	P50	Specialized Programs of Research Excellence (SPoREs) in Human Cancers for Years 2024, 2025, and 2026 (P50 Clinical Trial Required)	DCTD
09/29/2023	PAR23-276	R25	Cancer Research Education Grants Program – Courses for Skills Development (R25 Clinical Trial Not Allowed)	CCT
	PAR23-277	R25	Cancer Research Education Grants Program – Research Experiences (R25 Clinical Trial Not Allowed)	
	PAR23-278	R25	Cancer Research Education Grants Program – Curriculum or Methods Development (R25 Clinical Trial Not Allowed)	

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

**Table 3b. Program Announcements (PAs/PARs) Published by the NCI  
in FY2023**

*Sorted by Division, Office, and Center*

Division, Office, and Center	PA/PAR	Mechanism	Title	Date of Publication
ALL DIVISIONS	PAR23-058	R03	NCI Small Grants Program for Cancer Research for Years 2023, 2024, and 2025 (NCI Omnibus) (R03 Clinical Trial Optional)	12/05/2022
	PAR23-059	P01	National Cancer Institute Program Project Applications for the Years 2023, 2024, and 2025 (P01 Clinical Trial Optional)	12/14/2022
	PAR23-259	R01	Academic-Industrial Partnerships (AIP) to Translate and Validate <i>In Vivo</i> Imaging Systems (R01 Clinical Trial Optional)	08/08/2023
CCT	PAR23-276	R25	Cancer Research Education Grants Program – Courses for Skills Development (R25 Clinical Trial Not Allowed)	09/29/2023
	PAR23-277	R25	Cancer Research Education Grants Program – Research Experiences (R25 Clinical Trial Not Allowed)	
	PAR23-278	R25	Cancer Research Education Grants Program – Curriculum or Methods Development (R25 Clinical Trial Not Allowed)	
CRCHD	PAR22-239	P20	Feasibility Studies to Build Collaborative Partnerships in Cancer Research (P20 Clinical Trial Not Allowed)	10/26/2022
	PAR22-249	U54	Comprehensive Partnerships to Advance Cancer Health Equity (CPACHE) (U54 Clinical Trial Optional)	
CSSI	PAR23-242	R50	NCI Research Specialist (Laboratory-Based Scientist) Award (R50 Clinical Trial Not Allowed)	08/09/2023
	PAR23-243	R50	NCI Research Specialist (Core-Based Scientist) Award (R50 Clinical Trial Not Allowed)	
DCB	PAR23-051	U01	Mechanistic Links Between Diet, Lipid Metabolism, and Tumor Growth and Progression (U01 Clinical Trial Not Allowed)	11/21/2022
	PAR23-052	UH2	Mechanistic Links Between Diet, Lipid Metabolism, and Tumor Growth and Progression (UH2 Clinical Trial Not Allowed)	
DCCPS	PAR22-256	UG3, UH3	Pragmatic Trials Across the Cancer Control Continuum (UG3/UH3 Clinical Trial Required)	11/23/2022
	PAR23-055	R01	Co-infection and Cancer (R01 Clinical Trial Not Allowed)	12/14/2022
	PAR23-056	R21	Co-infection and Cancer (R21 Clinical Trial Not Allowed)	
	PAR23-152	R21	Impacts of Climate Change Across the Cancer Control Continuum (R21 Clinical Trial Optional)	03/30/2023
	PAR23-153	R01	Impacts of Climate Change Across the Cancer Control Continuum (R01 Clinical Trial Optional)	
	PAR23-155	R01	Understanding Expectancies in Cancer Symptom Management (R01 Clinical Trial Required)	04/12/2023
	PAR23-254	R01	Secondary Analysis and Integration of Existing Data to Elucidate Cancer Risk and Related Outcomes (R01 Clinical Trial Not Allowed)	08/01/2023
	PAR23-255	R21	Secondary Analysis and Integration of Existing Data to Elucidate Cancer Risk and Related Outcomes (R21 Clinical Trials Not Allowed)	
	PAR23-273	R01	Understanding Expectancies in Cancer Symptom Management (R01 Clinical Trial Required)	08/10/2023
	PAR23-244	R01	Population Approaches to Reducing Alcohol-Related Cancer Risk (R01 Clinical Trial Optional)	08/15/2023
	PAR23-281	R01	Research Projects to Enhance Applicability of Mammalian Models for Translational Research (R01 Clinical Trial Not Allowed)	08/18/2023
	PAR23-292	R01	Improving Care and Outcomes for Cancer Survivors from Sexual and Gender Minority (SGM) Populations (R01 Clinical Trial Optional)	09/07/2023

*continued*

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

**Table 3b (cont'd). Program Announcements (PAs/PARs) Published by the NCI in FY2023**

*Sorted by Division, Office, and Center*

Division, Office, and Center	PA/PAR	Mechanism	Title	Date of Publication
DCP	PAR23-279	R01	Mechanisms That Impact Cancer Risk with Use of Incretin Mimetics (R01 Clinical Trial Optional)	08/23/2023
	PAR23-280	R21	Mechanisms That Impact Cancer Risk with Use of Incretin Mimetics (R21 Clinical Trial Not Allowed)	08/24/2023
DCTD	PAR23-088	R01	Revision Applications for Validation of Biomarker Assays Developed Through NIH-Supported Research Grants (R01 Clinical Trial Not Allowed)	01/06/2023
	PAR23-246	R01	Innovative Research in Cancer Nanotechnology (IRCN) (R01 Clinical Trial Not Allowed)	07/20/2023
	PAR23-264	R01	Assay Development and Screening for Discovery of Chemical Probes, Drugs or Immunomodulators (R01 Clinical Trial Not Allowed)	08/10/2023
	PAR23-284	P50	Specialized Programs of Research Excellence (SPOREs) in Human Cancers for Years 2024, 2025, and 2026 (P50 Clinical Trial Required)	09/22/2023

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

**Table 4. NCI Participation in NIH-Wide Program Announcements (PAs/PARs)  
in FY2023**

*Sorted by Date of Publication*

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center	Issuing NIH IC
10/3/2022	PAR22-195	R25	Investigation of Co-occurring conditions across the Lifespan to Understand Down syndromE (INCLUDE) Clinical Research Short Course (R25 Independent Clinical Trial Not Allowed)	DCB	NIH
10/13/2022	PAR22-247	R24	Development of Animal Models and Related Biological Materials for Down Syndrome Research (R24 Clinical Trials Not Allowed)	DCB	NIH
12/07/2022	PAR23-042	R01	Implementation Research on Noncommunicable Disease Risk Factors Among Low- and Middle-Income Country and Tribal Populations Living in City Environments (R01 Clinical Trial Optional)	CGH	NIH
12/22/2022	PAR23-001	R01	NSF/NIH Smart and Connected Health Program (R01)		NSF/NIH
	PAR23-078	U24	Biomedical Knowledgebase (U24 Clinical Trials Not Allowed)	CSSI	NIH
	PAR23-079	U24	Biomedical Data Repository (U24 Clinical Trials Not Allowed)		
	PAR23-085	U24	Genomic Community Resources (U24 Clinical Trial Not Allowed)	DCCPS	NIH
12/23/2022	PAR23-075	R03	Small Research Grants for Analyses of Gabriella Miller Kids First Pediatric Research Data (R03 Clinical Trial Not Allowed)	DCCPS	NIH
01/26/2023	PA23-048	T32	Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant (Parent T32)	CCT	NIH
03/01/2023	PAR23-124	U24	Genomic Community Resources (U24 Clinical Trial Not Allowed)	DCCPS	NIH
03/09/2023	PAR23-109	FM1	NIH Medical Scientist Partnership Program (FM1 Clinical Trial Not Allowed)	CCT	NIH
	PAR23-116	P30	Centers for AIDS Research (P30 Clinical Trial Not Allowed)		
	PAR23-117	P30	Developmental Centers for AIDS Research (P30 Clinical Trial Not Allowed)	OHAM	NIH
03/15/2023	PAR23-123	R25	Entry-Level Modules (ELM) for Training the Genomics Research Workforce (R25 Clinical Trial Not Allowed)	CCT	NIH
04/17/2023	PAR23-156	R00, SI2	Lasker Clinical Research Scholars Program (SI2/R00 Clinical Trial Optional)	DCCPS DCP	NIH
04/19/2023	PAR23-170	R01	Interventions to Expand Cancer Screening and Preventive Services to ADVANCE Health in Populations That Experience Health Disparities (R01 Clinical Trial Required)	DCCPS	NIH
05/10/2023	PAR23-190	R01	Interventions for Stigma Reduction to Improve HIV/AIDS Prevention, Treatment and Care in Low- and Middle-Income Countries (R01 Clinical Trial Optional)	OHAM	NIH
	PAR23-191	R21	HIV-Associated Non-communicable Diseases Research at Low- and Middle-Income Country Institutions (R21 Clinical Trial Optional)		
05/24/2023	PAR23-182	U01	Accelerating Behavioral and Social Science Through Ontology Development and Use: Research Network Projects (U01 Clinical Trial Not Allowed)	DCCPS	NIH
05/26/2023	PAR23-184	X01	Center for Inherited Disease Research (CIDR) High-Throughput Sequencing and Genotyping Resource Access (X01 Clinical Trial Not Allowed)	DCCPS	NIH

*continued*

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

**Table 4 (cont'd). NCI Participation in NIH-Wide Program Announcements (PAs/PARs) in FY2023**

*Sorted by Date of Publication*

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center	Issuing NIH IC
06/02/2023	PAR23-166	S06	Native American Research Centers for Health (NARCH) (S06 Clinical Trial Optional)	DCCPS	NIH
06/05/2023	PAR23-203	U01	Limited Competition: Collaborative Partnership to Advance Global Health Research (U01 Clinical Trial Not Allowed)	CGH	NIH
06/06/2023	PAR23-199	U24	ClinGen Genomic Curation Expert Panels (U24 Clinical Trial Not Allowed)	DCCPS	NIH
06/28/2023	PA23-189	333	Research Supplements to Promote Diversity in Health-Related Research (Admin Supp Clinical Trial Not Allowed)	CRCHD	NIH CDC
07/12/2023	PA23-230	R43, R44	PHS 2023-2 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
	PA23-231	R43, R44	PHS 2023-2 Omnibus Solicitation of the NIH and CDC for Small Business Innovation Research Grant Applications (Parent SBIR [R43/R44] Clinical Trial Required)		
	PA23-232	R41, R42	PHS 2023-2 Omnibus Solicitation of the NIH for Small Business Technology Transfer Grant Applications (Parent STTR [R41/R42] Clinical Trial Not Allowed)		
	PA23-233	R41, R42	PHS 2023-2 Omnibus Solicitation of the NIH for Small Business Technology Transfer Grant Applications (Parent STTR [R41/R42] Clinical Trial Required)		
	PAR23-219	SB1	SBIR/STTR Commercialization Readiness Pilot (CRP) Program Technical Assistance and Late-Stage Development (SB1 Clinical Trial Not Allowed)		
08/11/2023	PAR23-229	X01	NIH Brain Development Cohorts (NBDC) Biospecimen Access (X01 Clinical Trial Not Allowed)	DCCPS	NIH
08/16/2023	PA23-260	F30	Ruth L. Kirschstein National Research Service Award (NRSA) Individual Fellowship for Students at Institutions with NIH-Funded Institutional Predoctoral Dual-Degree Training Programs (Parent F30)	CCT	NIH
	PA23-272	F31	Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship (Parent F31)	DCCPS	NIH
	PAR23-270	R01	Screening, Brief Intervention and Referral to Treatment or Prevention (SBIRT/P) for Alcohol, Tobacco, and Other Drugs (ATOD) Use and Misuse in Adult Populations That Experience Health Disparities (R01 Clinical Trial Required)		
08/30/2023	PAR23-237	U24	Enhancement and Management of Established Biomedical Data Repositories and Knowledgebases (U24 Clinical Trial Not Allowed)	DCB DCTD	NIH
09/07/2023	PA23-261	F30	Ruth L. Kirschstein National Research Service Award (NRSA) Individual Fellowship for Students at Institutions Without NIH-Funded Institutional Predoctoral Dual-Degree Training Programs (Parent F30)	CCT	NIH
	PA23-262	F32	Ruth L. Kirschstein National Research Service Award (NRSA) Individual Postdoctoral Fellowship (Parent F32)		

*continued*

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



**Table 4 (cont'd). NCI Participation in NIH-Wide Program Announcements (PAs/PARs) in FY2023**

*Sorted by Date of Publication*

Date of Publication	PA/PAR	Mechanism	Title	Division, Office, and Center	Issuing NIH IC
09/11/2023	PAR23-298	R01	Intervention Research to Improve Native American Health (R01 Clinical Trial Optional)	DCCPS	NIH
	PAR23-299	R21	Intervention Research to Improve Native American Health (R21 Clinical Trials Optional)		
09/12/2023	PA23-271	F31	Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship to Promote Diversity in Health-Related Research (Parent F31 Diversity)	CRCHD	NIH
09/26/2023	PAR23-309	R01	Health and Health Care Disparities Among Persons Living with Disabilities (R01 Clinical Trials Optional)	DCCPS	NIH

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

**Table 5. Applications Received for Referral by the NCI DEA in FY2023**  
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	1	1	0	0	\$285,862
NIH Director's Pioneer Award (NDPA)	DP1	1	0	1	0	\$3,500,000
NIH Director's New Innovator Awards	DP2	23	0	9	14	\$14,074,050
Individual Predoctoral NRSA for M.D./Ph.D. Fellowships (ADAMHA)	F30	252	69	98	85	\$0
Predoctoral Individual National Research Service Award	F31	644	192	226	226	\$0
Postdoctoral Individual National Research Service Award	F32	161	51	63	47	\$0
Predoctoral to Postdoctoral Transition Award	F99	46	0	46	0	\$0
Research Scientist Development Award – Research & Training	K01	44	16	3	25	\$7,230,667
Clinical Investigator Award	K08	240	80	88	72	\$54,604,950
Physician Scientist Award (Program)	K12	14	13	1	0	\$5,205,151
Career Transition Award	K22	107	33	33	41	\$18,873,874
Mentored Patient-Oriented Research Development Award	K23	0	0	0	0	\$0
Mentored Quantitative Research Career Development	K25	3	1	2	0	\$461,101
Early Stage Mentored Research and Career Development	K38	1	0	1	0	\$91,578
International Research Career Development Award	K43	34	0	34	0	\$4,472,834
Career Transition Award	K99	301	78	100	123	\$39,884,478
Loan Repayment Program for Clinical Researchers	L30	182	0	1	181	\$0
Loan Repayment Program for Pediatric Research	L40	48	0	0	48	\$0
Loan Repayment Program for Health Disparities Research (HD-LRP)	L60	73	0	1	72	\$0
Loan Repayment Program for Research in Emerging Areas Critical to Human Health	L70	22	0	4	18	\$0
Research Project – Other Transaction Award	OT2	23	22	0	1	\$0
Research Program Projects	P01	86	28	30	28	\$236,912,056
Exploratory Grants	P20	12	0	3	9	\$12,613,261
Center Core Grants	P30	18	11	3	4	\$76,398,859
Specialized Center	P50	58	10	38	10	\$136,553,369
Research Project	R01	6,969	2,326	2,407	2,236	\$4,431,207,815
Small Research Grants	R03	377	121	125	131	\$31,487,320
Conferences	R13	72	20	33	19	\$2,765,021
Academic Research Enhancement Awards (AREA)	R15	178	57	61	60	\$77,257,331
Research Excellence Award	R16	54	34	20	0	\$8,847,887
Research Demonstration and Dissemination Projects	R18	1	0	1	0	\$970,489

*continued*

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 437 withdrawn applications have been subtracted from the total count.

**Table 5. (cont'd). Applications Received for Referral by the NCI DEA in FY2023**  
Sorted by Activity Code

Mechanism	Activity Code	Totals by Activity	Applications by NCAB			Total Costs Requested First Year
			Feb	June	Sept	
Exploratory/Developmental Grants	R21	1,853	714	608	531	\$416,679,472
Education Projects	R25	111	24	56	31	\$31,708,735
Exploratory/Developmental Grants Phase II	R33	100	50	24	26	\$48,260,899
Planning Grant	R34	37	0	17	20	\$11,853,846
Outstanding Investigator Award	R35	103	0	102	1	\$100,614,688
Method to Extend Research in Time (MERIT) Award	R37	48	11	26	11	\$30,125,063
Mentored Research Pathway in Residency	R38	4	0	0	4	\$1,533,036
Small Business Technology Transfer (STTR) Grants – Phase I	R41	241	91	67	83	\$83,121,483
Small Business Technology Transfer (STTR) Grants – Phase II	R42	60	34	14	12	\$31,278,969
Small Business Innovation Research Grants (SBIR) – Phase I	R43	697	262	203	232	\$230,687,662
Small Business Innovation Research Grants (SBIR) – Phase II	R44	431	169	123	139	\$369,146,292
Research Specialist Award	R50	118	11	84	23	\$18,693,450
High-Priority, Short-Term Project Award	R56	16	4	11	1	\$0
Phase 1 Exploratory/Developmental Grant	R61	168	74	33	61	\$42,754,378
Multiyear Funded Research Project Grant	RF1	1	0	0	1	\$674,100
Research Project with Complex Structure	RM1	5	0	2	3	\$7,875,375
Commercialization Readiness Program	SB1	6	1	0	5	\$1,254,940
Intramural Clinical Scholar Research Award	SI2	8	8	0	0	\$0
Institutional National Research Service Award	T32	119	42	48	29	\$66,462,785
Research Project (Cooperative Agreements)	U01	457	95	192	170	\$417,262,599
Research Program (Cooperative Agreement)	U19	10	4	2	4	\$30,013,503
Resource-Related Research Project (Cooperative Agreements)	U24	63	22	31	10	\$77,465,335
Resource-Related Research Multi-component Projects and Centers Cooperative Agreements	U2C	26	10	0	16	\$38,111,388
Planning Cooperative Agreement	U34	6	0	3	3	\$2,232,010
Specialized Center (Cooperative Agreements)	U54	191	81	95	15	\$286,412,091
Clinical Research Cooperative Agreements – Single Project	UG1	49	0	12	37	\$46,451,407
Phase 1 Exploratory/Developmental Cooperative Agreement	UG3	84	0	79	5	\$159,857,394
Exploratory/Developmental Cooperative Agreement Phase I	UH2	23	4	6	13	\$5,597,726
Exploratory/Developmental Cooperative Agreement Phase II	UH3	4	2	2	0	\$1,624,619
Pre-application	X02	4	0	4	0	\$0
<b>Overall Totals</b>		<b>15,088</b>	<b>4,876</b>	<b>5,276</b>	<b>4,936</b>	<b>\$7,721,451,198</b>

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 437 withdrawn applications have been subtracted from the total count.

**Table 6. Grant and Cooperative Agreement Applications Reviewed by the NCI DEA in FY2023**  
Sorted by Activity Code

Mechanism	Activity Code	Totals by Activity	Applications by NCAB			Total Costs Requested First Year
			Feb	June	Sept	
Predocutorial to Postdoctoral Transition Award	F99	46	0	46	0	\$0
Research Scientist Development Award – Research & Training	K01	19	10	3	6	\$2,769,002
Clinical Investigator Award	K08	221	76	78	67	\$51,105,326
Physician Scientist Award (Program)	K12	13	13	0	0	\$4,287,548
Career Transition Award	K22	107	33	33	41	\$18,873,874
Mentored Quantitative Research Career Development	K25	2	0	2	0	\$321,241
Early Stage Mentored Research and Career Development	K38	1	0	1	0	\$91,578
Career Transition Award	K99	265	70	82	113	\$35,593,635
Loan Repayment Program for Clinical Researchers	L30	154	0	0	154	\$0
Loan Repayment Program for Pediatric Research	L40	38	0	0	38	\$0
Loan Repayment Program for Health Disparities Research (HD-LRP)	L60	46	0	0	46	\$0
Loan Repayment Program for Research in Emerging Areas Critical to Human Health	L70	13	0	0	13	\$0
Research Project – Other Transaction Award	OT2	22	22	0	0	\$0
Research Program Projects	P01	86	28	30	28	\$236,912,056
Exploratory Grants	P20	7	0	1	6	\$4,126,174
Center Core Grants	P30	14	7	3	4	\$66,871,764
Specialized Center	P50	58	10	38	10	\$136,553,369
Research Project	R01	92	0	84	8	\$65,044,408
Small Research Grants	R03	337	115	117	105	\$26,749,025
Conferences	R13	50	13	23	14	\$2,069,586
Exploratory/Developmental Grants	R21	1,087	442	310	335	\$244,179,663
Education Projects	R25	102	22	56	24	\$29,677,479
Exploratory/Developmental Grants Phase II	R33	100	50	24	26	\$48,260,899
Planning Grant	R34	37	0	17	20	\$11,853,846
Outstanding Investigator Award	R35	102	0	102	0	\$100,180,261
Method to Extend Research in Time (MERIT) Award	R37	4	0	4	0	\$2,130,827
Mentored Research Pathway in Residency	R38	4	0	0	4	\$1,533,036
Small Business Technology Transfer (STTR) Grants – Phase II	R42	11	11	0	0	\$3,060,143
Small Business Innovation Research Grants (SBIR) – Phase II	R44	28	28	0	0	\$47,965,210
Research Specialist Award	R50	118	11	84	23	\$18,693,450
Phase 1 Exploratory/Developmental Grant	R61	162	73	29	60	\$38,674,366
Institutional National Research Service Award	T32	94	31	41	22	\$35,542,904

continued

Source: Office of Referral, Review, and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 142 withdrawn applications have been subtracted from the total count.

**Table 6. (cont'd). Grant and Cooperative Agreement Applications Reviewed by the NCI DEA in FY2023**  
Sorted by Activity Code

Mechanism	Activity Code	Totals by Activity	Applications by NCAB			Total Costs Requested First Year
			Feb	June	Sept	
Research Project (Cooperative Agreements)	U01	333	89	144	100	\$245,188,053
Research Program (Cooperative Agreement)	U19	1	0	1	0	\$2,849,263
Resource-Related Research Project (Cooperative Agreements)	U24	41	9	28	4	\$45,854,766
Resource-Related Research Multi-component Projects and Centers Cooperative Agreements	U2C	9	9	0	0	\$7,508,398
Planning Cooperative Agreement	U34	6	0	3	3	\$2,232,010
Specialized Center (Cooperative Agreements)	U54	96	12	69	15	\$162,109,199
Clinical Research Cooperative Agreements – Single Project	UG1	49	0	12	37	\$46,451,407
Phase 1 Exploratory/Developmental Cooperative Agreement	UG3	15	0	15	0	\$20,929,514
Exploratory/Developmental Cooperative Agreement Phase I	UH2	23	4	6	13	\$5,597,726
Exploratory/Developmental Cooperative Agreement Phase II	UH3	4	2	2	0	\$1,624,619
Pre-application	X02	4	0	4	0	\$0
<b>Overall Totals</b>		<b>4,021</b>	<b>1,190</b>	<b>1,492</b>	<b>1,339</b>	<b>\$1,773,465,625</b>

Source: Office of Referral, Review, and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 142 withdrawn applications have been subtracted from the total count.

**Table 7. Applications Reviewed by NCI IRG Study Sections and Special Emphasis Panels (SEPs) in FY2023**

NCI IRG Study Section	Types of Applications Reviewed	Total by Committee	Total Costs Requested First Year
A – Cancer Centers	P30	13	\$63,754,887
F – Institutional Training and Education	K12, R25, T32	197	\$64,684,411
I – Transition to Independence	K08, K99	207	\$28,037,239
J – Career Development	K01, K08, K22, K25	248	\$55,203,766
<b>Totals – NCI IRG Study Sections</b>		<b>665</b>	<b>\$211,680,303</b>
Total SEPs	F99, K22, K38, K99, L30, L40, L60, L70, OT2, P01, P20, P30, P50, R01, R03, R13, R21, R25, R33, R34, R35, R37, R38, R42, R44, R50, R61, T32, U01, U19, U24, U2C, U34, U54, UG1, UG3, UH2, UH3, X02	3,356	\$1,561,785,322
<b>Totals</b>		<b>4,021</b>	<b>\$1,773,465,625</b>

Source: Office of Referral, Review, and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 126 withdrawn applications have been subtracted from the total count of the SEPs, and 16 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 FY2023**  
*Sorted by NCAB Meeting*

Type of Application	February	June	September	FY Total
New	11	16	14	41
Resubmitted New	10	8	8	26
Renewal	4	4	3	11
Resubmitted Renewal	3	2	2	7
Revisions	0	0	1	1
<b>Total</b>	<b>28</b>	<b>30</b>	<b>28</b>	<b>86</b>

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 FY2023**  
*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)	32	\$86,175,237	\$428,527,433
Division of Cancer Control and Population Sciences (DCCPS)	10	\$26,768,379	\$135,366,590
Division of Cancer Prevention (DCP)	7	\$20,838,106	\$109,781,493
Division of Cancer Treatment and Diagnosis (DCTD)	37	\$103,130,334	\$515,048,082
<b>Totals</b>	<b>86</b>	<b>\$236,912,056</b>	<b>\$1,188,723,598</b>

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 FY2023**

Title of Initiative	RFA Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Total	Feb	June	Sept	
National Cancer Institute Youth Enjoy Science Research Education Program (R25 Clinical Trial Not Allowed)	CA21-020	R25	34	0	34	0	\$11,292,433
Research Centers for Cancer Systems Biology (U54 Clinical Trial Not Allowed)	CA21-048	U54	20	0	20	0	\$48,477,115
Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R61 Clinical Trial Not Allowed)	CA22-001	R61	92	66	26	0	\$21,970,046
Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R33 Clinical Trial Not Allowed)	CA22-002	R33	65	44	21	0	\$31,243,609
Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (R61 Clinical Trial Not Allowed)	CA22-003	R61	10	7	3	0	\$2,236,830
Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (R33 Clinical Trial Not Allowed)	CA22-004	R33	9	6	3	0	\$4,403,685
Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (P50 Clinical Trial Optional)	CA22-009	P50	1	0	1	0	\$255,040
Patient-Derived Xenograft (PDX) Development and Trial Centers (PDXCs) Network (U54 Clinical Trial Not Allowed)	CA22-012	U54	11	0	11	0	\$14,287,404
PDX Data Commons and Coordinating Center (PDCCC) for the PDX Development and Trial Centers Research Network (PDXNet) (U24 Clinical Trial Not Allowed)	CA22-013	U24	1	0	1	0	\$1,045,928
Cancer Control Research in Persistent Poverty Areas (U54 Clinical Trial Optional)	CA22-015	U54	12	12	0	0	\$28,505,600
Pediatric Immunotherapy Network (PIN) (U01 Clinical Trial Optional)	CA22-016	U01	34	0	34	0	\$24,587,071
Small Business Transition Grant for Early Career Scientists (R42 Clinical Trial Not Allowed)	CA22-017	R42	11	11	0	0	\$3,060,143
Global Implementation Science for Equitable Cancer Control (GlobalISE Cancer Control, U54 Clinical Trial Optional)	CA22-019	U54	20	0	20	0	\$20,289,897
Cancer Prevention, Detection, Diagnosis, and Treatment Technologies for Global Health (U01 Clinical Trial Optional)	CA22-020	U01	20	20	0	0	\$13,517,706
Development of Innovative Informatics Methods and Algorithms for Cancer Research and Management (R21 Clinical Trial Optional)	CA22-021	R21	71	25	46	0	\$16,133,487
Early Stage Development of Informatics Technologies for Cancer Research and Management (U01 Clinical Trial Optional)	CA22-022	U01	58	23	35	0	\$27,794,761
Advanced Development of Informatics Technologies for Cancer Research and Management (U24 Clinical Trial Optional)	CA22-023	U24	21	5	16	0	\$19,526,569

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Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 69 withdrawn applications have been subtracted from the total count.

**Table 10 (cont'd). Requests for Applications (RFAs) Reviewed by the NCI DEA in FY2023**

Title of Initiative	RFA Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Total	Feb	June	Sept	
Sustained Support for Informatics Technologies for Cancer Research and Management (U24 Clinical Trial Optional)	CA22-024	U24	7	3	4	0	\$5,964,406
SBIR Phase IIB Bridge Awards to Accelerate the Development of Cancer-Relevant Technologies Toward Commercialization (R44 Clinical Trial Optional)	CA22-025	R44	28	28	0	0	\$47,965,210
Limited Competition: A Data Resource for Blood and Marrow Transplants and Adoptive Cellular Therapy Research (U24 Clinical Trial Not Allowed)	CA22-026	U24	1	1	0	0	\$6,715,000
Research to Understand and Address the Survivorship Needs of Individuals Living with Advanced Cancer (R01 Clinical Trial Optional)	CA22-027	R01	38	0	38	0	\$30,212,385
Cancer Adoptive Cellular Therapy Network (Can-ACT) for Adult Cancers (UG3/UH3 Clinical Trial Required)	CA22-028	UG3	12	0	12	0	\$16,711,209
Cancer Adoptive Cellular Therapy Network (Can-ACT) for Pediatric Cancers (UG3/UH3 Clinical Trial Required)	CA22-029	UG3	3	0	3	0	\$4,218,305
Cancer Adoptive Cellular Therapy Network (Can-ACT) Coordinating Center (U24 Clinical Trial Not Allowed)	CA22-030	U24	2	0	2	0	\$960,489
Consortium on Translational Research in Early Detection of Liver Cancer: Translational Research Centers (U01 Clinical Trial Optional)	CA22-031	U01	12	0	12	0	\$10,632,028
Consortium on Translational Research in Early Detection of Liver Cancer: Data Management and Coordinating Center (U24 Clinical Trial Not Allowed)	CA22-032	U24	1	0	1	0	\$896,600
NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 Independent Clinical Trial Not Allowed)	CA22-035	K99	51	0	0	51	\$6,770,334
NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 Independent Clinical Trial Required)	CA22-036	K99	7	0	0	7	\$917,109
NCI Pathway to Independence Award for Outstanding Early Stage Postdoctoral Researchers (K99/R00 Independent Basic Experimental Studies with Humans Required)	CA22-037	K99	1	0	0	1	\$117,462
Limited Competition: Cancer Immune Monitoring and Analysis Centers (CIMACs) and Cancer Immunologic Data Center (CIDC) (U24 Clinical Trial Not Allowed)	CA22-038	U24	4	0	4	0	\$7,718,292
The Early Detection Research Network: Clinical Validation Centers (U01 Clinical Trial Optional)	CA22-039	U01	2	2	0	0	\$1,915,436
The Early Detection Research Network: Biomarker Characterization Centers (U2C Clinical Trial Not Allowed)	CA22-040	U2C	9	9	0	0	\$7,508,398
The NCI Predoctoral to Postdoctoral Fellow Transition Award (F99/K00 Clinical Trial Not Allowed)	CA22-041	F99	46	0	46	0	\$0
Advancing Adolescent Tobacco Cessation Intervention Research (R34 Clinical Trial Optional)	CA22-042	R34	3	0	0	3	\$815,291

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Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 69 withdrawn applications have been subtracted from the total count.

**Table 10 (cont'd). Requests for Applications (RFAs) Reviewed by the NCI DEA in FY2023**

Title of Initiative	RFA Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Total	Feb	June	Sept	
Advancing Adolescent Tobacco Cessation Intervention Research (R01 Clinical Trial Required)	CA22-043	R01	6	0	0	6	\$4,969,963
NCI Outstanding Investigator Award (R35 Clinical Trial Optional)	CA22-045	R35	102	0	102	0	\$100,180,261
Radiation Oncology–Biology Integration Network (ROBIN) Centers (U54 Clinical Trial Required)	CA22-046	U54	15	0	15	0	\$24,502,078
NCI Cancer Moonshot Scholars Diversity Program (CMSDP) (R01 Clinical Trial Optional)	CA22-050	R01	42	0	42	0	\$26,854,590
NCI Cancer Moonshot Scholars Diversity Program (CMSDP) (R01 Clinical Trial Optional)	CA22-050	R37	4	0	4	0	\$2,130,827
Clinical Sites for HIV/Cervical Cancer Prevention 'CASCADE' Clinical Trials Network (UG1 Clinical Trial Required)	CA22-051	UG1	12	0	12	0	\$4,683,488
Cannabis and Cannabinoid Use in Adult Cancer Patients During Treatment: Assessing Benefits and Harms (U01 Clinical Trial Not Allowed)	CA22-052	U01	19	0	0	19	\$15,244,921
The Early Detection Research Network: Clinical Validation Centers (U01 Clinical Trial Optional)	CA22-054	U01	8	8	0	0	\$7,122,331
Cancer Prevention-Interception Targeted Agent Discovery Program (CAP-IT) Centers (U54 Clinical Trial Not Allowed)	CA22-055	U54	3	0	3	0	\$3,446,851
Basic/Translational Research on Health Disparities in Underrepresented People Living with HIV (PLWH) and Cancer (R01 Clinical Trial Not Allowed)	CA22-056	R01	4	0	4	0	\$2,624,501
Basic/Translational Research on Health Disparities in Underrepresented People Living with HIV (PLWH) and Cancer (R21 Clinical Trial Not Allowed)	CA22-057	R21	2	0	2	0	\$411,106
Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R61 Clinical Trial Not Allowed)	CA23-002	R61	53	0	0	53	\$12,809,391
Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R33 Clinical Trial Not Allowed)	CA23-003	R33	23	0	0	23	\$11,061,909
Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (R61 Clinical Trial Not Allowed)	CA23-004	R61	7	0	0	7	\$1,658,099
Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (R33 Clinical Trial Not Allowed)	CA23-005	R33	3	0	0	3	\$1,551,696
Revision Applications for Incorporation of Novel NCI-Supported Technology to Accelerate Cancer Research (R01 Clinical Trial Optional)	CA23-006	R01	2	0	0	2	\$382,969
Transformative Educational Advancement and Mentoring Network (TEAM) (R25 Clinical Trial Not Allowed)	CA23-013	R25	5	0	0	5	\$1,650,519

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Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 69 withdrawn applications have been subtracted from the total count.

**Table 10 (cont'd). Requests for Applications (RFAs) Reviewed by the NCI DEA in FY2023**

Title of Initiative	RFA Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Total	Feb	June	Sept	
Precompetitive Collaboration on Liquid Biopsy for Early Cancer Assessment: Liquid Biopsy Research Laboratories (U01 Clinical Trial Not Allowed)	CA23-018	U01	13	0	0	13	\$12,364,368
NCI Cancer Screening Research Network: ACCrual, Enrollment, and Screening Sites (ACCESS) Hub (UG1 Clinical Trial Required)	CA23-020	UG1	30	0	0	30	\$33,697,435
NCI Cancer Screening Research Network: Statistics and Data Management Center (UG1 Clinical Trial Required)	CA23-021	UG1	5	0	0	5	\$5,070,484
NCI Cancer Screening Research Network: Coordinating and Communication Center (UG1 Clinical Trial Required)	CA23-022	UG1	2	0	0	2	\$3,000,000
Liver Cancer Collaborative Projects with the Liver Cirrhosis Network (U01 Clinical Trial Optional)	CA23-023	U01	16	0	0	16	\$6,356,154
Precompetitive Collaboration on Liquid Biopsy for Early Cancer Assessment: Data Management and Coordinating Unit (U24 Clinical Trial Not Allowed)	CA23-031	U24	4	0	0	4	\$3,027,482
Stimulating Access to Research in Residency (StARR) (R38)	HL23-006	R38	4	0	0	4	\$1,533,036
Limited Competition: Stimulating Access to Research in Residency Transition Scholar (StARRTS) (K38 Clinical Trial Not Allowed)	HL23-007	K38	1	0	1	0	\$91,578
National Cancer Institute's Other Transaction Program	OTA21-013	OT2	22	22	0	0	\$0
<b>Totals</b>			<b>1,124</b>	<b>292</b>	<b>578</b>	<b>254</b>	<b>\$725,091,315</b>

Source: Office of Referral, Review and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 69 withdrawn applications have been subtracted from the total count.

**Table 11. Program Announcements (PAs/PARs) Reviewed by the NCI DEA in FY2023**

Title of Initiative	PA/PAR Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Total	Feb	June	Sept	
Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant (Parent T32)	PA20-142	T32	94	31	41	22	\$35,542,904
NIH Pathway to Independence Award (Parent K99/R00 Independent Clinical Trial Required)	PA20-187	K99	7	2	4	1	\$875,307
NIH Pathway to Independence Award (Parent K99/R00 Independent Clinical Trial Not Allowed)	PA20-188	K99	198	67	78	53	\$26,808,441
NIH Pathway to Independence Award (Parent K99/R00 Independent Basic Experimental Studies with Humans Required)	PA20-189	K99	1	1	0	0	\$104,982
Mentored Quantitative Research Development Award (Parent K25 Independent Clinical Trial Not Allowed)	PA20-199	K25	2	0	2	0	\$321,241
Mentored Clinical Scientist Research Career Development Award (Parent K08 Independent Basic Experimental Studies with Humans Required)	PA20-201	K08	1	0	0	1	\$225,515
Mentored Clinical Scientist Research Career Development Award (Parent K08 Independent Clinical Trial Required)	PA20-202	K08	44	14	13	17	\$10,810,102
Mentored Clinical Scientist Research Career Development Award (Parent K08 Independent Clinical Trial Not Allowed)	PA20-203	K08	149	54	59	36	\$34,122,149
NIH Support for Conferences and Scientific Meetings (Parent R13 Clinical Trial Not Allowed)	PA21-151	R13	50	13	23	14	\$2,069,586
NCI Small Grants Program for Cancer Research for Years 2020, 2021, and 2022 (NCI Omnibus R03 Clinical Trial Optional)	PAR20-052	R03	232	115	117	0	\$18,378,181
National Cancer Institute Program Project Applications (P01 Clinical Trial Optional)	PAR20-077	P01	86	28	30	28	\$236,912,056
National Cancer Institute Program Project Applications (P01 Clinical Trial Optional)	PAR20-077	U19	1	0	1	0	\$2,849,263
New Informatics Tools and Methods to Enhance U.S. Cancer Surveillance Research (U01 Clinical Trial Optional)	PAR20-170	U01	1	1	0	0	\$807,094
NCI Clinical and Translational Exploratory/Developmental Studies (R21 Clinical Trial Optional)	PAR20-292	R21	417	417	0	0	\$93,511,879
Specialized Programs of Research Excellence (SPoREs) in Human Cancers for Years 2021, 2022, and 2023 (P50 Clinical Trial Required)	PAR20-305	P20	1	0	1	0	\$2,423,300
Specialized Programs of Research Excellence (SPoREs) in Human Cancers for Years 2021, 2022, and 2023 (P50 Clinical Trial Required)	PAR20-305	P50	57	10	37	10	\$136,298,329
Assay Validation of High-Quality Markers for Clinical Studies in Cancer (UH2/UH3 Clinical Trial Not Allowed)	PAR20-313	UH2	20	4	6	10	\$4,890,726
Assay Validation of High-Quality Markers for Clinical Studies in Cancer (UH3 Clinical Trials Not Allowed)	PAR20-314	UH3	4	2	2	0	\$1,624,619
Cancer Research Education Grants Program – Curriculum or Methods Development (R25 Clinical Trial Not Allowed)	PAR21-065	R25	6	2	2	2	\$959,995

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Source: Office of Referral, Review, and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 53 withdrawn applications have been subtracted from the total count.

**Table 11 (cont'd). Program Announcements (PAs/PARs) Reviewed by the NCI DEA in FY2023**

Title of Initiative	PA/PAR Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Total	Feb	June	Sept	
The NCI Transition Career Development Award (K22 Independent Clinical Trial Required)	PAR21-111	K22	4	1	2	1	\$754,999
The NCI Transition Career Development Award (K22 Independent Clinical Trial Not Allowed)	PAR21-128	K22	96	31	29	36	\$16,862,169
Cancer Target Discovery and Development (CTD2) (U01 Clinical Trial Not Allowed)	PAR21-274	U01	15	0	15	0	\$17,727,762
Cancer Research Education Grants Program – Courses for Skills Development (R25 Clinical Trial Not Allowed)	PAR21-278	R25	28	9	10	9	\$8,238,042
Cancer Research Education Grants Program – Research Experiences (R25 Clinical Trial Not Allowed)	PAR21-279	R25	29	11	10	8	\$7,536,490
NCI Mentored Research Scientist Development Award to Promote Diversity (K01 Independent Clinical Trial Not Allowed)	PAR21-295	K01	15	8	2	5	\$2,252,804
NCI Mentored Research Scientist Development Award to Promote Diversity (K01 Clinical Trial Required)	PAR21-296	K01	4	2	1	1	\$516,198
NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity (K08 Clinical Trial Required)	PAR21-299	K08	10	5	3	2	\$2,097,863
NCI Mentored Clinical Scientist Research Career Development Award to Promote Diversity (K08 Independent Clinical Trial Not Allowed)	PAR21-300	K08	17	3	3	11	\$3,849,697
NCI Transition Career Development Award to Promote Diversity (K22 Independent Clinical Trial Not Allowed)	PAR21-301	K22	6	1	2	3	\$1,096,193
NCI Transition Career Development Award to Promote Diversity (K22 Clinical Trial Required)	PAR21-302	K22	1	0	0	1	\$160,513
NCI Research Specialist (Clinician Scientist) Award (R50 Clinical Trial Not Allowed)	PAR21-306	R50	47	11	13	23	\$7,360,703
Cancer Center Support Grants (CCSGs) for NCI-Designated Cancer Centers (P30 Clinical Trial Optional)	PAR21-321	P30	14	7	3	4	\$66,871,764
Utilizing the PLCO Biospecimens Resource to Bridge Gaps in Cancer Etiology and Early Detection Research (U01 Clinical Trial Not Allowed)	PAR21-330	U01	9	3	3	3	\$5,503,511
Pancreatic Cancer Detection Consortium: Research Units (U01 Clinical Trial Optional)	PAR21-334	U01	14	4	7	3	\$13,422,574
Pre-application: Opportunities for Collaborative Research at the NIH Clinical Center (X02 Clinical Trial Optional)	PAR21-342	X02	4	0	4	0	\$0
Opportunities for Collaborative Research at the NIH Clinical Center (U01 Clinical Trial Optional)	PAR21-343	U01	11	0	0	11	\$7,261,073
The Role of Epstein Barr Virus (EBV) Infection in Non-Hodgkin Lymphoma (NHL) and Hodgkin Disease (HD) Development with or Without an Underlying HIV Infection (U01 Clinical Trial Optional)	PAR21-348	U01	12	0	12	0	\$8,432,064
Integrating Biospecimen Science Approaches into Clinical Assay Development (U01 Clinical Trial Not Allowed)	PAR22-049	U01	16	7	5	4	\$6,480,189

*continued*

Source: Office of Referral, Review, and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 53 withdrawn applications have been subtracted from the total count.



**Table 11 (cont'd). Program Announcements (PAs/PARs) Reviewed by the NCI DEA in FY2023**

Title of Initiative	PA/PAR Number	Activity Code	Applications by NCAB				Total Costs Requested First Year
			Total	Feb	June	Sept	
Paul Calabresi Career Development Award for Clinical Oncology (K12 Clinical Trial Optional)	PAR22-136	K12	13	13	0	0	\$4,287,548
Research Projects in Physical Sciences–Oncology (U01 Clinical Trial Optional)	PAR22-147	U01	26	13	13	0	\$16,869,282
Cancer Epidemiology Cohorts: Building the Next Generation of Research Cohorts (U01 Clinical Trial Not Allowed)	PAR22-161	U01	9	5	0	4	\$18,191,157
Research Opportunities in Established Cancer Epidemiology Cohort Studies (U01 Clinical Trial Not Allowed)	PAR22-162	U01	8	3	0	5	\$8,334,373
Cancer Prevention and Control Clinical Trials Planning Grant Program (R34 Clinical Trials Optional)	PAR22-173	R34	34	0	17	17	\$11,038,555
Cancer Prevention and Control Clinical Trials Planning Grant Program (U34 Clinical Trials Optional)	PAR22-174	U34	6	0	3	3	\$2,232,010
NCI Research Specialist (Laboratory-Based Scientist) Award (R50 Clinical Trial Not Allowed)	PAR22-187	R50	52	0	52	0	\$8,090,354
NCI Research Specialist (Core-Based Scientist) Award (R50 Clinical Trial Not Allowed)	PAR22-188	R50	19	0	19	0	\$3,242,393
NCI Clinical and Translational Exploratory/Developmental Studies (R21 Clinical Trial Optional)	PAR22-216	R21	597	0	262	335	\$134,123,191
The Metastasis Research Network (MetNet): MetNet Research Projects (U01 Clinical Trial Not Allowed)	PAR22-234	U01	8	0	8	0	\$6,009,723
Feasibility Studies to Build Collaborative Partnerships in Cancer Research (P20 Clinical Trial Not Allowed)	PAR22-239	P20	6	0	0	6	\$1,702,874
Comprehensive Partnerships to Advance Cancer Health Equity (CPACHE) (U54 Clinical Trial Optional)	PAR22-249	U54	15	0	0	15	\$22,600,254
Mechanistic Links Between Diet, Lipid Metabolism, and Tumor Growth and Progression (U01 Clinical Trial Not Allowed)	PAR23-051	U01	22	0	0	22	\$16,614,475
Mechanistic Links Between Diet, Lipid Metabolism, and Tumor Growth and Progression (UH2 Clinical Trial Not Allowed)	PAR23-052	UH2	3	0	0	3	\$707,000
NCI Small Grants Program for Cancer Research for Years 2023, 2024, and 2025 (NCI Omnibus) (R03 Clinical Trial Optional)	PAR23-058	R03	105	0	0	105	\$8,370,844
<b>Totals</b>			<b>2,646</b>	<b>898</b>	<b>914</b>	<b>834</b>	<b>\$1,048,374,310</b>

Source: Office of Referral, Review, and Program Coordination. IMPAC II. Includes NCI Primary and Secondary assigned applications. A total of 53 withdrawn applications have been subtracted from the total count.

**Table 12. SBIR Topics and Requests for Proposals (RFPs) Reviewed by the NCI DEA in FY2023\***

Announcement Topic Number	Announcement Title	Review Round	No. of Proposals
RFP 75N91022R00006	Innovative Concept Award Therapeutics	Jan-23	17
RFP 75N91022R00006	Innovative Concept Award Therapeutics	Jan-23	5
RFP 75N91022R00006	Concept Award (Diagnostic Devices)	Jan-23	4
RFP 75N91023R00024	PREVENT – Cancer Preclinical Drug Development Program; cGMP Technical Evaluation Panel-1 (TEP-1)	Jan-23	2
RFP 75N91023R00024	PREVENT – Toxicology and Pharmacology Pool Technical Evaluation Panel-2 (TEP-2)	Jan-23	3
<b>Phase I</b>			
Topic 446 Phase I	Development of Senotherapeutic Agents for Cancer Treatment	May-23	7
Topic 447 Phase I	Noninvasive Device Technology Research and Development for Chemotherapy-Induced Peripheral Neuropathy Management	May-23	2
Topic 448 Phase I	Wearable Devices for Dosimetry of Radiopharmaceutical Therapy	May-23	4
Topic 449 Phase I	Wearable Technologies to Facilitate Remote Monitoring of Cancer Patients Following Treatment	May-23	6
Topic 450 Phase I	Technology Platforms for Circulating Tumor-Macrophage Hybrid Cells	May-23	13
Topic 451 Phase I	Rapid and Affordable Point-of-Care HPV Diagnostics for Cervical Cancer Control	May-23	9
Topic 452 Phase I	Translation of Novel Cancer-Specific Imaging Agents and Techniques to Mediate Successful Image-Guided Cancer Interventions	May-23	5
Topic 453 Phase I	Digital Tools to Integrate Cancer Prevention Within Primary Care	May-23	7
Topic 454 Phase I	Software to Evaluate Artificial Intelligence/Machine Learning Medical Devices in Oncology Settings	May-23	6
<b>Phase II Proposals from Earlier Phase I Awards</b>			
Topic 399 Phase II	Combinatory Treatment Modalities Utilizing Radiation to Locally Activate or Release Systemically Delivered Therapeutics	May-23	1
Topic 400 Phase II	Sensing Tools to Measure Biological Response to Radiotherapy	May-23	1
Topic 417 Phase II	Quantitative Imaging Software Tools for Cancer Diagnosis and Treatment Planning	May-23	3
Topic 419 Phase II	Understanding Cancer Tumor Genomic Results: Technology Applications for Providers	May-23	1
Topic 420 Phase II	Single-Cell “Unbiased Discovery” Proteomic Technologies	May-23	1
Topic 423 Phase II	Software to Address Social Determinants of Health in Oncology Practices	May-23	2
Topic 424 Phase II	Digital Tools to Improve Health Outcomes in Pediatric Cancer Survivors	May-23	1

*continued*

\*NCI reviewed a total of 376 proposals. The proposals were in response to SBIR Contract Solicitations — Phase I (59), Direct to Phase II (19), R&D (31), and Loan Repayment (267).

**Table 12 (cont'd). SBIR Topics and Requests for Proposals (RFPs) Reviewed by the NCI DEA in FY2023\***

Announcement Topic Number	Announcement Title	Review Round	No. of Proposals
Topic 425 Phase II	Information Technology Tools for Automated Analysis of Physical Activity, Performance, and Behavior from Images for Improved Cancer Health	May-23	3
Topic 426 Phase II	Tools and Technologies for Visualizing Multiscale Data	May-23	1
Topic 427 Phase II	De-identification Software Tools for Cancer Imaging Research	May-23	1
Topic 428 Phase II	Cloud-Based Software for the Cancer Research Data Commons	May-23	2
Topic 429 Phase II	Advanced Manufacturing to Speed Availability of Emerging Autologous Cell-Based Therapies	May-23	2
<b>Other Solicitations Reviewed in DEA</b>			
L30 (NOT-OD-22-148)	Extramural Loan Repayment Program for Clinical Researchers (LRP-CR)	Oct-23	165
L40 (NOT-OD-22-149)	Extramural Loan Repayment Program for Pediatric Researchers (LRP-PR)	Oct-23	41
L60 (NOT-OD-22-150)	Extramural Loan Repayment Program for Health Disparities Researchers (LRP-HDR)	Oct-23	47
L70 (NOT-OD-22-153)	Extramural Loan Repayment Program for Research in Emerging Areas Critical to Human Health (LRP-REACH)	Oct-23	14
<b>Total</b>			<b>376</b>

\*NCI reviewed a total of 376 proposals. The proposals were in response to SBIR Contract Solicitations — Phase I (59), Direct to Phase II (19), R&D (31), and Loan Repayment (267).

**Table 13. Summary of NCI Grant Awards and Cooperative Agreements, by Mechanism in FY2023\***

Fund Type: Appropriated				% of NCI Total Grants		Fiscal Year: 2023		
Cost Centers Mechanisms	Awards Count	Awards Dollars	Average Cost	Number	Dollars	Competing Requested	Competing Awarded	Success Rate
<b>Research Project Grants</b>								
Traditional Research Grants – R01	3,584	1,778,869,954	496,336	47.1%	40.3%	5,340	778	14.6%
Exploratory/Developmental Research – R21	381	82,524,315	216,599	5.0%	1.9%	1,576	192	12.2%
Request for Applications	372	232,185,315	624,154	4.9%	5.3%	424	58	13.7%
MERIT Awards – R37	339	162,894,035	480,513	4.5%	3.7%	115	115	100.0%
Small Business Innovative Research (Centers)	187	150,240,392	803,425	2.5%	3.4%	877	102	11.6%
Cooperative Agreements – U01/U19	175	126,819,497	724,683	2.3%	2.9%	160	36	22.5%
Cooperative Agreements – RFA-U01/U19	165	175,262,851	1,062,199	2.2%	4.0%	157	40	25.5%
Small Grants – R03	108	9,507,748	88,035	1.4%	0.2%	359	50	13.9%
Program Projects – P01	96	197,231,334	2,054,493	1.3%	4.5%	89	17	19.1%
Research Specialist Award – R50	94	16,474,274	175,258	1.2%	0.4%	118	33	28.0%
Pathway to Independence – R00/Si2	93	23,077,710	248,147	1.2%	0.5%	9	1	11.1%
Small Business Technology Transfer (Centers)	39	24,100,540	617,963	0.5%	0.5%	236	25	10.6%
Exploratory/Development Coop Agreements – UH2/UH3	25	8,749,811	349,992	0.3%	0.2%	27	3	11.1%
Academic Research Enhancement Awards (AREA) – R15	20	9,050,212	452,511	0.3%	0.2%	138	20	14.5%
Phased Innovation Grant (Phase 2) – R33	6	2,089,018	348,170	0.1%	0.0%	0	0	
Bridge Award – R56	5	1,219,933	243,987	0.1%	0.0%	5	5	100.0%
Planning Grant – R34	3	880,875	293,625	0.0%	0.0%	17	3	17.6%
Phase 1 Exploratory/Developmental Grants – R61	1	512,955	512,955	0.0%	0.0%	4	0	0.0%
Multi-Component Research Proj Coop Agreements – UM1/RM1	1	1,500,747	1,500,747	0.0%	0.0%	0	0	
Planning Cooperative Agreement – U34	1	283,650	283,650	0.0%	0.0%	3	1	33.3%
NIH Director New Innovator Awards – DP2	0	355,844	355,844	0.0%	0.0%	0	0	
Small Business Innovative Research (Diversity)	0	84,315	84,315	0.0%	0.0%	0	0	
Program Evaluation – R01	0	107,326,265	107,326,265	0.0%	2.4%	0	0	
<b>Subtotal Research Project Grants</b>	<b>5,695</b>	<b>3,111,241,590</b>	<b>5,188,864</b>	<b>74.9%</b>	<b>70.4%</b>	<b>9,654</b>	<b>1,479</b>	<b>15.3%</b>

*continued*

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Source: Office of Extramural Finance and Information Analysis.

**Table 13 (cont'd). Summary of NCI Grant Awards and Cooperative Agreements, by Mechanism in FY2023\***

Fund Type: Appropriated				% of NCI Total Grants		Fiscal Year: 2023		
Cost Centers Mechanisms	Awards Count	Awards Dollars	Average Cost	Number	Dollars	Competing Requested	Competing Awarded	Success Rate
<b>NRSA</b>								
NRSA Fellowships – F30/F31/F32/F33	524	24,272,697	46,322	6.9%	0.5%	854	163	19.1%
NRSA Institution – T32	171	64,162,152	375,217	2.2%	1.5%	90	43	47.8%
NRSA TAP	0	1,889,709	1,889,709	0.0%	0.0%	0	0	
<b>Subtotal NRSA</b>	<b>695</b>	<b>90,324,558</b>	<b>770,416</b>	<b>9.1%</b>	<b>2.0%</b>	<b>944</b>	<b>206</b>	<b>21.8%</b>
<b>Careers</b>								
Mentored Clinical Scientist – K08	262	60,838,215	232,207	3.4%	1.4%	210	53	25.2%
Postdoctoral Fellow Awards – K00	81	7,511,395	92,733	1.1%	0.2%	0	0	
Pathway to Independence – K99	76	10,313,551	135,705	1.0%	0.2%	279	45	16.1%
Clinical Research Track – K22	60	11,108,024	185,134	0.8%	0.3%	96	18	18.8%
Mentored Rsch Scient Devel Awds/ Mentrd Career Dev.../Temin-K01/Intl. Career – K43	31	5,347,206	172,491	0.4%	0.1%	21	7	33.3%
Mentored Career Award – K12	23	14,203,536	617,545	0.3%	0.3%	13	6	46.2%
Mentored Quantitative Resch. Career Dev. Awd. – K25	2	377,331	188,666	0.0%	0.0%	6	2	33.3%
Preventive Oncology Award – K07	1	636,196	636,196	0.0%	0.0%	0	0	
Early Stage Mentored Research and Career Development – K38	0	0		0.0%	0.0%	2	0	0.0%
<b>Subtotal Careers</b>	<b>536</b>	<b>110,335,454</b>	<b>282,585</b>	<b>7.0%</b>	<b>2.5%</b>	<b>627</b>	<b>131</b>	<b>20.9%</b>
<b>Other Research</b>								
Cooperative Clinical Research – U10/UG1	118	307,024,721	2,601,904	1.6%	6.9%	12	6	50.0%
Research/Resource Grant – R24/U24/U2C	99	134,106,075	1,354,607	1.3%	3.0%	50	14	28.0%
Cancer Education Awards – R25	83	23,218,691	279,743	1.1%	0.5%	90	23	25.6%
Predocctoral to Postdoctoral Transition Award – F99	46	1,955,422	42,509	0.6%	0.0%	46	25	54.3%
Conference Grants – R13/U13	45	1,050,263	23,339	0.6%	0.0%	48	40	83.3%
Other Transaction Authority – Non-grant – OT2	40	19,704,436	492,611	0.5%	0.4%	4	3	75.0%
International Research Training Grants Conference – D43/U2R	8	3,739,704	467,463	0.1%	0.1%	0	0	
Research Pathway in Residency – R38	3	1,233,360	411,120	0.0%	0.0%	2	1	50.0%
Research Education Cooperative Agreement – UE5	1	528,237	528,237	0.0%	0.0%	0	0	
Minority Biomedical Research Support – S06	0	2,563,376	2,563,376	0.0%	0.1%	0	0	
<b>Subtotal Other Research</b>	<b>443</b>	<b>495,124,285</b>	<b>876,491</b>	<b>5.8%</b>	<b>11.2%</b>	<b>252</b>	<b>112</b>	<b>44.4%</b>
<b>Centers</b>								

continued

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Source: Office of Extramural Finance and Information Analysis.

**Table 13 (cont'd). Summary of NCI Grant Awards and Cooperative Agreements, by Mechanism in FY2023\***

Fund Type: Appropriated  Cost Centers Mechanisms	Awards Count	Awards Dollars	Average Cost	% of NCI Total Grants		Fiscal Year: 2023		
				Number	Dollars	Competing Requested	Competing Awarded	Success Rate
Specialized Center (Cooperative Agreement) – U54/U41	95	136,508,139	1,436,928	1.2%	3.1%	106	39	36.8%
Centers – P30	72	349,186,082	4,849,807	0.9%	7.9%	11	10	90.9%
Spore Grants – P50	58	118,118,528	2,036,526	0.8%	2.7%	57	12	21.1%
Centers – P20	10	2,776,660	277,666	0.1%	0.1%	6	2	33.3%
Spore Grants – P20	4	3,851,195	962,799	0.1%	0.1%	0	0	
Other P50/P20	0	520,279	520,279	0.0%	0.0%	0	0	
Specialized Center (Cooperative Agreement) – BD2K	0	363,070	363,070	0.0%	0.0%	0	0	
<b>Subtotal Centers</b>	<b>239</b>	<b>611,323,953</b>	<b>1,492,439</b>	<b>3.1%</b>	<b>13.8%</b>	<b>180</b>	<b>63</b>	<b>35.0%</b>
<b>Totals</b>	<b>7,608</b>	<b>4,418,349,840</b>	<b>2,806,427</b>	<b>100.0%</b>	<b>100.0%</b>	<b>11,657</b>	<b>1,991</b>	<b>17.1%</b>

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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, FY2019 – FY2023**

Budget Mechanism/ Division	2019		2020		2021		2022		2023		Percent Change 2022 vs. 2023	
	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost
<b>P01 Average Cost of Award</b>												
<b>Total</b>	<b>90</b>	<b>1,889</b>	<b>90</b>	<b>2,021</b>	<b>93</b>	<b>2,044</b>	<b>98</b>	<b>2,037</b>	<b>96</b>	<b>2,055</b>	<b>-2.0%</b>	<b>-1.2%</b>
DCB	37	1,696	38	1,838	39	1,854	42	1,933	42	1,971	0.0%	2.0%
DCCPS	12	2,182	10	2,196	12	2,180	13	2,071	12	1,949	-7.7%	-13.2%
DCP	3	1,562	3	1,351	3	1,185	4	1,070	5	1,623	25.0%	89.6%
DCTD	38	1,989	39	2,195	39	2,259	39	2,236	37	2,241	-5.1%	-4.9%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	0		0									
<b>P30 Average Cost of Award</b>												
<b>Total</b>	<b>71</b>	<b>4,526</b>	<b>71</b>	<b>5,067</b>	<b>71</b>	<b>4,751</b>	<b>71</b>	<b>4,715</b>	<b>72</b>	<b>4,850</b>	<b>1.4%</b>	<b>4.3%</b>
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	71	4,526	71	5,067	71	4,751	71	4,715	72	4,850	1.4%	4.3%
<b>P50 Average Cost of Award</b>												
<b>Total</b>	<b>52</b>	<b>2,128</b>	<b>52</b>	<b>2,183</b>	<b>55</b>	<b>2,022</b>	<b>58</b>	<b>2,074</b>	<b>57</b>	<b>2,052</b>	<b>-1.7%</b>	<b>-2.8%</b>
DCCPS			0		0		0		0			101.6%
DCTD	52	2,123	52	2,168	55	2,014	58	2,070	57	2,043	-1.7%	-3.0%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	0		0									
<b>R01 Average Cost of Award</b>												
<b>Total</b>	<b>3,014</b>	<b>442</b>	<b>3,136</b>	<b>468</b>	<b>3,264</b>	<b>469</b>	<b>3,413</b>	<b>482</b>	<b>3,584</b>	<b>496</b>	<b>5.0%</b>	<b>8.2%</b>
DCB	1,297	397	1,340	423	1,368	432	1,407	439	1,445	458	2.7%	7.1%
DCCPS	372	550	400	584	410	563	439	574	463	567	5.5%	4.3%
DCP	219	496	216	524	224	509	235	529	238	554	1.3%	6.0%
DCTD	1,116	436	1,165	462	1,247	468	1,318	486	1,424	501	8.0%	11.3%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	10	1,752	15	1,085	15	602	14	590	14	659	0.0%	11.7%

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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, FY2019 – FY2023**

Budget Mechanism/ Division	2019		2020		2021		2022		2023		Percent Change 2022 vs. 2023	
	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost
<b>R03 Average Cost of Award</b>												
<b>Total</b>	<b>121</b>	<b>80</b>	<b>119</b>	<b>98</b>	<b>93</b>	<b>90</b>	<b>115</b>	<b>80</b>	<b>108</b>	<b>88</b>	<b>-6.1%</b>	<b>2.9%</b>
DCB	56	78	43	92	34	85	46	78	52	87	13.0%	24.9%
DCCPS	27	88	30	111	20	102	31	84	29	87	-6.5%	-2.2%
DCP	6	76	7	82	5	79	5	77	4	105	-20.0%	8.3%
DCTD	32	80	39	98	34	90	33	81	23	89	-30.3%	-22.8%
<b>R13 Average Cost of Award</b>												
<b>Total</b>	<b>59</b>	<b>14</b>	<b>46</b>	<b>14</b>	<b>25</b>	<b>17</b>	<b>41</b>	<b>13</b>	<b>45</b>	<b>23</b>	<b>9.8%</b>	<b>104.9%</b>
DCB	28	6	19	6	9	7	25	6	25	16	0.0%	189.3%
DCCPS	4	23	8	17	2	28	3	24	4	33	33.3%	83.3%
DCP	8	16	5	20	3	28	2	20	5	22	150.0%	170.0%
DCTD	13	7	7	8	5	6	6	9	4	13	-33.3%	-8.9%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	6	53	7	36	6	34	5	41	7	51	40.0%	73.2%
<b>R21 Average Cost of Award</b>												
<b>Total</b>	<b>359</b>	<b>190</b>	<b>320</b>	<b>236</b>	<b>299</b>	<b>242</b>	<b>376</b>	<b>220</b>	<b>381</b>	<b>217</b>	<b>1.3%</b>	<b>-0.4%</b>
DCB	43	193	46	217	37	242	25	213	28	218	12.0%	14.4%
DCCPS	69	194	68	233	32	239	26	265	21	230	-19.2%	-30.0%
DCP	36	177	28	234	22	269	34	229	37	214	8.8%	2.0%
DCTD	191	188	156	240	188	236	264	213	262	212	-0.8%	-1.3%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	20	209	22	263	20	266	27	246	33	248	22.2%	23.1%
<b>SBIR Average Cost of Award</b>												
<b>Total</b>	<b>207</b>	<b>555</b>	<b>170</b>	<b>759</b>	<b>189</b>	<b>719</b>	<b>157</b>	<b>814</b>	<b>187</b>	<b>803</b>	<b>19.1%</b>	<b>17.6%</b>
SBIR			170	759	189	719	157	814	187	803	19.1%	17.6%
SBIRDC	207	555										
<b>STTR Average Cost of Award</b>												
<b>Total</b>	<b>35</b>	<b>560</b>	<b>45</b>	<b>475</b>	<b>47</b>	<b>459</b>	<b>48</b>	<b>475</b>	<b>39</b>	<b>618</b>	<b>-18.8%</b>	<b>5.8%</b>
SBIR			45	475	47	459	48	475	39	618	-18.8%	5.8%
SBIRDC	35	560										

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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, FY2019 – FY2023**

Budget Mechanism/ Division	2019		2020		2021		2022		2023		Percent Change 2022 vs. 2023	
	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost	No.	Avg. Cost
<b>SBIR/STTR Average Cost of Award</b>												
<b>Total</b>	<b>242</b>	<b>556</b>	<b>215</b>	<b>699</b>	<b>236</b>	<b>667</b>	<b>205</b>	<b>734</b>	<b>226</b>	<b>771</b>	<b>10.2%</b>	<b>15.8%</b>
SBIR			215	699	236	667	205	734	226	771	10.2%	15.8%
SBIRDC	242	556										
<b>U01/U19 Average Cost of Award</b>												
<b>Total</b>	<b>71</b>	<b>1,013</b>	<b>71</b>	<b>1,084</b>	<b>79</b>	<b>959</b>	<b>116</b>	<b>768</b>	<b>136</b>	<b>774</b>	<b>17.2%</b>	<b>18.2%</b>
DCB	6	988	3	1,848	11	408	15	486	17	499	13.3%	16.4%
DCCPS	8	1,533	13	1,531	13	1,078	22	1,014	31	884	40.9%	22.8%
DCP	36	852	37	781	13	1,476	26	748	34	862	30.8%	50.6%
DCTD	6	353	3	491	21	613	34	641	36	648	5.9%	7.1%
OD (CRCHD, OCAM, CSSI, CCT, OHAM, etc.)	15	1,396	15	1,411	21	1,198	19	960	18	934	-5.3%	-7.8%
<b>U10 Average Cost of Award</b>												
<b>Total</b>	<b>11</b>	<b>12,170</b>	<b>11</b>	<b>11,955</b>	<b>11</b>	<b>12,670</b>	<b>11</b>	<b>11,855</b>	<b>11</b>	<b>11,150</b>	<b>0.0%</b>	<b>-5.9%</b>
DCTD	11	12,170	11	11,955	11	12,670	11	11,855	11	11,150	0.0%	-5.9%
<b>U54 Average Cost of Award</b>												
<b>Total</b>	<b>63</b>	<b>1,462</b>	<b>63</b>	<b>1,324</b>	<b>52</b>	<b>1,348</b>	<b>55</b>	<b>1,398</b>	<b>63</b>	<b>1,554</b>	<b>14.5%</b>	<b>27.3%</b>
CRCHD	38	1,185	38	1,156	33	1,270	31	1,204	36	1,261	16.1%	21.6%
DCB	25	1,866	24	1,620	19	1,485	24	1,648	22	1,928	-8.3%	7.2%
DCCPS	0		1	579	0				5	2,024		
<b>Total</b>	<b>4,395</b>	<b>587</b>	<b>4,409</b>	<b>636</b>	<b>4,514</b>	<b>631</b>	<b>4,764</b>	<b>627</b>	<b>5,005</b>	<b>641</b>	<b>5.1%</b>	<b>7.4%</b>

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

† In thousands of dollars.

Source: Office of Extramural Finance and Information Analysis.

**Table 15. NCI Organ and Related Site-Specific Dollars for  
FY2019 – FY2023 — Annual Percent Change**

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

Anatomical Site	Counts and Relevant Dollars*	2019	2020	2021	2022	2023	Average Percent Change/Year
Adrenal	<b>Number of Grants</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>5</b>	<b>5</b>	
	Relevant Grant Dollars	209,995	209,995	2,129,407	1,645,749	1,109,130	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>5</b>	<b>5</b>	
	Total Relevant Dollars	209,995	209,995	2,129,407	1,645,749	1,109,130	214.68
Anus	<b>Number of Grants</b>	<b>31</b>	<b>32</b>	<b>31</b>	<b>38</b>	<b>32</b>	
	Relevant Grant Dollars	7,928,587	12,288,551	11,795,331	11,839,229	12,203,007	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>36</b>	<b>32</b>	<b>31</b>	<b>38</b>	<b>32</b>	
	Total Relevant Dollars	7,928,587	12,288,551	11,795,331	11,839,229	12,203,007	13.61
Bladder	<b>Number of Grants</b>	<b>80</b>	<b>93</b>	<b>92</b>	<b>104</b>	<b>117</b>	
	Relevant Grant Dollars	27,645,833	35,657,505	39,157,733	45,747,854	50,233,959	
	<b>Number of Contracts</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	1,088,691	‡	‡	‡	‡	
	<b>Total Count</b>	<b>81</b>	<b>93</b>	<b>92</b>	<b>104</b>	<b>117</b>	
	Total Relevant Dollars	28,734,524	35,657,505	39,157,733	45,747,854	50,233,959	15.14
Bone Marrow	<b>Number of Grants</b>	<b>9</b>	<b>10</b>	<b>7</b>	<b>9</b>	<b>7</b>	
	Relevant Grant Dollars	4,833,724	4,515,041	4,092,143	4,499,166	6,387,228	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>9</b>	<b>10</b>	<b>7</b>	<b>9</b>	<b>7</b>	
	Total Relevant Dollars	4,833,724	4,515,041	4,092,143	4,499,166	6,387,228	8.99
Bone — Cartilage	<b>Number of Grants</b>	<b>9</b>	<b>13</b>	<b>16</b>	<b>18</b>	<b>15</b>	
	Relevant Grant Dollars	3,671,705	4,589,421	6,100,496	7,400,585	7,224,204	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>9</b>	<b>13</b>	<b>16</b>	<b>18</b>	<b>15</b>	
	Total Relevant Dollars	3,671,705	4,589,421	6,100,496	7,400,585	7,224,204	19.21
Brain	<b>Number of Grants</b>	<b>483</b>	<b>480</b>	<b>501</b>	<b>522</b>	<b>523</b>	
	Relevant Grant Dollars	201,366,277	206,657,077	217,746,945	235,198,757	237,736,906	
	<b>Number of Contracts</b>	<b>‡</b>	<b>3</b>	<b>1</b>	<b>8</b>	<b>1</b>	
	Relevant Contract Dollars	‡	383,428,240	399,559	3,863,158	355,000	
	<b>Total Count</b>	<b>483</b>	<b>483</b>	<b>502</b>	<b>530</b>	<b>524</b>	
	Total Relevant Dollars	201,366,277	590,085,317	218,146,504	239,061,915	238,091,906	34.80

continued

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

‡ Coding not required or requested. FY2023 contract data not included.

Source: Research Analysis and Evaluation Branch

**Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for  
FY2019 – FY2023 — Annual Percent Change**

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

Anatomical Site	Counts and Relevant Dollars*	2019	2020	2021	2022	2023	Average Percent Change/Year
Breast	<b>Number of Grants</b>	<b>1,368</b>	<b>1,348</b>	<b>1,346</b>	<b>1,361</b>	<b>1,362</b>	
	Relevant Grant Dollars	500,009,641	541,778,994	519,251,196	545,048,627	563,768,764	
	<b>Number of Contracts</b>	<b>4</b>	<b>7</b>	<b>1</b>	<b>7</b>	<b>11</b>	
	Relevant Contract Dollars	4,020,068	1,411,032	398,604	6,412,079	2,587,275	
	<b>Total Count</b>	<b>1,372</b>	<b>1,355</b>	<b>1,347</b>	<b>1,368</b>	<b>1,373</b>	
	Total Relevant Dollars	504,029,709	543,190,026	519,649,800	551,460,706	566,356,039	3.06
Central Nervous System	<b>Number of Grants</b>	<b>8</b>	<b>9</b>	<b>6</b>	<b>8</b>	<b>9</b>	
	Relevant Grant Dollars	1,919,978	2,145,042	1,729,033	2,553,139	2,343,444	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>8</b>	<b>9</b>	<b>6</b>	<b>8</b>	<b>9</b>	
	Total Relevant Dollars	1,919,978	2,145,042	1,729,033	2,553,139	2,343,444	7.94
Cervix	<b>Number of Grants</b>	<b>151</b>	<b>167</b>	<b>157</b>	<b>194</b>	<b>215</b>	
	Relevant Grant Dollars	55,801,427	66,395,225	65,477,459	78,817,298	92,735,802	
	<b>Number of Contracts</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>12</b>	<b>2</b>	
	Relevant Contract Dollars	622,604	761,776	835,869	4,641,659	7,921,125	
	<b>Total Count</b>	<b>152</b>	<b>168</b>	<b>158</b>	<b>206</b>	<b>217</b>	
	Total Relevant Dollars	56,424,031	67,157,001	66,313,328	83,458,957	100,656,927	16.06
Childhood Leukemia	<b>Number of Grants</b>	<b>218</b>	<b>243</b>	<b>203</b>	<b>258</b>	<b>266</b>	
	Relevant Grant Dollars	77,503,021	74,146,240	62,928,651	84,926,941	92,007,729	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	355,010	
	<b>Total Count</b>	<b>218</b>	<b>243</b>	<b>203</b>	<b>258</b>	<b>267</b>	
	Total Relevant Dollars	77,503,021	74,146,240	62,928,651	84,926,941	92,362,740	6.06
Colon — Rectum	<b>Number of Grants</b>	<b>599</b>	<b>625</b>	<b>637</b>	<b>652</b>	<b>628</b>	
	Relevant Grant Dollars	218,560,623	224,088,330	226,406,951	242,867,347	236,325,189	
	<b>Number of Contracts</b>	<b>7</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>14</b>	
	Relevant Contract Dollars	2,976,017	2,043,423	1,267,587	5,171,509	4,643,575	
	<b>Total Count</b>	<b>606</b>	<b>627</b>	<b>639</b>	<b>656</b>	<b>642</b>	
	Total Relevant Dollars	221,536,640	226,131,753	227,674,538	248,038,856	240,968,763	2.21
Esophagus	<b>Number of Grants</b>	<b>64</b>	<b>53</b>	<b>55</b>	<b>60</b>	<b>56</b>	
	Relevant Grant Dollars	22,683,369	19,853,591	20,998,406	24,663,141	26,399,056	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	<b>1</b>	
	Relevant Contract Dollars	‡	‡	‡	400,000	55,000	
	<b>Total Count</b>	<b>64</b>	<b>53</b>	<b>55</b>	<b>61</b>	<b>57</b>	
	Total Relevant Dollars	22,683,369	19,853,591	20,998,406	25,063,141	26,454,056	4.55

continued

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

‡ Coding not required or requested. FY2023 contract data not included.

Source: Research Analysis and Evaluation Branch

**Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for FY2019 – FY2023 — Annual Percent Change**

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

Anatomical Site	Counts and Relevant Dollars*	2019	2020	2021	2022	2023	Average Percent Change/Year
Eye	<b>Number of Grants</b>	<b>24</b>	<b>22</b>	<b>21</b>	<b>20</b>	<b>16</b>	
	Relevant Grant Dollars	4,941,626	6,611,738	6,380,154	6,686,888	5,712,743	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>24</b>	<b>22</b>	<b>21</b>	<b>20</b>	<b>16</b>	
	Total Relevant Dollars	4,941,626	6,611,738	6,380,154	6,686,888	5,712,743	5.13
Gall Bladder	<b>Number of Grants</b>	<b>5</b>	<b>6</b>	<b>5</b>	<b>2</b>	<b>5</b>	
	Relevant Grant Dollars	1,225,202	1,536,444	211,290	1,637,198	2,583,630	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	176,718	
	<b>Total Count</b>	<b>5</b>	<b>6</b>	<b>5</b>	<b>2</b>	<b>6</b>	
	Total Relevant Dollars	1,225,202	1,536,444	2,112,090	1,637,198	2,760,348	27.25
Gastrointestinal Stromal Tumor	<b>Number of Grants</b>	<b>13</b>	<b>16</b>	<b>10</b>	<b>10</b>	<b>11</b>	
	Relevant Grant Dollars	3,411,602	3,878,417	2,519,363	3,167,261	2,798,713	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>13</b>	<b>16</b>	<b>10</b>	<b>10</b>	<b>11</b>	
	Total Relevant Dollars	3,411,602	3,878,417	2,519,363	3,167,261	2,798,713	-1.82
Gastrointestinal Tract	<b>Number of Grants</b>	<b>23</b>	<b>22</b>	<b>21</b>	<b>30</b>	<b>32</b>	
	Relevant Grant Dollars	10,623,733	10,670,783	11,509,389	13,356,390	13,752,251	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>23</b>	<b>22</b>	<b>21</b>	<b>30</b>	<b>32</b>	
	Total Relevant Dollars	10,623,733	10,670,783	11,509,389	13,356,390	13,752,251	6.83
Head and Neck	<b>Number of Grants</b>	<b>155</b>	<b>148</b>	<b>152</b>	<b>165</b>	<b>189</b>	
	Relevant Grant Dollars	47,171,588	46,369,930	52,429,001	59,586,151	71,473,949	
	<b>Number of Contracts</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	
	Relevant Contract Dollars	1,999,989	400,000	20,000	20,000	400,000	
	<b>Total Count</b>	<b>156</b>	<b>149</b>	<b>153</b>	<b>161</b>	<b>190</b>	
	Total Relevant Dollars	49,171,577	46,769,930	52,449,001	59,606,151	71,873,949	10.37
Hodgkin Lymphoma	<b>Number of Grants</b>	<b>28</b>	<b>35</b>	<b>33</b>	<b>30</b>	<b>29</b>	
	Relevant Grant Dollars	7,827,737	9,501,025	9,301,234	8,770,176	7,985,507	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>28</b>	<b>35</b>	<b>33</b>	<b>30</b>	<b>29</b>	
	Total Relevant Dollars	7,827,737	9,501,025	9,301,234	8,770,176	7,985,507	1.15

continued

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

‡ Coding not required or requested. FY2023 contract data not included.

Source: Research Analysis and Evaluation Branch



**Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for  
FY2019 – FY2023 — Annual Percent Change**

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

Anatomical Site	Counts and Relevant Dollars*	2019	2020	2021	2022	2023	Average Percent Change/Year
Kaposi Sarcoma	<b>Number of Grants</b>	<b>65</b>	<b>69</b>	<b>64</b>	<b>69</b>	<b>64</b>	
	Relevant Grant Dollars	24,244,764	28,892,855	28,026,573	29,651,469	31,012,375	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>65</b>	<b>69</b>	<b>64</b>	<b>69</b>	<b>64</b>	
	Total Relevant Dollars	24,244,764	28,892,855	28,026,573	29,651,469	31,012,375	6.64
Kidney	<b>Number of Grants</b>	<b>116</b>	<b>122</b>	<b>118</b>	<b>122</b>	<b>140</b>	
	Relevant Grant Dollars	35,514,093	35,076,660	34,360,376	41,124,746	44,957,593	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	131,128	‡	‡	
	<b>Total Count</b>	<b>116</b>	<b>122</b>	<b>119</b>	<b>122</b>	<b>140</b>	
	Total Relevant Dollars	35,514,093	35,076,660	34,491,504	41,124,746	44,957,593	6.41
Larynx	<b>Number of Grants</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>1</b>	
	Relevant Grant Dollars	82,322	349,888	113,482	93,464	94,093	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>1</b>	
	Total Relevant Dollars	82,322	349,888	113,482	93,464	94,093	60.12
Leukemia	<b>Number of Grants</b>	<b>556</b>	<b>603</b>	<b>575</b>	<b>618</b>	<b>629</b>	
	Relevant Grant Dollars	235,759,795	251,524,364	248,103,498	269,200,607	280,871,160	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	<b>‡</b>	<b>1</b>	
	Relevant Contract Dollars	‡	‡	1,999,993	‡	355,010	
	<b>Total Count</b>	<b>556</b>	<b>603</b>	<b>576</b>	<b>618</b>	<b>630</b>	
	Total Relevant Dollars	235,759,795	251,524,364	250,103,491	269,200,607	281,226,170	4.56
Liver	<b>Number of Grants</b>	<b>269</b>	<b>270</b>	<b>272</b>	<b>298</b>	<b>297</b>	
	Relevant Grant Dollars	93,301,235	92,885,952	94,198,945	107,662,468	112,880,899	
	<b>Number of Contracts</b>	<b>7</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>2</b>	
	Relevant Contract Dollars	2,411,664	80,000	2,211,089	1,273,833	256,718	
	<b>Total Count</b>	<b>276</b>	<b>271</b>	<b>275</b>	<b>302</b>	<b>299</b>	
	Total Relevant Dollars	95,712,899	92,965,952	96,410,034	108,936,301	113,137,617	4.42
Lung	<b>Number of Grants</b>	<b>777</b>	<b>862</b>	<b>930</b>	<b>929</b>	<b>946</b>	
	Relevant Grant Dollars	329,758,879	372,958,789	389,825,964	432,361,141	434,286,691	
	<b>Number of Contracts</b>	<b>20</b>	<b>9</b>	<b>6</b>	<b>8</b>	<b>7</b>	
	Relevant Contract Dollars	55,613,583	15,793,532	5,823,050	15,699,312	8,162,060	
	<b>Total Count</b>	<b>797</b>	<b>871</b>	<b>936</b>	<b>937</b>	<b>953</b>	
	Total Relevant Dollars	385,372,462	388,752,321	395,649,014	448,060,453	442,448,751	3.66

continued

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

‡ Coding not required or requested. FY2023 contract data not included.

Source: Research Analysis and Evaluation Branch

**Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for  
FY2019 – FY2023 — Annual Percent Change**

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

Anatomical Site	Counts and Relevant Dollars*	2019	2020	2021	2022	2023	Average Percent Change/Year
Lymph Node	<b>Number of Grants</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>4</b>	
	Relevant Grant Dollars	571,254	493,999	383,072	157,635	525,209	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>4</b>	
	Total Relevant Dollars	571,254	493,999	383,072	157,635	525,209	34.59
Melanoma	<b>Number of Grants</b>	<b>431</b>	<b>459</b>	<b>462</b>	<b>459</b>	<b>436</b>	
	Relevant Grant Dollars	151,332,731	155,296,220	159,782,469	163,780,433	161,087,594	
	<b>Number of Contracts</b>	<b>14</b>	<b>‡</b>	<b>1</b>	<b>1</b>	<b>‡</b>	
	Relevant Contract Dollars	23,242,523	‡	100,000	43,521	‡	
	<b>Total Count</b>	<b>445</b>	<b>459</b>	<b>463</b>	<b>460</b>	<b>436</b>	
	Total Relevant Dollars	174,575,254	155,296,220	159,882,469	163,823,954	161,087,594	-1.82
Mesothelioma	<b>Number of Grants</b>	<b>23</b>	<b>22</b>	<b>18</b>	<b>17</b>	<b>12</b>	
	Relevant Grant Dollars	9,722,032	7,662,841	5,701,409	5,600,674	1,119,116	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>23</b>	<b>22</b>	<b>18</b>	<b>17</b>	<b>13</b>	
	Total Relevant Dollars	9,722,032	7,662,841	5,701,409	5,600,674	3,939,551	-19.55
Muscle	<b>Number of Grants</b>	<b>2</b>	<b>1</b>	<b>‡</b>	<b>1</b>	<b>2</b>	
	Relevant Grant Dollars	314,850	64,926	‡	64,926	561,791	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>2</b>	<b>1</b>	<b>‡</b>	<b>1</b>	<b>2</b>	
	Total Relevant Dollars	314,850	64,926	‡	64,926	561,791	228.63
Myeloma	<b>Number of Grants</b>	<b>144</b>	<b>141</b>	<b>119</b>	<b>137</b>	<b>154</b>	
	Relevant Grant Dollars	51,396,312	41,853,952	44,441,690	46,833,644	55,064,708	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	1,494,039	
	<b>Total Count</b>	<b>144</b>	<b>141</b>	<b>119</b>	<b>137</b>	<b>155</b>	
	Total Relevant Dollars	51,396,312	41,853,952	44,441,690	46,833,644	56,558,747	3.44
Nervous System	<b>Number of Grants</b>	<b>15</b>	<b>9</b>	<b>10</b>	<b>16</b>	<b>15</b>	
	Relevant Grant Dollars	5,526,718	2,482,137	3,700,853	6,708,355	6,896,843	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>15</b>	<b>9</b>	<b>10</b>	<b>16</b>	<b>15</b>	
	Total Relevant Dollars	5,526,718	2,482,137	3,700,853	6,708,355	6,896,843	19.52

continued

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

‡ Coding not required or requested. FY2023 contract data not included.

Source: Research Analysis and Evaluation Branch

**Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for  
FY2019 – FY2023 — Annual Percent Change**

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

Anatomical Site	Counts and Relevant Dollars*	2019	2020	2021	2022	2023	Average Percent Change/Year
Neuroblastoma	<b>Number of Grants</b>	<b>75</b>	<b>76</b>	<b>71</b>	<b>72</b>	<b>74</b>	
	Relevant Grant Dollars	22,793,475	23,684,550	23,445,301	22,715,945	26,232,130	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	400,000	
	<b>Total Count</b>	<b>75</b>	<b>76</b>	<b>71</b>	<b>72</b>	<b>75</b>	
	Total Relevant Dollars	22,793,475	23,684,550	23,445,301	22,715,945	26,632,130	4.26
Non-Hodgkin Lymphoma	<b>Number of Grants</b>	<b>278</b>	<b>295</b>	<b>291</b>	<b>308</b>	<b>314</b>	
	Relevant Grant Dollars	99,025,255	109,152,695	113,533,062	120,812,661	121,225,347	
	<b>Number of Contracts</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	54,994	2,000,000	399,962	‡	‡	
	<b>Total Count</b>	<b>279</b>	<b>296</b>	<b>292</b>	<b>308</b>	<b>314</b>	
	Total Relevant Dollars	99,080,249	111,152,695	113,933,024	120,812,661	121,225,347	5.27
Not Site Specific**	<b>Number of Grants</b>	<b>1,511</b>	<b>1,526</b>	<b>1,524</b>	<b>1,608</b>	<b>1,693</b>	
	Relevant Grant Dollars	856,175,303	951,968,145	877,750,465	1,014,485,696	1,121,800,444	
	<b>Number of Contracts</b>	<b>125</b>	<b>172</b>	<b>174</b>	<b>150</b>	<b>128</b>	
	Relevant Contract Dollars	522,054,442	339,232,245	633,724,984	653,509,263	701,960,842	
	<b>Total Count</b>	<b>1,636</b>	<b>1,698</b>	<b>1,698</b>	<b>1,758</b>	<b>1,821</b>	
	Total Relevant Dollars	1,378,229,745	1,291,200,390	1,511,475,449	1,667,994,959	1,823,761,286	7.61
Oral Cavity	<b>Number of Grants</b>	<b>43</b>	<b>74</b>	<b>65</b>	<b>77</b>	<b>83</b>	
	Relevant Grant Dollars	12,325,550	18,840,504	16,634,211	20,739,587	25,091,595	
	<b>Number of Contracts</b>	<b>1</b>	<b>1</b>	<b>‡</b>	<b>2</b>	<b>‡</b>	
	Relevant Contract Dollars	15,000	15,000	‡	531,408	‡	
	<b>Total Count</b>	<b>43</b>	<b>75</b>	<b>65</b>	<b>79</b>	<b>83</b>	
	Total Relevant Dollars	12,340,550	18,855,504	16,634,211	21,270,995	25,091,595	21.71
Ovary	<b>Number of Grants</b>	<b>342</b>	<b>337</b>	<b>350</b>	<b>352</b>	<b>356</b>	
	Relevant Grant Dollars	108,940,938	116,728,532	120,285,614	124,621,907	121,635,953	
	<b>Number of Contracts</b>	<b>1</b>	<b>‡</b>	<b>1</b>	<b>1</b>	<b>1</b>	
	Relevant Contract Dollars	4,863	‡	1,167,587	264,873	300,876	
	<b>Total Count</b>	<b>343</b>	<b>337</b>	<b>351</b>	<b>353</b>	<b>357</b>	
	Total Relevant Dollars	108,945,801	116,728,532	121,453,201	124,886,780	121,936,828	2.91
Pancreas	<b>Number of Grants</b>	<b>484</b>	<b>525</b>	<b>544</b>	<b>563</b>	<b>595</b>	
	Relevant Grant Dollars	172,139,086	189,985,200	203,216,987	222,310,129	237,207,103	
	<b>Number of Contracts</b>	<b>2</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	<b>2</b>	
	Relevant Contract Dollars	1,291,099	398,711	‡	‡	356,817	
	<b>Total Count</b>	<b>486</b>	<b>526</b>	<b>544</b>	<b>563</b>	<b>597</b>	
	Total Relevant Dollars	173,430,185	190,383,911	203,216,987	222,310,129	237,563,919	8.19

continued

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

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

‡ Coding not required or requested. FY2023 contract data not included.

Source: Research Analysis and Evaluation Branch

**Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for  
FY2019 – FY2023 — Annual Percent Change**

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

Anatomical Site	Counts and Relevant Dollars*	2019	2020	2021	2022	2023	Average Percent Change/Year
Parathyroid	<b>Number of Grants</b>	<b>3</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>4</b>	
	Relevant Grant Dollars	1,268,612	1,958,217	1,383,619	777,296	1,417,547	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>3</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>4</b>	
	Total Relevant Dollars	1,268,612	1,958,217	1,383,619	777,296	1,417,547	15.89
Penis	<b>Number of Grants</b>	<b>7</b>	<b>8</b>	<b>7</b>	<b>11</b>	<b>9</b>	
	Relevant Grant Dollars	656,490	885,380	873,240	894,192	786,508	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>7</b>	<b>8</b>	<b>7</b>	<b>11</b>	<b>9</b>	
	Total Relevant Dollars	656,490	885,380	873,240	894,192	786,508	5.96
Pharynx	<b>Number of Grants</b>	<b>8</b>	<b>17</b>	<b>16</b>	<b>12</b>	<b>18</b>	
	Relevant Grant Dollars	2,928,133	4,406,488	5,316,112	3,227,262	5,074,425	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>8</b>	<b>17</b>	<b>16</b>	<b>12</b>	<b>18</b>	
	Total Relevant Dollars	2,928,133	4,406,488	5,316,112	3,227,262	5,074,425	22.27
Pituitary	<b>Number of Grants</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>6</b>	
	Relevant Grant Dollars	1,546,588	1,524,157	1,628,815	1,551,955	1,447,804	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>6</b>	
	Total Relevant Dollars	1,546,588	1,524,157	1,628,815	1,551,955	1,447,804	-1.50
Prostate	<b>Number of Grants</b>	<b>533</b>	<b>532</b>	<b>551</b>	<b>561</b>	<b>574</b>	
	Relevant Grant Dollars	210,896,342	208,342,580	213,750,605	229,532,204	248,099,316	
	<b>Number of Contracts</b>	<b>7</b>	<b>5</b>	<b>1</b>	<b>4</b>	<b>2</b>	
	Relevant Contract Dollars	5,553,063	1,702,340	1,167,587	1,854,652	797,125	
	<b>Total Count</b>	<b>540</b>	<b>537</b>	<b>552</b>	<b>565</b>	<b>576</b>	
	Total Relevant Dollars	216,449,404	210,044,920	214,918,192	231,386,856	248,896,441	3.65
Retinoblastoma	<b>Number of Grants</b>	<b>10</b>	<b>12</b>	<b>7</b>	<b>7</b>	<b>7</b>	
	Relevant Grant Dollars	2,233,623	2,778,359	1,842,227	2,221,539	2,299,267	
	<b>Number of Contracts</b>	<b>‡</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	398,149	‡	‡	‡	
	<b>Total Count</b>	<b>10</b>	<b>13</b>	<b>7</b>	<b>7</b>	<b>7</b>	
	Total Relevant Dollars	2,233,623	3,176,508	1,842,227	2,221,539	2,299,267	6.07

continued

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

‡ Coding not required or requested. FY2023 contract data not included.

Source: Research Analysis and Evaluation Branch

**Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for  
FY2019 – FY2023 — Annual Percent Change**

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

Anatomical Site	Counts and Relevant Dollars*	2019	2020	2021	2022	2023	Average Percent Change/Year
Sarcoma — Bone	<b>Number of Grants</b>	<b>66</b>	<b>73</b>	<b>66</b>	<b>79</b>	<b>86</b>	
	Relevant Grant Dollars	16,332,850	15,137,493	18,059,775	21,835,183	25,203,322	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>66</b>	<b>73</b>	<b>66</b>	<b>79</b>	<b>86</b>	
	Total Relevant Dollars	16,332,850	15,137,493	18,059,775	21,835,183	25,203,322	12.08
Sarcoma — Soft Tissue	<b>Number of Grants</b>	<b>99</b>	<b>103</b>	<b>105</b>	<b>108</b>	<b>127</b>	
	Relevant Grant Dollars	31,903,104	24,661,666	30,208,118	33,118,068	38,125,983	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	355,000	‡	
	<b>Total Count</b>	<b>99</b>	<b>103</b>	<b>105</b>	<b>109</b>	<b>127</b>	
	Total Relevant Dollars	31,903,104	24,661,666	30,208,118	33,473,068	38,125,983	6.13
Skin	<b>Number of Grants</b>	<b>116</b>	<b>123</b>	<b>113</b>	<b>114</b>	<b>105</b>	
	Relevant Grant Dollars	34,112,959	44,553,911	40,001,783	42,180,232	38,308,079	
	<b>Number of Contracts</b>	<b>3</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	<b>1</b>	
	Relevant Contract Dollars	643,548	‡	‡	156,564	652,063	
	<b>Total Count</b>	<b>119</b>	<b>123</b>	<b>113</b>	<b>115</b>	<b>106</b>	
	Total Relevant Dollars	34,756,507	44,553,911	40,001,783	42,336,796	38,960,142	3.96
Small Intestine	<b>Number of Grants</b>	<b>8</b>	<b>7</b>	<b>5</b>	<b>3</b>	<b>3</b>	
	Relevant Grant Dollars	2,202,945	1,165,582	1,184,868	295,794	296,736	
	<b>Number of Contracts</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	510,195	‡	‡	‡	‡	
	<b>Total Count</b>	<b>8</b>	<b>7</b>	<b>5</b>	<b>3</b>	<b>3</b>	
	Total Relevant Dollars	2,713,140	1,165,582	1,184,868	295,794	296,736	-32.53
Stomach	<b>Number of Grants</b>	<b>41</b>	<b>50</b>	<b>47</b>	<b>64</b>	<b>75</b>	
	Relevant Grant Dollars	10,761,813	12,464,266	13,850,275	21,510,117	27,247,054	
	<b>Number of Contracts</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	510,195	‡	‡	‡	‡	
	<b>Total Count</b>	<b>42</b>	<b>50</b>	<b>47</b>	<b>64</b>	<b>75</b>	
	Total Relevant Dollars	11,272,008	12,464,266	13,850,275	21,510,117	27,247,054	25.92
Testis	<b>Number of Grants</b>	<b>6</b>	<b>16</b>	<b>14</b>	<b>15</b>	<b>13</b>	
	Relevant Grant Dollars	1,568,860	5,260,190	4,363,846	5,214,844	4,352,936	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>6</b>	<b>16</b>	<b>14</b>	<b>15</b>	<b>13</b>	
	Total Relevant Dollars	1,568,860	5,260,190	4,363,846	5,214,844	4,352,936	55.31

continued

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

‡ Coding not required or requested. FY2023 contract data not included.

Source: Research Analysis and Evaluation Branch

**Table 15 (cont'd). NCI Organ and Related Site-Specific Dollars for  
FY2019 – FY2023 — Annual Percent Change**

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

Anatomical Site	Counts and Relevant Dollars*	2019	2020	2021	2022	2023	Average Percent Change/Year
Thymus	<b>Number of Grants</b>	<b>6</b>	<b>6</b>	<b>3</b>	<b>3</b>	<b>3</b>	
	Relevant Grant Dollars	1,065,371	1,183,335	845,886	803,261	197,242	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>6</b>	<b>6</b>	<b>3</b>	<b>3</b>	<b>3</b>	
	Total Relevant Dollars	1,065,371	1,183,335	845,886	803,261	197,242	-24.48
Thyroid	<b>Number of Grants</b>	<b>44</b>	<b>49</b>	<b>46</b>	<b>47</b>	<b>48</b>	
	Relevant Grant Dollars	10,794,911	12,627,725	13,543,963	13,719,110	14,106,394	
	<b>Number of Contracts</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	<b>1</b>	
	Relevant Contract Dollars	49,394	‡	‡	126,709	215,500	
	<b>Total Count</b>	<b>45</b>	<b>49</b>	<b>46</b>	<b>48</b>	<b>49</b>	
	Total Relevant Dollars	10,844,305	12,627,725	13,543,963	13,845,819	14,321,894	7.34
Uterus	<b>Number of Grants</b>	<b>59</b>	<b>58</b>	<b>47</b>	<b>49</b>	<b>54</b>	
	Relevant Grant Dollars	13,819,141	14,403,143	12,119,866	11,914,927	15,423,342	
	<b>Number of Contracts</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	<b>5</b>	<b>‡</b>	
	Relevant Contract Dollars	1,231,648	‡	‡	165,008	‡	
	<b>Total Count</b>	<b>60</b>	<b>58</b>	<b>47</b>	<b>54</b>	<b>54</b>	
	Total Relevant Dollars	15,050,789	14,403,143	12,119,866	12,079,935	15,423,342	1.80
Vagina	<b>Number of Grants</b>	<b>4</b>	<b>3</b>	<b>6</b>	<b>8</b>	<b>7</b>	
	Relevant Grant Dollars	583,872	769,655	562,667	1,246,170	569,247	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>4</b>	<b>3</b>	<b>6</b>	<b>8</b>	<b>7</b>	
	Total Relevant Dollars	583,872	769,655	562,667	1,246,170	569,247	18.02
Vascular	<b>Number of Grants</b>	<b>3</b>	<b>6</b>	<b>4</b>	<b>4</b>	<b>5</b>	
	Relevant Grant Dollars	1,344,206	1,680,268	1,488,561	1,037,247	905,064	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>3</b>	<b>6</b>	<b>4</b>	<b>4</b>	<b>5</b>	
	Total Relevant Dollars	1,344,206	1,680,268	1,488,561	1,037,247	905,064	-7.37
Wilms Tumor	<b>Number of Grants</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>2</b>	<b>3</b>	
	Relevant Grant Dollars	1,940,000	1,756,390	1,183,742	364,983	907,357	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>2</b>	<b>3</b>	
	Total Relevant Dollars	1,940,000	1,756,390	1,183,742	364,983	907,357	9.34

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

‡ Coding not required or requested. FY2023 contract data not included.

Source: Research Analysis and Evaluation Branch



**Table 16. NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Adolescent and Young Adults Cancer	<b>Number of Grants</b>	<b>231</b>	<b>293</b>	<b>313</b>	<b>353</b>	<b>377</b>	
	Relevant Grant Dollars	118,127,498	122,204,317	128,983,654	155,814,597	167,284,151	
	<b>Number of Contracts</b>	<b>2</b>	<b>‡</b>	<b>‡</b>	<b>3</b>	<b>2</b>	
	Relevant Contract Dollars	442,938	‡	‡	9,131,723	419,673,351	
	<b>Total Count</b>	<b>233</b>	<b>293</b>	<b>313</b>	<b>356</b>	<b>379</b>	
	Total Relevant Dollars	118,570,436	122,204,317	128,983,654	164,946,320	586,957,501	73.09
Adoptive Cell Immunotherapy	<b>Number of Grants</b>	<b>211</b>	<b>258</b>	<b>280</b>	<b>321</b>	<b>353</b>	
	Relevant Grant Dollars	87,631,798	86,391,555	100,646,024	115,302,551	137,830,122	
	<b>Number of Contracts</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>	
	Relevant Contract Dollars	27,497	399,299	2,399,955	427,500	314,994	
	<b>Total Count</b>	<b>212</b>	<b>259</b>	<b>282</b>	<b>323</b>	<b>354</b>	
	Total Relevant Dollars	87,659,295	86,790,854	103,045,979	115,730,051	138,145,116	12.35
Advanced Manufacturing Technology	<b>Number of Grants</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>13</b>	<b>13</b>	
	Relevant Grant Dollars	845,428	1,829,119	2,016,956	4,611,911	4,435,789	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	400,000	‡	
	<b>Total Count</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>14</b>	<b>13</b>	
	Total Relevant Dollars	845,428	1,829,119	2,016,956	5,011,911	4,435,789	65.90
Aging	<b>Number of Grants</b>	<b>215</b>	<b>238</b>	<b>218</b>	<b>227</b>	<b>221</b>	
	Relevant Grant Dollars	64,340,550	77,241,267	72,529,506	89,936,753	85,510,348	
	<b>Number of Contracts</b>	<b>6</b>	<b>2</b>	<b>‡</b>	<b>2</b>	<b>4</b>	
	Relevant Contract Dollars	690,838	1,152,930	‡	550,000	3,285,282	
	<b>Total Count</b>	<b>221</b>	<b>240</b>	<b>218</b>	<b>229</b>	<b>225</b>	
	Total Relevant Dollars	65,031,388	78,394,197	72,529,506	90,486,753	88,795,630	8.99
Alternative Medicine	<b>Number of Grants</b>	<b>145</b>	<b>145</b>	<b>152</b>	<b>171</b>	<b>192</b>	
	Relevant Grant Dollars	46,859,296	43,374,202	49,802,758	55,838,168	65,508,049	
	<b>Number of Contracts</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	
	Relevant Contract Dollars	928,436	181,500	199,976	400,000	2,344,732	
	<b>Total Count</b>	<b>147</b>	<b>146</b>	<b>153</b>	<b>172</b>	<b>194</b>	
	Total Relevant Dollars	47,787,732	43,555,702	50,002,734	56,238,168	67,852,781	9.77
Alzheimer's Dementia	<b>Number of Grants</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>8</b>	
	Relevant Grant Dollars	207,809	467,294	480,430	1,076,615	1,720,051	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>8</b>	
	Total Relevant Dollars	207,809	467,294	480,430	1,076,615	1,720,051	77.88

*continued*

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

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Arctic Research	<b>Number of Grants</b>	<b>9</b>	<b>17</b>	<b>13</b>	<b>13</b>	<b>16</b>	
	Relevant Grant Dollars	4,280,761	7,890,282	5,711,933	5,011,048	5,681,250	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>9</b>	<b>17</b>	<b>13</b>	<b>13</b>	<b>16</b>	
	Total Relevant Dollars	4,280,761	7,890,282	5,711,933	5,011,048	5,681,250	14.45
Asbestos	<b>Number of Grants</b>	<b>5</b>	<b>4</b>	<b>6</b>	<b>4</b>	<b>5</b>	
	Relevant Grant Dollars	1,716,100	1,478,421	2,204,411	1,723,166	1,561,497	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	2,238,232	
	<b>Total Count</b>	<b>5</b>	<b>4</b>	<b>6</b>	<b>4</b>	<b>6</b>	
	Total Relevant Dollars	1,716,100	1,478,421	2,204,411	1,723,166	3,799,729	33.48
Ataxia Telangiectasia	<b>Number of Grants</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>2</b>	
	Relevant Grant Dollars	632,185	646,859	241,275	250,320	218,404	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>2</b>	
	Total Relevant Dollars	632,185	646,859	241,275	250,320	218,404	-17.35
Autoimmune Diseases	<b>Number of Grants</b>	<b>10</b>	<b>11</b>	<b>9</b>	<b>10</b>	<b>9</b>	
	Relevant Grant Dollars	2,129,342	2,852,373	1,976,270	2,245,670	1,624,374	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>10</b>	<b>11</b>	<b>9</b>	<b>10</b>	<b>9</b>	
	Total Relevant Dollars	2,129,342	2,852,373	1,976,270	2,245,670	1,624,374	-2.70
Behavior Research	<b>Number of Grants</b>	<b>680</b>	<b>799</b>	<b>802</b>	<b>824</b>	<b>949</b>	
	Relevant Grant Dollars	248,036,698	299,047,617	307,388,720	381,917,308	386,646,195	
	<b>Number of Contracts</b>	<b>5</b>	<b>7</b>	<b>2</b>	<b>5</b>	<b>9</b>	
	Relevant Contract Dollars	35,595,028	6,869,266	1,022,930	5,151,158	7,642,010	
	<b>Total Count</b>	<b>685</b>	<b>806</b>	<b>804</b>	<b>829</b>	<b>958</b>	
	Total Relevant Dollars	283,631,726	305,916,884	308,411,650	387,068,466	394,288,205	9.01
Bioengineering	<b>Number of Grants</b>	<b>498</b>	<b>517</b>	<b>561</b>	<b>579</b>	<b>581</b>	
	Relevant Grant Dollars	192,613,667	214,148,983	234,398,214	256,603,472	249,452,082	
	<b>Number of Contracts</b>	<b>17</b>	<b>10</b>	<b>7</b>	<b>13</b>	<b>2</b>	
	Relevant Contract Dollars	15,537,305	3,547,308	2,789,513	3,149,851	51,971	
	<b>Total Count</b>	<b>515</b>	<b>527</b>	<b>568</b>	<b>592</b>	<b>583</b>	
	Total Relevant Dollars	208,150,972	217,696,291	237,187,727	259,753,323	249,504,053	4.78

*continued*

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Bioinformatics	<b>Number of Grants</b>	<b>755</b>	<b>819</b>	<b>820</b>	<b>816</b>	<b>809</b>	
	Relevant Grant Dollars	314,616,007	342,712,693	342,864,476	372,062,540	357,945,183	
	<b>Number of Contracts</b>	<b>26</b>	<b>119</b>	<b>40</b>	<b>37</b>	<b>27</b>	
	Relevant Contract Dollars	243,812,997	174,223,520	76,257,031	290,419,613	463,721,465	
	<b>Total Count</b>	<b>781</b>	<b>938</b>	<b>860</b>	<b>853</b>	<b>836</b>	
	Total Relevant Dollars	558,429,004	516,936,213	419,121,507	662,482,152	821,666,648	13.94
Biological Carcinogenesis — Non-Viral	<b>Number of Grants</b>	<b>75</b>	<b>92</b>	<b>89</b>	<b>100</b>	<b>111</b>	
	Relevant Grant Dollars	23,221,779	25,360,950	28,608,038	32,255,829	34,799,400	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	1,999,961	‡	‡	
	<b>Total Count</b>	<b>75</b>	<b>92</b>	<b>90</b>	<b>100</b>	<b>111</b>	
	Total Relevant Dollars	23,221,779	25,360,950	30,607,999	32,255,829	34,799,400	10.79
Biologics/Biological Response Modifiers	<b>Number of Grants</b>	<b>1,040</b>	<b>1,215</b>	<b>1,271</b>	<b>1,369</b>	<b>1,410</b>	
	Relevant Grant Dollars	421,827,794	480,327,415	490,484,192	535,852,401	535,852,401	
	<b>Number of Contracts</b>	<b>18</b>	<b>9</b>	<b>4</b>	<b>7</b>	<b>8</b>	
	Relevant Contract Dollars	7,000,911	9,399,568	4,091,098	7,866,566	12,911,296	
	<b>Total Count</b>	<b>1,058</b>	<b>1,224</b>	<b>1,274</b>	<b>1,376</b>	<b>1,418</b>	
	Total Relevant Dollars	428,828,705	489,726,983	494,575,290	543,718,967	589,023,766	8.37
Biomarkers	<b>Number of Grants</b>	<b>1,533</b>	<b>1,496</b>	<b>1,661</b>	<b>1,710</b>	<b>1,769</b>	
	Relevant Grant Dollars	507,662,741	502,778,212	538,519,084	585,049,774	633,589,297	
	<b>Number of Contracts</b>	<b>25</b>	<b>9</b>	<b>10</b>	<b>9</b>	<b>10</b>	
	Relevant Contract Dollars	14,609,257	5,069,362	12,318,509	10,351,477	7,341,760	
	<b>Total Count</b>	<b>1,558</b>	<b>1,505</b>	<b>1,671</b>	<b>1,719</b>	<b>1,779</b>	
	Total Relevant Dollars	522,271,998	507,847,574	550,837,593	595,401,251	640,931,057	5.36
Biomaterials Research	<b>Number of Grants</b>	<b>76</b>	<b>72</b>	<b>70</b>	<b>71</b>	<b>85</b>	
	Relevant Grant Dollars	23,344,253	19,950,191	21,852,233	23,559,385	26,674,944	
	<b>Number of Contracts</b>	<b>‡</b>	<b>2</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	400,000	‡	‡	‡	
	<b>Total Count</b>	<b>76</b>	<b>74</b>	<b>70</b>	<b>71</b>	<b>85</b>	
	Total Relevant Dollars	23,344,253	20,350,191	21,852,233	23,559,385	26,674,944	3.90
Biomedical Computing	<b>Number of Grants</b>	<b>686</b>	<b>768</b>	<b>804</b>	<b>920</b>	<b>927</b>	
	Relevant Grant Dollars	269,476,921	300,632,446	313,421,927	385,762,631	402,071,216	
	<b>Number of Contracts</b>	<b>36</b>	<b>123</b>	<b>47</b>	<b>85</b>	<b>49</b>	
	Relevant Contract Dollars	249,348,654	175,830,676	60,014,598	376,580,032	116,755,228	
	<b>Total Count</b>	<b>722</b>	<b>891</b>	<b>851</b>	<b>1,005</b>	<b>976</b>	
	Total Relevant Dollars	518,825,575	476,463,122	373,436,525	762,342,663	518,826,444	10.60

*continued*

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Bone Marrow Transplantation	<b>Number of Grants</b>	<b>67</b>	<b>73</b>	<b>62</b>	<b>62</b>	<b>62</b>	
	Relevant Grant Dollars	29,046,389	32,837,598	31,774,199	32,159,025	29,590,689	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>67</b>	<b>73</b>	<b>62</b>	<b>62</b>	<b>62</b>	
	Total Relevant Dollars	29,046,389	32,837,598	31,774,199	32,159,025	29,590,689	0.76
Breast Cancer Detection	<b>Number of Grants</b>	<b>247</b>	<b>227</b>	<b>222</b>	<b>216</b>	<b>221</b>	
	Relevant Grant Dollars	81,438,411	83,444,810	79,628,066	82,745,365	89,985,811	
	<b>Number of Contracts</b>	<b>‡</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>9</b>	
	Relevant Contract Dollars	‡	999,778	279,023	1,998,738	1,223,939	
	<b>Total Count</b>	<b>247</b>	<b>230</b>	<b>223</b>	<b>217</b>	<b>230</b>	
	Total Relevant Dollars	81,438,411	84,444,588	79,907,089	84,744,103	91,209,750	3.00
Breast Cancer Early Detection	<b>Number of Grants</b>	<b>146</b>	<b>132</b>	<b>104</b>	<b>99</b>	<b>105</b>	
	Relevant Grant Dollars	41,392,617	42,906,961	34,227,936	34,407,422	41,155,239	
	<b>Number of Contracts</b>	<b>‡</b>	<b>2</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	
	Relevant Contract Dollars	‡	799,778	‡	‡	44,403	
	<b>Total Count</b>	<b>146</b>	<b>134</b>	<b>104</b>	<b>99</b>	<b>106</b>	
	Total Relevant Dollars	41,392,617	43,706,739	34,227,936	34,407,422	41,199,642	1.04
Breast Cancer Education	<b>Number of Grants</b>	<b>29</b>	<b>28</b>	<b>28</b>	<b>23</b>	<b>16</b>	
	Relevant Grant Dollars	4,543,456	4,829,069	7,592,960	4,692,521	2,302,844	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>29</b>	<b>28</b>	<b>28</b>	<b>23</b>	<b>16</b>	
	Total Relevant Dollars	4,543,456	4,829,069	7,592,960	4,692,521	2,302,844	-6.40
Breast Cancer Epidemiology	<b>Number of Grants</b>	<b>94</b>	<b>87</b>	<b>71</b>	<b>60</b>	<b>72</b>	
	Relevant Grant Dollars	26,836,612	28,355,007	25,140,881	22,719,193	24,402,141	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>94</b>	<b>87</b>	<b>71</b>	<b>60</b>	<b>72</b>	
	Total Relevant Dollars	26,836,612	28,355,007	25,140,881	22,719,193	24,402,141	-1.98
Breast Cancer Genetics	<b>Number of Grants</b>	<b>198</b>	<b>172</b>	<b>137</b>	<b>125</b>	<b>109</b>	
	Relevant Grant Dollars	54,942,258	56,347,830	43,018,502	38,410,986	33,379,403	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>198</b>	<b>172</b>	<b>137</b>	<b>125</b>	<b>109</b>	
	Total Relevant Dollars	54,942,258	56,347,830	43,018,502	38,410,986	33,379,403	-11.23

continued

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

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Breast Cancer Prevention	<b>Number of Grants</b>	<b>92</b>	<b>89</b>	<b>80</b>	<b>80</b>	<b>75</b>	
	Relevant Grant Dollars	20,549,191	19,734,699	22,991,008	26,771,957	22,434,715	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	4,248,333	‡	
	<b>Total Count</b>	<b>92</b>	<b>89</b>	<b>80</b>	<b>81</b>	<b>75</b>	
	Total Relevant Dollars	20,549,191	19,734,699	22,991,008	31,020,290	22,434,715	4.95
Breast Cancer Rehabilitation	<b>Number of Grants</b>	<b>69</b>	<b>72</b>	<b>54</b>	<b>63</b>	<b>70</b>	
	Relevant Grant Dollars	19,374,865	23,648,591	16,308,963	21,091,005	24,277,102	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>69</b>	<b>72</b>	<b>54</b>	<b>63</b>	<b>70</b>	
	Total Relevant Dollars	19,374,865	23,648,591	16,308,963	21,091,005	24,277,102	8.86
Breast Cancer Screening	<b>Number of Grants</b>	<b>57</b>	<b>52</b>	<b>49</b>	<b>43</b>	<b>42</b>	
	Relevant Grant Dollars	14,338,947	19,922,792	20,246,637	18,616,897	19,103,874	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>57</b>	<b>52</b>	<b>49</b>	<b>43</b>	<b>42</b>	
	Total Relevant Dollars	14,338,947	19,922,792	20,246,637	18,616,897	19,103,874	8.78
Breast Cancer Treatment	<b>Number of Grants</b>	<b>619</b>	<b>625</b>	<b>667</b>	<b>690</b>	<b>721</b>	
	Relevant Grant Dollars	196,387,826	213,770,728	228,920,318	240,687,155	255,277,181	
	<b>Number of Contracts</b>	<b>4</b>	<b>‡</b>	<b>1</b>	<b>‡</b>	<b>10</b>	
	Relevant Contract Dollars	4,020,068	‡	119,581	‡	1,363,336	
	<b>Total Count</b>	<b>623</b>	<b>625</b>	<b>668</b>	<b>690</b>	<b>731</b>	
	Total Relevant Dollars	200,407,894	213,770,728	229,039,899	240,687,155	256,640,517	6.38
Breast Cancer — Basic	<b>Number of Grants</b>	<b>567</b>	<b>567</b>	<b>515</b>	<b>519</b>	<b>478</b>	
	Relevant Grant Dollars	155,259,816	172,808,076	151,747,531	152,036,610	147,399,420	
	<b>Number of Contracts</b>	<b>‡</b>	<b>6</b>	<b>‡</b>	<b>5</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	411,254	‡	165,008	‡	
	<b>Total Count</b>	<b>567</b>	<b>573</b>	<b>515</b>	<b>524</b>	<b>478</b>	
	Total Relevant Dollars	155,259,816	173,219,330	151,747,531	152,201,618	147,399,420	-0.92
Cancer Stem Cells	<b>Number of Grants</b>	<b>411</b>	<b>397</b>	<b>373</b>	<b>359</b>	<b>340</b>	
	Relevant Grant Dollars	111,157,005	115,958,620	109,027,113	107,382,238	95,729,635	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>411</b>	<b>397</b>	<b>373</b>	<b>359</b>	<b>340</b>	
	Total Relevant Dollars	111,157,005	115,958,620	109,027,113	107,382,238	95,729,635	-3.50

continued

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

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Cancer Survivorship	<b>Number of Grants</b>	<b>441</b>	<b>482</b>	<b>508</b>	<b>571</b>	<b>606</b>	
	Relevant Grant Dollars	238,044,537	285,280,496	278,047,831	331,554,007	341,155,990	
	<b>Number of Contracts</b>	<b>11</b>	<b>37</b>	<b>2</b>	<b>6</b>	<b>36</b>	
	Relevant Contract Dollars	11,940,379	27,004,668	4,165,030	13,097,090	36,603,816	
	<b>Total Count</b>	<b>452</b>	<b>519</b>	<b>510</b>	<b>577</b>	<b>642</b>	
	Total Relevant Dollars	249,984,916	312,285,164	282,212,861	344,651,097	377,759,806	11.76
Carcinogenesis — Environmental	<b>Number of Grants</b>	<b>687</b>	<b>751</b>	<b>742</b>	<b>734</b>	<b>734</b>	
	Relevant Grant Dollars	283,174,495	299,484,274	287,988,698	339,684,342	338,932,216	
	<b>Number of Contracts</b>	<b>8</b>	<b>8</b>	<b>5</b>	<b>11</b>	<b>8</b>	
	Relevant Contract Dollars	33,723,167	12,438,407	5,105,285	7,672,943	10,488,059	
	<b>Total Count</b>	<b>695</b>	<b>759</b>	<b>747</b>	<b>745</b>	<b>742</b>	
	Total Relevant Dollars	316,897,661	311,922,681	293,093,983	347,357,285	349,420,275	2.88
Cervical Cancer Education	<b>Number of Grants</b>	<b>24</b>	<b>27</b>	<b>26</b>	<b>33</b>	<b>38</b>	
	Relevant Grant Dollars	5,742,343	6,253,073	12,015,098	13,623,695	12,592,624	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	50,000	
	<b>Total Count</b>	<b>24</b>	<b>27</b>	<b>26</b>	<b>33</b>	<b>39</b>	
	Total Relevant Dollars	5,742,343	6,253,073	12,015,098	13,623,695	12,642,624	26.81
Chemoprevention	<b>Number of Grants</b>	<b>203</b>	<b>183</b>	<b>171</b>	<b>166</b>	<b>150</b>	
	Relevant Grant Dollars	72,507,610	67,095,872	67,969,703	63,627,962	60,637,035	
	<b>Number of Contracts</b>	<b>21</b>	<b>9</b>	<b>10</b>	<b>8</b>	<b>4</b>	
	Relevant Contract Dollars	20,876,960	16,710,594	11,478,053	12,202,633	9,785,784	
	<b>Total Count</b>	<b>224</b>	<b>192</b>	<b>181</b>	<b>174</b>	<b>154</b>	
	Total Relevant Dollars	93,384,569	83,806,466	79,447,756	75,830,595	70,422,819	-6.79
Chemoprevention — Clinical	<b>Number of Grants</b>	<b>9</b>	<b>7</b>	<b>7</b>	<b>8</b>	<b>7</b>	
	Relevant Grant Dollars	7,669,943	2,409,765	3,361,908	3,225,242	3,453,717	
	<b>Number of Contracts</b>	<b>2</b>	<b>‡</b>	<b>5</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	3,114,962	‡	2,762,879	‡	‡	
	<b>Total Count</b>	<b>11</b>	<b>7</b>	<b>12</b>	<b>8</b>	<b>7</b>	
	Total Relevant Dollars	10,784,905	2,409,765	6,124,787	3,225,242	3,453,717	9.06
Chemotherapy	<b>Number of Grants</b>	<b>871</b>	<b>893</b>	<b>909</b>	<b>928</b>	<b>902</b>	
	Relevant Grant Dollars	337,533,318	375,420,336	367,026,459	367,530,814	371,695,782	
	<b>Number of Contracts</b>	<b>6</b>	<b>2</b>	<b>17</b>	<b>3</b>	<b>1</b>	
	Relevant Contract Dollars	5,184,714	941,602	20,432,978	2,597,718	29,306	
	<b>Total Count</b>	<b>877</b>	<b>895</b>	<b>926</b>	<b>931</b>	<b>903</b>	
	Total Relevant Dollars	342,718,031	376,361,938	387,459,437	370,128,532	371,725,088	2.18

*continued*

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.



**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Child Health	<b>Number of Grants</b>	<b>80</b>	<b>91</b>	<b>78</b>	<b>85</b>	<b>98</b>	
	Relevant Grant Dollars	35,168,895	34,948,659	35,682,264	43,406,815	47,001,293	
	<b>Number of Contracts</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	<b>3</b>	<b>1</b>	
	Relevant Contract Dollars	418,241	‡	‡	821,351	175,000	
	<b>Total Count</b>	<b>81</b>	<b>91</b>	<b>78</b>	<b>88</b>	<b>99</b>	
	Total Relevant Dollars	35,587,136	34,948,659	35,682,264	44,228,166	47,176,293	7.73
Childhood Cancers	<b>Number of Grants</b>	<b>585</b>	<b>623</b>	<b>594</b>	<b>704</b>	<b>736</b>	
	Relevant Grant Dollars	306,475,154	299,355,101	294,987,177	326,328,472	351,310,419	
	<b>Number of Contracts</b>	<b>1</b>	<b>6</b>	<b>‡</b>	<b>10</b>	<b>10</b>	
	Relevant Contract Dollars	1,878,258	388,536,294	‡	11,175,229	451,606,393	
	<b>Total Count</b>	<b>586</b>	<b>629</b>	<b>594</b>	<b>714</b>	<b>746</b>	
	Total Relevant Dollars	308,353,412	687,891,395	294,987,177	337,503,701	802,916,812	54.57
Chronic Myeloproliferative Disorders	<b>Number of Grants</b>	<b>60</b>	<b>62</b>	<b>49</b>	<b>37</b>	<b>38</b>	
	Relevant Grant Dollars	19,099,884	18,456,267	17,244,931	15,620,422	15,293,714	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>60</b>	<b>62</b>	<b>49</b>	<b>37</b>	<b>38</b>	
	Total Relevant Dollars	19,099,884	18,456,267	17,244,931	15,620,422	15,293,714	-5.36
Clinical Trials — Diagnosis	<b>Number of Grants</b>	<b>151</b>	<b>124</b>	<b>116</b>	<b>110</b>	<b>123</b>	
	Relevant Grant Dollars	65,733,617	70,973,138	67,737,052	62,272,225	69,151,444	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>151</b>	<b>124</b>	<b>116</b>	<b>110</b>	<b>123</b>	
	Total Relevant Dollars	65,733,617	70,973,138	67,737,502	62,272,225	69,151,444	1.60
Clinical Trials — Other	<b>Number of Grants</b>	<b>294</b>	<b>354</b>	<b>367</b>	<b>431</b>	<b>471</b>	
	Relevant Grant Dollars	188,858,909	219,973,910	216,555,147	276,572,696	284,374,459	
	<b>Number of Contracts</b>	<b>9</b>	<b>11</b>	<b>3</b>	<b>11</b>	<b>9</b>	
	Relevant Contract Dollars	26,874,654	22,657,772	8,415,546	29,911,001	445,644,074	
	<b>Total Count</b>	<b>303</b>	<b>365</b>	<b>370</b>	<b>442</b>	<b>480</b>	
	Total Relevant Dollars	215,733,563	242,631,682	224,970,693	306,483,697	730,018,533	44.90
Clinical Trials — Prevention	<b>Number of Grants</b>	<b>139</b>	<b>133</b>	<b>143</b>	<b>152</b>	<b>164</b>	
	Relevant Grant Dollars	58,723,603	62,505,857	72,456,414	73,836,555	81,077,351	
	<b>Number of Contracts</b>	<b>6</b>	<b>5</b>	<b>1</b>	<b>6</b>	<b>2</b>	
	Relevant Contract Dollars	7,566,893	5,078,890	1,354,809	1,862,578	8,321,125	
	<b>Total Count</b>	<b>145</b>	<b>138</b>	<b>144</b>	<b>158</b>	<b>166</b>	
	Total Relevant Dollars	66,290,495	67,584,747	73,811,223	75,699,133	89,398,476	7.96

continued

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
	<b>Number of Grants</b>	<b>496</b>	<b>459</b>	<b>467</b>	<b>502</b>	<b>494</b>	
	Relevant Grant Dollars	343,190,499	388,573,083	361,476,520	361,485,773	364,821,946	
Clinical Trials — Therapy	<b>Number of Contracts</b>	<b>4</b>	<b>2</b>	<b>‡</b>	<b>‡</b>	<b>6</b>	
	Relevant Contract Dollars	10,446,636	3,746,120	‡	‡	30,765,005	
	<b>Total Count</b>	<b>500</b>	<b>461</b>	<b>467</b>	<b>502</b>	<b>500</b>	
	Total Relevant Dollars	353,637,135	392,319,203	361,476,520	361,485,773	395,586,951	3.13
	<b>Number of Grants</b>	<b>1,388</b>	<b>1,491</b>	<b>1,581</b>	<b>1,681</b>	<b>1,765</b>	
	Relevant Grant Dollars	466,604,392	540,731,253	545,533,623	590,928,061	641,201,646	
Combination Therapy	<b>Number of Contracts</b>	<b>7</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>‡</b>	
	Relevant Contract Dollars	2,658,989	943,735	659,998	498,794	‡	
	<b>Total Count</b>	<b>1,395</b>	<b>1,496</b>	<b>1,582</b>	<b>1,682</b>	<b>1,765</b>	
	Total Relevant Dollars	469,263,381	541,674,988	546,193,621	591,426,855	641,201,646	8.24
	<b>Number of Grants</b>	<b>139</b>	<b>161</b>	<b>153</b>	<b>175</b>	<b>181</b>	
	Relevant Grant Dollars	41,549,580	46,576,856	4,784,889	54,169,591	53,723,265	
Cost Effectiveness	<b>Number of Contracts</b>	<b>1</b>	<b>2</b>	<b>‡</b>	<b>1</b>	<b>‡</b>	
	Relevant Contract Dollars	149,996	219,978	‡	132,000	‡	
	<b>Total Count</b>	<b>140</b>	<b>163</b>	<b>153</b>	<b>176</b>	<b>181</b>	
	Total Relevant Dollars	41,699,576	46,796,834	47,884,889	54,301,591	53,723,265	6.72
	<b>Number of Grants</b>	<b>58</b>	<b>64</b>	<b>44</b>	<b>44</b>	<b>45</b>	
	Relevant Grant Dollars	10,809,850	13,739,652	11,239,982	11,643,039	11,297,625	
Diabetes	<b>Number of Contracts</b>	<b>‡</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	79,857	‡	‡	‡	
	<b>Total Count</b>	<b>58</b>	<b>65</b>	<b>44</b>	<b>44</b>	<b>45</b>	
	Total Relevant Dollars	10,809,850	13,819,509	11,239,982	11,643,039	11,297,625	2.45
	<b>Number of Grants</b>	<b>1,398</b>	<b>1,487</b>	<b>1,550</b>	<b>1,654</b>	<b>1,730</b>	
	Relevant Grant Dollars	701,913,262	809,810,970	801,031,329	921,250,570	960,014,051	
Diagnosis	<b>Number of Contracts</b>	<b>21</b>	<b>42</b>	<b>20</b>	<b>38</b>	<b>39</b>	
	Relevant Contract Dollars	19,276,242	47,937,100	19,959,292	31,788,676	29,880,668	
	<b>Total Count</b>	<b>1,419</b>	<b>1,529</b>	<b>1,570</b>	<b>1,692</b>	<b>1,769</b>	
	Total Relevant Dollars	721,189,504	857,748,070	820,990,621	953,039,246	989,894,719	8.65
	<b>Number of Grants</b>	<b>426</b>	<b>443</b>	<b>458</b>	<b>472</b>	<b>444</b>	
	Relevant Grant Dollars	120,767,193	137,329,333	139,979,184	146,971,509	138,759,890	
DNA Repair	<b>Number of Contracts</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	
	Relevant Contract Dollars	991,300	‡	‡	‡	1,119,116	
	<b>Total Count</b>	<b>427</b>	<b>443</b>	<b>458</b>	<b>472</b>	<b>445</b>	
	Total Relevant Dollars	121,758,492	137,329,333	139,979,184	146,971,509	139,879,006	3.72

*continued*

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Drug Development	<b>Number of Grants</b>	<b>1,882</b>	<b>1,978</b>	<b>2,111</b>	<b>2,191</b>	<b>2,282</b>	
	Relevant Grant Dollars	754,132,073	835,004,564	847,379,964	903,487,997	984,571,414	
	<b>Number of Contracts</b>	<b>40</b>	<b>33</b>	<b>29</b>	<b>34</b>	<b>30</b>	
	Relevant Contract Dollars	32,805,210	45,279,687	27,616,592	47,485,284	26,410,285	
	<b>Total Count</b>	<b>1,922</b>	<b>2,011</b>	<b>2,140</b>	<b>2,225</b>	<b>2,312</b>	
	Total Relevant Dollars	786,937,283	880,284,251	874,996,556	950,973,281	1,010,981,699	6.56
Drug Discovery	<b>Number of Grants</b>	<b>360</b>	<b>374</b>	<b>381</b>	<b>369</b>	<b>354</b>	
	Relevant Grant Dollars	119,635,952	106,976,631	117,017,878	112,796,714	103,698,637	
	<b>Number of Contracts</b>	<b>8</b>	<b>13</b>	<b>5</b>	<b>12</b>	<b>2</b>	
	Relevant Contract Dollars	5,167,352	11,366,705	6,003,411	8,523,444	976,890	
	<b>Total Count</b>	<b>368</b>	<b>387</b>	<b>386</b>	<b>381</b>	<b>356</b>	
	Total Relevant Dollars	124,803,304	118,343,336	123,021,289	121,320,158	104,675,528	-4.08
Drug Resistance	<b>Number of Grants</b>	<b>1,012</b>	<b>1,064</b>	<b>1,133</b>	<b>1,179</b>	<b>1,196</b>	
	Relevant Grant Dollars	316,801,615	352,946,475	361,374,134	374,064,261	396,959,674	
	<b>Number of Contracts</b>	<b>1</b>	<b>1</b>	<b>‡</b>	<b>1</b>	<b>2</b>	
	Relevant Contract Dollars	204,459	400,000	‡	399,999	56,204	
	<b>Total Count</b>	<b>1,013</b>	<b>1,065</b>	<b>1,133</b>	<b>1,180</b>	<b>1,198</b>	
	Total Relevant Dollars	317,006,074	353,346,475	361,374,134	374,464,260	397,015,878	5.85
Drugs — Natural Products	<b>Number of Grants</b>	<b>221</b>	<b>203</b>	<b>184</b>	<b>161</b>	<b>167</b>	
	Relevant Grant Dollars	53,238,699	55,002,966	45,918,850	42,291,541	45,080,656	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	400,000	‡	
	<b>Total Count</b>	<b>221</b>	<b>203</b>	<b>184</b>	<b>162</b>	<b>167</b>	
	Total Relevant Dollars	53,238,699	55,002,966	45,918,850	42,691,541	45,080,656	-3.66
Early Detection	<b>Number of Grants</b>	<b>586</b>	<b>606</b>	<b>584</b>	<b>591</b>	<b>619</b>	
	Relevant Grant Dollars	300,040,995	334,435,841	292,867,415	336,772,741	351,751,801	
	<b>Number of Contracts</b>	<b>6</b>	<b>9</b>	<b>3</b>	<b>13</b>	<b>5</b>	
	Relevant Contract Dollars	4,213,675	6,145,473	5,195,745	7,961,108	3,196,092	
	<b>Total Count</b>	<b>592</b>	<b>615</b>	<b>587</b>	<b>604</b>	<b>624</b>	
	Total Relevant Dollars	304,254,670	340,581,314	298,063,160	344,733,849	354,947,892	4.52
Effectiveness Research	<b>Number of Grants</b>	<b>127</b>	<b>137</b>	<b>157</b>	<b>179</b>	<b>212</b>	
	Relevant Grant Dollars	38,294,394	45,611,226	52,828,008	66,545,772	78,293,190	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>127</b>	<b>137</b>	<b>157</b>	<b>179</b>	<b>212</b>	
	Total Relevant Dollars	38,294,394	45,611,226	52,828,008	66,545,772	78,293,190	19.64

continued

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

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Endocrinology	<b>Number of Grants</b>	<b>384</b>	<b>392</b>	<b>365</b>	<b>381</b>	<b>383</b>	
	Relevant Grant Dollars	107,119,244	114,683,474	109,371,735	113,163,984	112,615,390	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>384</b>	<b>392</b>	<b>365</b>	<b>381</b>	<b>383</b>	
	Total Relevant Dollars	107,119,244	114,683,474	109,371,735	113,163,984	112,615,390	1.35
Energy Balance	<b>Number of Grants</b>	<b>16</b>	<b>21</b>	<b>19</b>	<b>19</b>	<b>18</b>	
	Relevant Grant Dollars	3,258,250	4,022,239	4,314,181	5,319,593	5,564,428	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>16</b>	<b>21</b>	<b>19</b>	<b>19</b>	<b>18</b>	
	Total Relevant Dollars	3,258,250	4,022,239	4,314,181	5,319,593	5,564,428	14.65
Epidemiology	<b>Number of Grants</b>	<b>222</b>	<b>279</b>	<b>325</b>	<b>391</b>	<b>402</b>	
	Relevant Grant Dollars	104,428,768	130,163,763	162,071,238	195,513,951	199,924,730	
	<b>Number of Contracts</b>	<b>23</b>	<b>27</b>	<b>35</b>	<b>35</b>	<b>39</b>	
	Relevant Contract Dollars	49,300,160	58,819,693	48,906,630	51,043,478	69,371,727	
	<b>Total Count</b>	<b>245</b>	<b>306</b>	<b>360</b>	<b>426</b>	<b>441</b>	
	Total Relevant Dollars	153,728,928	188,983,456	210,977,868	246,557,429	269,296,457	15.16
Epidemiology — Biochemical	<b>Number of Grants</b>	<b>223</b>	<b>214</b>	<b>207</b>	<b>186</b>	<b>185</b>	
	Relevant Grant Dollars	101,679,585	102,980,053	94,156,274	95,607,209	94,906,499	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>223</b>	<b>214</b>	<b>207</b>	<b>186</b>	<b>185</b>	
	Total Relevant Dollars	101,679,585	102,980,053	94,156,274	95,607,209	94,906,499	-1.62
Epidemiology — Environmental	<b>Number of Grants</b>	<b>138</b>	<b>129</b>	<b>106</b>	<b>90</b>	<b>95</b>	
	Relevant Grant Dollars	55,754,307	49,583,836	44,722,488	46,396,042	47,125,190	
	<b>Number of Contracts</b>	<b>1</b>	<b>1</b>	<b>‡</b>	<b>1</b>	<b>‡</b>	
	Relevant Contract Dollars	49,394	24,996	‡	126,709	‡	
	<b>Total Count</b>	<b>139</b>	<b>130</b>	<b>106</b>	<b>91</b>	<b>95</b>	
	Total Relevant Dollars	55,803,701	49,608,832	44,722,488	46,522,751	47,125,190	-3.91
Epigenetics	<b>Number of Grants</b>	<b>946</b>	<b>1,013</b>	<b>1,013</b>	<b>1,049</b>	<b>1,085</b>	
	Relevant Grant Dollars	293,352,295	326,883,216	320,315,076	347,794,398	366,074,912	
	<b>Number of Contracts</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>4</b>	<b>1</b>	
	Relevant Contract Dollars	80,000	5,648,943	80,000	6,475,017	2,238,232	
	<b>Total Count</b>	<b>947</b>	<b>1,015</b>	<b>1,014</b>	<b>1,053</b>	<b>1,086</b>	
	Total Relevant Dollars	293,432,295	332,532,159	320,395,076	354,269,415	368,313,144	6.05

continued

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Gene Mapping — Human	<b>Number of Grants</b>	<b>105</b>	<b>123</b>	<b>118</b>	<b>132</b>	<b>132</b>	
	Relevant Grant Dollars	31,753,493	40,211,045	38,387,946	52,150,397	50,438,466	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>105</b>	<b>123</b>	<b>118</b>	<b>132</b>	<b>132</b>	
	Total Relevant Dollars	31,753,493	40,211,045	38,387,946	52,150,397	50,438,466	13.67
Gene Mapping — Nonhuman	<b>Number of Grants</b>	<b>33</b>	<b>26</b>	<b>15</b>	<b>15</b>	<b>16</b>	
	Relevant Grant Dollars	6,119,601	4,756,997	3,885,119	4,060,389	4,514,604	
	<b>Number of Contracts</b>	<b>‡</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	2,784,472	‡	‡	‡	
	<b>Total Count</b>	<b>33</b>	<b>27</b>	<b>15</b>	<b>15</b>	<b>16</b>	
	Total Relevant Dollars	6,119,601	7,541,469	3,885,119	4,060,389	4,514,604	-2.39
Gene Transfer Clinical	<b>Number of Grants</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	
	Relevant Grant Dollars	1,607,239	1,722,613	2,280,925	622,327	393,645	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	
	Total Relevant Dollars	1,607,239	1,733,613	2,280,925	622,327	393,645	-17.51
Genetic Testing Research — Human	<b>Number of Grants</b>	<b>59</b>	<b>77</b>	<b>61</b>	<b>74</b>	<b>84</b>	
	Relevant Grant Dollars	32,028,580	42,371,901	25,406,864	30,724,501	32,331,908	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	131,984	‡	‡	
	<b>Total Count</b>	<b>59</b>	<b>77</b>	<b>62</b>	<b>74</b>	<b>84</b>	
	Total Relevant Dollars	32,028,580	42,371,901	25,538,848	30,724,501	32,331,908	4.53
Genomics	<b>Number of Grants</b>	<b>1,274</b>	<b>1,465</b>	<b>1,541</b>	<b>1,608</b>	<b>1,646</b>	
	Relevant Grant Dollars	519,129,670	560,876,543	560,327,175	619,174,447	636,151,819	
	<b>Number of Contracts</b>	<b>5</b>	<b>13</b>	<b>7</b>	<b>15</b>	<b>5</b>	
	Relevant Contract Dollars	1,644,854	199,094,102	2,506,455	14,079,958	3,890,755	
	<b>Total Count</b>	<b>1,279</b>	<b>1,478</b>	<b>1,548</b>	<b>1,623</b>	<b>1,651</b>	
	Total Relevant Dollars	520,774,524	759,970,645	562,833,630	633,254,405	640,042,574	8.39
Health Literacy	<b>Number of Grants</b>	<b>64</b>	<b>60</b>	<b>55</b>	<b>67</b>	<b>78</b>	
	Relevant Grant Dollars	27,404,885	19,017,234	25,926,634	29,640,540	25,235,820	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>64</b>	<b>60</b>	<b>55</b>	<b>67</b>	<b>78</b>	
	Total Relevant Dollars	27,404,885	19,017,234	25,926,634	29,640,540	25,235,820	1.30

*continued*

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Health Promotion	<b>Number of Grants</b>	<b>195</b>	<b>179</b>	<b>163</b>	<b>168</b>	<b>186</b>	
	Relevant Grant Dollars	74,943,015	69,938,681	69,980,193	87,619,832	84,692,309	
	<b>Number of Contracts</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	
	Relevant Contract Dollars	301,128	2,000,000	390,181	166,351	8,570,804	
	<b>Total Count</b>	<b>200</b>	<b>180</b>	<b>164</b>	<b>169</b>	<b>188</b>	
	Total Relevant Dollars	75,244,143	71,938,681	70,370,374	87,786,183	93,263,113	6.10
Health Care Delivery	<b>Number of Grants</b>	<b>361</b>	<b>427</b>	<b>476</b>	<b>534</b>	<b>589</b>	
	Relevant Grant Dollars	251,771,190	281,554,926	294,950,384	364,255,690	374,157,078	
	<b>Number of Contracts</b>	<b>14</b>	<b>8</b>	<b>4</b>	<b>10</b>	<b>10</b>	
	Relevant Contract Dollars	8,317,853	1,447,821	805,667	7,568,072	19,758,906	
	<b>Total Count</b>	<b>375</b>	<b>435</b>	<b>480</b>	<b>544</b>	<b>599</b>	
	Total Relevant Dollars	260,089,043	283,002,747	295,756,051	371,823,762	393,915,984	11.24
Helicobacter	<b>Number of Grants</b>	<b>11</b>	<b>9</b>	<b>15</b>	<b>19</b>	<b>21</b>	
	Relevant Grant Dollars	5,686,397	4,433,641	6,711,959	6,627,220	9,333,136	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>11</b>	<b>9</b>	<b>15</b>	<b>19</b>	<b>21</b>	
	Total Relevant Dollars	5,686,397	4,433,641	6,711,959	6,627,220	9,333,136	17.23
Hematology	<b>Number of Grants</b>	<b>969</b>	<b>1,038</b>	<b>1,010</b>	<b>1,069</b>	<b>1,083</b>	
	Relevant Grant Dollars	471,321,194	498,168,234	491,448,314	527,785,703	556,115,938	
	<b>Number of Contracts</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>‡</b>	<b>1</b>	
	Relevant Contract Dollars	54,994	2,000,000	2,399,955	‡	1,494,039	
	<b>Total Count</b>	<b>970</b>	<b>1,039</b>	<b>1,012</b>	<b>1,069</b>	<b>1,084</b>	
	Total Relevant Dollars	471,376,188	500,168,234	493,848,269	527,785,703	557,609,977	4.34
Hematopoietic Stem Cell Research	<b>Number of Grants</b>	<b>196</b>	<b>201</b>	<b>172</b>	<b>178</b>	<b>179</b>	
	Relevant Grant Dollars	80,767,226	80,839,744	73,009,199	77,941,445	74,736,271	
	<b>Number of Contracts</b>	<b>‡</b>	<b>1</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	406,676	999,997	‡	‡	
	<b>Total Count</b>	<b>196</b>	<b>202</b>	<b>173</b>	<b>178</b>	<b>179</b>	
	Total Relevant Dollars	80,767,226	81,246,420	74,009,196	77,941,445	74,736,271	-1.78
Hormone Replacement Therapy	<b>Number of Grants</b>	<b>13</b>	<b>9</b>	<b>2</b>	<b>5</b>	<b>5</b>	
	Relevant Grant Dollars	3,029,573	2,506,125	394,227	2,176,994	1,150,014	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>13</b>	<b>9</b>	<b>2</b>	<b>5</b>	<b>5</b>	
	Total Relevant Dollars	3,029,573	2,506,125	394,227	2,176,994	1,150,014	75.87

*continued*

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

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.



**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Hospice	<b>Number of Grants</b>	<b>28</b>	<b>38</b>	<b>38</b>	<b>39</b>	<b>38</b>	
	Relevant Grant Dollars	13,027,467	14,857,743	13,937,941	15,745,768	14,217,891	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>28</b>	<b>38</b>	<b>38</b>	<b>39</b>	<b>38</b>	
	Total Relevant Dollars	13,027,467	14,857,743	13,937,941	15,745,768	14,217,891	2.78
Human Genome	<b>Number of Grants</b>	<b>886</b>	<b>1,117</b>	<b>1,150</b>	<b>1,188</b>	<b>1,220</b>	
	Relevant Grant Dollars	328,436,799	405,138,714	386,043,889	446,307,744	480,511,881	
	<b>Number of Contracts</b>	<b>4</b>	<b>13</b>	<b>5</b>	<b>14</b>	<b>4</b>	
	Relevant Contract Dollars	640,754	199,094,102	1,931,455	12,080,572	3,810,755	
	<b>Total Count</b>	<b>890</b>	<b>1,130</b>	<b>1,155</b>	<b>1,202</b>	<b>1,224</b>	
	Total Relevant Dollars	329,077,553	604,232,816	387,975,344	458,388,316	484,322,636	17.91
Iatrogenesis	<b>Number of Grants</b>	<b>273</b>	<b>284</b>	<b>272</b>	<b>287</b>	<b>281</b>	
	Relevant Grant Dollars	110,764,086	122,909,843	112,135,347	131,194,278	120,847,443	
	<b>Number of Contracts</b>	<b>1</b>	<b>2</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	
	Relevant Contract Dollars	951,548	5,964,026	‡	‡	106,503	
	<b>Total Count</b>	<b>274</b>	<b>286</b>	<b>272</b>	<b>287</b>	<b>282</b>	
	Total Relevant Dollars	111,715,633	128,873,869	112,135,347	131,194,278	120,953,946	2.89
Imaging	<b>Number of Grants</b>	<b>912</b>	<b>931</b>	<b>962</b>	<b>987</b>	<b>1,045</b>	
	Relevant Grant Dollars	425,798,706	456,223,373	463,487,283	507,959,053	527,995,694	
	<b>Number of Contracts</b>	<b>7</b>	<b>16</b>	<b>9</b>	<b>18</b>	<b>6</b>	
	Relevant Contract Dollars	5,313,249	7,655,508	4,772,729	20,494,977	3,111,379	
	<b>Total Count</b>	<b>919</b>	<b>947</b>	<b>971</b>	<b>1,005</b>	<b>1,051</b>	
	Total Relevant Dollars	431,111,955	463,878,881	468,260,012	528,454,030	531,107,073	5.48
Immunization	<b>Number of Grants</b>	<b>476</b>	<b>682</b>	<b>740</b>	<b>883</b>	<b>951</b>	
	Relevant Grant Dollars	202,878,668	274,472,194	280,856,188	347,236,067	399,658,938	
	<b>Number of Contracts</b>	<b>18</b>	<b>7</b>	<b>4</b>	<b>7</b>	<b>4</b>	
	Relevant Contract Dollars	6,065,548	8,949,888	4,091,098	7,777,079	11,194,197	
	<b>Total Count</b>	<b>494</b>	<b>689</b>	<b>744</b>	<b>890</b>	<b>955</b>	
	Total Relevant Dollars	208,944,216	283,422,082	284,947,286	355,013,146	410,853,135	19.13
Immunology	<b>Number of Grants</b>	<b>1,853</b>	<b>2,122</b>	<b>2,287</b>	<b>2,505</b>	<b>2,623</b>	
	Relevant Grant Dollars	793,159,253	953,323,965	967,866,802	1,117,325,104	1,205,086,483	
	<b>Number of Contracts</b>	<b>24</b>	<b>13</b>	<b>5</b>	<b>11</b>	<b>9</b>	
	Relevant Contract Dollars	8,326,879	12,737,661	4,146,098	12,557,805	12,434,543	
	<b>Total Count</b>	<b>1,877</b>	<b>2,135</b>	<b>2,292</b>	<b>2,516</b>	<b>2,632</b>	
	Total Relevant Dollars	801,486,132	966,061,626	972,012,900	1,129,882,909	1,217,521,027	11.29

*continued*

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Immunotherapy	<b>Number of Grants</b>	<b>1,011</b>	<b>1,221</b>	<b>1,394</b>	<b>1,541</b>	<b>1,624</b>	
	Relevant Grant Dollars	450,135,415	522,207,389	581,473,096	656,953,552	720,566,896	
	<b>Number of Contracts</b>	<b>18</b>	<b>12</b>	<b>5</b>	<b>8</b>	<b>7</b>	
	Relevant Contract Dollars	6,643,093	12,646,911	4,146,098	9,772,253	4,073,273	
	<b>Total Count</b>	<b>1,029</b>	<b>1,233</b>	<b>1,399</b>	<b>1,549</b>	<b>1,631</b>	
	Total Relevant Dollars	456,778,507	534,854,300	585,619,194	666,725,805	724,640,169	12.28
Inflammation	<b>Number of Grants</b>	<b>509</b>	<b>537</b>	<b>556</b>	<b>595</b>	<b>629</b>	
	Relevant Grant Dollars	128,327,461	155,890,802	143,742,888	172,956,989	192,421,894	
	<b>Number of Contracts</b>	<b>2</b>	<b>3</b>	<b>‡</b>	<b>3</b>	<b>1</b>	
	Relevant Contract Dollars	134,109	422,519	‡	2,785,552	738,617	
	<b>Total Count</b>	<b>511</b>	<b>540</b>	<b>556</b>	<b>598</b>	<b>630</b>	
	Total Relevant Dollars	128,461,570	156,313,321	143,742,888	175,742,541	193,160,511	11.45
Information Dissemination	<b>Number of Grants</b>	<b>523</b>	<b>495</b>	<b>448</b>	<b>451</b>	<b>457</b>	
	Relevant Grant Dollars	234,086,074	221,362,664	214,304,749	209,974,999	193,003,534	
	<b>Number of Contracts</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>4</b>	
	Relevant Contract Dollars	260,226	49,816	3,199,244	5,310,073	3,042,982	
	<b>Total Count</b>	<b>525</b>	<b>496</b>	<b>451</b>	<b>453</b>	<b>461</b>	
	Total Relevant Dollars	234,346,300	221,412,480	217,503,993	215,285,072	196,046,516	-4.31
Metastasis	<b>Number of Grants</b>	<b>1,385</b>	<b>1,448</b>	<b>1,497</b>	<b>1,571</b>	<b>1,607</b>	
	Relevant Grant Dollars	439,046,764	495,046,289	500,232,706	548,648,304	567,276,696	
	<b>Number of Contracts</b>	<b>2</b>	<b>5</b>	<b>1</b>	<b>3</b>	<b>4</b>	
	Relevant Contract Dollars	299,537	2,568,042	399,559	1,508,516	2,209,806	
	<b>Total Count</b>	<b>1,387</b>	<b>1,453</b>	<b>1,498</b>	<b>1,574</b>	<b>1,611</b>	
	Total Relevant Dollars	439,346,301	497,614,331	500,632,265	550,156,820	569,486,502	6.82
Microbiome	<b>Number of Grants</b>	<b>153</b>	<b>179</b>	<b>182</b>	<b>188</b>	<b>192</b>	
	Relevant Grant Dollars	49,546,365	56,460,175	62,462,791	64,631,932	67,059,789	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	355,000	
	<b>Total Count</b>	<b>153</b>	<b>179</b>	<b>182</b>	<b>188</b>	<b>193</b>	
	Total Relevant Dollars	49,546,365	56,460,175	62,462,791	64,631,932	67,414,789	8.09
Mind/Body Research	<b>Number of Grants</b>	<b>24</b>	<b>16</b>	<b>18</b>	<b>26</b>	<b>27</b>	
	Relevant Grant Dollars	7,568,135	5,603,617	5,810,586	7,078,049	6,560,645	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>24</b>	<b>16</b>	<b>18</b>	<b>26</b>	<b>27</b>	
	Total Relevant Dollars	7,568,135	5,603,617	5,810,586	7,078,049	6,560,645	-1.94

continued

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

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Molecular Disease	<b>Number of Grants</b>	<b>4,072</b>	<b>3,991</b>	<b>3,809</b>	<b>3,746</b>	<b>3,853</b>	
	Relevant Grant Dollars	1,925,663,390	2,003,778,069	1,819,786,941	1,883,948,157	2,008,272,701	
	<b>Number of Contracts</b>	<b>59</b>	<b>98</b>	<b>45</b>	<b>82</b>	<b>24</b>	
	Relevant Contract Dollars	50,132,155	464,026,699	31,842,217	85,037,001	231,438,518	
	<b>Total Count</b>	<b>4,131</b>	<b>4,089</b>	<b>3,854</b>	<b>3,828</b>	<b>3,877</b>	
	Total Relevant Dollars	1,975,795,545	2,467,804,768	1,851,629,158	1,968,985,158	2,239,711,219	5.01
Molecular Imaging	<b>Number of Grants</b>	<b>327</b>	<b>318</b>	<b>277</b>	<b>259</b>	<b>278</b>	
	Relevant Grant Dollars	126,093,554	129,883,142	111,237,535	112,096,363	119,153,983	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>327</b>	<b>318</b>	<b>277</b>	<b>259</b>	<b>278</b>	
	Total Relevant Dollars	126,093,554	129,883,142	111,237,535	112,096,363	119,153,983	-1.07
Molecular Targeted Prevention	<b>Number of Grants</b>	<b>158</b>	<b>163</b>	<b>155</b>	<b>152</b>	<b>155</b>	
	Relevant Grant Dollars	52,588,843	57,762,149	56,686,403	59,069,112	57,496,591	
	<b>Number of Contracts</b>	<b>2</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>2</b>	
	Relevant Contract Dollars	299,499	‡	‡	‡	1,504,039	
	<b>Total Count</b>	<b>160</b>	<b>163</b>	<b>155</b>	<b>152</b>	<b>157</b>	
	Total Relevant Dollars	52,888,342	57,762,149	56,686,403	59,069,112	59,000,630	2.86
Molecular Targeted Therapy	<b>Number of Grants</b>	<b>2,519</b>	<b>2,738</b>	<b>2,962</b>	<b>3,113</b>	<b>3,139</b>	
	Relevant Grant Dollars	943,018,481	1,095,915,792	1,148,120,993	1,233,244,409	1,295,038,544	
	<b>Number of Contracts</b>	<b>8</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>11</b>	
	Relevant Contract Dollars	3,150,081	1,104,926	3,149,983	5,065,380	3,705,612	
	<b>Total Count</b>	<b>2,527</b>	<b>2,743</b>	<b>2,967</b>	<b>3,118</b>	<b>3,150</b>	
	Total Relevant Dollars	946,168,562	1,097,020,718	1,151,270,976	1,238,309,789	1,298,744,157	8.33
Nanotechnology	<b>Number of Grants</b>	<b>449</b>	<b>437</b>	<b>420</b>	<b>384</b>	<b>401</b>	
	Relevant Grant Dollars	137,795,320	139,824,379	132,207,257	128,140,244	139,603,497	
	<b>Number of Contracts</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>4</b>	<b>1</b>	
	Relevant Contract Dollars	398,887	991,607	200,000	2,682,263	353,436	
	<b>Total Count</b>	<b>452</b>	<b>441</b>	<b>421</b>	<b>388</b>	<b>402</b>	
	Total Relevant Dollars	138,194,206	140,815,986	132,407,257	130,822,507	139,956,933	0.43
Neurofibromatosis	<b>Number of Grants</b>	<b>20</b>	<b>16</b>	<b>14</b>	<b>20</b>	<b>18</b>	
	Relevant Grant Dollars	6,683,411	3,777,508	6,092,521	8,355,892	6,172,720	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>20</b>	<b>16</b>	<b>14</b>	<b>20</b>	<b>18</b>	
	Total Relevant Dollars	6,683,411	3,777,508	6,092,521	8,355,892	6,172,720	7.21

continued

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Non-Hematopoietic Stem Cell Research	<b>Number of Grants</b>	<b>132</b>	<b>137</b>	<b>131</b>	<b>132</b>	<b>126</b>	
	Relevant Grant Dollars	34,680,251	36,147,893	33,988,637	36,579,962	35,536,270	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>132</b>	<b>137</b>	<b>131</b>	<b>132</b>	<b>126</b>	
	Total Relevant Dollars	34,680,251	36,147,893	33,988,637	36,579,962	35,536,270	0.76
Nursing Research	<b>Number of Grants</b>	<b>28</b>	<b>31</b>	<b>27</b>	<b>25</b>	<b>27</b>	
	Relevant Grant Dollars	12,283,637	12,696,338	13,932,167	12,850,225	12,379,640	
	<b>Number of Contracts</b>	<b>‡</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	16,500	‡	‡	‡	
	<b>Total Count</b>	<b>28</b>	<b>32</b>	<b>27</b>	<b>25</b>	<b>27</b>	
	Total Relevant Dollars	12,283,637	12,712,838	13,932,167	12,850,225	12,379,640	0.41
Nutrition	<b>Number of Grants</b>	<b>321</b>	<b>335</b>	<b>319</b>	<b>349</b>	<b>362</b>	
	Relevant Grant Dollars	100,499,788	99,414,309	100,483,752	120,951,098	135,325,663	
	<b>Number of Contracts</b>	<b>5</b>	<b>11</b>	<b>6</b>	<b>5</b>	<b>5</b>	
	Relevant Contract Dollars	1,880,590	1,618,855	3,344,789	1,009,339	847,634	
	<b>Total Count</b>	<b>326</b>	<b>346</b>	<b>325</b>	<b>354</b>	<b>367</b>	
	Total Relevant Dollars	102,380,378	101,033,164	103,828,541	121,960,437	136,173,297	7.64
Nutrition Monitoring	<b>Number of Grants</b>	<b>24</b>	<b>22</b>	<b>11</b>	<b>16</b>	<b>17</b>	
	Relevant Grant Dollars	7,573,449	5,674,690	4,355,796	5,785,819	10,477,913	
	<b>Number of Contracts</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>1</b>	
	Relevant Contract Dollars	448,385	135,356	535,925	503,339	408,759	
	<b>Total Count</b>	<b>25</b>	<b>25</b>	<b>13</b>	<b>17</b>	<b>18</b>	
	Total Relevant Dollars	8,021,834	5,810,046	4,891,721	6,289,158	10,886,672	-14.57
Obesity	<b>Number of Grants</b>	<b>196</b>	<b>200</b>	<b>195</b>	<b>210</b>	<b>229</b>	
	Relevant Grant Dollars	51,490,956	59,380,632	63,992,184	71,037,636	82,487,314	
	<b>Number of Contracts</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	
	Relevant Contract Dollars	504,052	‡	‡	‡	175,000	
	<b>Total Count</b>	<b>197</b>	<b>200</b>	<b>195</b>	<b>210</b>	<b>230</b>	
	Total Relevant Dollars	51,995,008	59,380,632	63,992,184	71,037,636	82,662,314	12.34
Occupational Cancer	<b>Number of Grants</b>	<b>11</b>	<b>12</b>	<b>9</b>	<b>9</b>	<b>7</b>	
	Relevant Grant Dollars	3,068,747	2,694,395	3,328,128	3,749,343	2,204,969	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	2,238,232	
	<b>Total Count</b>	<b>11</b>	<b>12</b>	<b>9</b>	<b>9</b>	<b>8</b>	
	Total Relevant Dollars	3,068,747	2,694,395	3,328,128	3,749,343	4,443,201	10.62

continued

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‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Oncogenes	<b>Number of Grants</b>	<b>1,108</b>	<b>1,111</b>	<b>1,131</b>	<b>1,115</b>	<b>1,087</b>	
	Relevant Grant Dollars	357,538,899	355,591,456	365,065,952	357,655,654	366,165,167	
	<b>Number of Contracts</b>	<b>2</b>	<b>2</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	
	Relevant Contract Dollars	155,151	2,393,180	‡	‡	738,617	
	<b>Total Count</b>	<b>1,110</b>	<b>1,113</b>	<b>1,131</b>	<b>1,115</b>	<b>1,088</b>	
	Total Relevant Dollars	357,694,050	357,984,636	365,065,952	357,655,654	366,903,784	0.65
Oncolytic Virotherapy	<b>Number of Grants</b>	<b>82</b>	<b>66</b>	<b>54</b>	<b>53</b>	<b>56</b>	
	Relevant Grant Dollars	34,053,494	23,944,711	19,810,363	17,660,159	20,558,963	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>82</b>	<b>66</b>	<b>54</b>	<b>53</b>	<b>56</b>	
	Total Relevant Dollars	34,053,494	23,944,711	19,810,363	17,660,159	20,558,963	-10.35
Organ Transplant Research	<b>Number of Grants</b>	<b>103</b>	<b>112</b>	<b>98</b>	<b>97</b>	<b>91</b>	
	Relevant Grant Dollars	52,525,631	56,209,753	49,406,660	49,523,901	45,948,075	
	<b>Number of Contracts</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	149,849	‡	‡	‡	‡	
	<b>Total Count</b>	<b>104</b>	<b>112</b>	<b>98</b>	<b>97</b>	<b>91</b>	
	Total Relevant Dollars	52,675,480	56,209,753	49,406,660	49,523,901	45,948,075	-3.09
Pain	<b>Number of Grants</b>	<b>76</b>	<b>96</b>	<b>90</b>	<b>112</b>	<b>114</b>	
	Relevant Grant Dollars	20,812,196	30,284,534	32,953,857	44,524,086	38,667,579	
	<b>Number of Contracts</b>	<b>3</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	1,920,403	131,575	‡	‡	‡	
	<b>Total Count</b>	<b>79</b>	<b>97</b>	<b>90</b>	<b>112</b>	<b>114</b>	
	Total Relevant Dollars	22,732,599	30,416,109	32,953,857	44,524,086	38,667,579	16.02
Palliative Care	<b>Number of Grants</b>	<b>73</b>	<b>78</b>	<b>77</b>	<b>88</b>	<b>80</b>	
	Relevant Grant Dollars	32,957,338	34,561,422	35,452,173	42,433,513	36,360,446	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>2</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	40,232	
	<b>Total Count</b>	<b>73</b>	<b>78</b>	<b>77</b>	<b>88</b>	<b>82</b>	
	Total Relevant Dollars	32,957,338	34,561,422	35,452,173	42,433,513	36,400,678	3.23
Pap Testing	<b>Number of Grants</b>	<b>18</b>	<b>12</b>	<b>9</b>	<b>11</b>	<b>10</b>	
	Relevant Grant Dollars	4,575,890	3,696,262	3,506,991	4,689,158	2,712,880	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>18</b>	<b>12</b>	<b>9</b>	<b>11</b>	<b>10</b>	
	Total Relevant Dollars	4,575,890	3,696,262	3,506,991	4,689,158	2,712,880	-8.20

*continued*

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

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Pediatric Research	<b>Number of Grants</b>	<b>588</b>	<b>717</b>	<b>695</b>	<b>810</b>	<b>847</b>	
	Relevant Grant Dollars	347,361,731	357,289,363	352,660,656	399,923,713	428,767,624	
	<b>Number of Contracts</b>	<b>2</b>	<b>6</b>	<b>‡</b>	<b>12</b>	<b>12</b>	
	Relevant Contract Dollars	2,296,499	388,536,294	‡	11,404,935	451,889,143	
	<b>Total Count</b>	<b>590</b>	<b>723</b>	<b>695</b>	<b>822</b>	<b>859</b>	
	Total Relevant Dollars	349,658,230	745,825,657	352,660,656	411,328,648	880,656,767	47.83
Personalized Health Care	<b>Number of Grants</b>	<b>501</b>	<b>542</b>	<b>559</b>	<b>573</b>	<b>618</b>	
	Relevant Grant Dollars	174,575,204	213,353,043	195,755,985	210,233,826	234,839,042	
	<b>Number of Contracts</b>	<b>2</b>	<b>8</b>	<b>3</b>	<b>2</b>	<b>3</b>	
	Relevant Contract Dollars	398,964	1,406,732	995,963	2,079,320	1,621,010	
	<b>Total Count</b>	<b>503</b>	<b>550</b>	<b>562</b>	<b>575</b>	<b>621</b>	
	Total Relevant Dollars	174,974,168	214,759,775	196,751,948	212,313,146	236,460,053	8.41
Pharmacogenetics	<b>Number of Grants</b>	<b>109</b>	<b>93</b>	<b>64</b>	<b>59</b>	<b>64</b>	
	Relevant Grant Dollars	29,010,516	32,095,254	14,036,011	13,713,092	17,831,504	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>109</b>	<b>93</b>	<b>64</b>	<b>59</b>	<b>64</b>	
	Total Relevant Dollars	29,010,516	32,095,254	14,036,011	13,713,092	17,831,504	-4.48
Prevention	<b>Number of Grants</b>	<b>877</b>	<b>979</b>	<b>1,010</b>	<b>1,067</b>	<b>1,074</b>	
	Relevant Grant Dollars	426,375,012	485,610,230	486,424,143	573,259,783	582,533,814	
	<b>Number of Contracts</b>	<b>33</b>	<b>27</b>	<b>38</b>	<b>34</b>	<b>22</b>	
	Relevant Contract Dollars	29,446,792	36,427,168	60,282,743	57,312,286	34,426,465	
	<b>Total Count</b>	<b>910</b>	<b>1,006</b>	<b>1,048</b>	<b>1,101</b>	<b>1,096</b>	
	Total Relevant Dollars	455,821,804	522,037,398	546,706,886	630,572,069	616,960,280	8.11
Proteomics	<b>Number of Grants</b>	<b>594</b>	<b>602</b>	<b>586</b>	<b>569</b>	<b>571</b>	
	Relevant Grant Dollars	161,344,098	154,626,572	138,046,167	156,781,635	160,382,781	
	<b>Number of Contracts</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>7</b>	<b>2</b>	
	Relevant Contract Dollars	111,702	2,300,581	800,000	1,758,838	392,723	
	<b>Total Count</b>	<b>596</b>	<b>604</b>	<b>588</b>	<b>576</b>	<b>573</b>	
	Total Relevant Dollars	161,455,800	156,927,153	138,846,167	158,540,473	160,775,503	0.32
Radiation — Electromagnetic Fields	<b>Number of Grants</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>3</b>	
	Relevant Grant Dollars	692,156	1,187,780	693,663	1,261,511	1,545,901	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>3</b>	
	Total Relevant Dollars	692,156	1,187,780	693,663	1,261,511	1,545,901	33.60

*continued*

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

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.



**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Radiation — Ionizing	<b>Number of Grants</b>	<b>56</b>	<b>46</b>	<b>35</b>	<b>26</b>	<b>23</b>	
	Relevant Grant Dollars	16,222,082	12,687,670	11,463,129	10,546,598	11,118,295	
	<b>Number of Contracts</b>	<b>2</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	<b>1</b>	
	Relevant Contract Dollars	199,394	‡	‡	156,564	215,500	
	<b>Total Count</b>	<b>58</b>	<b>46</b>	<b>35</b>	<b>27</b>	<b>24</b>	
	Total Relevant Dollars	16,421,476	12,687,670	11,463,129	10,703,162	11,333,795	-8.28
Radiation — Ionizing Diagnosis	<b>Number of Grants</b>	<b>208</b>	<b>206</b>	<b>209</b>	<b>211</b>	<b>235</b>	
	Relevant Grant Dollars	71,915,134	68,820,937	74,004,028	81,456,456	92,539,005	
	<b>Number of Contracts</b>	<b>1</b>	<b>2</b>	<b>‡</b>	<b>2</b>	<b>1</b>	
	Relevant Contract Dollars	982,108	532,000	‡	2,391,364	3,906	
	<b>Total Count</b>	<b>209</b>	<b>208</b>	<b>209</b>	<b>213</b>	<b>236</b>	
	Total Relevant Dollars	72,897,242	69,352,937	74,004,028	83,847,820	92,542,911	6.38
Radiation — Ionizing Radiotherapy	<b>Number of Grants</b>	<b>419</b>	<b>416</b>	<b>441</b>	<b>493</b>	<b>505</b>	
	Relevant Grant Dollars	146,440,571	157,102,772	175,889,519	208,193,736	208,526,627	
	<b>Number of Contracts</b>	<b>8</b>	<b>2</b>	<b>1</b>	<b>5</b>	<b>3</b>	
	Relevant Contract Dollars	4,058,840	1,883,202	399,779	1,650,694	1,409,860	
	<b>Total Count</b>	<b>427</b>	<b>418</b>	<b>442</b>	<b>498</b>	<b>508</b>	
	Total Relevant Dollars	150,499,411	158,985,974	176,289,298	209,844,430	209,936,488	8.90
Radiation — Low-Level Ionizing	<b>Number of Grants</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	
	Relevant Grant Dollars	431,578	502,743	433,388	398,581	424,700	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	
	Total Relevant Dollars	431,578	502,743	433,388	398,581	424,700	0.30
Radiation — Magnetic Resonance Imaging	<b>Number of Grants</b>	<b>260</b>	<b>266</b>	<b>270</b>	<b>279</b>	<b>296</b>	
	Relevant Grant Dollars	87,648,412	98,331,963	105,027,714	117,654,015	124,384,296	
	<b>Number of Contracts</b>	<b>‡</b>	<b>2</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	599,778	199,302	‡	‡	
	<b>Total Count</b>	<b>260</b>	<b>268</b>	<b>271</b>	<b>279</b>	<b>296</b>	
	Total Relevant Dollars	87,648,412	98,931,741	105,227,016	117,654,015	124,384,296	9.19
Radiation — Mammography	<b>Number of Grants</b>	<b>61</b>	<b>66</b>	<b>58</b>	<b>59</b>	<b>59</b>	
	Relevant Grant Dollars	15,006,659	20,782,348	22,063,293	24,347,084	24,431,114	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	1,998,738	‡	
	<b>Total Count</b>	<b>61</b>	<b>66</b>	<b>58</b>	<b>59</b>	<b>59</b>	
	Total Relevant Dollars	15,006,659	20,782,348	22,063,293	26,345,822	24,431,114	14.20

continued

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
	<b>Number of Grants</b>	<b>84</b>	<b>78</b>	<b>62</b>	<b>59</b>	<b>53</b>	
	Relevant Grant Dollars	24,358,812	24,033,685	20,707,532	20,237,843	17,895,027	
Radiation — Nonionizing	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>84</b>	<b>78</b>	<b>62</b>	<b>59</b>	<b>53</b>	
	Total Relevant Dollars	24,358,812	24,033,685	20,707,532	20,237,843	17,895,027	-7.25
	<b>Number of Grants</b>	<b>310</b>	<b>314</b>	<b>316</b>	<b>336</b>	<b>352</b>	
	Relevant Grant Dollars	117,939,604	132,914,143	135,688,018	155,195,164	166,039,725	
Radiation — Nonionizing Diagnosis	<b>Number of Contracts</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>1</b>	
	Relevant Contract Dollars	1,132,090	799,778	199,302	7,904,859	3,906	
	<b>Total Count</b>	<b>312</b>	<b>317</b>	<b>317</b>	<b>340</b>	<b>353</b>	
	Total Relevant Dollars	119,071,694	133,713,921	135,887,320	163,100,023	166,043,631	8.94
	<b>Number of Grants</b>	<b>163</b>	<b>162</b>	<b>160</b>	<b>183</b>	<b>181</b>	
	Relevant Grant Dollars	63,806,196	60,179,423	63,958,645	74,953,410	72,549,996	
Radiation — Nonionizing Radiotherapy	<b>Number of Contracts</b>	<b>10</b>	<b>7</b>	<b>2</b>	<b>4</b>	<b>‡</b>	
	Relevant Contract Dollars	6,071,668	2,253,949	796,918	1,947,356	‡	
	<b>Total Count</b>	<b>173</b>	<b>169</b>	<b>162</b>	<b>187</b>	<b>181</b>	
	Total Relevant Dollars	69,877,865	62,433,372	64,755,563	76,900,766	72,549,996	1.54
	<b>Number of Grants</b>	<b>57</b>	<b>60</b>	<b>49</b>	<b>49</b>	<b>44</b>	
	Relevant Grant Dollars	16,613,599	17,738,292	16,067,424	16,564,595	14,561,169	
Radiation — UV	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>57</b>	<b>60</b>	<b>49</b>	<b>49</b>	<b>44</b>	
	Total Relevant Dollars	16,613,599	17,738,292	16,067,424	16,564,595	14,561,169	-2.91
	<b>Number of Grants</b>	<b>54</b>	<b>45</b>	<b>40</b>	<b>48</b>	<b>50</b>	
	Relevant Grant Dollars	38,288,227	25,262,960	30,949,180	41,773,977	34,604,754	
Rare Diseases	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>2</b>	<b>1</b>	
	Relevant Contract Dollars	‡	‡	‡	655,000	177,497	
	<b>Total Count</b>	<b>54</b>	<b>45</b>	<b>40</b>	<b>50</b>	<b>51</b>	
	Total Relevant Dollars	38,288,227	25,262,960	30,949,180	42,428,977	34,945,088	1.99
	<b>Number of Grants</b>	<b>152</b>	<b>158</b>	<b>125</b>	<b>140</b>	<b>152</b>	
	Relevant Grant Dollars	61,304,559	69,345,592	56,728,138	64,634,378	70,601,223	
Rehabilitation	<b>Number of Contracts</b>	<b>‡</b>	<b>2</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	
	Relevant Contract Dollars	‡	799,682	‡	‡	177,497	
	<b>Total Count</b>	<b>152</b>	<b>160</b>	<b>125</b>	<b>140</b>	<b>153</b>	
	Total Relevant Dollars	61,304,559	70,145,274	56,728,138	64,634,378	70,778,720	4.68

continued

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Rural Populations	<b>Number of Grants</b>	<b>120</b>	<b>162</b>	<b>166</b>	<b>191</b>	<b>218</b>	
	Relevant Grant Dollars	98,480,127	122,332,054	121,483,169	139,768,148	152,832,546	
	<b>Number of Contracts</b>	<b>‡</b>	<b>3</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	229,861	‡	‡	‡	
	<b>Total Count</b>	<b>120</b>	<b>165</b>	<b>166</b>	<b>191</b>	<b>218</b>	
	Total Relevant Dollars	98,480,127	122,561,915	121,483,169	139,768,148	152,832,546	11.99
Sexually Transmitted Diseases	<b>Number of Grants</b>	<b>39</b>	<b>36</b>	<b>31</b>	<b>32</b>	<b>34</b>	
	Relevant Grant Dollars	10,654,262	9,772,150	7,727,602	9,500,898	9,798,478	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>39</b>	<b>36</b>	<b>31</b>	<b>32</b>	<b>34</b>	
	Total Relevant Dollars	10,654,262	9,772,150	7,727,602	9,500,898	9,798,478	-0.78
Sleep Disorders	<b>Number of Grants</b>	<b>70</b>	<b>79</b>	<b>78</b>	<b>87</b>	<b>95</b>	
	Relevant Grant Dollars	16,970,680	22,152,566	20,934,724	22,841,200	24,388,405	
	<b>Number of Contracts</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	678,153	‡	‡	‡	‡	
	<b>Total Count</b>	<b>71</b>	<b>79</b>	<b>78</b>	<b>87</b>	<b>95</b>	
	Total Relevant Dollars	17,648,833	22,152,566	20,934,724	22,841,200	24,388,405	8.98
Small Molecules	<b>Number of Grants</b>	<b>646</b>	<b>645</b>	<b>626</b>	<b>593</b>	<b>583</b>	
	Relevant Grant Dollars	166,827,632	172,925,404	169,049,159	171,641,666	175,323,642	
	<b>Number of Contracts</b>	<b>6</b>	<b>1</b>	<b>5</b>	<b>8</b>	<b>4</b>	
	Relevant Contract Dollars	2,109,100	535,791	823,756	3,351,251	1,578,271	
	<b>Total Count</b>	<b>652</b>	<b>646</b>	<b>631</b>	<b>601</b>	<b>587</b>	
	Total Relevant Dollars	168,936,732	173,461,195	169,872,915	174,992,917	176,901,913	1.18
Smoking	<b>Number of Grants</b>	<b>239</b>	<b>308</b>	<b>307</b>	<b>298</b>	<b>312</b>	
	Relevant Grant Dollars	99,065,410	118,950,299	116,262,224	135,795,687	139,249,639	
	<b>Number of Contracts</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>5</b>	
	Relevant Contract Dollars	31,499,932	6,144,385	3,105,324	6,731,762	7,859,327	
	<b>Total Count</b>	<b>242</b>	<b>311</b>	<b>311</b>	<b>303</b>	<b>317</b>	
	Total Relevant Dollars	130,565,342	125,094,684	119,367,548	142,527,449	147,108,966	3.46
Smoking Behavior	<b>Number of Grants</b>	<b>169</b>	<b>187</b>	<b>174</b>	<b>167</b>	<b>173</b>	
	Relevant Grant Dollars	68,754,459	72,779,870	66,232,558	82,658,673	80,969,426	
	<b>Number of Contracts</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>3</b>	
	Relevant Contract Dollars	30,989,737	6,143,845	995,470	4,550,762	6,398,264	
	<b>Total Count</b>	<b>171</b>	<b>189</b>	<b>175</b>	<b>169</b>	<b>176</b>	
	Total Relevant Dollars	99,744,196	78,923,715	67,228,028	87,209,435	87,367,690	-1.45

*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 Site.

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Smoking Cessation	<b>Number of Grants</b>	<b>133</b>	<b>155</b>	<b>154</b>	<b>157</b>	<b>166</b>	
	Relevant Grant Dollars	50,868,931	61,529,655	65,216,626	67,915,656	70,495,759	
	<b>Number of Contracts</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>	
	Relevant Contract Dollars	29,089,986	5,343,845	995,470	4,550,762	3,812,465	
	<b>Total Count</b>	<b>134</b>	<b>156</b>	<b>155</b>	<b>159</b>	<b>168</b>	
	Total Relevant Dollars	79,958,917	66,873,500	66,212,096	72,466,418	74,308,224	-1.34
Smoking — Passive	<b>Number of Grants</b>	<b>12</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	
	Relevant Grant Dollars	3,165,300	6,396,292	6,984,143	7,179,258	7,627,133	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>12</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	
	Total Relevant Dollars	3,165,300	6,396,292	6,984,143	7,179,258	7,627,133	30.07
Smokeless Tobacco	<b>Number of Grants</b>	<b>13</b>	<b>46</b>	<b>36</b>	<b>40</b>	<b>48</b>	
	Relevant Grant Dollars	1,609,491	7,843,378	6,793,258	7,091,243	12,039,312	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>13</b>	<b>46</b>	<b>36</b>	<b>40</b>	<b>48</b>	
	Total Relevant Dollars	1,609,491	7,843,378	6,793,258	7,091,243	12,039,312	112.02
Structural Biology	<b>Number of Grants</b>	<b>573</b>	<b>547</b>	<b>537</b>	<b>526</b>	<b>523</b>	
	Relevant Grant Dollars	170,136,965	153,305,173	140,135,037	138,653,503	134,411,112	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>573</b>	<b>547</b>	<b>537</b>	<b>526</b>	<b>523</b>	
	Total Relevant Dollars	170,136,965	153,305,173	140,135,037	138,653,503	134,411,112	-5.65
Surgery	<b>Number of Grants</b>	<b>215</b>	<b>217</b>	<b>207</b>	<b>246</b>	<b>265</b>	
	Relevant Grant Dollars	66,631,920	70,639,872	67,853,858	86,376,091	94,667,392	
	<b>Number of Contracts</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>1</b>	
	Relevant Contract Dollars	1,137,419	2,800,331	399,559	508,625	10,926	
	<b>Total Count</b>	<b>216</b>	<b>220</b>	<b>208</b>	<b>249</b>	<b>266</b>	
	Total Relevant Dollars	67,769,339	73,440,203	68,253,417	86,884,716	94,678,318	9.39
Taxol	<b>Number of Grants</b>	<b>123</b>	<b>117</b>	<b>108</b>	<b>97</b>	<b>98</b>	
	Relevant Grant Dollars	24,567,763	25,130,952	19,839,123	18,754,544	20,474,369	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>123</b>	<b>117</b>	<b>108</b>	<b>97</b>	<b>98</b>	
	Total Relevant Dollars	24,567,763	25,130,952	19,839,123	18,754,544	20,474,369	-3.77

continued

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

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Telehealth	<b>Number of Grants</b>	<b>312</b>	<b>366</b>	<b>365</b>	<b>402</b>	<b>424</b>	
	Relevant Grant Dollars	118,727,319	139,905,356	138,812,031	176,784,892	179,674,056	
	<b>Number of Contracts</b>	<b>6</b>	<b>15</b>	<b>1</b>	<b>‡</b>	<b>7</b>	
	Relevant Contract Dollars	680,057	14,345,827	995,470	‡	8,862,738	
	<b>Total Count</b>	<b>318</b>	<b>381</b>	<b>366</b>	<b>402</b>	<b>431</b>	
	Total Relevant Dollars	119,407,376	154,251,183	139,807,501	176,784,892	188,536,794	13.23
Therapy	<b>Number of Grants</b>	<b>4,112</b>	<b>4,309</b>	<b>4,544</b>	<b>4,728</b>	<b>4,872</b>	
	Relevant Grant Dollars	2,021,576,346	2,211,866,079	2,230,951,920	2,425,750,818	2,542,537,642	
	<b>Number of Contracts</b>	<b>88</b>	<b>71</b>	<b>81</b>	<b>69</b>	<b>72</b>	
	Relevant Contract Dollars	162,718,386	93,260,341	89,693,861	95,776,206	497,142,814	
	<b>Total Count</b>	<b>4,200</b>	<b>4,380</b>	<b>4,625</b>	<b>4,728</b>	<b>4,944</b>	
	Total Relevant Dollars	2,184,294,732	2,305,126,420	2,320,645,781	2,521,527,024	3,039,680,456	8.85
Tropical Diseases	<b>Number of Grants</b>	<b>8</b>	<b>12</b>	<b>11</b>	<b>11</b>	<b>10</b>	
	Relevant Grant Dollars	1,282,015	3,962,719	4,810,384	4,556,265	3,452,861	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>8</b>	<b>12</b>	<b>11</b>	<b>11</b>	<b>10</b>	
	Total Relevant Dollars	1,282,015	3,962,719	4,810,384	4,556,265	3,452,861	50.25
Tumor Markers	<b>Number of Grants</b>	<b>50</b>	<b>39</b>	<b>25</b>	<b>14</b>	<b>18</b>	
	Relevant Grant Dollars	10,847,303	10,087,428	6,773,536	3,276,593	4,068,835	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>50</b>	<b>39</b>	<b>25</b>	<b>14</b>	<b>18</b>	
	Total Relevant Dollars	10,847,303	10,087,428	6,773,536	3,276,593	4,068,835	-16.83
Underserved and Disparities	<b>Number of Grants</b>	<b>639</b>	<b>743</b>	<b>795</b>	<b>913</b>	<b>1,002</b>	
	Relevant Grant Dollars	412,442,362	493,849,542	510,652,633	633,930,908	677,297,669	
	<b>Number of Contracts</b>	<b>2</b>	<b>6</b>	<b>1</b>	<b>16</b>	<b>6</b>	
	Relevant Contract Dollars	522,094	1,090,111	180,716	10,650,090	8,520,350	
	<b>Total Count</b>	<b>641</b>	<b>749</b>	<b>796</b>	<b>929</b>	<b>1,008</b>	
	Total Relevant Dollars	412,964,456	494,939,653	510,833,349	644,580,998	685,818,019	13.91
Vaccine Development	<b>Number of Grants</b>	<b>86</b>	<b>77</b>	<b>66</b>	<b>68</b>	<b>61</b>	
	Relevant Grant Dollars	23,709,448	20,809,287	20,383,737	23,016,496	20,451,510	
	<b>Number of Contracts</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	
	Relevant Contract Dollars	27,903	761,776	855,274	291,405	3,008,078	
	<b>Total Count</b>	<b>89</b>	<b>78</b>	<b>67</b>	<b>69</b>	<b>63</b>	
	Total Relevant Dollars	23,737,350	21,571,063	21,239,011	23,307,901	23,459,588	-0.07

*continued*

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

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Vaccine Production	<b>Number of Grants</b>	<b>3</b>	<b>4</b>	<b>6</b>	<b>7</b>	<b>5</b>	
	Relevant Grant Dollars	407,323	1,040,548	2,262,714	2,036,179	1,766,868	
	<b>Number of Contracts</b>	<b>‡</b>	<b>3</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	4,717,231	‡	‡	‡	
	<b>Total Count</b>	<b>3</b>	<b>7</b>	<b>6</b>	<b>7</b>	<b>5</b>	
	Total Relevant Dollars	407,323	5,757,779	2,262,714	2,036,179	1,766,868	307.41
Vaccine Research	<b>Number of Grants</b>	<b>112</b>	<b>108</b>	<b>124</b>	<b>142</b>	<b>139</b>	
	Relevant Grant Dollars	29,756,398	42,394,025	44,598,186	51,773,409	52,191,428	
	<b>Number of Contracts</b>	<b>12</b>	<b>1</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	4,840,694	1,071,582	835,869	‡	‡	
	<b>Total Count</b>	<b>124</b>	<b>109</b>	<b>125</b>	<b>142</b>	<b>139</b>	
	Total Relevant Dollars	34,597,091	43,465,607	45,434,055	51,773,409	52,191,428	11.23
Vaccine Testing	<b>Number of Grants</b>	<b>47</b>	<b>52</b>	<b>34</b>	<b>47</b>	<b>51</b>	
	Relevant Grant Dollars	11,899,523	17,996,942	12,197,045	17,910,808	20,365,758	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>1</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	7,871,125	
	<b>Total Count</b>	<b>47</b>	<b>52</b>	<b>34</b>	<b>47</b>	<b>52</b>	
	Total Relevant Dollars	11,899,523	17,996,942	12,197,045	17,910,808	28,236,883	30.88
Virus Cancer Research	<b>Number of Grants</b>	<b>308</b>	<b>343</b>	<b>333</b>	<b>369</b>	<b>376</b>	
	Relevant Grant Dollars	130,328,650	159,960,903	160,679,335	183,639,213	197,194,081	
	<b>Number of Contracts</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>7</b>	<b>2</b>	
	Relevant Contract Dollars	928,436	761,776	835,869	3,088,994	7,884,845	
	<b>Total Count</b>	<b>310</b>	<b>344</b>	<b>334</b>	<b>376</b>	<b>378</b>	
	Total Relevant Dollars	131,257,086	160,722,679	161,515,204	186,728,207	205,078,926	12.09
Virus — Epstein-Barr	<b>Number of Grants</b>	<b>51</b>	<b>51</b>	<b>44</b>	<b>52</b>	<b>57</b>	
	Relevant Grant Dollars	18,415,472	21,951,062	21,267,201	27,182,005	32,550,394	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>51</b>	<b>51</b>	<b>44</b>	<b>52</b>	<b>57</b>	
	Total Relevant Dollars	18,415,472	21,951,062	21,267,201	27,182,005	32,550,394	15.91
Virus — Hepatitis B	<b>Number of Grants</b>	<b>17</b>	<b>19</b>	<b>17</b>	<b>17</b>	<b>16</b>	
	Relevant Grant Dollars	2,605,999	4,216,083	4,240,042	4,741,182	4,804,541	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>17</b>	<b>19</b>	<b>17</b>	<b>17</b>	<b>16</b>	
	Total Relevant Dollars	2,605,999	4,216,083	4,240,042	4,741,182	4,804,541	18.88

continued

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

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.



**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Virus — Hepatitis C	<b>Number of Grants</b>	<b>19</b>	<b>9</b>	<b>9</b>	<b>7</b>	<b>7</b>	
	Relevant Grant Dollars	2,845,741	1,273,208	1,665,830	1,551,212	1,418,645	
	<b>Number of Contracts</b>	<b>1</b>	<b>‡</b>	<b>‡</b>	<b>3</b>	<b>‡</b>	
	Relevant Contract Dollars	510,195	‡	‡	1,193,833	‡	
	<b>Total Count</b>	<b>20</b>	<b>9</b>	<b>9</b>	<b>10</b>	<b>7</b>	
	Total Relevant Dollars	3,355,936	1,273,208	1,665,830	2,745,045	1,418,645	-3.69
Virus — Herpes	<b>Number of Grants</b>	<b>107</b>	<b>113</b>	<b>104</b>	<b>116</b>	<b>121</b>	
	Relevant Grant Dollars	39,272,062	45,601,103	44,045,826	52,839,130	61,028,533	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>107</b>	<b>113</b>	<b>104</b>	<b>116</b>	<b>121</b>	
	Total Relevant Dollars	39,272,062	45,601,103	44,045,826	52,839,130	61,028,533	12.04
Virus — HHV8	<b>Number of Grants</b>	<b>51</b>	<b>58</b>	<b>54</b>	<b>62</b>	<b>57</b>	
	Relevant Grant Dollars	19,425,311	23,438,247	22,756,659	26,402,561	27,845,495	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>51</b>	<b>58</b>	<b>54</b>	<b>62</b>	<b>57</b>	
	Total Relevant Dollars	19,425,311	23,438,247	22,756,659	26,402,561	27,845,495	9.81
Virus — HTLV-1	<b>Number of Grants</b>	<b>7</b>	<b>7</b>	<b>9</b>	<b>10</b>	<b>6</b>	
	Relevant Grant Dollars	1,535,971	3,524,763	4,227,759	4,046,212	3,156,443	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>7</b>	<b>7</b>	<b>9</b>	<b>10</b>	<b>6</b>	
	Total Relevant Dollars	1,535,971	3,524,763	4,227,759	4,046,212	3,156,443	30.79
Virus — Papilloma	<b>Number of Grants</b>	<b>156</b>	<b>175</b>	<b>156</b>	<b>192</b>	<b>203</b>	
	Relevant Grant Dollars	55,609,372	67,736,091	65,583,437	81,151,166	88,796,015	
	<b>Number of Contracts</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>2</b>	
	Relevant Contract Dollars	418,241	761,776	835,869	1,895,161	7,884,845	
	<b>Total Count</b>	<b>157</b>	<b>176</b>	<b>157</b>	<b>196</b>	<b>205</b>	
	Total Relevant Dollars	56,027,613	68,497,867	66,419,306	83,046,327	96,680,860	15.17
Virus — Papova	<b>Number of Grants</b>	<b>166</b>	<b>183</b>	<b>167</b>	<b>203</b>	<b>213</b>	
	Relevant Grant Dollars	59,441,700	72,600,571	69,824,723	86,047,143	94,618,855	
	<b>Number of Contracts</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>2</b>	
	Relevant Contract Dollars	418,241	761,776	835,869	1,895,161	7,884,845	
	<b>Total Count</b>	<b>167</b>	<b>184</b>	<b>168</b>	<b>207</b>	<b>215</b>	
	Total Relevant Dollars	59,859,941	73,362,347	70,660,592	87,942,304	102,503,700	14.97

*continued*

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

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 16 (cont'd). NCI Special Interest Category Dollars for  
FY2019 – FY2023 — Annual Percent Change\***

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

Special Interest Categories	Counts and Relevant Dollars**	2019	2020	2021	2022	2023	Average Percent Change/Year
Vitamin A	<b>Number of Grants</b>	<b>12</b>	<b>10</b>	<b>6</b>	<b>4</b>	<b>4</b>	
	Relevant Grant Dollars	2,362,430	2,545,642	1,594,121	975,507	1,148,163	
	<b>Number of Contracts</b>	<b>‡</b>	<b>1</b>	<b>‡</b>	<b>1</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	90,750	‡	181,000	‡	
	<b>Total Count</b>	<b>12</b>	<b>11</b>	<b>6</b>	<b>5</b>	<b>4</b>	
	Total Relevant Dollars	2,362,430	2,636,392	1,594,121	1,156,507	1,148,163	-14.03
Vitamin C	<b>Number of Grants</b>	<b>4</b>	<b>6</b>	<b>4</b>	<b>4</b>	<b>9</b>	
	Relevant Grant Dollars	3,034,224	4,127,482	3,003,519	2,925,734	2,551,329	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>4</b>	<b>6</b>	<b>4</b>	<b>4</b>	<b>9</b>	
	Total Relevant Dollars	3,034,224	4,127,482	3,003,519	2,925,734	2,551,329	-1.65
Vitamin D	<b>Number of Grants</b>	<b>34</b>	<b>27</b>	<b>17</b>	<b>18</b>	<b>10</b>	
	Relevant Grant Dollars	11,208,500	7,069,913	4,301,733	5,211,332	3,343,821	
	<b>Number of Contracts</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	<b>‡</b>	
	Relevant Contract Dollars	‡	‡	‡	‡	‡	
	<b>Total Count</b>	<b>34</b>	<b>27</b>	<b>17</b>	<b>18</b>	<b>10</b>	
	Total Relevant Dollars	11,208,500	7,069,913	4,301,733	5,211,332	3,343,821	-22.69

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

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

‡ Coding not required or requested. FY2023 Contract data not included.

Source: Research Analysis and Evaluation Branch.

**Table 17. NCI Funding of Foreign Research Grants in FY2023**  
*(This table reports extramural grants only; intramural grants and contracts are excluded.)*

Country/Cancer Site												
	K43	R01	R03	R21	R37	U01	U10	UG1	U24	UH3	UM1	Totals
<b>Argentina</b>												
<b>Grants #</b>				<b>1</b>								<b>1</b>
<b>Funding \$</b>				<b>246,493</b>								<b>246,493</b>
Cervix				246,493								246,493
<b>Australia</b>												
<b>Grants #</b>		<b>2</b>				<b>2</b>						<b>4</b>
<b>Funding \$</b>		<b>513,790</b>				<b>2,252,928</b>						<b>2,766,718</b>
Colon, Rectum						1,797,951						1,797,951
Leukemia						454,977						454,977
Myeloma		145,949										145,949
Prostate		367,841										367,841
<b>Canada</b>												
<b>Grants #</b>		<b>6</b>	<b>1</b>		<b>1</b>	<b>1</b>	<b>1</b>		<b>1</b>		<b>1</b>	<b>12</b>
<b>Funding \$</b>		<b>2,191,338</b>	<b>127,338</b>		<b>382,956</b>	<b>1,523,795</b>	<b>3,520,032</b>		<b>526,064</b>		<b>2,106,066</b>	<b>10,377,589</b>
Brain		400,069										400,069
Breast							880,008					880,008
Gastrointestinal Tract							880,008					880,008
Leukemia		550,381										550,381
Lung						1,523,795	880,008					2,403,803
Not Site Specific		440,242							526,064		2,106,066	3,072,372
Pancreas		363,672										363,672
Prostate		436,974										436,974
Sarcoma, Bone			63,669									63,669
Sarcoma, Soft Tissue			63,669									63,669
Testis					382,956							382,956
Urinary System							880,008					880,008
<b>France</b>												
<b>Grants #</b>		<b>3</b>			<b>2</b>	<b>1</b>				<b>1</b>		<b>7</b>
<b>Funding \$</b>		<b>1,669,215</b>			<b>783,911</b>	<b>529,273</b>			<b>442,901</b>			<b>3,425,300</b>
Breast		337,216			264,598							601,814
Cervix					519,313				442,901			962,214
Hodgkin Lymphoma						179,953						179,953
Lung		451,746										451,746
Myeloma						174,660						174,660
Not Site Specific		880,253										880,253
Non-Hodgkin Lymphoma						174,660						174,660
<b>Germany</b>												
<b>Grants #</b>									<b>1</b>			<b>1</b>
<b>Funding \$</b>									<b>459,648</b>			<b>459,648</b>
Not Site Specific									459,648			459,648

continued

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

Source: Research Analysis and Evaluation Branch.

**Table 17 (cont'd). NCI Funding of Foreign Research Grants in FY2023***(This table reports extramural grants only; intramural grants and contracts are excluded.)*

Country/Cancer Site												
<b>Israel</b>	<b>K43</b>	<b>R01</b>	<b>R03</b>	<b>R21</b>	<b>R37</b>	<b>U01</b>	<b>U10</b>	<b>UG1</b>	<b>U24</b>	<b>UH3</b>	<b>UM1</b>	<b>Totals</b>
<b>Grants #</b>						<b>1</b>						<b>1</b>
<b>Funding \$</b>						<b>191,085</b>						<b>191,085</b>
Lung						191,085						191,085
<b>Kenya</b>	<b>K43</b>	<b>R01</b>	<b>R03</b>	<b>R21</b>	<b>R37</b>	<b>U01</b>	<b>U10</b>	<b>UG1</b>	<b>U24</b>	<b>UH3</b>	<b>UM1</b>	<b>Totals</b>
<b>Grants #</b>						<b>1</b>		<b>1</b>				<b>2</b>
<b>Funding \$</b>						<b>250,000</b>		<b>216,000</b>				<b>466,000</b>
Colon, Rectum						250,000						250,000
Cervix								216,000				216,000
<b>Rwanda</b>	<b>K43</b>	<b>R01</b>	<b>R03</b>	<b>R21</b>	<b>R37</b>	<b>U01</b>	<b>U10</b>	<b>UG1</b>	<b>U24</b>	<b>UH3</b>	<b>UM1</b>	<b>Totals</b>
<b>Grants #</b>								<b>1</b>				<b>1</b>
<b>Funding \$</b>								<b>226,299</b>				<b>226,299</b>
Cervix								226,299				226,299
<b>South Africa</b>	<b>K43</b>	<b>R01</b>	<b>R03</b>	<b>R21</b>	<b>R37</b>	<b>U01</b>	<b>U10</b>	<b>UG1</b>	<b>U24</b>	<b>UH3</b>	<b>UM1</b>	<b>Totals</b>
<b>Grants #</b>	<b>1</b>	<b>2</b>						<b>1</b>				<b>4</b>
<b>Funding \$</b>	<b>59,760</b>	<b>417,954</b>						<b>216,000</b>				<b>693,714</b>
Breast		279,659										279,659
Cervix		138,295						216,000				354,295
Colon, Rectum	59,760											59,760
<b>Switzerland</b>	<b>K43</b>	<b>R01</b>	<b>R03</b>	<b>R21</b>	<b>R37</b>	<b>U01</b>	<b>U10</b>	<b>UG1</b>	<b>U24</b>	<b>UH3</b>	<b>UM1</b>	<b>Totals</b>
<b>Grants #</b>				<b>1</b>								<b>1</b>
<b>Funding \$</b>				<b>143,231</b>								<b>143,231</b>
Not Site Specific												15,376
<b>Uganda</b>	<b>K43</b>	<b>R01</b>	<b>R03</b>	<b>R21</b>	<b>R37</b>	<b>U01</b>	<b>U10</b>	<b>UG1</b>	<b>U24</b>	<b>UH3</b>	<b>UM1</b>	<b>Totals</b>
<b>Grants #</b>								<b>1</b>				<b>1</b>
<b>Funding \$</b>								<b>214,361</b>				<b>214,361</b>
Cervix								214,361				214,361
<b>United Kingdom</b>	<b>K43</b>	<b>R01</b>	<b>R03</b>	<b>R21</b>	<b>R37</b>	<b>U01</b>	<b>U10</b>	<b>UG1</b>	<b>U24</b>	<b>UH3</b>	<b>UM1</b>	<b>Totals</b>
<b>Grants #</b>		<b>1</b>				<b>1</b>						<b>2</b>
<b>Funding \$</b>		<b>329,212</b>				<b>302,725</b>						<b>631,937</b>
Brain		164,606										164,606
Head and Neck		164,606										164,606
Kidney						302,725						302,725
<b>Total Grants</b>	<b>1</b>	<b>14</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>7</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>38</b>
<b>Total \$ Per Grant Type</b>	<b>59,760</b>	<b>5,121,509</b>	<b>127,338</b>	<b>389,724</b>	<b>1,166,867</b>	<b>5,049,806</b>	<b>3,520,032</b>	<b>872,660</b>	<b>985,712</b>	<b>442,901</b>	<b>2,106,066</b>	<b>19,842,375</b>

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

Source: Research Analysis and Evaluation Branch.

**Table 18. Foreign Components of U.S. Domestic Research Grants  
in FY2023**

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

Country	Funding Mechanism																							Sub- total																	
	D43	DP2	F30	F31	F32	F99	K00	K01	K07	K08	K22	K99	P01	P50	R00	R01	R03	R13	R21	R25	R33	R34	R35		R37	R43	R44	R50	R56	R61	T32	U01	U24	U2C	U54	U61	UH2	UH3	UM1		
Argentina																1		1																				1		1	6
Armenia																1																									1
Australia																21		1						2									4		1						29
Austria										1			1			1			1				1																	5	
Belarus																																					1			1	
Belgium																1		8							1															10	
Bolivia																								1																1	
Botswana											2					1																			3		1	1		8	
Brazil														1		5																				1		1		1	9
Burkina																				1																				1	
Cambodia																																					1			1	
Cameroon																																						1		2	
Canada				1	1					1	1			2	2	61		7	5	1	1		2	4		2						7	3	3		5		1	110		
Chile														1		1									1														3		
China																21			1					2		1														25	
Colombia	1															1								1		1														4	
Congo																																						1		1	
Costa Rica																									1															1	
Croatia																1																								1	
Czech Republic																2																								2	
Denmark					1											9				1			1									1		3					16		
Dominican Republic																									1															1	
Ecuador																2									1															3	
Egypt																2		1		1																			4		
El Salvador																3								1		1														5	
Eswatini (Swaziland)																1											1	1												3	
Ethiopia																1		1																						2	
Finland																2																								2	
France											1	1				21	1		1				1	3	1			1				4			1				37		
Georgia																1																								1	
Germany			1									1	1	4		32		3		1		1	6		1	1				1	6	2	1	3			1		67		
Ghana	1															2		1	1																	2				7	
Guatemala																									1															1	
Haiti																										1														1	
Honduras																										1		2												3	
Hong Kong																																								2	
Hungary																																								2	
Iceland																																						1		1	
India																5			1																	4	1		11		
Indonesia																												1												1	
Ireland																	1																				1			2	
Israel					1											9			1				1	1									2		1				17		
Italy																									1	2								1		2		1		18	
Japan			1													2	13		1					1	1								1		1		1		22		
Kenya																7		2	1				1					2						3		5	1		1	23	
Laos																																								1	

*continued*

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 13,560 applications in FY2023 requesting \$5,340,328,772 in direct costs with appropriated funds. Additionally, the Board reviewed 7 FDA SBIR applications in FY2023.

The Board heard presentations, discussed, and provided advice on a variety of topics and NCI activities in FY2023, such as:

- NCI Director's Report
- Legislative Report
- Budget Overview
- Recognition of Retiring NCAB Members
- The NCI's Childhood Data Initiative
- Status of the Advanced Research Projects Agency for Health (ARPA-H)
- Future Directions for the Division of Cancer Control and Population Sciences
- Multiple Myeloma and Disparities
- *Ad hoc* Working Group Report on Strategic Approaches and Opportunities for Research on Cancer Among Racial and Ethnic Minorities and Underserved Populations
- Adapting NCI's Clinical Trials System to a Changed Clinical Research Environment

- Approval of Mission Statement: Review of CCR Scientific Directors
- Overview of the National Cancer Plan (NCP)
- Cancer Research Collaborations with the European Union
- Progress in Targeting KRAS through the Frederick RAS Initiative
- Collaborative Approaches to Accelerate Better Therapies for Patients with Rare Tumors
- Annual Delegations of Authority
- *Ad Hoc* Subcommittee on Global Cancer Research
- *Ad Hoc* Subcommittee on Population Science, Epidemiology, and Disparities
- Subcommittee on Clinical Investigations
- Subcommittee on Planning and Budget

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 FY2023:

- NCI Director's Report
- Legislative Report
- The NCI Research Project Grants (RPGs) Budget and Beyond
- The NCI's Childhood Data Initiative
- Status of the Advanced Research Projects Agency for Health (ARPA-H)
- Recognition of Retiring BSA Members
- Future Directions for the Division of Cancer Control and Population Sciences
- Multiple Myeloma and Disparities
- Adapting NCI's Clinical Trials System to a Changed Clinical Research Environment
- Cancer Research Collaborations with the European Union
- Progress in Targeting KRAS through the Frederick RAS Initiative

### RFA Concepts Approved

#### Division of Cancer Treatment and Diagnosis

- Targeting Fusion Oncoproteins in Childhood Cancers (TFCC) Network

### RFA/Cooperative Agreements Approved

#### Division of Cancer Biology

- Cancer Immunoprevention Network (CIP-NET)

#### Division of Cancer Control and Population Sciences

- Addressing the Needs of Cancer Survivors in Primary Care
- Advancing Cancer Control Equity Research Through Transformative Solutions

#### Division of Cancer Prevention

- Discovery and Development of Natural Products for Cancer Interception and Prevention

#### Division of Cancer Treatment and Diagnosis

- Cancer Health Disparities and Minority Health (CHD-MH) SPORE Program

#### Office of the Director

- Translational Research Toward Development of Kaposi Sarcoma Herpesvirus (KSHV) Vaccine

### RFA Re-Issuances Approved

#### Office of the Director

- Innovative Molecular Analysis Technologies Program (IMAT)

### RFA/Cooperative Agreement Re-Issuances Approved

#### Division of Cancer Biology

- NCI Human Tumor Atlas Network (HTAN)

#### Division of Cancer Treatment and Diagnosis

- Blood and Marrow Transplant Clinical Trials Network (BMTCTN)
- Cooperative Human Tissue Network (CHTN)
- NCI National Clinical Trials Network (NCTN)
- Pediatric Early Phase Clinical Trials Network (PEP-CTN)

#### Office of the Director

- SBIR Phase IIB Bridge Awards to Accelerate the Development of Cancer-Focused Technologies Toward Commercialization
- AIDS and Cancer Specimen Resource (ACSR)

## **RFP Concepts Approved**

### **Office of the Director**

- FY 2024 NCI Small Business Innovation Research (SBIR) Contract Topics (R43)

## **Program Announcements Approved**

### **Division of Cancer Control and Population Sciences**

- The Impacts of Climate Change Across the Cancer Control Continuum
- Understanding Expectancy in Cancer Symptom Management
- Population Approaches to Reducing Alcohol-Related Cancer Risk (Clinical Trial Optional)
- Improving Care and Outcomes for Cancer Survivors from Sexual and Gender Minority (SGM) Populations (R01, Clinical Trial Optional)

### **Division of Cancer Prevention**

- Mechanisms That Impact Cancer Risk with Use of Incretin Mimetics

### **Office of the Director**

- The NCI Pathway to Independence Award for Outstanding Early-Stage Postdoctoral Researchers (K99/R00)

## **Program Announcements Re-Issuance Approved**

- Note: 20 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, including a representative from the National Cancer Advisory Board, the NCI Board of Scientific Advisors, and the NCI Board of Scientific Counselors. The National Cancer Institute facility in Frederick, Maryland, was established in 1972 as a government-owned, contractor-operated (GOCO) facility. In 1975, the facility was designated as a Federally Funded Research and Development Center (FFRDC) to provide a unique national resource within the biomedical research community for the development of new technologies and the translation of basic science discoveries into novel agents for the prevention, diagnosis and treatment of cancer and AIDS. The FNLAC reviews the state of research (extramural and intramural) at the Frederick National Laboratory for Cancer Research (FNLRCR) and makes recommendations for the best use of its capabilities and infrastructure. Specifically, the committee reviews major new projects proposed to be performed at FNLRCR and advises the Director of NCI, Deputy Directors of NCI, and Associate Director of FNLRCR about the intrinsic merit of the projects and about whether they should be performed at the FNLRCR. In addition, the Committee periodically reviews the existing portfolio of projects at FNLRCR, 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 FY2023, including the following:

- NCI Director's Remarks
- NCI Principal Deputy Director's Report
- Legislative Report
- Cryo-EM Training
- Patient-Derived Models Repository (PDMR)
- Frederick Technology Showcase
- RAS Working Group Report
- Establishment of NCI RAS Initiative Evaluation Team *Ad hoc* Working Group
- Frederick Updates
- FNLAC *Ad hoc* Working Group Report: NCI RAS Initiative Evaluation Team (RIET)
- Molecular Characterization Laboratory (MoCha)
- Molecular Pharmacodynamics of an Anti-Body Drug Conjugate (ADC): DS-8201a
- The Cancer Genomics Research Laboratory and Division of Cancer Epidemiology and Genetics (DCEG): A Great Partnership
- Update: RAS Initiative

Another major role of the committee is to monitor and evaluate contractor-initiated research within the span of a contract period. The Committee considers proposed research and provides advice as to whether the FNLRCR 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 FNLRCR.

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

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

### President's Cancer Panel

#### Chair

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

#### Members

Mitchel S. Berger, M.D. .... University of California, San Francisco

Carol L. Brown, M.D. .... Memorial Sloan Kettering Cancer Center

#### Executive Secretary

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

### National Cancer Advisory Board

#### Chair

John D. Carpten, Ph.D. .... Beckman Research Institute of City of Hope

#### Members

Francis Ali-Osman, D.Sc. .... Duke University Medical Center

Margaret Anne Anderson .... Deloitte Consulting LLP

Nilofer S. Azad, M.D. .... John Hopkins University

Anna D. Barker, Ph.D. .... University of Southern California

Richard J. Boxer, M.D. .... University of California, Los Angeles

Luis Alberto Diaz, M.D. .... Memorial Sloan Kettering Cancer Center

Ysabel Duron .... The Latino Cancer Institute

Howard J. Fingert, M.D., F.A.C.P. .... ONO PHARMA USA, INC.

Christopher R. Friese, Ph.D., R.N. .... University of Michigan

Lawrence O. Gostin, J.D. .... Georgetown University

Julie Papanek Grant, M.B.A.\* .... Canaan

Andrea A. Hayes Dixon, 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

Ana Navas-Acien, M.D., Ph.D., M.P.H. .... Columbia University

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

Fred K. Tabung, Ph.D., M.P.H.S. .... Ohio State University

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

\* Pending appointment.

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

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
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 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
Richard Woychik, Ph.D. ....	National Institute of Environmental Health Sciences, NIH

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

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Gwen W. Collman, Ph.D. ....	National Institute of Environmental Health Sciences, NIH
John Gordon, Ph.D. ....	U.S. Consumer Product Safety Commission
Joseph R. Graber, Ph.D. ....	U.S. Department of Energy
Michael Kelley, M.D., F.A.C.P. ....	U.S. Department of Veterans Affairs
Richard Pazdur, M.D., F.A.C.P. ....	U.S. Food and Drug Administration
Tara A. Schwetz, Ph.D. ....	National Institutes of Health
Craig D. Shriver, M.D., F.A.C.S., COL., M.C. ....	U.S. Department of Defense
Kerry Souza, Sc.D., M.P.H. ....	National Institute for Occupational Safety and Health
Lawrence A. Tabak, D.D.S., Ph.D. ....	National Institutes of Health

**Executive Secretary**

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

**Chair**

Keith T. Flaherty, M.D. ....	Harvard Medical School
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**Members**

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Susanne J. Baker, Ph.D., M.P.H. ....	St. Jude Children’s Research Hospital
Karen M. Basen-Engquist, Ph.D., M.P.H. ....	University of Texas MD Anderson Cancer Center
Michael John Becich, M.D., Ph.D. ....	University of Pittsburgh
Mary C. Beckerle, Ph.D. ....	University of Utah
Melissa L. Bondy, Ph.D. ....	Stanford University
Otis W. Brawley, M.D. ....	Johns Hopkins University
Andrew T. Chan, M.D., Ph.D., M.P.H. ....	Harvard Medical School
Nelson J. Chao, M.D., M.B.A. ....	Duke University
Gloria D. Coronado, Ph.D. ....	Kaiser Permanente Northwest

\* Pending Appointment



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Michelle M. Le Beau, Ph.D.	Cancer Prevention and Research Institute of Texas
Ana Maria Lopez, M.D., M.P.H.	Thomas Jefferson University
Karen M. Mustian, Ph.D., M.P.H.	University of Rochester
Lisa A. Newman, M.D., M.P.H.	Weill Cornell Medicine
Raymond U. Osarogiagbon, M.B.B.S.	Vanderbilt University
Sylvia Katina Plevritis, Ph.D.	Stanford University
W. Kimryn Rathmell, M.D., Ph.D.	Vanderbilt University
Erle S. Robertson, Ph.D.	University of Pennsylvania
Leslie L. Robison, Ph.D.	St. Jude Comprehensive Cancer Center
Robert D. Schreiber, Ph.D.	Washington University in St. Louis
David Sidransky, M.D.	Johns Hopkins University
Ian M. Thompson, Jr., M.D.	CHRISTUS Santa Rosa Medical Center Hospital
David A. Tuveson, M.D., Ph.D.	Cold Spring Harbor Laboratory
Cornelia M. Ulrich, Ph.D.	University of Utah
Samuel L. Volchenboum, M.D., Ph.D.	University of Chicago
Robert H. Vonderheide, M.D.	University of Pennsylvania
Richard C. Zellers, M.D.	Indiana University

**Executive Secretary**

Paulette S. Gray, Ph.D.	National Cancer Institute, NIH
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Erik J. Sontheimer, Ph.D.	University of Massachusetts Medical School

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Leslie J. Berg, Ph.D.	University of Colorado
Arnab Chakravarti, M.D.	Ohio State University
Navdeep S. Chandel, Ph.D.	Northwestern University
William M. Clemons Jr., Ph.D.	California Institute of Technology
Blossom A. Damania, Ph.D.	University of North Carolina at Chapel Hill
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Ralph J. DeBerardinis, M.D., Ph.D.	University of Texas Southwestern Medical Center
Jennifer A. Doherty, Ph.D.	University of Utah



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Robert J. Klein, Ph.D.	Icahn School of Medicine at Mount Sinai
Mitchell Kronenberg, Ph.D.	La Jolla Institute for Immunology
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Paul F. Lambert, Ph.D.	University of Wisconsin-Madison
Steven K. Libutti, M.D.	Rutgers, The State University of New Jersey
Christopher D. Lima, Ph.D.	Memorial Sloan Kettering Cancer Center
David Malkin, M.D.	University of Toronto
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Diana L. Miglioretti, Ph.D.	University of California, Davis
Denise J. Montell, Ph.D.	University of California, Santa Barbara
Anna Barbara Moscicki, M.D.	University of California, Los Angeles
Baldomero M. Olivera, Ph.D.	University of Utah
Mary Ann Osley, Ph.D.	University of New Mexico Cancer Center
Alpa V. Patel, Ph.D., M.P.H.	American Cancer Society
Tanya T. Paull, Ph.D.	University of Texas at Austin
Benjamin J. Raphael, Ph.D.	Princeton University
Lewis R. Roberts, M.B. Ch.B., Ph.D.	Mayo Clinic
Virgil H. Simons	Prostate Net, Inc.
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Gail E. Tomlinson, M.D., Ph.D.	University of Texas Health Science Center at San Antonio
JoAnn Trejo, Ph.D.	University of California, San Diego
Marcel R.M. van den Brink, M.D., Ph.D.	Weill Cornell Medical College
Michelle D. Wang, Ph.D.	Cornell University
John S. Witte, Ph.D.	Stanford University

**Executive Secretary**

Mehrdad M. Tondravi, Ph.D.	National Cancer Institute, NIH
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**Frederick National Laboratory Advisory Committee to the NCI**

**Chair**

Candace S. Johnson, Ph.D.	Roswell Park Comprehensive Cancer Center
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**Members**

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John H. Bushweller, Ph.D.....	University of Virginia
Timothy A. Chan, M.D., Ph.D.....	Cleveland Clinic
Lisa M. Coussens, Ph.D.....	Oregon Health and Science University
Angela M. Gronenborn, Ph.D.....	University of Pittsburgh
Mary J. C. Hendrix, Ph.D.....	Shepherd University
Rodney J.Y. Ho, Ph.D.....	University of Washington
Allison Hubel, Ph.D.....	University of Minnesota
Dineo Khabele, M.D.....	Washington University in St. Louis
Anant Madabhushi, Ph.D.....	Georgia Institute of Technology and Emory University
Patrick Nana-Sinkam, M.D.....	Virginia Commonwealth University
Nilsa C. Ramirez Milan, M.D., F.C.A.P.....	Nationwide Children’s Hospital
Lincoln D. Stein, M.D., Ph.D.....	University of Toronto
Linda F. van Dyk, Ph.D.....	University of Colorado Anschutz Medical Campus

**Representatives**

Damania A. Blossom, Ph.D.....	University of North Carolina at Chapel Hill
Scott W. Hiebert, Ph.D.....	Vanderbilt University
Denise J. Montell, Ph.D.....	University of California, Santa Barbara
Erle S. Robertson, Ph.D.....	University of Pennsylvania School of Medicine

**Current Executive Secretary**

Christopher D. Kane, Ph.D.....	National Cancer Institute, NIH
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**Past Executive Secretary**

Wlodek Lopaczynski, M.D., Ph.D.....	National Cancer Institute, NIH
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**Clinical Trials and Translational Research Advisory Committee**

**Chair**

Neal J. Meropol, M.D.....	Flatiron Health
---------------------------	-----------------

**Members**

Smita Bhatia M.D., M.P.H.....	University of Alabama at Birmingham
Charles D. Blanke, M.D.....	Oregon Health and Science University
Edward Chu, M.D.....	Albert Einstein College of Medicine
Nancy E. Davidson, M.D.....	University of Washington
Adam P. Dicker, M.D., Ph.D.....	Thomas Jefferson University
Gary C. Doolittle, M.D.....	University of Kansas Medical Center
Ernest T. Hawk, M.D., M.P.H.....	University of Texas MD Anderson Cancer Center
Michael V. Knopp, M.D.....	University of Cincinnati
Seth P. Lerner, M.D., F.A.C.S.....	Baylor College of Medicine
Mia Levy, M.D., Ph.D.....	Foundation Medicine, Inc.

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

---

Sumithra J. Mandrekar, Ph.D.	Mayo Clinic College of Medicine and Science
Robert S. Mannel, M.D.	University of Oklahoma Health Sciences Center
Ruben A. Mesa, M.D.	Wake Forest School of Medicine
Carolyn Y. Muller, M.D., F.A.C.O.G.	University of New Mexico Health Sciences Center
Raphael E. Pollock, M.D., Ph.D., F.A.C.S.	Ohio State University Comprehensive Cancer Center
Suresh S. Ramalingam, M.D., F.A.S.C.O.	Emory University
Victor M. Santana, M.D.	St. Jude Children’s Research Hospital
Patricia A. Spears	University of North Carolina at Chapel Hill
Julie M. Vose, M.D.	University of Nebraska Medical Center
George Wilding, M.D.	University of Wisconsin-Madison

### **Ex Officio Members**

James H. Doroshow, M.D.	National Cancer Institute, NIH
Paulette S. Gray, Ph.D.	National Cancer Institute, NIH
James L. Gulley, M.D., Ph.D.	National Cancer Institute, NIH
Michael J. Kelley, M.D., F.A.C.P.	U.S. Department of Veterans Affairs
Anthony Kerlavage, Ph.D.	National Cancer Institute, NIH
Richard Pazdur, M.D., F.A.C.P.	U.S. Food and Drug Administration
Xiufen Sui, M.D.	U.S. Centers for Medicare and Medicaid Services

### **Executive Secretary**

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

## **NCI Council of Research Advocates**

### **NCI Council of Research Advocates**

#### **Chair**

Annie E. Ellis	Ovarian Cancer Research Alliance
----------------	----------------------------------

#### **Members**

Melinda Bachini	Cholangiocarcinoma Foundation
Yelak S. Biru	International Myeloma Foundation
Victoria Buenger, Ph.D.	Coalition Against Childhood Cancer
Melissa F. Buffalo	American Indian Cancer Foundation
Marty Chakoian	ZERO Prostate Cancer
Nathaniel J. Ferre	Chartis Oncology Solutions
Joya Delgado Harris, M.P.H.	CEO Roundtable on Cancer
Hartley M. Lee Jones*	SWOG Cancer Research Network
Brittany Avin McKelvey, Ph.D.	Friends of Cancer Research
Robert Riter	Cornell University
Kristen C. Santiago	LUNGeivity
Jacqueline D. Smith	Vertex Pharmaceuticals
Kevin J. Stemberger	Noble Capital Partners, LLC
Nicole E. Willmarth, Ph.D.	American Brain Tumor Association

**Executive Secretary**

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

**NCI Initial Review Group Scientific Review Committees**

**Study Section A—Cancer Centers**

**Chair**

Caryn Lerman, Ph.D.....University of Southern California

**Members**

Doris Mangiaracina Benbrook, Ph.D.....University of Oklahoma Health Sciences Center  
Mary-Ann Bjornsti, Ph.D.....University of Alabama at Birmingham  
Susan M. Blaney, M.D..... Baylor College of Medicine  
Jose R. Conejo-Garcia, M.D., Ph.D..... Duke University  
Bettina F. Drake, Ph.D., M.P.H. .... Washington University School of Medicine  
Heather A. Eliassen, Sc.D. .... Harvard University  
Bernard Mark Evers, M.D.....University of Kentucky  
Soledad Fernandez, Ph.D..... Ohio State University  
Robert L. Ferris, M.D., Ph.D.....University of Pittsburgh  
Shridar Ganesan, M.D., Ph.D. .... Rutgers, The State University of New Jersey  
Robert W. Gerlach, M.P.A. .... Dartmouth College  
Michael D. Henry, Ph.D..... University of Iowa  
Sheri L. Holmen, Ph.D. .... University of Utah  
Nola M. Hylton-Watson, Ph.D. .... University of California, San Francisco  
Anita Y. Kinney, Ph.D., R.N. .... Rutgers, The State University of New Jersey  
Primo N. Lara, Jr., M.D.....University of California, Davis  
Wendy Law, Ph.D..... Fred Hutchinson Cancer Research Center  
Thomas Patrick Loughran Jr., M.D. .... University of Virginia  
Kunle O. Odunsi, M.D., Ph.D..... University of Chicago  
Frank G. Ondrey, M.D., Ph.D. .... University of Minnesota  
James G. Pantelas ..... Artemis HRC, LLC  
Ramon E. Parsons, M.D., Ph.D..... Icahn School of Medicine at Mount Sinai  
Karen E. Pollok, Ph.D..... Indiana University  
Rolf F. Renne, Ph.D. .... University of Florida  
Diane M. Simeone, M.D..... New York University Langone Health  
Katherine E. Slavin..... Oregon Health and Science University  
Joann B. Sweasy, Ph.D. .... University of Arizona  
Michael A. Teitell, M.D., Ph.D..... University of California, Los Angeles  
Paula M. Vertino, Ph.D. .... University of Rochester  
Linda T. Vahdat, M.D., M.B.A..... Dartmouth-Hitchcock Medical Center

**Scientific Review Officer**

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

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\* Pending appointment.

## Study Section F—Institutional Training and Education

### Chair

Maria L. Avantaggiati, M.D., Ph.D. .... Georgetown University

### Past Chair

Elizabeth A. Platz, Sc.D., M.P.H. .... Johns Hopkins University

### Members

Donna G. Albertson, Ph.D. .... New York University  
Stephen M. Avery, Ph.D. .... University of Pennsylvania  
Karl Y. Bilimoria, M.D. .... Indiana University School of Medicine  
Barbara Ann Burtness, M.D. .... Yale University  
Bruno Calabretta, M.D., Ph.D. .... Thomas Jefferson University  
Elizabeth Claire Dees, M.D. .... University of North Carolina at Chapel Hill  
Jeremy S. Edwards, Ph.D. .... University of New Mexico  
Ruth D. Etzioni, Ph.D. .... Fred Hutchinson Cancer Research Center  
Marian L. Fitzgibbon, Ph.D. .... University of Illinois at Chicago  
Lisa C. Flowers, M.D. .... Emory University  
Edward B. Garon, M.D. .... University of California, Los Angeles  
Chunhai “Charlie” Hao, M.D., Ph.D. .... Indiana University School of Medicine  
Michael T. Hemann, Ph.D. .... Massachusetts Institute of Technology  
Aimee S. James, Ph.D., M.P.H. .... Washington University in St. Louis  
Michael C. Joiner, Ph.D. .... Wayne State University  
Pravin T. P. Kaumaya, Ph.D. .... Indiana University School of Medicine  
Shivaani Kummar, M.D. .... Oregon Health and Science University  
Kay F. Macleod, Ph.D. .... University of Chicago  
Usha Menon, Ph.D., R.N., F.A.A.N. .... University of South Florida  
Paul Salomon Mischel, M.D. .... Stanford University  
Mary Elaine Reyland, Ph.D. .... University of Colorado  
Aysegul A. Sahin, M.D. .... University of Texas MD Anderson Cancer Center  
Vanessa B. Sheppard, Ph.D. .... Virginia Commonwealth University  
Srinivas Sridhar, Ph.D. .... Northeastern University

### Scientific Review Officer

Adriana Stoica, Ph.D. .... National Cancer Institute, NIH

## Study Section I—Transition to Independence

### Chair

Michael I. Nishimura, Ph.D. .... Loyola University 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  
Mikhail Y. Berezin, Ph.D. .... Washington University in St. Louis

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
Yaguang Xi, M.D., Ph.D. ....	University of Georgia
Muhammad Raza Zaidi, Ph.D. ....	Temple University
Wei Zhou, M.D. ....	Emory University

**Scientific Review Officer**

Delia Tang, M.D. ....	National Cancer Institute, NI
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**Study Section J—Career Development**

**Chair**

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

Rajesh Agarwal, Ph.D. ....	University of Colorado
Mark Andrew Applebaum, M.D. ....	University of Chicago
Michael W. Becker, M.D. ....	Indiana University School of Medicine
Kathrin M. Bernt, M.D. ....	Children’s Hospital of Philadelphia
Katherine Bakshian Chiappinelli, Ph.D. ....	George Washington University
Lan G. Coffman, M.D., Ph.D. ....	University of Pittsburgh
Victoria E. Cosgrove, Ph.D. ....	Stanford University
Lorraine Tiera Dean, Sc.D. ....	Johns Hopkins University
Yibin Deng, M.D., Ph.D. ....	University of Minnesota
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
Meghan E. McGrady, Ph.D. ....	Cincinnati Children’s Hospital Medical Center
Humberto Parada, Jr., Ph.D., M.P.H. ....	San Diego State University
Lori Rink, Ph.D. ....	Fox Chase Cancer Center
Charles R. Rogers, Ph.D., M.P.H. ....	Medical College of Wisconsin

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

Veronica Wendy Setiawan, Ph.D.....University of Southern California  
Li Tang, M.D., Ph.D.....Roswell Park Cancer Institute  
Ana I. Tergas, M.D., M.P.H. ....City of Hope Comprehensive Cancer Center  
David D. Tran, M.D., Ph.D.....University of Southern California  
Daniel R. Wahl, M.D., Ph.D.....University of Michigan  
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 FY2023

#### A

AgoulNIK, Irina, Ph.D..... Florida International University  
Almario, Christopher V., M.D..... Cedars-Sinai Medical Center  
Anastasiadis, Panagiotis Z., Ph.D..... Mayo Clinic, Jacksonville  
Anderson, Roger T., Ph.D. .... University of Virginia  
Aristizabal, Paula, M.O.T.H., M.D. .... University of California, San Diego  
AyooB, Joseph C., Ph.D..... University of Pittsburgh

#### B

Bachoo, Robert M., M.D., Ph.D..... University of Texas Southwestern Medical Center  
Bagci, Ulas, Ph.D. .... Northwestern University at Chicago  
Barrett, Michael T., Ph.D. .... Mayo Clinic, Arizona  
Barry, Kathryn Hughes, Ph.D., M.P.H..... University of Maryland, Baltimore  
Becker, Michael W., M.D. .... University of Rochester  
Behrns, Kevin E., M.D. .... University of Florida  
Berezin, Mikhail Y., Ph.D..... Washington University  
Berger, Nathan A., M.D. .... Case Western Reserve University  
Bhowmick, Neil A., Ph.D. .... Cedars-Sinai Medical Center  
Bishehsari, Faraz, M.D., Ph.D. .... Rush University Medical Center  
Bjornsti, Mary-Ann, Ph.D. .... University of Alabama at Birmingham  
Bleakley, Marie, M.D., Ph.D..... Fred Hutchinson Cancer Center  
Bock, Cathryn H., Ph.D..... Wayne State University  
Bovbjerg, Dana H., Ph.D. .... University of Pittsburgh  
Brauer, Eden R., Ph.D..... University of California, Los Angeles  
Braun, Theodore Paul, M.D., Ph.D..... Oregon Health and Science University  
Bruno, Tullia Carmela, Ph.D. .... University of Pittsburgh  
Bryant, Ashley Leak, Ph.D., M.S.N. .... University of North Carolina at Chapel Hill  
Burstein, Harold John, M.D., Ph.D. .... Dana-Farber Cancer Institute  
Bussard, Karen Marie, Ph.D..... Thomas Jefferson University

#### C

Cao, Qi, Ph.D. .... Northwestern University at Chicago  
Chen, Jin, Ph.D. .... University of Kentucky  
Cho, Dalnim, Ph.D. .... University of Texas MD Anderson Cancer Center  
Civin, Curt I., M.D..... University of Maryland, Baltimore  
Coffman, Lan, M.D., Ph.D..... University of Pittsburgh  
Cunningham-Rundles, Susanna, Ph.D..... Weill Medical College of Cornell University

#### D

Dasgupta, Abhijit, Ph.D..... Georgetown University  
Datta, Geetanjali D., Sc.D., M.P.H. .... Cedars-Sinai Medical Center  
Dent, Paul, Ph.D..... Virginia Commonwealth University  
Dey, Mahua, M.D. .... University of Wisconsin-Madison

Appendix E-1: Consultants Serving as Temporary Members on IRG Study Sections in FY2023 \_\_\_\_\_

Dorfman, Caroline, Ph.D..... Duke University  
 Dorgan, Joanne F., Ph.D., M.P.H..... University of Maryland, Baltimore  
 Drake, Bettina F., Ph.D., M.P.H. .... Washington University  
 Duerksen-Hughes, Penelope J., Ph.D. .... Loma Linda University

**E**

Eastment, Mckenna Claire, M.D., M.P.H..... University of Washington  
 Ellington, Lee A., Ph.D..... University of Utah

**F**

Fayanju, Oluwadamilola M., M.D..... University of Pennsylvania  
 Fisher, Susan G., Ph.D..... Northshore University Health System  
 Fitzgerald-Bocarsly, Patricia, Ph.D..... Rutgers New Jersey Medical School  
 Flynn, Rachel L., Ph.D..... Boston University Medical Campus  
 Freeman, Michael L., Ph.D. .... Vanderbilt University Medical Center  
 Friedman, Debra L., R.N., M.D. .... Vanderbilt University

**G**

Ganesan, Anusha Preethi, Ph.D., M.B.B.S. .... University of California, San Diego  
 Gerhardt, Cynthia A., Ph.D..... Research Institute Nationwide Children’s Hospital  
 Gerlach, Robert W., M.P.A. .... Dartmouth College  
 Gligorijevic, Bojana, Ph.D..... Temple University  
 Graboyes, Evan Michael, M.D., M.P.H. .... Medical University of South Carolina  
 Gronemeyer, Suzanne A., Ph.D. .... St. Jude Children’s Research Hospital

**H**

Hearing, Patrick, Ph.D. .... State University New York, Stony Brook

**K**

Kamata, Masakazu, Ph.D..... University of Alabama at Birmingham  
 Kapadia, Farzana, Ph.D., M.P.H..... New York University  
 Kapur, Reuben, Ph.D..... Indiana University School of Medicine  
 Kaye, Erica Carmen, M.D., M.P.H. .... St. Jude Children’s Research Hospital  
 Kim, Harrison, Ph.D., M.B.A. .... University of Alabama at Birmingham  
 Kim, Joseph, M.D..... University of Kentucky  
 Kinsey, Conan, M.D., Ph.D..... University of Utah  
 Kitlinska, Joanna B., Ph.D..... Georgetown University  
 Koh, Andrew Y., M.D. .... University of Texas Southwestern Medical Center

**L**

Lee, Byron H., M.D., Ph.D..... University of Texas MD Anderson Cancer Center  
 Lewis, Cecil M., Ph.D..... University of Oklahoma  
 Lewis-Thames, Marquita W., Ph.D. .... Northwestern University at Chicago  
 Lisberg, Aaron Elliott, M.D. .... University of California, Los Angeles  
 Loerzel, Victoria, Ph.D. .... University of Central Florida  
 Loughran, Thomas Patrick, M.D. .... University of Virginia  
 Lowe, Devin B., Ph.D. .... Texas Tech University Health Sciences Center

**M**

Mahmood, Faisal, Ph.D..... Brigham and Women’s Hospital

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## Appendix E-1: Consultants Serving as Temporary Members on IRG Study Sections in FY2023

Markovina, Stephanie, M.D., Ph.D. .... Washington University  
Maziarz, Richard Thomas, M.D. .... Oregon Health and Science University  
Mehla, Kamiya, Ph.D. .... University of Oklahoma Health Sciences Center  
Mehrotra, Shikhar, Ph.D. .... Medical University of South Carolina  
Miao, Yubin, Ph.D. .... University of Colorado, Denver  
Mullinax, John, M.D. .... Moffitt Cancer Center

### N

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

### O

O'Neill, Suzanne C., Ph.D. .... Georgetown University  
Ong, Keat Ghee, Ph.D. .... University of Oregon

### P

Parada, Humberto, Ph.D., M.P.H. .... San Diego State University  
Payton, Jacqueline E., M.D., Ph.D. .... Washington University  
Penalva, Luiz Otavio, Ph.D. .... University of Texas Health Science Center  
Ponnusamy, Moorthy P., Ph.D. .... University of Nebraska Medical Center

### R

Radhakrishnan, Senthil Kumar, Ph.D. .... Virginia Commonwealth University  
Ramos, Katherine, M.O.T.H., Ph.D. .... Duke University  
Rosario, Spencer Rae, Ph.D. .... Roswell Park Cancer Institute

### S

Safran, Howard P., M.D. .... Rhode Island Hospital  
Saracino, Rebecca, Ph.D. .... Memorial Sloan Kettering Cancer Center  
Skapek, Stephen X., M.D. .... University of Texas Southwestern Medical Center  
Sridhar, Srinivas, Ph.D. .... Northeastern University  
Stevens, Courtney Joyce, Ph.D. .... Dartmouth-Hitchcock Clinic  
Su, Min-Ying L., Ph.D. .... University of California, Irvine  
Sweasy, Joann B., Ph.D. .... University of Arizona

### T

Tergas, Ana Isabel, M.D., M.P.H. .... Beckman Research Institute of City of Hope  
Timchenko, Nikolai A., Ph.D. .... Cincinnati Children's Hospital Medical Center

### U

Ubil, Eric S., Ph.D., M.B.A. .... University of Alabama at Birmingham

### V

Vasquez, Juan C., M.D. .... Yale University  
Vertino, Paula M., Ph.D. .... University of Rochester

### W

Wahl, Daniel R., M.D., Ph.D. .... University of Michigan  
Wahl, Geoffrey Myles, Ph.D. .... Salk Institute for Biological Studies  
Wallner, Lauren P., Ph.D. .... University of Michigan at Ann Arbor  
Wang, Jean Y.J., Ph.D. .... University of California, San Diego  
Wang, Judy Huei-yu, Ph.D. .... Georgetown University

Appendix E-1: Consultants Serving as Temporary Members on IRG Study Sections in FY2023 \_\_\_\_\_

Wang, Sam C., M.D..... University of Texas Southwestern Medical Center  
Wang, Zhenghe, Ph.D.....Case Western Reserve University  
Weigel, Ronald J., M.D., Ph.D..... University of Iowa  
Weiner, Louis M., M.D..... Georgetown University  
Woloschak, Gayle E., Ph.D..... Northwestern University at Chicago  
Wong, Sandra L., M.D..... Dartmouth College

**X**

Xi, Yaguang, M.D., Ph.D..... University of Georgia

**Y**

Yu, Xue-Zhong, M.D.....Medical College of Wisconsin

**Z**

Zakrzewski, Johannes, M.D. .... Hackensack University Medical Center  
Zambetti, Gerard Paul, Ph.D. .... St. Jude Children’s Research Hospital

**Total number of Reviewers: 115**

**Total number of times reviewers served: 141**

## 2. Consultants Serving as *Ad hoc* Committee Members on IRG Site Visit Teams in FY2023

### A

Abdel Mohsen, Mohamed, Ph.D. .... Wistar Institute  
 Adams-Campbell, Lucile L., Ph.D. .... Georgetown University  
 Adjei, Alex A., M.D., Ph.D. .... Cleveland Clinic  
 Adusumilli, Prasad S., M.D. .... Memorial Sloan Kettering Cancer Center  
 Ahn, Jiyoung, Ph.D. .... New York University School of Medicine  
 Ambrosone, Christine B., Ph.D. .... Roswell Park Cancer Institute  
 Anant, Shrikant, Ph.D. .... University of Kansas Medical Center  
 Aplin, Andrew Eric, Ph.D. .... Thomas Jefferson University  
 Artandi, Steven E., M.D., Ph.D. .... Stanford University

### B

Baker, Suzanne J., Ph.D. .... St. Jude Children’s Research Hospital  
 Bandera, Elisa V., M.D., Ph.D. .... Rutgers, The State University of New Jersey  
 Baskin, Monica L., Ph.D. .... University of Pittsburgh  
 Bast, Robert C., M.D. .... University of Texas MD Anderson Cancer Center  
 Berrier, Donna, M.P.A. .... Medical University of South Carolina  
 Bhargava, Rohit, Ph.D. .... University of Illinois at Urbana-Champaign  
 Borad, Mitesh, M.D. .... Mayo Clinic, Arizona  
 Brem, Steven, M.D. .... University of Pennsylvania  
 Buatti, John M., M.D. .... University of Iowa  
 Byers, Stephen W., Ph.D. .... Georgetown University

### C

Carrasquillo, Olveen, M.D., M.P.H. .... University of Miami School of Medicine  
 Carson, William E., M.D. .... Ohio State University  
 Champion, Victoria Lee, Ph.D., B.S.N.N. .... Indiana University-Purdue University Indianapolis  
 Chapman, Andrew, D.O. .... Thomas Jefferson University  
 Chen, Moon Shao-Chuang, Ph.D., M.P.H. .... University of California, Davis  
 Chernoff, Jonathan, M.D., Ph.D. .... Fox Chase Cancer Center  
 Clapper, Margie L., Ph.D. .... Fox Chase Cancer Center  
 Conejo-Garcia, Jose R., M.D., Ph.D. .... Duke University

### D

Darr, David, M.B.A. .... Duke University  
 Desai, Manisha, Ph.D. .... Stanford University  
 Dorgan, Joanne F., Ph.D., M.P.H. .... University of Maryland, Baltimore  
 Dou, Yali, Ph.D. .... University of Southern California  
 Doubeni, Chyke A., M.D., M.P.H. .... Ohio State University

### E

Eklund, Elizabeth Ann, M.D. .... Northwestern University at Chicago  
 Emadi, Ashkan, M.D., Ph.D. .... University of Maryland, Baltimore  
 Epplein, Meira, Ph.D. .... Duke University

## Appendix E-2: Consultants Serving as *Ad Hoc* Committee Members on IRG Site Visit Teams in FY2023

### F

Fox, Jay William, Ph.D..... University of Virginia  
Fridley, Brooke L., Ph.D..... Moffitt Cancer Center  
Fuemmeler, Bernard F., Ph.D., M.P.H. .... Virginia Commonwealth University

### G

Ganesan, Shridar, M.D., Ph.D..... Rutgers Biomedical and Health Sciences  
Gautier, Jean, Ph.D., D.Sc..... Columbia University Health Sciences  
Gillespie, Theresa W., Ph.D., B.S.N. .... Emory University  
Goldsmith, Kelly C., M.D..... Emory University  
Guttridge, Denis C., Ph.D..... Medical University of South Carolina

### H

Hardy, Jerry Lee ..... Us Too Prostate Cancer Education and Support Group  
Haura, Eric B., M.D. .... Moffitt Cancer Center  
Hawkins, William G., M.D..... Washington University  
Henry, Michael D., Ph.D..... University of Iowa  
Heslop, Helen E., M.D..... Baylor College of Medicine

### J

Jensen, Roy A., M.D. .... University of Kansas Medical Center  
Jim, Heather S.L., Ph.D. .... Moffitt Cancer Center  
Johnson, Candace S., Ph.D..... Roswell Park Cancer Institute  
Jones, Richard J., M.D..... Johns Hopkins University

### K

Kane, Madeleine A., M.D., Ph.D..... University of Colorado, Denver  
Kim, Sungjune, M.D., Ph.D. .... Moffitt Cancer Center  
Knudsen, Erik, Ph.D..... Roswell Park Cancer Institute  
Knutson, Keith L., Ph.D. .... Mayo Clinic, Jacksonville  
Koong, Albert, M.D., Ph.D..... University of Texas MD Anderson Cancer Center

### L

Law, Wendy, Ph.D..... Fred Hutchinson Cancer Center  
Leach, Steven D., M.D. .... Dartmouth College  
Lee, Kelvin P., M.D..... Indiana University-Purdue University at Indianapolis  
Li, Christopher I., M.D., Ph.D., M.P.H. .... Fred Hutchinson Cancer Center  
Li, Li, M.D., Ph.D..... University of Virginia  
Liu, Chen, M.D., Ph.D..... Yale University  
Long, Qi, Ph.D. .... University of Pennsylvania  
Lynch, Thomas James, M.D. .... Fred Hutchinson Cancer Center

### M

Malkas, Linda H., Ph.D..... Beckman Research Institute of City of Hope  
Matkowskyj, Kristina A., M.D., Ph.D..... University of Wisconsin-Madison  
McNeil, Ann S., B.S.N..... Miami Children's Hospital (Miami, FL)  
McPherson, John D., Ph.D..... University of California, Davis  
Mercurio, Anne Marie ..... Patient Advocate  
Mesa, Ruben A., M.D. .... Wake Forest University Health Sciences  
Miller, Christopher Ryan, M.D., Ph.D..... University of Alabama at Birmingham

## Appendix E-2: Consultants Serving as *Ad Hoc* Committee Members on IRG Site Visit Teams in FY2023

Mills, Alea A., Ph.D. .... Cold Spring Harbor Laboratory  
Moore, Jonni S., Ph.D. .... University of Pennsylvania  
Mori, Motomi, Ph.D., M.B.A. .... St. Jude Children’s Research Hospital  
Moscat, Jorge, Ph.D. .... Weill Medical College of Cornell University  
Mule, James J., Ph.D. .... Moffitt Cancer Center  
Murphy, Maureen E., Ph.D. .... Wistar Institute

### N

Nelson, Heather Hammond, Ph.D., M.P.H. .... University of Minnesota  
Neuhausen, Susan L., Ph.D. .... Beckman Research Institute of City of Hope  
Newby, Joshua .... Baylor College of Medicine  
Nimer, Stephen D., M.D. .... University of Miami School of Medicine

### O

Olshan, Andrew, Ph.D. .... University of North Carolina at Chapel Hill  
Onega, Tracy, Ph.D. .... University of Utah

### P

Park, Byung, Ph.D. .... Oregon Health and Science University  
Pathak, Arvind P., Ph.D. .... Johns Hopkins University  
Payton, Jacqueline E., M.D., Ph.D. .... Washington University  
Person, Sharina D., Ph.D. .... University of Massachusetts Medical School, Worcester  
Pestell, Richard G., M.D. Ph.D. .... Baruch S. Blumberg Institute  
Petroni, Gina R., Ph.D. .... University of Virginia  
Platanias, Leonidas C., M.D., Ph.D. .... Northwestern University at Chicago  
Plon, Sharon E., M.D., Ph.D. .... Baylor College of Medicine  
Pollok, Karen E., Ph.D. .... Indiana University-Purdue University at Indianapolis  
Pounardjian, John, M.B.A. .... Case Western Reserve University

### R

Ramalingam, Suresh S., M.B.B.S. .... Emory University  
Rangnekar, Vivek M., Ph.D. .... University of Kentucky  
Rathmell, Jeffrey C., Ph.D. .... Vanderbilt University Medical Center  
Ray, Ratna B., Ph.D. .... Saint Louis University  
Reddy, Pavan, M.D. .... University of Michigan at Ann Arbor  
Repasky, Elizabeth A., Ph.D. .... Roswell Park Cancer Institute  
Rogers, Laura Q., M.D., M.P.H. .... University of Alabama at Birmingham  
Rothlin, Carla, Ph.D. .... Yale University  
Ryeom, Sandra, Ph.D. .... Columbia University Health Sciences

### S

Saenger, Yvonne Margaret, M.D. .... Albert Einstein College of Medicine  
Salama, Nina, Ph.D. .... Fred Hutchinson Cancer Center  
Santana, Victor M., M.D. .... St. Jude Children’s Research Hospital  
Schaum, Julia C. .... Vanderbilt University Medical Center  
Serody, Jonathan S., M.D. .... University of North Carolina at Chapel Hill  
Sharma, Dipali, Ph.D. .... Johns Hopkins University  
Shevde, Lalita A., Ph.D. .... University of Alabama at Birmingham  
Shibata, Darryl K., M.D. .... University of Southern California  
Shu, Xiao-Ou, M.D., Ph.D., M.P.H. .... Vanderbilt University



**Appendix E-2: Consultants Serving as *Ad Hoc* Committee Members on IRG Site Visit Teams in FY2023**

Shumate, Kate Taylor, M.P.A. .... University of California, San Francisco  
 Shyr, Yu, Ph.D..... Vanderbilt University Medical Center  
 Simon, Melissa A., M.D., M.P.H. .... Northwestern University at Chicago  
 Singh, Anurag Kishor, M.D. .... Roswell Park Cancer Institute  
 Stapleton, Jerod Lynn, Ph.D. .... University of Kentucky  
 Strom, Carla..... Wake Forest University Health Sciences  
 Stukenberg, P. Todd, Ph.D. .... University of Virginia  
 Sun, Duxin, Ph.D. .... University of Michigan at Ann Arbor  
 Sussman, Andrew Louis, Ph.D. .... University of New Mexico Health Sciences Center

**T**

Tosteson, Tor D., Sc.D..... Dartmouth College  
 Tseng, George C., Sc.D..... University of Pittsburgh

**U**

Ulrich, Cornelia M., Ph.D..... University of Utah

**V**

Vahdat, Linda Theresa, M.D. .... Dartmouth-Hitchcock Medical Center  
 Von Mehren, Margaret, M.D. .... Fox Chase Cancer Center

**W**

Watanabe-Galloway, Shinobu, Ph.D. .... University of Nebraska Medical Center  
 Weiner, George J., M.D..... University of Iowa  
 Weiner, Louis M., M.D. .... Georgetown University  
 Weissman, Bernard E., Ph.D. .... University of North Carolina at Chapel Hill  
 Welch, Danny R., Ph.D. .... University of Kansas Medical Center  
 Wiley, Patti, M.B.A. .... Patient Advocate  
 Wong, Melissa H., Ph.D..... Oregon Health and Science University

**Y**

Yuan, Jian-Min, M.D., Ph.D., M.P.H..... University of Pittsburgh

**Z**

Zafirovski, Aleksandar, M.B.A..... Northwestern University at Chicago  
 Zahrbock, Cary ..... National Coalition for Cancer Survivorship  
 Zarour, Hassane M., M.D..... University of Pittsburgh  
 Zhou, Wei, Ph.D..... Emory University

**Total number of Reviewers: 138**  
**Total number of times reviewers served: 165**

### 3. Consultants Serving on Special Emphasis Panels (SEPs) in FY2023

#### A

Aaronson, Stuart A., M.D.	Icahn School of Medicine at Mount Sinai
Abazeed, Mohamed E., M.D., Ph.D.	Northwestern University at Chicago
Abdi, Salahadin, M.D., Ph.D.	University of Texas MD Anderson Cancer Center
Abdulmalik, Osheiza Y., D.V.M.	Children’s Hospital of Philadelphia
Aberle, Denise R., M.D.	University of California, Los Angeles
Abhyankar, Vinay V., Ph.D.	Rochester Institute of Technology
Ablordeppey, Seth Y., Ph.D.	Florida Agricultural and Mechanical University
Abounader, Roger, M.D., Ph.D.	University of Virginia
Abraham, George N., M.D.	University of Rochester
Abrams, Donald I., M.D.	University of California, San Francisco
Abrams, Julian, M.D.	Columbia University Health Sciences
Acevedo, Andrea, Ph.D.	Tufts University, Medford
Acharya, Bibhav, M.D.	University of California, San Francisco
Adams, Swann Arp, Ph.D.	University of South Carolina at Columbia
Adamson, Amy L., Ph.D.	University of North Carolina at Greensboro
Addicott, Merideth A., Ph.D.	Wake Forest University Health Sciences
Addison, Daniel, M.D.	Ohio State University
Adedimeji, Adebola, Ph.D., M.P.H.	Albert Einstein College of Medicine
Adegboyega, Adebola O., Ph.D.	University of Kentucky
Adekola, Kehinde, M.B.B.S.	Northwestern University at Chicago
Adhikary, Amitava, Ph.D.	Oakland University
Adibi, Ali, Ph.D.	Georgia Institute of Technology
Adsul, Prajakta, Ph.D., M.B.B.S., M.P.H.	University of New Mexico Health Science Center
Adusumilli, Prasad S., M.D.	Memorial Sloan Kettering Cancer Center
Agarwal, Rajesh, Ph.D.	University of Colorado, Denver
Agarwal, Seema, Ph.D.	Georgetown University
Aguirre, Andrew James, M.D., Ph.D.	Dana-Farber Cancer Institute
Ahn, Jeonghyun, Ph.D.	University of Miami School of Medicine
Ahn, Jiyoung, Ph.D.	New York University School of Medicine
Aikhionbare, Felix O., Ph.D.	Morehouse School of Medicine
Ainslie, Kristy M., Ph.D.	University of North Carolina at Chapel Hill
Akbarali, Hamid I., Ph.D.	Virginia Commonwealth University
Akbilgic, Oguz, Ph.D.	Wake Forest University Health Sciences
Akers, Walter John, Ph.D., D.V.M.	University of Texas Southwestern Medical Center
Aksan, Alptekin, Ph.D.	University of Minnesota
Al’Absi, Mustafa, Ph.D.	University of Minnesota
Alachkar, Houda, Ph.D.	University of Southern California
Alahari, Suresh K., Ph.D.	Louisiana State University Health Sciences Center
Al-Ahmadie, Hikmat, M.D.	Memorial Sloan Kettering Cancer Center
Albelda, Steven Mark, M.D.	University of Pennsylvania
Albig, Allan R., Ph.D.	Boise State University
Alderman, Thomas Scott, M.S., C.B.S.P.	Duke University
Aldrich, Melinda, Ph.D., M.P.H.	Vanderbilt University Medical Center
Aleman, Jose Orlando, M.D., Ph.D.	New York University School of Medicine

Alexandrakis, Georgios, Ph.D.....	University of Texas, Arlington
Alexandrow, Mark G., Ph.D.....	Moffitt Cancer Center
Alexov, Emil Georgiev, Ph.D. ....	Clemson University
Al-Hebshi, Nezar, D.D.O.T., Ph.D. ....	Temple University
Ali, Naushad, M.O.T.H., Ph.D.....	University of Oklahoma Health Sciences Center
Allen, Jennifer Dacey, D.Sc., M.P.H.....	Tufts University, Boston
Alli, Elizabeth, Ph.D.....	Wake Forest University Health Sciences
Allcock, Marlyn A., Ph.D., M.P.H.....	University of Texas Health Science Center, Houston
Aloman, Costica, M.D.....	Rush University Medical Center
Altieri, Dario C., M.D.....	Wistar Institute
Altman, Brian James, Ph.D. ....	University of Rochester
Altomare, Deborah A., Ph.D.....	University of Central Florida
Ambrose, Zandra, Ph.D.....	University of Pittsburgh
Ambulos, Nicholas P., Ph.D.....	University of Maryland, Baltimore
Amm, Hope, Ph.D.....	University of Alabama at Birmingham
Anders, Robert A., M.D., Ph.D. ....	Johns Hopkins University
Anderson, Benjamin Olney, M.D.....	Fred Hutchinson Cancer Center
Anderson, Roger T., Ph.D. ....	University of Virginia
Andl, Claudia D., Ph.D.....	University of Central Florida
Andres-Martin, Laura, Ph.D. ....	New York Stem Cell Foundation
Andrisani, Ourania M., Ph.D. ....	Purdue University
Andritsos, Leslie, M.D. ....	University of New Mexico
Androphy, Elliot J., M.D.....	Indiana University-Purdue University at Indianapolis
Angeletti, Peter C., Ph.D. ....	University of Nebraska, Lincoln
Appleman, Leonard J., M.D., Ph.D.....	University of Pittsburgh
Apte, Udayan, Ph.D.....	University of Kansas Medical Center
Arem, Hannah, Ph.D.....	Medstar Health Research Institute
Arend, Rebecca C., M.D.....	University of Alabama at Birmingham
Arendt, Lisa M., Ph.D., D.V.M. ....	University of Wisconsin-Madison
Armenian, Saro, D.O., M.P.H.....	Beckman Research Institute of City of Hope
Arnold, Connie L., Ph.D.....	Louisiana State University Health Science Center, Shreveport
Artemov, Dmitri, Ph.D.....	Johns Hopkins University
Artomov, Maksym, Ph.D. ....	Washington University
Arun, Gayatri, Ph.D. ....	Envisagenics, Inc.
Arvanitis, Konstantinos-Costas, Ph.D.....	Georgia Institute of Technology
Aryal, Santosh, Ph.D.....	University of Texas, Tyler
Asare, Matthew, Ph.D.....	Baylor University
Asgary, Ramin, M.D., M.P.H.....	George Washington University
Ashammakhi, Nureddin, M.D., Ph.D.....	University of California, Los Angeles
Ashing, Kimlin Tam, Ph.D.....	Beckman Research Institute of City of Hope
Ashktorab, Hassan, Ph.D. ....	Howard University
Ashley, David M., Ph.D., M.B.B.S. ....	Duke University
Ashpole, Nicole M., Ph.D.....	University of Mississippi
Askelson, Natoshia M., Ph.D., M.P.H. ....	University of Iowa
Aslanidi, George V., Ph.D.....	University of Minnesota
Asmann, Yan W., Ph.D.....	Mayo Clinic, Jacksonville
Aster, Jon C., M.D., Ph.D.....	Brigham and Women's Hospital

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### Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY2023

Astsaturon, Igor, M.D., Ph.D. .... Fox Chase Cancer Center  
Athar, Mohammad, Ph.D. .... University of Alabama at Birmingham  
Atkins, Michael Benjamin, M.D. .... Georgetown University  
Atkinson, Simon J., Ph.D. .... University of California, Davis  
Attwood, Kristopher, Ph.D. .... Roswell Park Cancer Institute  
Atwood, Scott, Ph.D. .... University of California, Irvine  
Au, Kin Fai, Ph.D. .... University of Michigan at Ann Arbor  
Auci, Dominick, Ph.D. .... Therapyx, Inc.  
Aune, Gregory J., M.D., Ph.D. .... University of Texas Health Science Center  
Auner, Gregory W., Ph.D. .... Wayne State University  
Avril, Stefanie, M.D. .... Case Western Reserve University  
Azam, Mohammad, Ph.D. .... Cincinnati Children’s Hospital Medical Center  
Azhdarinia, Ali, Ph.D. .... University of Texas Health Science Center, Houston  
Azmi, Asfar S., Ph.D. .... Wayne State University  
Azuma, Mizuki, Ph.D. .... University of Kansas, Lawrence

### **B**

Bachoo, Robert M., M.D., Ph.D. .... University of Texas Southwestern Medical Center  
Bader, Joel S., Ph.D. .... Johns Hopkins University  
Badr, Christian Elias, Ph.D. .... Massachusetts General Hospital  
Badve, Sunil S., M.D., M.B.B.S. .... Indiana University-Purdue University at Indianapolis  
Bae, Sejong, Ph.D. .... University of Alabama at Birmingham  
Bae-Jump, Victoria Lin, M.D., Ph.D. .... University of North Carolina at Chapel Hill  
Bafna, Vineet, Ph.D. .... University of California, San Diego  
Bagci, Ulas, Ph.D. .... Northwestern University at Chicago  
Bai, Yidong, Ph.D. .... University of Texas Health Science Center  
Bakas, Spyridon, Ph.D. .... Indiana University-Purdue University at Indianapolis  
Bakkum-Gamez, Jamie N., M.D. .... Mayo Clinic, Rochester  
Baladandayuthapani, Veerabhadran, Ph.D. .... University of Michigan at Ann Arbor  
Balaj, Leonora, Ph.D. .... Massachusetts General Hospital  
Balk, Steven P., M.D., Ph.D. .... Beth Israel Deaconess Medical Center  
Ballester, Leomar Y., M.D., Ph.D. .... University of Texas MD Anderson Cancer Center  
Bandera, Elisa V., M.D., Ph.D. .... Rutgers, The State University of New Jersey  
Bandyopadhyay, Dipankar, Ph.D. .... Virginia Commonwealth University  
Banerjee, Aditi, Ph.D. .... University of Maryland, Baltimore  
Banerjee, Imon, Ph.D. .... Mayo Clinic, Arizona  
Banerjee, Sushanta K., Ph.D. .... Kansas City Veterans Administration Medical Center  
Bankson, James A., Ph.D. .... University of Texas MD Anderson Cancer Center  
Baranda, Joaquina C., M.D. .... University of Kansas Medical Center  
Barash, Yoseph, Ph.D. .... University of Pennsylvania  
Barber, Emma, M.D. .... Northwestern University at Chicago  
Barbi, Joseph, Ph.D. .... Roswell Park Cancer Institute  
Barbieri, Eveline, M.D., Ph.D. .... Baylor College of Medicine  
Barbolina, Maria V., Ph.D. .... University of Illinois at Chicago  
Barnes, Frank S., Ph.D. .... University of Colorado, Boulder  
Barrett, Michael T., Ph.D. .... Mayo Clinic, Arizona  
Barrington-Trimis, Jessica Louise, Ph.D. .... University of Southern California  
Barroso, Margarida, Ph.D. .... Albany Medical College

Barrott, Jared James, Ph.D.	Brigham Young University
Barta, Julie Ann, M.D.	Thomas Jefferson University
Bartlett, David L., M.D.	Allegheny General Hospital
Bartley, Christopher, B.S.	Waisman Biomanufacturing
Barua, Animesh, Ph.D.	Rush University Medical Center
Basha, Riyaz Mahammad, Ph.D.	University of North Texas Health Science Center
Bashir, Mustafa R., M.D.	Duke University
Basik, Mark, M.D.	McGill University
Baskaran, Harihara, Ph.D.	Case Western Reserve University
Basu, Saonli, Ph.D.	University of Minnesota
Battaglia, Tracy Ann, M.D., M.P.H.	Boston University Medical Campus
Battle, Michele A., Ph.D.	North Carolina State University, Raleigh
Becher, Oren Josh, M.D.	Icahn School of Medicine at Mount Sinai
Beck, John Robert M.D.	Fox Chase Cancer Center
Becker, Lev, Ph.D.	University of Chicago
Becker, Michael W., M.D.	University of Rochester
Becker, Pamela S., M.D., Ph.D.	Beckman Research Institute of City of Hope
Beckman, Robert A., M.D.	Georgetown University
Bedogni, Barbara, Ph.D.	University of Miami School of Medicine
Beebe-Dimmer, Jennifer L., Ph.D., M.P.H.	Wayne State University
Befort, Christie, Ph.D.	University of Kansas Medical Center
Begley, Thomas J., Ph.D.	Suny Polytechnic Institute
Bekaii-Saab, Tanius, M.D.	Mayo Clinic, Arizona
Beliveau, Brian Joseph, Ph.D.	University of Washington
Bell, Richard Bryan, M.D., D.D.S.	Providence Portland Medical Center
Bellacosa, Alfonso, M.D., Ph.D.	Fox Chase Cancer Center
Bellis, Susan L., Ph.D.	University of Alabama at Birmingham
Benham, Craig J., Ph.D.	University of California, Davis
Bentley, Robin Timothy, B.V.S.C., M.R.C.V.S.	Purdue University
Berens, Michael E., Ph.D.	Translational Genomics Research Institute
Berezin, Mikhail Y., Ph.D.	Washington University
Bergan, Raymond C., M.D.	University of Nebraska Medical Center
Berger, Alice, Ph.D.	Fred Hutchinson Cancer Center
Berger, Michael F., Ph.D.	Memorial Sloan Kettering Cancer Center
Berger, Nathan A., M.D.	Case Western Reserve University
Berkowitz, Barry A., Ph.D.	Bessor Pharma, LLC
Bernard, Brady, Ph.D.	Providence Portland Medical Center
Bertenshaw, Greg, Ph.D.	Biomarker Strategies, LLC
Bethea, Traci N., M.P.A., Ph.D.	Georgetown University
Bettini, Maria, Ph.D.	University of Utah
Bhaduri-McIntosh, Sumita, M.D., Ph.D.	University of Florida
Bhakta, Nickhill Hitesh, M.D., M.P.H.	St. Jude Children’s Research Hospital
Bhargava, Rohit, Ph.D.	University of Illinois at Urbana-Champaign
Bhatnagar, Sanchita, Ph.D.	University of California, Davis
Bhattacharya, Resham, Ph.D.	University of Oklahoma Health Sciences Center
Bianchi-Smiraglia, Anna, Ph.D.	Roswell Park Cancer Institute
Bickell, Nina A., M.D., M.P.H.	Icahn School of Medicine at Mount Sinai
Bieker, James J., Ph.D.	Icahn School of Medicine at Mount Sinai



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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY2023

Bigatti, Silvia M., Ph.D. ....	Indiana University-Purdue University at Indianapolis
Bild, Andrea Hope, Ph.D. ....	Beckman Research Institute of City of Hope
Bilgin, Ali, Ph.D. ....	University of Arizona
Billadeau, Daniel D., Ph.D. ....	Mayo Clinic, Rochester
Billings, Douglas W., Ph.D. ....	Isa Associates, Inc.
Birken, Sarah Abigail, Ph.D. ....	Wake Forest University Health Sciences
Birtwistle, Marc R., Ph.D. ....	Clemson University
Bishop, Justin A., M.D. ....	University of Texas Southwestern Medical Center
Bissler, John J., M.D. ....	University of Tennessee Health Science Center
Bitler, Benjamin G., Ph.D. ....	University of Colorado, Denver
Bjornsti, Mary-Ann, Ph.D. ....	University of Alabama at Birmingham
Black, Joshua Cranston, Ph.D. ....	University of Colorado, Denver
Blackburn, Jessica S., Ph.D. ....	University of Kentucky
Blaes, Anne H., M.D. ....	University of Minnesota
Blain Christen, Jennifer M., Ph.D. ....	Arizona State University-Tempe Campus
Blair, Cindy Kay, Ph.D., M.P.H. ....	University of New Mexico Health Science Center
Blenman, Kim R.M., Ph.D. ....	Yale University
Blinder, Victoria S., M.D. ....	Memorial Sloan Kettering Cancer Center
Blobe, Gerard C., M.D., Ph.D. ....	Duke University
Block, Timothy M., Ph.D. ....	Baruch S. Blumberg Institute
Bock, Beth C., Ph.D. ....	Miriam Hospital
Bocklage, Therese Jeanne, M.D. ....	University of Kentucky
Boerma, Marjan, Ph.D. ....	University of Arkansas for Medical Sciences
Boffetta, Paolo, M.D., M.P.H. ....	State University New York, Stony Brook
Bogdanov, Alexei A., Ph.D., D.Sc. ....	University of Massachusetts Medical School Worcester
Boire, Adrienne A., M.D., Ph.D. ....	Memorial Sloan Kettering Cancer Center
Boise, Lawrence H., Ph.D. ....	Emory University
Boland, Genevieve Marie, M.D., Ph.D. ....	Massachusetts General Hospital
Bold, Richard J., M.D., M.B.A. ....	University of California, Davis
Bollard, Catherine M., M.D., M.B.B.S. ....	Children’s Research Institute
Bomgaars, Lisa R., M.D. ....	Baylor College of Medicine
Bona, Kira O., M.D., M.P.H. ....	Dana-Farber Cancer Institute
Bonetto, Andrea, Ph.D. ....	University of Colorado, Denver
Boohaker, Rebecca, Ph.D. ....	Southern Research Institute
Borges, Chad R., Ph.D. ....	Arizona State University-Tempe Campus
Borges, Virginia F., M.D. ....	University of Colorado, Denver
Borgia, Jeffrey A., Ph.D. ....	Rush University Medical Center
Borowsky, Alexander D., M.D. ....	University of California, Davis
Bossmann, Stefan H., Ph.D. ....	University of Kansas Medical Center
Bouchard, Michael J., Ph.D. ....	Drexel University
Boumber, Yanis, M.D., Ph.D. ....	Northwestern University at Chicago
Bouton, Amy H., Ph.D. ....	University of Virginia
Boutros, Paul Christopher, Ph.D. ....	University of California, Los Angeles
Bouvet, Michael, M.D. ....	University of California, San Diego
Bowser, Jessica L., Ph.D. ....	University of North Carolina at Chapel Hill
Boysen, Gunnar, Ph.D. ....	University of Arkansas for Medical Sciences
Bracci, Paige M., Ph.D., M.P.H. ....	University of California, San Francisco
Brackett, Craig M., Ph.D. ....	Roswell Park Cancer Institute

Bradbury, Angela R., M.D.	University of Pennsylvania
Brady-Kalnay, Susann M., Ph.D.	Case Western Reserve University
Branagan, Andrew Robert, M.D.	Massachusetts General Hospital
Branch, Andrea D., Ph.D.	Icahn School of Medicine at Mount Sinai
Brand, Christian, Ph.D.	Summit Biomedical Imaging, LLC
Branda, Catherine S., Ph.D.	Sandia Corp-Sandia National Laboratories
Brauer, Eden R., Ph.D.	University of California, Los Angeles
Braundmeier-Fleming, Andrea Gayle, Ph.D.	Southern Illinois University School of Medicine
Brennen, William Nathaniel, Ph.D.	Johns Hopkins University
Brenner, Dean E., M.D.	University of Michigan
Brentjens, Renier Joseph, M.D., Ph.D.	Roswell Park Cancer Institute
Brewer, Molly A., M.D., D.V.M.	University of Connecticut Health Center
Broadus, William C., M.D., Ph.D.	Virginia Commonwealth University
Brock, Amy, Ph.D.	University of Texas, Austin
Brockbank, Kelvin G.M., Ph.D.	Tissue Testing Technologies, LLC
Brodbelt, Jennifer S., Ph.D.	University of Texas, Austin
Brodey, Benjamin B., M.D., M.P.H.	Health Outcomes, Inc.
Brokamp, Cole, Ph.D.	Cincinnati Children's Hospital Medical Center
Broom, Bradley McIntosh, Ph.D.	University of Texas MD Anderson Cancer Center
Brower, Amy, Ph.D.	American College of Medical Genetics
Brown, Darron R., M.D.	Indiana University-Purdue University at Indianapolis
Brown, Linda Morris, Dr.PH., M.P.H.	Research Triangle Institute
Brown, Matthew S., Ph.D.	University of California, Los Angeles
Brudno, Yevgeny, Ph.D.	North Carolina State University, Raleigh
Brunengraber, Henri, M.D., Ph.D.	Case Western Reserve University
Bruno, Tullia Carmela, Ph.D.	University of Pittsburgh
Bryan, Angela, Ph.D.	University of Colorado, Boulder
Bryant, Ashley Leak, Ph.D., B.S.N.	University of North Carolina at Chapel Hill
Buchwald, Zachary Scott, M.D., Ph.D.	Emory University
Buckley, Shannon, Ph.D.	University of Utah
Bui, Thanh C., M.D., M.P.H.	University of Oklahoma Health Sciences Center
Bulls, Hailey Waddell, Ph.D.	University of Pittsburgh
Bulun, Serdar E., M.D.	Northwestern University at Chicago
Bumpers, Harvey L., M.D.	Michigan State University
Burk, Robert D., M.D.	Albert Einstein College of Medicine
Buscemi, Joanna, Ph.D.	De Paul University
Bussard, Karen Marie, Ph.D.	Thomas Jefferson University
Butterfield, Lisa Helene, Ph.D.	University of California, San Francisco

**C**

Caan, Bette J., Dr.PH.	Kaiser Foundation Research Institute
Cai, Qiuyin, M.D., Ph.D.	Vanderbilt University Medical Center
Cairo, Mitchell S., M.D.	New York Medical College
Califano, Joseph A. M.D.	University of California, San Diego
Calin, George A., M.D., Ph.D.	University of Texas MD Anderson Cancer Center
Calo, William Alexis, Ph.D., M.P.H.	Pennsylvania State University Hershey Medical Center
Cameron, Jennifer Erin, Ph.D.	Louisiana State University Health Sciences Center
Camp, Ernest Ramsay, M.D.	Baylor College of Medicine



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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY2023

Campbell, Janis E., Ph.D.	University of Oklahoma Health Sciences Center
Campbell, Moray J., Ph.D.	Cedars-Sinai Medical Center
Campbell, Peter T., Ph.D.	Albert Einstein College of Medicine
Canter, Robert J., M.O.T.H., M.D.	University of California, Davis
Cao, Jian, Ph.D.	Rutgers, The State University of New Jersey
Cao, Qi, Ph.D.	Northwestern University at Chicago
Capparelli, Claudia, Ph.D.	Thomas Jefferson University
Cappelli, Laura Christine, M.D.	Johns Hopkins University
Carbone, David P., M.D., Ph.D.	Ohio State University
Cardona, Kenneth, M.D.	Emory University
Carducci, Michael A., M.D.	Johns Hopkins University
Carmichael, Gordon G., Ph.D.	University of Connecticut School of Medicine and Dentistry
Carmon, Kendra S., Ph.D.	University of Texas Health Science Center, Houston
Carr-Ascher, Janai R., M.D., Ph.D.	University of California, Davis
Carreno, Beatriz M., Ph.D.	University of Pennsylvania
Carroll, Martin, M.D.	University of Pennsylvania
Carroll, Steven L., M.D., Ph.D.	Medical University of South Carolina
Carson, William E., M.D.	Ohio State University
Carstens, Julienne L., Ph.D.	University of Alabama at Birmingham
Cartegni, Luca, Ph.D.	Rutgers, The State University of New Jersey
Carter, Darrick Albert, Ph.D.	Pai Life Sciences, Inc.
Carvajal Carmona, Luis Guillermo, Ph.D.	University of California, Davis
Carver, Brett Stewart, M.D.	Memorial Sloan Kettering Cancer Center
Casiano, Carlos A., Ph.D.	Loma Linda University
Casper, Corey, M.D., M.P.H.	Access to Advanced Health Institute
Castellana, Natalie, Ph.D.	Abterra Biosciences, Inc.
Castellino, Robert Craig, M.D.	Emory University
Cavacini, Lisa A., Ph.D.	University of Massachusetts Medical School, Worcester
Ceballos, Rachel M., Ph.D.	Fred Hutchinson Cancer Research Center
Cecchini, Michael, M.D.	Yale New Haven Hospital
Cengel, Keith A., M.D., Ph.D.	University of Pennsylvania
Cesarman, Ethel, M.D., Ph.D.	Weill Medical College of Cornell University
Chaillet, J. Richard, M.D., Ph.D.	University of Pittsburgh
Chakraborty, Sanjoy, Ph.D.	New York City College of Technology
Challagundla, Kishore B., Ph.D.	University of Nebraska Medical Center
Champion, Victoria L., Ph.D., B.S.N., M.S.N.	Indiana University-Purdue University at Indianapolis
Chan, Alexandre, Pharm.D., M.P.H.	University of California, Irvine
Chan, Keith Syson, Ph.D.	Methodist Hospital Research Institute
Chandler, Ronald L., Ph.D.	Michigan State University
Chandra, Dhyan, Ph.D.	Roswell Park Cancer Institute
Chandra, Joya, Ph.D.	University of Texas MD Anderson Cancer Center
Chandwani, Rohit, M.D., Ph.D.	Weill Medical College of Cornell University
Chang, Alfred E., M.D.	University of Michigan at Ann Arbor
Chao, Chun R., Ph.D.	Kaiser Foundation Research Institute
Chaplin, David D., M.D., Ph.D.	University of Alabama at Birmingham
Chatziioannou, Arion Xenofon, Ph.D.	University of California, Los Angeles
Chaudhari, Ajit Mohan Worthen, Ph.D.	Ohio State University

Chaudhary, Lubna N., M.B.B.S. ....	Medical College of Wisconsin
Chaudhary, Sunita, Ph.D. ....	Rutgers, The State University of New Jersey
Checkley, William, M.D., Ph.D. ....	Johns Hopkins University
Cheema, Amrita Kaur, Ph.D. ....	Georgetown University
Chen, Angela Chia-Chen, Ph.D., P.M.H.M.P.-B.C., R.N. ....	Michigan State University
Chen, Changyi, M.D., Ph.D. ....	Baylor College of Medicine
Chen, Chao, Ph.D. ....	State University New York, Stony Brook
Chen, Dung-Tsa, Ph.D. ....	Moffitt Cancer Center
Chen, Herbert, M.D. ....	University of Alabama at Birmingham
Chen, Hexin, Ph.D. ....	University of South Carolina at Columbia
Chen, Jake Yue, Ph.D. ....	University of Alabama at Birmingham
Chen, James L., M.D. ....	Ohio State University
Chen, Jiang, M.D. ....	State University New York, Stony Brook
Chen, Jin, Ph.D. ....	University of Kentucky
Chen, Jinbo, Ph.D. ....	University of Pennsylvania
Chen, Junjie, Ph.D. ....	University of Texas MD Anderson Cancer Center
Chen, Ken, Ph.D. ....	University of Texas MD Anderson Cancer Center
Chen, Mengjie, Ph.D. ....	University of Chicago
Chen, Min, Ph.D. ....	University of Massachusetts, Amherst
Chen, Min, Ph.D. ....	Baylor College of Medicine
Chen, Moon Shao-Chuang, Ph.D., M.P.H. ....	University of California, Davis
Chen, Ronald, M.D., M.P.H. ....	University of Kansas Medical Center
Chen, Ru, Ph.D. ....	Baylor College of Medicine
Chen, Sidi, Ph.D. ....	Yale University
Chen, Wei, Ph.D. ....	Wayne State University
Chen, Xinbin, Ph.D., D.V.M. ....	University of California, Davis
Chen, Yian Ann, Ph.D. ....	Moffitt Cancer Center
Chen, Yidong, Ph.D. ....	University of Texas Health Science Center
Chen, Ying Qing, Ph.D. ....	Stanford University
Chen, Yong, Ph.D. ....	Case Western Reserve University
Chen, Yu, Ph.D. ....	New York University School of Medicine
Chen, Zhenbang, Ph.D. ....	Meharry Medical College
Chen, Zhe-Sheng, M.D., Ph.D. ....	St. John’s University
Chen, Zhibin, Ph.D. ....	University of Miami School of Medicine
Cheng, Jason X., M.D., Ph.D. ....	University of Chicago
Cheng, Liang, M.D. ....	Brown University
Cheng, Michael L., M.D. ....	University of California, San Francisco
Chennubhotla, Srinivas Chakra, Ph.D. ....	University of Pittsburgh
Chera, Bhisham, M.D. ....	Medical University of South Carolina
Chesi, Marta, Ph.D. ....	Mayo Clinic, Arizona
Chesney, Jason A., M.D., Ph.D. ....	University of Louisville
Chi, Hongbo, Ph.D. ....	St. Jude Children’s Research Hospital
Chi, Jen-Tsan Ashley, M.D., Ph.D. ....	Duke University
Chiang, Cheng-Ming, Ph.D. ....	University of Texas Southwestern Medical Center
Chikina, Maria D., Ph.D. ....	University of Pittsburgh
Chiles, Thomas C., Ph.D. ....	Boston College
Chin, Lynda, M.D. ....	Apricity Health, LLC
Chiocca, E. Antonio, M.D., Ph.D. ....	Brigham and Women’s Hospital

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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY2023

Chiriva-Internati, Maurizio, Ph.D. ....	University of Texas MD Anderson Cancer Center
Chitnis, Parag Vijay, Ph.D. ....	George Mason University
Cho, Clifford, M.D. ....	University of Michigan
Cho, Dalnim, Ph.D. ....	University of Texas MD Anderson Cancer Center
Choe, Hannah, M.D. ....	Ohio State University
Choi, Hak Soo, Ph.D. ....	Massachusetts General Hospital
Choi, Won S., Ph.D., M.P.H. ....	Lehigh University
Chong, Zechen, Ph.D. ....	University of Alabama at Birmingham
Choueiri, Toni, M.D. ....	Dana-Farber Cancer Institute
Choungnet, Claire A., Ph.D., Pharm.D. ....	Cincinnati Children’s Hospital Medical Center
Christensen, Brock Clarke, Ph.D. ....	Dartmouth College
Christy, Shannon Marie, Ph.D. ....	Moffitt Cancer Center
Chuang, Jeffrey Hsu-Min, Ph.D. ....	Jackson Laboratory
Chung, Christine H., M.D. ....	Moffitt Cancer Center
Chung, Dai H., M.D., M.B.A. ....	University of Texas Southwestern Medical Center
Chung, Dongjun, Ph.D. ....	Ohio State University
Church, Timothy Robert, Ph.D. ....	University of Minnesota
Cichocki, Frank, Ph.D. ....	University of Minnesota
Clarke, Christopher James, Ph.D. ....	State University New York, Stony Brook
Clarke, Jennifer L., Ph.D. ....	University of Nebraska, Lincoln
Clarke, Robert R., Ph.D., D.Sc. ....	University of Minnesota
Clay-Gilmour, Alyssa Ione, Ph.D. ....	University of South Carolina at Columbia
Clem, Brian F., Ph.D. ....	University of Louisville
Clemens, Lori V. ....	Patient Advocate
Clurman, Bruce E., M.D., Ph.D. ....	Fred Hutchinson Cancer Center
Cobbs, Charles S., M.D. ....	Swedish Medical Center, First Hill
Cockburn, Myles G., Ph.D. ....	University of Southern California
Cohen, Craig R., M.D., M.P.H. ....	University of California, San Francisco
Cohen, Ezra, M.D. ....	University of California, San Diego
Cohen, Jonathon B., M.D. ....	Emory University
Cohen, Mark Steven, M.D. ....	University of Illinois at Urbana-Champaign
Cohen, Stacey, M.D. ....	University of Washington
Colla, Simona, Ph.D. ....	University of Texas MD Anderson Cancer Center
Coloff, Jonathan L., Ph.D. ....	University of Illinois at Chicago
Conforti, Laura, Ph.D. ....	University of Cincinnati
Conklin, Cynthia A., Ph.D. ....	University of Pittsburgh
Conklin, Daniel Joseph, Ph.D. ....	University of Louisville
Conklin, Douglas S., Ph.D. ....	State University of New York at Albany
Conley, Claire C., Ph.D. ....	Georgetown University
Conti, Peter Stephen, M.D., Ph.D. ....	University of Southern California
Cook, Jason, Ph.D. ....	Bluejay Diagnostics, Inc.
Cook, Leah Marie, Ph.D. ....	University of Nebraska Medical Center
Cook, Linda S., Ph.D. ....	University of Colorado, Denver
Cooper, Odelia, M.D. ....	Cedars-Sinai Medical Center
Cooper, Priscilla K., Ph.D. ....	Lawrence Berkeley National Laboratory
Copelan, Edward A., M.D. ....	Carolinas Healthcare System
Copik, Alicja Joanna, Ph.D. ....	University of Central Florida
Coppola, Vincenzo, M.D. ....	Ohio State University

Corces, Victor G., Ph.D.	Emory University
Corey, Seth Joel, M.D.	Cleveland Clinic Lerner College of Medicine
Cornish, Toby Charles, M.D., Ph.D.	University of Colorado, Denver
Cortopassi, Gino A., Ph.D.	University of California, Davis
Coskun, Ahmet F., Ph.D.	Georgia Institute of Technology
Coss, Christopher C., Ph.D.	Ohio State University
Costello, James Christopher, Ph.D.	University of Colorado, Denver
Cowart, Lauren Ashley, Ph.D.	Virginia Commonwealth University
Cowell, Lindsay G., Ph.D.	University of Texas Southwestern Medical Center
Crandall, Keith A., Ph.D.	George Washington University
Crane, Lori A., Ph.D., M.P.H.	University of Colorado, Denver
Cranmer, David	Patient Advocate
Cremer, Miriam, M.D., M.P.H.	Cleveland Clinic Lerner College of Medicine Case Western Reserve University
Cress, William Douglas, Ph.D.	Moffitt Cancer Center
Crott, Jimmy W., Ph.D.	Boston University Medical Campus
Crotty Alexander, Laura Elise, M.D.	University of California, San Diego
Cruz-Correa, Marcia R., M.D., Ph.D.	University of Puerto Rico Medical Sciences
Cubillos-Ruiz, Juan R., Ph.D.	Weill Medical College of Cornell University
Cudic, Mare, Ph.D.	Florida Atlantic University
Cui, Juan, Ph.D.	University of Nebraska, Lincoln
Cullen, Joseph J., M.D.	University of Iowa
Cunningham, Brian T., Ph.D.	University of Illinois at Urbana-Champaign
Cupertino, Ana Paula, Ph.D.	University of Rochester
Cu-Uvin, Susan, M.D.	Brown University
Czerniak, Bogdan A., M.D., Ph.D.	University of Texas MD Anderson Cancer Center

**D**

D'Amato, Gina Z., M.D.	University of Miami School of Medicine
Daaka, Yehia, Ph.D.	University of Florida
Dagostino, Ralph B., M.O.T.H., Ph.D.	Wake Forrest University Health Sciences
Dahmane, Nadia, Ph.D.	Weill Medical College of Cornell University
Dalton, William Steven, M.D., Ph.D.	Moffitt Cancer Center
Dan, Hancai, Ph.D.	University of Maryland, Baltimore
Daniel, Casey L., Ph.D., M.P.H.	University of South Alabama
Daoud, Sayed S., Ph.D.	Washington State University
Das, Anindita, Ph.D.	Virginia Commonwealth University
Das, Bhaskar Chandra, Ph.D.	Long Island University Brooklyn Campus
Das, Gokul M., Ph.D.	Roswell Park Cancer Institute
Das, Sudip K., Ph.D.	Butler University
Dasgupta, Subhamoy, Ph.D.	Roswell Park Cancer Institute
Dash, Chiranjeev, Ph.D., M.B.B.S., M.P.H.	Georgetown University
Datta, Pran K., Ph.D.	University of Alabama at Birmingham
Daud, Adil I., M.B.B.S.	University of California, San Francisco
Davalos, Rafael Vidal, Ph.D.	Virginia Polytechnic Institute and State University
Dave, Sandeep, M.D.	Duke University
Dave, Utpal P., M.D.	Indiana University-Purdue University at Indianapolis
David, Gregory, Ph.D.	New York University School of Medicine

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**Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY2023**

Davila, Marco L., M.D., Ph.D.	Roswell Park Cancer Institute
Davydova, Julia, M.D., Ph.D.	University of Minnesota
Day, Regina M., Ph.D.	Henry M. Jackson Foundation for The Advancement of Military Medicine
De, Subhajyoti, Ph.D.	Rutgers, The State University of New Jersey
Deasy, Joseph O., Ph.D.	Memorial Sloan Kettering Cancer Center
Deb, Swati P., Ph.D.	Virginia Commonwealth University
Debinski, Waldemar, M.D., Ph.D.	Wake Forest University Health Sciences
DeCaprio, James A., M.D.	Dana-Farber Cancer Institute
Deep, Gagan, Ph.D.	Wake Forest University Health Sciences
Degraff, David J., Ph.D.	Pennsylvania State University Hershey Medical Center
DeHart, Jessica Clague, Ph.D., M.P.H.	Claremont Graduate University
Dehm, Scott M., Ph.D.	University of Minnesota
Deininger, Michael W., M.D., Ph.D.	Versiti Wisconsin, Inc.
Deisher, Theresa, Ph.D.	AVM Biotechnology, LLC
De La Puente, Pilar, Ph.D.	University of South Dakota
De Lima, Marcos, M.D.	Case Western Reserve University
Demark-Wahnefried, Wendy, Ph.D.	University of Alabama at Birmingham
Demissie, Kitaw, M.D., Ph.D., M.P.H.	Suny Downstate Medical Center
Demore, Nancy, M.D.	Medical University of South Carolina
Deng, Jun, Ph.D.	Yale University
Deng, Xingming, M.D., Ph.D.	Emory University
Deng, Youping, Ph.D.	University of Hawaii at Manoa
Denicourt, Catherine, Ph.D.	University of Texas Health Science Center, Houston
Denko, Nicholas C., M.D., Ph.D.	Ohio State University
Denny, Thomas, M.Sc.	Duke University
Dent, Paul, Ph.D.	Virginia Commonwealth University
Deppen, Stephen, Ph.D.	Vanderbilt University
De Preter, Katleen, Ph.D.	Ghent University
Dere, Ruhee, Ph.D.	Baylor College of Medicine
DeRenzo, Christopher C., M.D., M.B.A.	St. Jude Children's Research Hospital
Derkach, Dmitry N., M.D., Ph.D.	Biosyntagma, LLC
Deshane, Jessy Satyadas, Ph.D.	University of Alabama at Birmingham
Deshmukh, Ashish A., Ph.D., M.P.H.	Medical University of South Carolina
Desjardins, Annick, M.D.	Duke University
Desrochers, Teresa Marie, Ph.D.	Kiyatec, Inc.
De Stanchina, Elisa, Ph.D.	Memorial Sloan Kettering Cancer Center
Devidas, Meenakshi, Ph.D.	St. Jude Children's Research Hospital
Devine, Katie A., Ph.D., M.P.H.	Rutgers, Biomedical and Health Sciences
Dewey, Colin Noel, Ph.D.	University of Wisconsin-Madison
Dhanasekaran, Danny N., Ph.D.	University of Oklahoma Health Sciences Center
Diaz, Aaron Antonio, Ph.D.	University of California, San Francisco
Dickerson, Erin B., Ph.D.	University of Minnesota
Diehl, John Alan, Ph.D.	Case Western Reserve University
Dieli-Conwright, Christina, Ph.D.	Dana-Farber Cancer Institute
Dignan, Mark B., Ph.D., M.P.H.	University of Kentucky
DiMaio, Daniel C., M.D., Ph.D.	Yale University
Ding, Li, Ph.D.	Washington University



DiPersio, John F., M.D., Ph.D.....	Washington University
Discher, Dennis E., Ph.D.....	University of Pennsylvania
Dittmer, Dirk P., Ph.D.....	University of North Carolina at Chapel Hill
Di Vizio, Dolores, M.D., Ph.D.....	Cedars-Sinai Medical Center
Dixon, Dan Alan, Ph.D.....	University of Kansas, Lawrence
Djuric, Zora, Ph.D.....	University of Michigan at Ann Arbor
Dlugosz, Andrzej A., M.D.....	University of Michigan at Ann Arbor
Dobbin, Kevin K., Ph.D.....	Augusta University
Dogra, Navneet, Ph.D.....	Icahn School of Medicine at Mount Sinai
Dong, Haidong, M.D., Ph.D.....	Mayo Clinic, Rochester
Dong, Jixin, Ph.D.....	University of Nebraska Medical Center
Donoghue, Daniel J., Ph.D.....	University of California, San Diego
Dooley, William Chesnut, M.D.....	University of Oklahoma Health Sciences Center
Doran, Neal, Ph.D.....	University of California, San Diego
Dorff, Tanya, M.D.....	Beckman Research Institute of City of Hope
Dorfman, Caroline, Ph.D.....	Duke University
Dorrance, Adrienne M., Ph.D.....	University of Utah
Dos Santos, Camila, Ph.D.....	Cold Spring Harbor Laboratory
Doubeni, Chyke A., M.D., M.P.H.....	Ohio State University
Dougan, Stephanie, Ph.D.....	Dana-Farber Cancer Institute
Dow, Lukas Edward, Ph.D.....	Weill Medical College of Cornell University
Dow, Steven W., Ph.D., D.V.M.....	Colorado State University, Fort Collins
Dowlati, Afshin, M.D.....	Case Western Reserve University
Drake, Richard R., Ph.D.....	Medical University of South Carolina
Drapkin, Ronny I., M.D., Ph.D.....	University of Pennsylvania
Drewes, Julia L., Ph.D.....	Johns Hopkins University
Drewry, David Harold, Ph.D.....	University of North Carolina at Chapel Hill
Dritschilo, Anatoly, M.D.....	Georgetown University
Dronca, Roxana S., M.D.....	Mayo Clinic, Jacksonville
Drukker, Karen, Ph.D.....	University of Chicago
Du, Chunying, Ph.D.....	University of Cincinnati
Du, Yi-Chieh Nancy, Ph.D.....	Weill Medical College of Cornell University
Dubois, Steven, M.D.....	Dana-Farber Cancer Institute
Dudley, Andrew Carl, Ph.D.....	University of Virginia
Duerksen-Hughes, Penelope J., Ph.D.....	Loma Linda University
Duffy, Sonia A., Ph.D., R.N., F.A.A.N.....	Ohio State University
Dula, Adrienne Nicole, Ph.D.....	University of Texas, Austin
Dunbar, Andrew Jeffrey, M.D.....	Memorial Sloan Kettering Cancer Center
Dupuy, Adam J., Ph.D.....	University of Iowa
Dwinell, Michael B., Ph.D.....	Medical College of Wisconsin
Dykens, Jon Andrew, M.D., M.P.H.....	University of Illinois at Chicago
Dynan, William S., Ph.D.....	Emory University
Dyson, Gregory E., Ph.D.....	Wayne State University

**E**

Earp, Henry Shelton, M.D.....	University of North Carolina at Chapel Hill
Eastburn, Dennis J., Ph.D.....	Biospyder Technologies, Inc.
Easwaran, Hariharan, Ph.D.....	Johns Hopkins University

Eberth, Jan Marie, Ph.D.....	Drexel University
Edwards, Jeremy S., Ph.D. ....	University of New Mexico, Albuquerque
Egan, Kathleen M., Sc.D., M.P.H.....	Moffitt Cancer Center
Eggert, Angelika, M.D., M.B.A.....	Charité-Universitätsmedizin, Berlin
Eibl, Guido Erwin Michael, M.D.....	University of California, Los Angeles
Eisinger, Tzipora Sarah Karin, Ph.D. ....	University of Pennsylvania
Eklund, Elizabeth Ann, M.D.....	Northwestern University at Chicago
Elashoff, David, Ph.D.....	University of California, Los Angeles
El-Bardeesy, Nabeel, Ph.D. ....	Massachusetts General Hospital
El-Baz, Ayman S., Ph.D.....	University of Louisville
El-Deiry, Wafik S., M.D., Ph.D.....	Brown University
Elgamal, Dalia, Ph.D.....	University of Nebraska Medical Center
Eliassen, A. Heather, Sc.D.....	Harvard School of Public Health
Eliceiri, Kevin William, Ph.D. ....	University of Wisconsin-Madison
Ellis, Shellie Dawn, Ph.D.....	University of Kansas Medical Center
Ellsworth, Buffy Sue, Ph.D. ....	Southern Illinois University, Carbondale
Elshamy, Wael M., Ph.D. ....	San Diego Biomedical Research Institute
Emadi, Ashkan, M.D., Ph.D.....	University of Maryland, Baltimore
Emanuele, Michael James, Ph.D. ....	University of North Carolina at Chapel Hill
Enderling, Heiko, Ph.D.....	University of Texas MD Anderson Cancer Center
Engel, Nora I., Ph.D.....	Temple University
Engleman, Edgar G., M.D.....	Stanford University
Epplein, Meira, Ph.D. ....	Duke University
Epstein, Marina, Ph.D.....	University of Washington
Ermel, Aaron, M.D. ....	Indiana University-Purdue University at Indianapolis
Ermilov, Sergey A., M.O.T.H., Ph.D. ....	Photosound Technologies, Inc.
Erves, Jennifer C., Ph.D., M.P.H. ....	Meharry Medical College
Eschrich, Steven Allen, Ph.D. ....	Moffitt Cancer Center
Evason, Kimberley Jane, M.D., Ph.D.....	University of Utah
Ewald, Andrew Josef, Ph.D.....	Johns Hopkins University

**F**

Fan, Rong, Ph.D.....	Yale University
Fan, Teresa Whei-Mei, Ph.D. ....	University of Kentucky
Fan, Yi, Ph.D.....	University of Pennsylvania
Fan, Yong, Ph.D. ....	University of Pennsylvania
Fan, Z. Hugh, Ph.D.....	University of Florida
Fan, Zhen, M.D. ....	University of Texas MD Anderson Cancer Center
Fang, Carolyn Y., Ph.D.....	Fox Chase Cancer Center
Farajidavar, Aydin, Ph.D.....	New York Institute of Technology
Faris, Gregory W., Ph.D. ....	Indiana University School of Medicine
Farwell, Michael David, M.D.....	University of Pennsylvania
Fedoriw, Yuri, M.D. ....	University of North Carolina at Chapel Hill
Fehniger, Todd A., M.D., Ph.D.....	Washington University
Fehrenbacher, Jill C., Ph.D.....	Indiana University-Purdue University at Indianapolis
Fei, Baowei, Ph.D., Eng.D.....	University of Texas, Dallas
Feith, David J., Ph.D.....	University of Virginia
Felices, Martin, Ph.D.....	University of Minnesota



Feng, Mingye, Ph.D.....	Beckman Research Institute of City of Hope
Fennessy, Fiona, M.D., Ph.D. ....	Harvard Medical School
Ferguson, Tekeda F., Ph.D., M.P.H. ....	Louisiana State University
Fernandez, Soledad A., Ph.D. ....	Ohio State University
Ferris, Robert L., M.D., Ph.D. ....	University of Pittsburgh
Fieremans, Els, Ph.D. ....	New York University
Fiering, Steven, Ph.D. ....	Dartmouth College
Finestone, Sandra A., Psy.D.....	National Coalition for Cancer Survivorship
Finkel, Julia Cole, M.D. ....	Children’s Research Institute
Fiolka, Reto Paul, Ph.D. ....	University of Texas Southwestern Medical Center
Fiser, Andras, Ph.D.....	Albert Einstein College of Medicine
Fishel, Melissa L., Ph.D.....	Indiana University School of Medicine
Fisher, George A., M.D., Ph.D. ....	Stanford University
Fisher, Jay Kenneth, Ph.D., D.SC. ....	Redbud Labs, Inc.
Fisher, Susan G., Ph.D.....	Northshore University Health System
Fiszbein, Ana, Ph.D. ....	Boston University (Charles River Campus)
Fitzgerald, Thomas J., M.D. ....	University of Massachusetts Medical School, Worcester
Fitzgibbon, Marian L., Ph.D. ....	University of Illinois at Chicago
Fitzpatrick, Megan, M.D.....	Smart Pap Inc.
Flannery, Clare Ann, M.D.....	Yale University
Fleischman, Angela Goffredo, M.D., Ph.D. ....	University of California, Irvine
Flemington, Erik K., Ph.D.....	Tulane University of Louisiana
Floratos, Aris, Ph.D. ....	Columbia University
Flores, Catherine T., Ph.D.....	University of Florida
Floyd, Scott R., M.D., Ph.D. ....	Duke University
Folch, Albert, Ph.D.....	University of Washington
Fong, Lawrence, M.D.....	University of California, San Francisco
Fontenot, Jonas D., Ph.D. ....	Mary Bird Perkins Cancer Center
Foo, Jasmine, Ph.D.....	University of Minnesota
Foran, David J., Ph.D. ....	Rutgers, The State University of New Jersey
Forbes, Neil S., Ph.D.....	University of Massachusetts, Amherst
Foreman, Nicholas K., M.B.B.S. ....	University of Colorado, Denver
Formenti, Silvia C., M.D.....	Weill Medical College of Cornell University
Foss, Francine M., M.D. ....	Yale University
Fowke, Jay H., Ph.D., M.P.H.....	University of Tennessee Health Science Center
Fowler, Kathryn, M.D. ....	University of California, San Diego
Franco, Aime T., Ph.D. ....	Children’s Hospital of Philadelphia
Franzmann, Elizabeth J., M.D.....	University of Miami School of Medicine
Frazier, Anne L., M.D. ....	Dana-Farber Cancer Institute
Freedman, Rachel Ann, M.D., M.P.H.....	Dana-Farber Cancer Institute
Freeman, Kevin W., Ph.D.....	University of Tennessee Health Science Center
Freeman, Michael L., Ph.D.....	Vanderbilt University Medical Center
Freiberg, Alexander Niclas, Ph.D. ....	University of Texas Medical Branch, Galveston
Freitas, Michael A., Ph.D. ....	Ohio State University
Frett, Brendan Andrew, Ph.D.....	University of Arkansas for Medical Sciences
Freud, Aharon G., M.D., Ph.D. ....	Ohio State University
Frey, Lewis James, Ph.D.....	Department of Veteran Affairs
Fridley, Brooke L., Ph.D.....	Moffitt Cancer Center

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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY2023

Friedman, Alan D., M.D. .... Johns Hopkins University  
 Friedman, Debra L., R.N., M.D. .... Vanderbilt University  
 Frisch, Benjamin James, Ph.D. .... University of Rochester  
 Fry, Terry J., M.D. .... University of Colorado, Denver  
 Fu, Kai, M.D., Ph.D. .... Roswell Park Cancer Institute  
 Fu, Rongwei, Ph.D. .... Oregon Health and Science University  
 Fuemmeler, Bernard F., Ph.D., M.P.H. .... Virginia Commonwealth University  
 Fukumura, Dai, M.D., Ph.D. .... Massachusetts General Hospital  
 Fuller, Clifton David, M.D., Ph.D. .... University of Texas MD Anderson Cancer Center

**G**

Gaber, Mostafa Waleed, Ph.D. .... Baylor College of Medicine  
 Gabriel, Emmanuel M., M.D., Ph.D. .... Mayo Clinic, Jacksonville  
 Gadgeel, Shirish, M.D. .... Henry Ford Health System  
 Galanis, Evanthia, M.D. .... Mayo Clinic, Rochester  
 Galban, Stefanie, Ph.D. .... University of Michigan at Ann Arbor  
 Ganesan, Anusha Preethi, Ph.D., M.B.B.S. .... University of California, San Diego  
 Ganz, Patricia A., M.D. .... University of California, Los Angeles  
 Gao, Allen C., M.D., Ph.D. .... University of California, Davis  
 Gao, Jianjun, M.D., Ph.D. .... University of Texas MD Anderson Cancer Center  
 Gao, Tianyan, Ph.D. .... University of Kentucky  
 Gao, Xiaohu, Ph.D. .... University of Washington  
 Garcia, Sofia F., Ph.D. .... Northwestern University at Chicago  
 Garcia-Mata, Rafael, Ph.D. .... University of Toledo  
 Garfall, Alfred L., M.D. .... University of Pennsylvania  
 Garman, Katherine, M.D. .... Duke University  
 Garrett, Joan T., Ph.D. .... University of Cincinnati  
 Garrett-Bakelman, Francine Evalina, M.D., Ph.D. .... University of Virginia  
 Gartner, Zev Jordan, Ph.D. .... University of California, San Francisco  
 Gaublonne, Jellert, Ph.D. .... Columbia University New York, Morningside  
 Gawad, Charles, M.D., Ph.D. .... Stanford University  
 Ge, Xijin, Ph.D. .... South Dakota State University  
 Gemmill, Robert M., Ph.D. .... Medical University of South Carolina  
 Genkinger, Jeanine M., M.O.T.H., Ph.D. .... Columbia University of Health and Sciences  
 Gentles, Andrew J., Ph.D. .... Stanford University  
 George, Rani E., M.D., Ph.D. .... Dana-Farber Cancer Institute  
 George, Sophia H.L., Ph.D. .... University of Miami School of Medicine  
 George, Thomas J., M.D. .... University of Florida  
 Gerber, David Eric, M.D. .... University of Texas Southwestern Medical Center  
 Gerlach, Robert W., M.P.A. .... Dartmouth College  
 German, Sean, Ph.D. .... Electronic Biosciences, Inc.  
 Germano, Isabelle M., M.D. .... Icahn School of Medicine at Mount Sinai  
 Gershon, Timothy, M.D., Ph.D. .... Emory University  
 Gewirtz, David A., Ph.D. .... Virginia Commonwealth University  
 Gewurz, Benjamin Elison, M.D., Ph.D. .... Brigham and Women's Hospital  
 Ghasemi, Farshid, Ph.D. .... Weddell Technologies, LLC  
 Ghiran, Ionita Calin, M.D. .... Beth Israel Deaconess Medical Center  
 Ghosh, Gargi, Ph.D. .... Keck Graduate Institute of Applied Life Sciences

Ghosh, Moumita, Ph.D.	University of Colorado, Denver
Ghosh, Paramita M., Ph.D.	University of California, Davis
Giacomelli, Michael Gene, Ph.D.	University of Rochester
Gibbs, Iris Catrice, M.D.	Stanford University
Gibbs, Summer Lynne, Ph.D.	Oregon Health and Science University
Gilkes, Daniele Marie, Ph.D.	Johns Hopkins University
Gillespie, George Yancey, Ph.D.	Treovir, Inc.
Giralt, Sergio A., M.D.	Memorial Sloan Kettering Cancer Center
Giri, Veda N., M.D.	Thomas Jefferson University
Gius, David, M.D., Ph.D.	University of Texas Health Science Center
Given, Barbara A., R.N., Ph.D., F.A.A.N.	Michigan State University
Glunde, Kristine, Ph.D.	Johns Hopkins Hospital
Gmeiner, William H., Ph.D.	Wake Forest University Health Sciences
Gnjatic, Sacha, Ph.D.	Icahn School of Medicine at Mount Sinai
Goecks, Jeremy, Ph.D.	Moffitt Cancer Center
Goel, Ajay, Ph.D.	Beckman Research Institute of City of Hope
Goel, Sanjay, M.D., M.B.B.S.	Cancer Institute of New Jersey
Goenka, Ajit Harishkumar, M.D.	Mayo Clinic, Rochester
Goetz, Matthew Philip, M.D.	Mayo Clinic, Rochester
Goga, Andrei, M.D., Ph.D.	University of California, San Francisco
Goggins, Michael G., M.D.	Johns Hopkins University
Goldberg, David Seth, M.D.	University of Miami School of Medicine
Goldberg, Judith D., Sc.D.	New York University
Goldberg, Sarah B., M.D., M.P.H.	Yale School of Medicine
Goldenberg, David, M.D.	Pennsylvania State University Hershey Medical Center
Goldman, Radoslav, Ph.D.	Georgetown University
Goldsmith, Kelly C., M.D.	Emory University
Goldstein, Adam O., M.D., M.P.H.	University of North Carolina at Chapel Hill
Golkowski, Martin, Ph.D.	University of Utah
Gollnick, Sandra O., Ph.D.	Roswell Park Cancer Institute
Gomez-Manzano, Candelaria, M.D.	University of Texas MD Anderson Cancer Center
Gomperts, Brigitte N., M.D.	University of California, Los Angeles
Gonda, Tamas A., M.D.	Columbia University Health Sciences
Gonzalez, Brian D., Ph.D.	Moffitt Cancer Center
Gonzalez Camara, Pablo, Ph.D.	University of Pennsylvania
Goodison, Steve, Ph.D.	Mayo Clinic, Jacksonville
Goodrich, David W., Ph.D.	Roswell Park Cancer Institute
Goodwin, Andrew P., Ph.D.	University of Colorado, Boulder
Gordon, Leo I., M.D.	Northwestern University at Chicago
Gorlick, Richard G., M.D.	University of Texas MD Anderson Cancer Center
Gormley, Adam Joseph, Ph.D.	Rutgers, The State University of New Jersey
Gottschalk, Allan, M.D., Ph.D.	Johns Hopkins University
Gounari, Fotini, Ph.D., D.Sc.	Mayo Clinic, Arizona
Govindan, Ramaswamy, M.D.	Washington University
Graim, Kiley, Ph.D.	University of Florida
Grandis, Jennifer Rubin, M.D.	University of California, San Francisco
Graner, Michael W., Ph.D.	University of Colorado, Aurora
Gray, Stacy W., M.D.	Beckman Research Institute of City of Hope

Greco, Laura, J.D.	Patient Advocate
Green, Daniel Michael, M.D.	St. Jude Children’s Research Hospital
Green, Michael Daniel, M.D., Ph.D.	University of Michigan at Ann Arbor
Greene, Nicholas Perry, Ph.D.	University of Arkansas at Fayetteville
Greenlee, Heather, N.D., Ph.D., M.P.H.	Fred Hutchinson Cancer Center
Grembecka, Jolanta, Ph.D.	University of Michigan at Ann Arbor
Griffin, Robert James, Ph.D.	University of Arkansas for Medical Sciences
Griffin, Timothy J., Ph.D.	University of Minnesota
Griffith, Malachi, Ph.D.	Washington University
Griffith, Obi L., Ph.D.	Washington University
Grisham, Rachel Nicole, M.D.	Memorial Sloan Kettering Cancer Center
Groden, Joanna Louise, Ph.D.	University of Illinois at Chicago
Gross, Cary P., M.D.	Yale University
Gross, Mitchell E., M.D., Ph.D.	Ellison Institute, LLC
Grossman, Douglas, M.D., Ph.D.	University of Utah
Grossman, Robert L., Ph.D.	University of Chicago
Grossman, Steven R., M.D., Ph.D.	University of Southern California
Gu, Li-Qun (Andrew), Ph.D.	University of Missouri
Guarnerio, Jlenia, Ph.D.	Cedars-Sinai Medical Center
Guccione, Ernesto, Ph.D.	Icahn School of Medicine at Mount Sinai
Guerra, Carmen E., M.D.	University of Pennsylvania
Guerriero, Jennifer L., Ph.D.	Brigham and Women’s Hospital
Guha, Chandan, Ph.D., M.B.B.S.	Albert Einstein College of Medicine
Guha, Subharup, Ph.D.	University of Florida
Gulley, Margaret L., M.D.	University of North Carolina at Chapel Hill
Gumus, Zeynep Hulya, Ph.D.	Icahn School of Medicine at Mount Sinai
Gunn, Christine Marie, Ph.D.	Dartmouth College
Guo, Nancy Lan, Ph.D.	West Virginia University
Guo, Peixuan, Ph.D.	Ohio State University
Guo, Yanxiang, Ph.D.	Rutgers, The State University of New Jersey
Gusev, Yuriy, Ph.D.	Georgetown University
Gust, Juliane, M.D., Ph.D.	University of Washington
Gustafson, Daniel L., Ph.D.	Colorado State University, Fort Collins
Gwede, Clement K., R.N., Ph.D., M.P.H.	Moffitt Cancer Center

**H**

Haab, Brian B., Ph.D.	Van Andel Research Institute
Haas, Naomi B., M.D.	University of Pennsylvania
Haas, Wilhelm, Ph.D.	Massachusetts General Hospital
Hadley, Dexter D., M.D., Ph.D.	University of Central Florida
Haeussler, Maximilian, Ph.D.	University of California, Santa Cruz
Hagensee, Michael E., M.D., Ph.D.	Louisiana State University Health Sciences Center
Hahn, Noah M., M.D.	Johns Hopkins University
Hahn, Theresa E., Ph.D.	Roswell Park Cancer Institute
Haines, Dale S., Ph.D.	Temple University
Halberg, Richard Brott, Ph.D.	University of Wisconsin-Madison
Halbrook, Christopher J., Ph.D.	University of California, Irvine
Halene, Stephanie, M.D., Ph.D.	Yale University

Halpern-Felsher, Bonnie L., Ph.D. ....	Stanford University
Hambardzumyan, Dolores, Ph.D. ....	Icahn School of Medicine at Mount Sinai
Hamilton, Ann S., Ph.D. ....	University of Southern California
Hamilton, Nalo, Ph.D. ....	University of California, Los Angeles
Han, Bumsoo, Ph.D. ....	Purdue University
Han, Haiyong, Ph.D. ....	Translational Genomics Research Institute
Han, Leng, Ph.D. ....	Indiana University-Purdue University at Indianapolis
Han, Song, Ph.D. ....	University of Florida
Hanash, Samir M., M.D., Ph.D. ....	University of Texas MD Anderson Cancer Center
Hankinson, Susan E., Sc.D., M.P.H. ....	University of Massachusetts, Amherst
Hanks, Brent Allen, M.D., Ph.D. ....	Duke University
Hanley, Patrick J., Ph.D. ....	Children’s National Medical Center
Hann, Christine L., M.D., Ph.D. ....	Johns Hopkins University
Hannan, Raquibul, M.D., Ph.D. ....	University of Texas Southwestern Medical Center
Hansel, Donna Elizabeth, M.D., Ph.D. ....	University of Texas MD Anderson Cancer Center
Hansen, James E., M.D. ....	Yale University
Hansen, Marc F., Ph.D. ....	University of Connecticut School of Medicine and Dentistry
Hanson, Paul R., Ph.D. ....	Materia, Inc.
Harada, Hisashi, Ph.D. ....	Virginia Commonwealth University
Hardiman, Karin Marie, M.D., Ph.D. ....	University of Alabama at Birmingham
Harkness, John H., Ph.D. ....	Rewire Neuroscience, LLC
Haroutounian, Simon, Ph.D. ....	Washington University
Harpole, David H., M.D. ....	Duke University
Harrell, Joshua (Chuck), Ph.D. ....	Virginia Commonwealth University
Harris, Isaac Spencer, Ph.D. ....	University of Rochester
Harris, Robin B., Ph.D., M.P.H. ....	University of Arizona
Harrison, Anita Lynn, M.P.A. ....	Virginia Commonwealth University
Hart, Gerald Warren, Ph.D. ....	University of Georgia
Hartman, Zachary Conrad, Ph.D. ....	Duke University
Hartshorn, Kevan L., M.D. ....	Boston Medical Center
Hassan, Manal Metwally, M.D., Ph.D., M.P.H. ....	University of Texas MD Anderson Cancer Center
Hassoun, Soha, Ph.D. ....	Tufts University
Hastert, Theresa Ann, M.O.T.H., Ph.D. ....	Wayne State University
Hatcher, Jennifer, R.N., Ph.D., M.P.H. ....	University of Arizona
Hatefi, Arash, Ph.D. ....	Rutgers, The State University of New Jersey
Haun, Jered Brackston, Ph.D. ....	University of California, Irvine
Hawkins, Douglas S., M.D. ....	Seattle Children’s Hospital
Hawkins, Shannon Michelle, M.D., Ph.D. ....	Indiana University-Purdue University at Indianapolis
Hawse, John R., Ph.D. ....	Mayo Clinic, Rochester
Hayden Gephart, Melanie, M.D. ....	Stanford University
Hayes, Daniel J., Ph.D. ....	Pennsylvania State University
Haymaker, Cara L., Ph.D. ....	University of Texas MD Anderson Cancer Center
He, Hongzhang, Ph.D. ....	Captis Diagnostics
He, Mei, Ph.D. ....	University of Florida
Heczey, Andras A., M.D. ....	Baylor College of Medicine
Heffner, Jaimee, Ph.D. ....	Fred Hutchinson Cancer Center
Hegde, Vijay Karkal, Ph.D. ....	Texas Tech University



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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY2023

Heinen, Christopher D., Ph.D.	University of Connecticut School of Medicine and Dentistry
Heiser, Laura Madeline, Ph.D.	Oregon Health and Science University
Held, Kathryn Dale, Ph.D.	Massachusetts General Hospital
Henderson, Louise, M.O.T.H., Ph.D.	University of North Carolina at Chapel Hill
Henneghan, Ashley M., Ph.D.	University of Texas, Austin
Hernando, Eva, Ph.D.	New York University School of Medicine
Heslop, Helen E., M.D.	Baylor College of Medicine
Heston, Warren D., Ph.D.	Cleveland Clinic Lerner College of Medicine Case Western Reserve University
Hibler, Elizabeth A., Ph.D., M.P.H.	Northwestern University at Chicago
Hickam, David H., M.D., M.P.H.	Oregon Health and Science University
Hicks, Chindo, Ph.D.	University of Mississippi Medical Center
Hicks, Stephanie Carinne, Ph.D.	Johns Hopkins University
Hildebrandt, Michelle A. T., Ph.D.	University of Texas MD Anderson Cancer Center
Hinds, Philip W., Ph.D.	Tufts University, Boston
Hines, Robert Brooks, Ph.D.	University of Central Florida
Hirsch, Fred R., M.D., Ph.D.	Icahn School of Medicine at Mount Sinai
Hirsova, Petra, Ph.D.	Mayo Clinic, Rochester
Hitchins, Megan P., Ph.D.	Cedars-Sinai Medical Center
Hlavacek, William S., Ph.D.	Triad National Security, LLC
Ho, Alan L., M.D., Ph.D.	Memorial Sloan Kettering Cancer Center
Ho, Yen-Yi, Ph.D.	University of South Carolina at Columbia
Hochheiser, Harry S., Ph.D.	University of Pittsburgh
Hockenbery, David M., M.D.	Fred Hutchinson Cancer Center
Hoen, Anne Gatewood, M.O.T.H., Ph.D.	Dartmouth College
Hoffman, Robert M., Ph.D.	University of California, San Diego
Hofmann, Marie-Claude C., Ph.D.	University of Texas MD Anderson Cancer Center
Hohl, Raymond J., M.D., Ph.D.	Pennsylvania State University Hershey Medical Center
Hoke, Ahmet, M.D., Ph.D.	Johns Hopkins University
Hollenhorst, Peter Celestine, Ph.D.	Indiana University
Hollingsworth, Michael A., Ph.D.	University of Nebraska Medical Center
Holloway, Julianne Leigh, Ph.D.	Arizona State University-Tempe Campus
Hong, Jiyong, Ph.D.	Duke University
Hong, Seungpyo, Ph.D.	University of Wisconsin-Madison
Hong, Theodore S., M.D.	Massachusetts General Hospital
Hooper, Douglas Craig, Ph.D.	Thomas Jefferson University
Hoque, Mohammad Obaidul, Ph.D.	Johns Hopkins University
Horibata, Sachi, Ph.D.	Michigan State University
Horne, David A., Ph.D.	Beckman Research Institute of City of Hope
Horuzsko, Anatolij, M.D., Ph.D.	Augusta University
Horvath, Anelia, Ph.D.	George Washington University
Horwitz, Edwin M., M.D., Ph.D.	Emory University
Hou, Lifang, M.D., Ph.D.	Northwestern University at Chicago
Houldsworth, Jane, Ph.D.	Icahn School of Medicine at Mount Sinai
Houlette, Judy Kasey, M.A.	Friend for Life Cancer Support Network
House, Carrie Danielle, Ph.D.	San Diego State University
Housseau, Franck, Ph.D., Pharm.D.	Johns Hopkins University
Houston, Kevin D., Ph.D.	New Mexico State University, Las Cruces



Houtman, Jon C.D., Ph.D.....	University of Iowa
Howell, Roger W., Ph.D.....	Rutgers, Biomedical and Health Sciences
Hsiao, Chao-Pin, Ph.D.....	Case Western Reserve University
Hsieh, Andrew Caleb, M.D.....	Fred Hutchinson Cancer Center
Hsu, William, Ph.D.....	University of California, Los Angeles
Hu, Chih-Chi Andrew, Ph.D. ....	Methodist Hospital Research Institute
Hu, Jianhua, Ph.D. ....	Columbia University Health Sciences
Hua, May, M.D.....	Columbia University Health Sciences
Hua, Xianxin, M.D., Ph.D. ....	University of Pennsylvania
Huang, Alex Yee-Chen, M.D., Ph.D.....	Case Western Reserve University
Huang, Benjamin, M.D.....	University of California, San Francisco
Huang, Emina Hui-Na, M.D.....	University of Texas Southwestern Medical Center
Huang, Haojie, Ph.D.....	Mayo Clinic, Rochester
Huang, Jianping, M.D., Ph.D. ....	University of Florida
Huang, L. Eric, M.D., Ph.D.....	University of Utah
Huang, Lily J., Ph.D.....	University of Texas Southwestern Medical Center
Huang, Shuang, Ph.D. ....	University of Florida
Huang, Suyun, M.D., Ph.D.....	Virginia Commonwealth University
Huang, Tim H.-M., Ph.D.....	University of Texas Health Science Center
Huang, Xiaohua, Ph.D.....	University of California, San Diego
Huang, Xiaohua, Ph.D.....	University of Memphis
Huang, Xiumei, Ph.D.....	Indiana University-Purdue University at Indianapolis
Huang, Xuelin, Ph.D. ....	University of Texas MD Anderson Cancer Center
Huang, Ying, Ph.D.....	Fred Hutchinson Cancer Center
Hubach, Randolph D., Ph.D., M.P.H. ....	Purdue University
Huchko, Megan J., M.D., M.P.H. ....	Duke University
Hudson, Matthew Francis, Ph.D., M.P.H. ....	University of South Carolina, Greenville
Hughes-Halbert, Chanita A., Ph.D. ....	University of Southern California
Hu-Lieskovan, Siwen, M.D., Ph.D.....	University of California, Los Angeles
Humm, John L., Ph.D. ....	Memorial Sloan Kettering Cancer Center
Hunleth, Jean Marie, Ph.D., M.P.H.....	Washington University
Hur, Chin, M.D., M.P.H. ....	Columbia University Health Sciences
Hur, Soojung Claire, Ph.D. ....	Johns Hopkins University
Huse, Morgan A., Ph.D.....	Memorial Sloan Kettering Cancer Center
Hutson, Alan David, Ph.D. ....	Roswell Park Cancer Institute
Hwang, Rosa F., M.D.....	University of Texas MD Anderson Cancer Center
Hwang, Tae Hyun, Ph.D.....	Cleveland Clinic Lerner College of Medicine
	Case Western Reserve University
Hyde, Ricia Katherine, Ph.D.....	University of Nebraska Medical Center
Iavarone, Antonio, M.D.....	University of Miami School of Medicine
Idowu, Michael O., M.D., M.P.H.....	Virginia Commonwealth University
Ihnat, Michael A., Ph.D.....	University of Oklahoma Health Sciences Center
Ilyas, Sumera I., M.B.B.S. ....	Mayo Clinic, Rochester
Im, Hyungsoon, Ph.D. ....	Massachusetts General Hospital
Inaba, Hiroto, M.D., Ph.D.....	St. Jude Children’s Research Hospital
Indra, Arup K., M.O.T.H., P.H.D. ....	Oregon State University
Inoki, Ken, M.D., Ph.D. ....	University of Michigan at Ann Arbor

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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY2023

Intes, Xavier, Ph.D.	Rensselaer Polytechnic Institute
Ioffe, Olga, M.D.	University of Maryland, Baltimore
Iqbal, Javeed, Ph.D.	University of Nebraska Medical Center
Irish, Jonathan Michael, Ph.D., B.O.T.H.	Vanderbilt University
Islam, Jessica Yasmine, Ph.D., M.P.H.	Moffitt Cancer Center
Issa, Jean-Pierre J., M.D.	Coriell Institute for Medical Research
Issadore, David Aaron, Ph.D.	University of Pennsylvania
Ito, Fumito, M.D., Ph.D.	University of Southern California
Ito, Mayumi, Ph.D.	New York University School of Medicine
Ittmann, Michael M., M.D., Ph.D.	Baylor College of Medicine
Ivanov, Alexander R., Ph.D.	Northeastern University
Ivanov, Vassili, Ph.D.	Photosound Technologies, Inc.
Ivkov, Robert, Ph.D.	Johns Hopkins University
Iwanicki, Marcin, Ph.D.	Stevens Institute of Technology
Iyer, Anand K., Ph.D.	Hampton University

**J**

Jackson, James, Ph.D.	Tulane University of Louisiana
Jacobs, David, PH..D, Pharm.D.	State University of New York at Buffalo
Jadvar, Hossein, M.D., Ph.D., M.P.H.	University of Southern California
Jain, Pooja, Ph.D.	Drexel University College of Medicine
James, Charles D., Ph.D.	Northwestern University at Chicago
Janes, Kevin A., Ph.D.	University of Virginia
Janiszewska, Michalina, Ph.D.	Scripps, Florida
Jankowska, Marta, Ph.D.	Beckman Research Institute of City of Hope
Jeames, Sanford E., D.O.T.H., M.A.	Austin Independent School District
Jensen, Roy A., M.D.	University of Kansas Medical Center
Jensen, Todd Robert, Ph.D.	University of North Carolina at Chapel Hill
Jenssen, Brian P., M.D.	Children’s Hospital of Philadelphia
Jeong, Jae-Wook, Ph.D.	University of Missouri, Columbia
Jeselsohn, Rinath M., M.D.	Dana-Farber Cancer Institute
Jhiang, Sissy M., Ph.D.	Ohio State University
Ji, Baoan, M.D., Ph.D.	Mayo Clinic, Jacksonville
Ji, Xu, Ph.D.	Emory University
Jia, Xun, Ph.D.	Johns Hopkins University
Jiang, Aimin, Ph.D.	Henry Ford Health System
Jiang, Feng, M.D., Ph.D.	University of Maryland, Baltimore
Jiang, Hao, Ph.D.	Tetraimaging, LLC
Jiang, Hui, Ph.D.	University of Michigan at Ann Arbor
Jiang, Ning Jenny, Ph.D.	University of Pennsylvania
Jiang, Yu, Ph.D.	University of Pittsburgh
Jiang, Yuchao, Ph.D.	Texas A&M University
Jiang, Yun, Ph.D., R.N.	University of Michigan at Ann Arbor
Jiao, Li, M.D., Ph.D.	Baylor College of Medicine
Jilaveanu, Lucia Beatrice, M.D., Ph.D.	Yale University
Jin, Ge, Ph.D.	Case Western Reserve University
Jin, Moonsoo M., Sc.D.	Methodist Hospital Research Institute
Jin, Shengkan Victor, Ph.D.	Rutgers, The State University of New Jersey

Jin, Victor, Ph.D.....	Medical College of Wisconsin
Johns, Shelley A., Psy.D. ....	Indiana University-Purdue University at Indianapolis
Johnson, Bruce E., M.D. ....	Dana-Farber Cancer Institute
Johnson, Jane E., Ph.D.....	University of Texas Southwestern Medical Center
Johnson, Sheila,.....	Patient Advocate
Johnson, William E., Ph.D. ....	Rutgers, Biomedical and Health Sciences
Johnston, Colette,.....	Patient Advocate
Jones, Kevin Bruce, M.D. ....	University of Utah
Jones, Resa M., Ph.D., M.P.H.....	Temple University
Jones, Russell, Ph.D. ....	Van Andel Research Institute
Jordan, Craig T., Ph.D.....	University of Colorado, Denver
Joshi, Amit, Ph.D.....	Medical College of Wisconsin
Ju, Cynthia, Ph.D. ....	University of Texas Health Science Center, Houston
Ju, Jingfang, Ph.D. ....	State University New York, Stony Brook
Judson-Torres, Robert Laird, Ph.D.....	University of Utah
Juillard, Catherine, M.D., M.P.H. ....	University of California, Los Angeles
Jurecic, Roland, M.O.T.H., Ph.D.....	University of Miami School of Medicine

**K**

Kakar, Sham S., Ph.D.....	University of Louisville
Kale, Minal S., M.D., M.P.H.....	Icahn School of Medicine at Mount Sinai
Kalpathy-Cramer, Jayashree, Ph.D.....	University of Colorado, Denver
Kamm, Roger D., Ph.D.....	Massachusetts Institute of Technology
Kandel, Eugene S, Ph.D. ....	Roswell Park Cancer Institute
Kane, Lawrence P., Ph.D.....	University of Pittsburgh
Kane, Ravi S., Ph.D.....	Georgia Institute of Technology
Kang, Emily Lei, Ph.D. ....	University of Cincinnati
Kang, Min Hee, Pharm.D.....	Texas Tech University Health Sciences Center
Kango-Singh, Madhuri, Ph.D.....	University of Dayton
Kanneganti, Thirumala-Devi, Ph.D.....	St. Jude Children’s Research Hospital
Kanwal, Fasiha, M.S.H.S., M.D. ....	Baylor College of Medicine
Kao, Gary D., M.D., Ph.D.....	University of Pennsylvania
Kaochar, Salma, Ph.D. ....	Baylor College of Medicine
Kapur, Reuben, Ph.D.....	Indiana University School of Medicine
Karchin, Rachel, Ph.D. ....	Johns Hopkins University
Karijolic, John, Ph.D.....	Vanderbilt University Medical Center
Karin, Michael, Ph.D. ....	University of California, San Diego
Karol, Seth Evan, M.D.....	St. Jude Children’s Research Hospital
Karpf, Adam R., Ph.D.....	University of Nebraska Medical Center
Karreth, Florian, Ph.D. ....	Moffitt Cancer Center
Kasid, Usha N., Ph.D. ....	Georgetown University
Kasper, Susan, Ph.D.....	University of Cincinnati
Kasprzyk, Danuta, Ph.D. ....	University of Washington
Kato, Ikuko, M.D., Ph.D.....	Wayne State University
Katz, Mira L., Ph.D., M.P.H.....	Ohio State University
Katz, Sharyn, M.D.....	University of Pennsylvania
Kaufman, Dan S., M.D., Ph.D.....	University of California, San Diego
Kaufman, Joel Daniel, M.D., M.P.H.....	University of Washington

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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY2023

Kaye, Kenneth M., M.D.	Brigham and Women's Hospital
Kebebew, Electron, M.D.	Stanford University Hospital
Keegan, Theresa H. M., Ph.D.	University of California, Davis
Kelesidis, Theodoros, M.D., Ph.D.	University of Texas Southwestern Medical Center
Kelly, Kimberly Michelle, Ph.D.	University of Tennessee Health Science Center
Kelly, Megan Marie, Ph.D.	University of Massachusetts Medical School, Worcester
Kelly, Ryan T., Ph.D.	Brigham Young University
Kelly, William K., D.O.	Thomas Jefferson University
Kemp, Melissa Lambeth, Ph.D.	Georgia Institute of Technology
Kenderian, Saad J., M.D.	Mayo Clinic, Rochester
Kennedy, David Nelson, Ph.D.	University of Massachusetts Medical School, Worcester
Kennedy, Stephenie Kay, Ed.D.	West Virginia University
Kepka, Deanna Lee, Ph.D., M.P.H.	University of Utah
Kerscher, Aurora Esquela, Ph.D.	Eastern Virginia Medical School
Kerstann, Kimberly Fowler, Ph.D.	Emory University
Kesari, Santosh, M.D., Ph.D.	Saint John's Cancer Institute
Khabele, Dineo, M.D.	Washington University, St. Louis
Khan, Seema Ahsan, M.D.	Northwestern University at Chicago
Khazaie, Khashayarsha, Ph.D., D.Sc.	Mayo Clinic, Arizona
Khorana, Alok A., M.D.	Cleveland Clinic Lerner College of Medicine Case Western Reserve University
Khurana, Seema, Ph.D.	University of Houston
Kibbe, Warren A., Ph.D.	Duke University
Kim, Anthony J., Ph.D.	University of Maryland, Baltimore
Kim, Chang H., Ph.D.	University of Michigan at Ann Arbor
Kim, Chang Hee, Ph.D.	Godx Inc.
Kim, Dennis Dong Hwan, M.D., Ph.D.	University Health Network
Kim, Dong-Hyun, Ph.D.	Northwestern University at Chicago
Kim, Eric Hwan, M.D.	Washington University
Kim, Felix Jinhyun, Ph.D.	Thomas Jefferson University
Kim, Grace Hyun Jung, Ph.D.	University of California, Los Angeles
Kim, Harrison, H., Ph.D.	University of Alabama at Birmingham
Kim, Joseph, M.D.	University of Kentucky
Kim, Michael Paul, M.D.	University of Texas MD Anderson Cancer Center
Kim, Minjun, Ph.D.	Southern Methodist University
Kim, Minsoo, Ph.D.	University of Rochester
Kim, Sage J., Ph.D.	University of Illinois, Chicago
Kim, Seongho, Ph.D.	Wayne State University
Kim, Sungheon Gene, Ph.D.	Weill Medical College of Cornell University
Kim, Tae Hoon, Ph.D.	University of Texas, Dallas
Kim, William Y., M.D.	University of North Carolina at Chapel Hill
Kimbro, Kevin Sean, Ph.D.	Morehouse School of Medicine
Kimchi, Eric T., M.D.	Pennsylvania State University Hershey Medical Center
Kimmel, Marek, Ph.D., Sc.D.	Rice University
Kinahan, Paul E., Ph.D.	University of Washington
King, Michael R., Ph.D.	Vanderbilt University
King, Suzanne N., Ph.D.	University of Louisville
Kireev, Dmitri, Ph.D.	University of Missouri, Columbia

Kirma, Nameer, Ph.D. ....	University of Texas Health Science Center
Kissick, Haydn, Ph.D. ....	Emory University
Kitlinska, Joanna B., Ph.D. ....	Georgetown University
Klassen, Ann Carroll, Ph.D. ....	Drexel University
Klawitter, Jelena, Ph.D. ....	University of Colorado, Denver
Kleckner, Ian Robert, Ph.D., M.P.H. ....	University of Maryland, Baltimore
Klein, Allon Moshe, Ph.D. ....	Harvard Medical School
Klein, Jonathan D., M.D., M.P.H. ....	University of Illinois, Chicago
Kleinberg, Lawrence Richard, M.D. ....	Johns Hopkins University
Klemp, Jennifer Rose, Ph.D., M.P.H. ....	University of Kansas Medical Center
Klesges, Robert C., Ph.D. ....	University of Virginia
Klibanov, Alexander L., Ph.D. ....	University of Virginia
Kline, Justin P., M.D. ....	University of Chicago
Kluger, Harriet M., M.D. ....	Yale University
Knoerl, Robert James, Ph.D., R.N. ....	University of Michigan
Knudsen, Beatrice S., M.D., Ph.D. ....	University of Utah
Knudsen, Erik, Ph.D. ....	Roswell Park Cancer Institute
Knudson, Charles Michael, M.D., Ph.D. ....	University of Iowa
Knutson, Keith L., Ph.D. ....	Mayo Clinic, Jacksonville
Ko, Jin A., Ph.D. ....	University of Pennsylvania
Kocherginsky, Masha, Ph.D. ....	Northwestern University at Chicago
Koelle, David M., M.D. ....	University of Washington
Koestler, Devin Charles, Ph.D. ....	University of Kansas Medical Center
Kohli, Manish, M.D. ....	University of Utah
Koide, Shohei, Ph.D. ....	New York University School of Medicine
Kolenko, Vladimir M., M.D., Ph.D. ....	Fox Chase Cancer Center
Kolluri, Siva Kumar, Ph.D. ....	Oregon State University
Koneru, Mythili, M.D., Ph.D. ....	Marker Therapeutics Inc.
Kong, Ah-Ng Tony, Ph.D. ....	Rutgers, The State University of New Jersey
Kong, Jun, Ph.D. ....	Georgia State University
Konofagou, Elisa E., Ph.D. ....	Columbia University New York Morningside
Koomen, John M., Ph.D. ....	Moffitt Cancer Center
Korc, Murray, M.D. ....	University of California, Irvine
Korkaya, Hasan, Ph.D., D.V.M. ....	Wayne State University
Kotula, Leszek, M.D., Ph.D. ....	Upstate Medical University
Kousoulas, Konstantin G., Ph.D. ....	Louisiana State University A&M College, Baton Rouge
Kowalski, Jeanne, Ph.D. ....	University of Texas, Austin
Kowitt, Sarah, Ph.D., M.P.H. ....	University of North Carolina at Chapel Hill
Kraj, Piotr J., Ph.D., D.V.M. ....	Old Dominion University
Krasilnikov, Andrey S., Ph.D. ....	Pennsylvania State University
Krasnitz, Alexander, Ph.D. ....	Cold Spring Harbor Laboratory
Krebs, Simone, M.D. ....	Memorial Sloan Kettering Cancer Center
Krenciute, Giedre, Ph.D. ....	St. Jude Children’s Research Hospital
Kresty, Laura A., Ph.D. ....	University of Michigan at Ann Arbor
Kridel, Steven J., Ph.D. ....	Wake Forest University Health Sciences
Krist, Alexander H., M.D., M.P.H. ....	Virginia Commonwealth University
Kriwacki, Richard W., Ph.D. ....	St. Jude Children’s Research Hospital
Krok-Schoen, Jessica L., Ph.D. ....	Ohio State University



Krtolica, Ana, Ph.D..... Retrotope, Inc.  
 Kruse-Diehr, Aaron, Ph.D..... University of Kentucky  
 Kugel, Sita, Ph.D. .... Fred Hutchinson Cancer Center  
 Kuhs, Krystle A., Ph.D., M.P.H. .... University of Kentucky  
 Kularatne, Sumith, Ph.D..... On Target Laboratories, LLC  
 Kulke, Matthew H., M.D..... Boston University School of Medicine  
 Kumar, Shaji Kunnathu, M.D..... Mayo Clinic, Rochester  
 Kung, Andrew L., M.D., Ph.D..... Memorial Sloan Kettering Cancer Center  
 Kuo, Cynthia, Ph.D..... Vibrado  
 Kuo, John S., M.D., Ph.D. .... University of Texas, Austin  
 Kuo, Tsung-Ting, Ph.D..... University of California, San Diego  
 Kupfer, Sonia, M.D..... University of Chicago  
 Kurabayashi, Katsuo, Ph.D..... New York University  
 Kurokawa, Manabu, Ph.D..... Kent State University  
 Kwan, Marilyn L., Ph.D..... Kaiser Permanente  
 Kwiatkowski, David J., M.D., Ph.D..... Brigham and Women’s Hospital  
 Kwong, Gabriel A., Ph.D..... Georgia Institute of Technology  
 Kyprianou, Natasha, Ph.D..... Icahn School of Medicine at Mount Sinai

**L**

La-Beck, Ninh, Pharm.D. .... Texas Tech University Health Sciences Center  
 Labaer, Joshua, M.D., Ph.D..... Arizona State University-Tempe Campus  
 Lacey, James V., Ph.D., M.P.H. .... Beckman Research Institute of City of Hope  
 Lai, Albert, M.D., Ph.D..... University of California, Los Angeles  
 Laimins, Laimonis A., Ph.D. .... Northwestern University at Chicago  
 Laiyemo, Adeyinka O., M.D., M.B.B.S., M.P.H..... Howard University  
 Lake, Douglas F., Ph.D..... Arizona State University-Tempe Campus  
 Lam, Wan, Ph.D. .... British Columbia Cancer Agency  
 Lamba, Jatinder K., Ph.D..... University of Florida  
 Lambert, Paul F., Ph.D..... University of Wisconsin-Madison  
 Lan, Li, M.D., Ph.D. .... Duke University  
 Lane, Andrew N., Ph.D..... University of Kentucky  
 Lang, Julie E. M.D..... Cleveland Clinic Lerner College of Medicine  
 Case Western Reserve University  
 Langer, Mark P., M.D..... Indiana University-Purdue University at Indianapolis  
 Langevin, Scott M., Ph.D..... University of Cincinnati  
 Languino, Lucia R., Ph.D..... Thomas Jefferson University  
 Lanza, Gregory M., M.D., Ph.D..... Washington University School of Medicine  
 Laramore, George Ernest, M.D., Ph.D..... University of Washington  
 Larner, James M., M.D..... University of Virginia  
 Lasfar, Ahmed, Ph.D..... Rutgers, The State University of New Jersey  
 Lasorella, Anna, M.D..... University of Miami School of Medicine  
 Lathan, Christopher S., M.D., M.P.H..... Dana-Farber Cancer Institute  
 Lathia, Justin D., Ph.D..... Cleveland Clinic Lerner College of Medicine  
 Case Western Reserve University  
 Laumet, Geoffroy O., Ph.D. .... Michigan State University  
 Lawler, Sean Edward, Ph.D..... Brown University  
 Lawrenson, Kate, Ph.D. .... Cedars-Sinai Medical Center



Lawson, Devon A., Ph.D.	University of California, Irvine
Lazar, Maria Iuliana, Ph.D.	Virginia Polytechnic Institute and State University
Lazarus, Michael Block, Ph.D.	Icahn School of Medicine at Mount Sinai
Lazo, John S., Ph.D.	University of Virginia
Le, Thuc Minh, Ph.D.	University of California, Los Angeles
Le Poole, I. Caroline, Ph.D.	Northwestern University at Chicago
Leach, Robin Jean, Ph.D.	University of Texas Health Science Center
Leapman, Michael Stuart, M.D.	Yale University
Lee, Dean A., M.D., Ph.D.	Research Institute Nationwide Children’s Hospital
Lee, Hang, Ph.D., B.O.T.H.	Massachusetts General Hospital
Lee, Hee Yun, Ph.D.	University of Alabama, Tuscaloosa
Lee, Hyun-Sung, M.D., Ph.D.	Baylor College of Medicine
Lee, Jeannette Y., Ph.D.	University of Arkansas for Medical Sciences
Lee, Jiyoung, Ph.D.	George Washington University
Lee, Ji-Young, Ph.D.	University of Connecticut, Storrs
Lee, John Kyung, M.D., Ph.D.	University of California, Los Angeles
Lee, Jun Hee, Ph.D.	University of Michigan at Ann Arbor
Lee, Luke P., Ph.D.	Brigham and Women’s Hospital
Lee, Peter Poon-Hang, M.D.	Beckman Research Institute of City of Hope
Lee, Sean B., Ph.D.	Tulane University of Louisiana
Lee, Zhenghong, Ph.D.	Case Western Reserve University
Leeman, Jennifer, Dr.PH., M.P.H.	University of North Carolina at Chapel Hill
Lei, Yu Leo, Ph.D., D.D.S.	University of Michigan at Ann Arbor
Leighton, Susan L.	Patient Advocate
Lenburg, Marc Elliott, Ph.D.	Boston University Medical Campus
Lennon, Anne Marie, Ph.D.	Johns Hopkins University
Leopold, Judith S., Ph.D.	University of Michigan at Ann Arbor
Lesinski, Gregory B., Ph.D., M.P.H.	Emory University
Leslie, Christina S., Ph.D.	Memorial Sloan Kettering Cancer Center
Leslie, Kimberly K., M.D.	University of New Mexico Health Science Center
Leung, Cheuk Tung, Ph.D.	University of Minnesota
Levene, Stephen D., Ph.D.	University of Texas, Dallas
Levine, Ross L., M.D.	Memorial Sloan Kettering Cancer Center
Lewis, Jason S., Ph.D.	Memorial Sloan Kettering Cancer Center
Lewis, Robert E., Ph.D.	University of Nebraska Medical Center
Ley, Sylvia H., Ph.D.	Tulane University of Louisiana
Li, Bing, Ph.D.	University of Iowa
Li, Chenglong, Ph.D.	University of Florida
Li, Chun, Ph.D.	University of Texas MD Anderson Cancer Center
Li, Deyu, Ph.D.	University of Rhode Island
Li, Donghui, Ph.D.	University of Texas MD Anderson Cancer Center
Li, Hong, Ph.D.	University of California, Davis
Li, Hongjin, Ph.D.	University of Illinois, Chicago
Li, Howard, M.D.	Virginia Commonwealth University
Li, Hui, Ph.D.	University of Virginia
Li, Jian Jian, M.D., Ph.D.	University of California, Davis
Li, Jiong, Ph.D.	Virginia Commonwealth University
Li, Li, M.D., Ph.D.	University of Virginia

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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY2023

Li, Renfeng, Ph.D.	University of Pittsburgh
Li, Ruijiang, Ph.D.	Stanford University
Li, Shaoguang, M.D., Ph.D.	University of Massachusetts Medical School, Worcester
Li, Song, M.D., Ph.D.	University of Pittsburgh
Li, Tianhong, M.D., Ph.D.	University of California, Davis
Li, Wei, Ph.D.	University of Tennessee Health Science Center
Li, Xiaonan, M.D., Ph.D.	Lurie Children's Hospital of Chicago
Li, Xiaoxian, Ph.D.	Emory University
Li, Yan, M.D., Ph.D.	University of California, San Francisco
Li, Yi-Ping, Ph.D.	University of Texas Health Science Center, Houston
Li, Yuelin, Ph.D.	Memorial Sloan Kettering Cancer Center
Li, Yun, Ph.D.	University of North Carolina at Chapel Hill
Li, Zhe, Ph.D.	Brigham and Women's Hospital
Li, Zihai, M.D., Ph.D.	Ohio State University
Liang, Gangning, M.D., Ph.D.	University of Southern California
Liang, Han, Ph.D.	University of Texas MD Anderson Cancer Center
Liang, Rongguang, Ph.D.	University of Arizona
Liao, Jianguang, Ph.D.	Pennsylvania State University Hershey Medical Center
Liao, John Ben, M.D., Ph.D.	University of Washington
Liao, Zhongxing, M.D.	University of Texas MD Anderson Cancer Center
Libutti, Steven K., M.D.	Rutgers, Biomedical and Health Sciences
Liby, Karen T., Ph.D.	Indiana University-Purdue University at Indianapolis
Licht, Jonathan D., M.D.	University of Florida
Lightdale, Charles J., M.D.	Columbia University
Lim, Kian H., M.D., Ph.D.	Washington University
Limoli, Charles, Ph.D.	University of California, Irvine
Lin, Lilie Leming, M.D.	University of Texas MD Anderson Cancer Center
Lin, Ming-Fong, Ph.D.	University of Nebraska Medical Center
Lin, Richard Z., M.D., M.P.H.	State University New York, Stony Brook
Lin, Shiaw-Yih, Ph.D.	University of Texas MD Anderson Cancer Center
Lin, Sue-Hwa, Ph.D.	University of Texas MD Anderson Cancer Center
Lincoln, Christopher Mark, Ph.D.	Methodist Hospital Research Institute
Linsley, Peter S., Ph.D.	Benaroya Research Institute at Virginia Mason
Lionnet, Timothee, Ph.D.	New York University School of Medicine
Little, Melissa Ashley, Ph.D., M.P.H.	University of Virginia
Liu, Chang, Ph.D.	University of South Carolina at Columbia
Liu, Chen, M.D., Ph.D.	Yale University
Liu, Dongfang, Ph.D.	Rutgers, Biomedical and Health Sciences
Liu, Hao, Ph.D.	Rutgers, The State University of New Jersey
Liu, Jinze, Ph.D.	University of Kentucky
Liu, Nianjun, Ph.D.	Trustees of Indiana University
Liu, Shujun, Ph.D.	Case Western Reserve University
Liu, Xuefeng, M.D.	Ohio State University
Liu, Yan, Ph.D.	Northwestern University at Chicago
Liu, Yu-Tsueng, M.D., Ph.D.	Diagnologix, LLC
Llanos Wilson, Adana A.M., Ph.D., M.P.H.	Columbia University Health Sciences
Llor, Xavier, M.D., Ph.D.	Yale University
Lo, Hui-Wen, Ph.D.	University of Texas Health Science Center, Houston

Lock, Eric F., Ph.D.....	University of Minnesota
Locker, Joseph D., M.D., Ph.D.....	University of Pittsburgh
Lockhart, Albert Craig, M.D.....	Medical University of South Carolina
Loeb, David M., M.D., Ph.D.....	Albert Einstein College of Medicine
Loeb, Stacy, M.D.....	New York University Langone Health
Loew, Murray H., Ph.D.....	George Washington University
Logan, Susan K., Ph.D.....	New York University School of Medicine
Lok, Benjamin H., M.D.....	University Health Network
Lokshin, Anna E., Ph.D.....	University of Pittsburgh
Longmore, Gregory D., M.D.....	Washington University
Losman, Julie Aureore, M.D., Ph.D.....	Dana-Farber Cancer Institute
Lou, Xiang-Yang, Ph.D.....	University of Florida
Loukas, Alexandra, Ph.D.....	University of Texas, Austin
Lovly, Christine M., M.D., Ph.D.....	Vanderbilt University
Lowenstein, Pedro R., M.D., Ph.D.....	University of Michigan at Ann Arbor
Lowy, Andrew M., M.D.....	University of California, San Diego
Lu, Bo, M.D., Ph.D.....	University of Missouri, Columbia
Lu, Hua, Ph.D.....	Tulane University of Louisiana
Lu, Qing, Ph.D.....	University of Florida
Lu, Shi-Long, M.D., Ph.D.....	University of Colorado, Denver
Lu, Theresa T., M.D., Ph.D.....	Hospital for Special Surgery
Lu, Weiqin, Ph.D.....	University of Texas, El Paso
Lu, Xiuling, Ph.D.....	University of Connecticut School of Medical and Dental Medicine
Lu, Yong, Ph.D.....	Methodist Hospital Research Institute
Lu, Yong-Chen, Ph.D.....	University of Arkansas System
Luan, Xianghong, M.D.....	University of Rochester
Luberto, Chiara, Ph.D.....	State University New York, Stony Brook
Lubman, David M., Ph.D.....	University of Michigan at Ann Arbor
Lucas, Daniel, Ph.D.....	Cincinnati Children’s Hospital Medical Center
Luchini, Alessandra, Ph.D.....	George Mason University
Luftig, Micah A., Ph.D.....	Duke University
Lum, Lawrence G., M.D., D.Sc.....	University of Virginia
Lundberg, Jennifer Bailey, Ph.D.....	University of Texas Health Science Center, Houston
Luo, Jianhua, M.D., Ph.D.....	University of Pittsburgh
Luque, John S., Ph.D., M.P.H.....	Florida Agricultural and Mechanical University
Lustberg, Maryam B., M.D., M.P.H.....	Yale University
Luznik, Leo, M.D.....	Johns Hopkins University
Lyerly, Herbert K., M.D.....	Duke University
Lyon, Maureen Ellen, Ph.D.....	Children’s Research Institute
Lyons, Kathleen Doyle, Sc.D.....	MGH Institute of Health Professions

**M**

Ma, Jian, Ph.D.....	Carnegie-Mellon University
Ma, Patrick C., M.D.....	Pennsylvania State University Hershey Medical Center
Ma, Tony Xuyen, M.S.....	Benten Technologies, Inc.
Maciejowski, John, Ph.D.....	Memorial Sloan Kettering Cancer Center
Mackall, Crystal, M.D.....	Stanford University
Mackenzie, Gerardo Guillermo, Ph.D.....	University of California, Davis

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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY2023

MacLean, Paul S., Ph.D.....	University of Colorado, Denver
Macoska, Jill A., Ph.D.....	University of Massachusetts, Boston
Madeleine, Margaret M., Ph.D., M.P.H.....	Fred Hutchinson Cancer Center
Mahato, Ram I., Ph.D.....	University of Nebraska Medical Center
Mahmood, Faisal, Ph.D.....	Brigham and Women’s Hospital
Mahtani, Melanie M., Ph.D.....	Prime Genomics, Inc.
Maiga, Mamoudou, M.D., Ph.D.....	Northwestern University
Mailloux, Adam William, Ph.D.....	University of Iowa
Major, Michael Benjamin, Ph.D.....	Washington University
Makhov, Petr B., M.D., Ph.D.....	Fox Chase Cancer Center
Maki, Carl G., Ph.D.....	Rush University Medical Center
Malafa, Mokenge P., M.D.....	Moffitt Cancer Center
Malarkey, Christopher Scott, Ph.D.....	Regis University
Malek, Sami Nimer, M.D.....	University of Michigan at Ann Arbor
Malkas, Linda H., Ph.D.....	Beckman Research Institute of City of Hope
Mallapragada, Surya K., Ph.D.....	Iowa State University
Maluccio, Mary Alice, M.D., M.P.H.....	Louisiana State University
Mami-Chouaib, Fathia, Ph.D.....	National Institute of Health and Medical Research (INSERM), Paris
Manjili, Masoud H., Ph.D., D.V.M.....	Virginia Commonwealth University
Mao, Hui, Ph.D.....	Emory University
Mao, Junhao, Ph.D.....	University of Massachusetts Medical School, Worcester
Marcucci, Guido, M.D.....	Beckman Research Institute of City of Hope
Marcus, Adam I., Ph.D.....	Emory University
Marcus, Elizabeth A., M.D.....	University of California, Los Angeles
Marini, Frank C., Ph.D.....	Wake Forest University School of Medicine
Maris, John M., M.D.....	Children’s Hospital of Philadelphia
Mariuzza, Roy A., Ph.D.....	University of Maryland, College Park
Mark, Roger G., M.D., Ph.D.....	Massachusetts Institute of Technology
Markert, James M., M.D., M.P.H.....	University of Alabama at Birmingham
Markovina, Stephanie, M.D., Ph.D.....	Washington University
Marks, Daniel L., M.D., Ph.D.....	Oregon Health and Science University
Marks, Jeffrey R., Ph.D.....	Duke University
Marshall, David T., M.D.....	Medical University of South Carolina
Martin, Elizabeth, Ph.D.....	Louisiana State University A&M College, Baton Rouge
Martinez, Elisabeth D., Ph.D.....	University of Texas Southwestern Medical Center
Martinez, Maria E., Ph.D., M.P.H.....	University of California, San Diego
Mason, Ashley E., Ph.D.....	University of California, San Francisco
Mason, Jennifer, Ph.D.....	Clemson University
Mathew, Paul, M.B.B.S.....	Tufts Medical Center
Matkowskyj, Kristina A., M.D., Ph.D.....	University of Wisconsin-Madison
Matlawska-Wasowska, Ksenia, Ph.D.....	University of Alabama at Birmingham
Matosevic, Sandro, Ph.D.....	Purdue University
Matouschek, Andreas, Ph.D.....	University of Texas, Austin
Matsunaga, Terry Onichi, Ph.D., Pharm.D.....	University of Arizona
Matters, Gail L., Ph.D.....	Pennsylvania State University Hershey Medical Center
Matthay, Katherine Kurshan, M.D.....	University of California, San Francisco
Maurer, Barry J., M.D., Ph.D.....	Texas Tech University Health Sciences Center

Mayer, Deborah K., Ph.D., R.N.....	University of South Carolina at Chapel Hill
Mayorga, Maria Esther, Ph.D. ....	North Carolina State University, Raleigh
Mazumdar, Madhu, Ph.D.....	Icahn School of Medicine at Mount Sinai
McCall, Shannon Jones, M.D.....	Duke University
McCawley, Lisa Joy, Ph.D.....	Vanderbilt University
McCombie, William Richard, Ph.D. ....	Cold Spring Harbor Laboratory
McConathy, Jonathan Edward, M.D., Ph.D. ....	University of Alabama at Birmingham
McConnell, Kelly, Ph.D. ....	Memorial Sloan Kettering Cancer Center
McCoy, Matthew D., Ph.D.....	Georgetown University
McDaid, Hayley M., Ph.D.....	Albert Einstein College of Medicine
McDannold, Nathan J., Ph.D.....	Brigham and Women’s Hospital
McDevitt, Michael R., Ph.D.....	Memorial Sloan Kettering Cancer Center
McDonald, Oliver Gene, M.D., Ph.D. ....	University of Miami School of Medicine
McFall, Sally Maureen, Ph.D. ....	Northwestern University
McFarland, Braden Cox, Ph.D. ....	University of Alabama at Birmingham
McGuigan, Alison P., Ph.D. ....	University of Toronto
McKeon, Frank D., Ph.D.....	University of Houston
McKinnon, Lyle, Ph.D. ....	University of Manitoba
McLean, Karen, M.D., Ph.D. ....	Roswell Park Cancer Institute
McLean Florence, Yvonne .....	Patient Advocate
McMillan, Alan Blair, Ph.D.....	University of Wisconsin-Madison
McNeil, Ann S., R.N. ....	Miami Children’s Hospital
Meade, Cathy D., R.N., Ph.D., F.A.A.N. ....	Moffitt Cancer Center
Medvedovic, Mario, Ph.D. ....	University of Cincinnati
Mehla, Kamiya, Ph.D.....	University of Oklahoma Health Sciences Center
Mehrara, Babak J., M.D. ....	Memorial Sloan Kettering Cancer Center
Mehrmohammadi, Mohammad, Ph.D. ....	University of Rochester
Mehrotra, Shikhar, Ph.D.....	Medical University of South Carolina
Mehta, Anand S., Ph.D.....	Medical University of South Carolina
Mei, Yuping, Ph.D. ....	Johns Hopkins University
Mejia, Nichte Itzel, M.D., M.P.H.....	Massachusetts General Brigham
Melcher, Alan, Ph.D.....	University College London
Melenhorst, Jan J., Ph.D. ....	Cleveland Clinic Lerner College of Medicine Case Western Reserve University
Mellon, Eric Albert, M.D., Ph.D. ....	University of Miami School of Medicine
Melnick, Ari M., M.D. ....	Weill Medical College of Cornell University
Melvin, Adam Thomas, Ph.D.....	Clemson University
Mendoza, Michelle Christine, Ph.D.....	University of Utah
Merchant, Akil, M.D.....	Cedars-Sinai Medical Center
Mercola, Dan, M.D., Ph.D.....	University of California, Irvine
Merlin, Jessica S., M.D., M.B.A.....	University of Pittsburgh
Metallo, Christian Michael, Ph.D.....	Salk Institute for Biological Studies
Metelitsa, Leonid S., M.D., Ph.D. ....	Baylor College of Medicine
Mettu, Ramgopal, Ph.D.....	Tulane University of Louisiana
Meuillet, Emmanuelle Joelle, Ph.D.....	Microvascular Therapeutics, LLC
Meyer, Joshua E., M.D.....	Fox Chase Cancer Center
Meyers, Craig M., Ph.D. ....	Pennsylvania State University Hershey Medical Center
Miao, Yubin, Ph.D.....	University of Colorado, Denver



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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY2023

Michael, Iacovos, Ph.D. ....	University of Toronto
Michailidis, Eleftherios, Ph.D.....	Emory University
Michaud, Dominique S., Sc.D.....	Tufts University, Boston
Miele, Lucio, M.D., Ph.D.....	Louisiana State University Health Sciences Center
Mikhael, Joseph R, M.D. ....	Translational Genomics Research Institute
Milgrom, Sarah, M.D.....	University of Colorado Health
Miller, Christopher Ryan, M.D., Ph.D.....	University of Alabama at Birmingham
Miller, Jeffrey S., M.D.....	University of Minnesota
Miller, Kathy D., M.D.....	Indiana University-Purdue University at Indianapolis
Miller, Kimberly Ann, Ph.D., M.P.H. ....	University of Southern California
Miller, Sarah J., Psy.D.....	Icahn School of Medicine at Mount Sinai
Miller, Todd W., Ph.D. ....	Medical College of Wisconsin
Mills, Alea A., Ph.D. ....	Cold Spring Harbor Laboratory
Mills, Gordon B., M.D., Ph.D.....	Oregon Health and Science University
Mills, Jason C., M.D., Ph.D. ....	Baylor College of Medicine
Milone, Michael C., M.D., Ph.D. ....	University of Pennsylvania
Miner, James R., M.D. ....	University of Minnesota
Ming, Xin, Ph.D. ....	Wake Forest University Health Sciences
Miranda, JJ, Ph.D.....	Barnard College
Mishra, Lopa, M.D. ....	Feinstein Institute for Medical Research
Mitchell, Beverly S., M.D.....	Stanford University
Mitchell, Duane A., M.D., Ph.D. ....	University of Florida Gainesville
Mitchell, Emma McKim, Ph.D., N ....	University of Virginia
Mitchell, Robert A., Ph.D.....	University of Louisville
Mitin, Natalia, Ph.D. ....	University of North Carolina at Chapel Hill
Mitra, Siddhartha S., Ph.D.....	University of Colorado, Denver
Mitrofanova, Antonina, Ph.D.....	Rutgers, Biomedical and Health Sciences
Mitsche, Matthew Alvin, Ph.D.....	University of Texas Southwestern Medical Center
Mitsiades, Nicholas, M.D., Ph.D. ....	University of California, Davis
Mittelman, Steven David, M.D., Ph.D.....	University of California, Los Angeles
Miyamoto, David T., M.D., Ph.D. ....	Massachusetts General Hospital
Modak, Shakeel, M.D. ....	Memorial Sloan Kettering Cancer Center
Modiri, Arezoo, Ph.D.....	University of Maryland, Baltimore
Mody, Rajen J., M.D. ....	University of Michigan at Ann Arbor
Moghaddam, Seyed Javad Mirhassani, M.D. ....	University of Texas MD Anderson Cancer Center
Mohamed, Nihal, Ph.D.....	Icahn School of Medicine at Mount Sinai
Mohammad, Ramzi M., Ph.D.....	Wayne State University
Mohapatra, Subhra, Ph.D. ....	University of South Florida
Mohi, Golam, Ph.D. ....	University of Virginia
Mohs, Aaron M., Ph.D.....	University of Nebraska Medical Center
Mojica, Cynthia M., Ph.D., M.P.H.....	Oregon State University
Molina, Yamile, Ph.D., M.P.H. ....	University of Illinois, Chicago
Molldrem, Jeffrey J., M.D.....	University of Texas MD Anderson Cancer Center
Monestier, Marc, M.D., Ph.D. ....	Temple University
Monjazebe, Arta Monir, M.D., Ph.D. ....	University of California, Davis
Monroy, Fernando P., Ph.D.....	Northern Arizona University
Montagna, Cristina, Ph.D. ....	Rutgers, The State University of New Jersey



Monti, Stefano, Ph.D. ....	Boston University school of Medicine
Moore, David D., Ph.D. ....	University of California, Berkeley
Moore, Kathleen N., M.D. ....	University of Oklahoma Health Sciences Center
Moraru, Ion I., M.D., Ph.D. ....	University of Connecticut School of Medicine and Dentistry
Moreno, Carlos Sanchez, Ph.D. ....	Emory University
Moreno, Patricia Ingrid, Ph.D. ....	University of Miami School of Medicine
Morgan, Gareth John, M.D., Ph.D. ....	New York University School of Medicine
Morgan, Martin T., Ph.D. ....	Roswell Park Cancer Institute
Morrell, Glen R., M.D., Ph.D. ....	University of Utah
Morris, Zachary Scott, M.D., Ph.D. ....	University of Wisconsin-Madison
Morrissey, Jeremiah J., Ph.D. ....	Washington University
Mortimer, Joanne E., M.D. ....	Beckman Research Institute of City of Hope
Mosammaparast, Nima, M.D., Ph.D. ....	Washington University
Moscat, Jorge, Ph.D. ....	Weill Medical College of Cornell University
Moseley, Hunter Nathaniel, Ph.D. ....	University of Kentucky
Moses, Ashlee V., Ph.D. ....	Oregon Health and Science University
Moss, Nelson S., M.D. ....	Memorial Sloan Kettering Cancer Center
Moya, Monica Lizet, Ph.D. ....	Lawrence Livermore National Security, LLC
Moylan, Cynthia A., M.D. ....	Duke University
Mu, David, Ph.D. ....	Eastern Virginia Medical School
Muddiman, David C., Ph.D. ....	North Carolina State University, Raleigh
Mueller, Klaus, Ph.D. ....	State University New York, Stony Brook
Mueller, Sabine, M.D., Ph.D. ....	University of California, San Francisco
Mukherjee, Bhramar, Ph.D. ....	University of Michigan at Ann Arbor
Mumenthaler, Shannon Michelle, Ph.D. ....	University of Southern California
Mundy-Bosse, Bethany, Ph.D. ....	Ohio State University
Munger, Joshua C., Ph.D. ....	University of Rochester
Munger, Karl, Ph.D. ....	Tufts University, Boston
Munn, David H., M.D. ....	Augusta University
Munshi, Hidayatullah G., M.D. ....	Northwestern University at Chicago
Munster, Pamela N., M.D. ....	University of California, San Francisco
Murphy, Andrew J., M.D. ....	St. Jude Children’s Research Hospital
Murphy, Barbara A., M.D. ....	Vanderbilt University
Murphy, Maureen E., Ph.D. ....	Wistar Institute
Murtaugh, Lewis C., Ph.D. ....	University of Utah
Murtaza, Muhammed, Ph.D., M.B.B.S. ....	University of Wisconsin-Madison
Muthusamy, Natarajan, Ph.D., D.V.M. ....	Ohio State University

**N**

Nadiminty, Nagalakshmi, Ph.D. ....	University of Toledo Health Science Campus
Naegle, Kristen M., Ph.D. ....	University of Virginia
Nagathihalli, Nagaraj S., Ph.D. ....	University of Miami School of Medicine
Nagrath, Sunitha, Ph.D. ....	University of Michigan
Nair, Smita K., Ph.D. ....	Duke University
Nakagawa, Mayumi, M.D., Ph.D. ....	University of Arkansas for Medical Sciences
Nakakura, Eric K., M.D., Ph.D. ....	University of California, San Francisco
Nakshatri, Harikrishna, Ph.D. ....	Indiana University-Purdue University at Indianapolis
Narzisi, Giuseppe, Ph.D. ....	New York Genome Center

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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY2023

Nassar, Nicolas, Ph.D. ....	Cincinnati Children’s Hospital Medical Center
Nasser, Mohd Wasim, Ph.D.....	University of Nebraska Medical Center
Natarajan, Amarnath, Ph.D.....	University of Nebraska Medical Center
Natarajan, Aswin, Ph.D.....	New York University School of Medicine
Nathanson, Katherine L., M.D.....	University of Pennsylvania
Naxerova, Kamila, Ph.D. ....	Harvard Medical School
Neal, Joel, M.D., Ph.D. ....	Stanford University
Nelson, John, Ph.D. ....	General Electric Global Research Center
Nelson, Mark Anthony, Ph.D.....	University of Arizona
Nemenoff, Raphael A., Ph.D.....	University of Colorado, Denver
Ness, Kirsten Kimberlie, Ph.D., M.P.H.....	St. Jude Children’s Research Hospital
Nevalainen, Marja T., M.D., Ph.D. ....	Medical College of Wisconsin
Newcomb, Polly A., Ph.D., M.P.H. ....	Fred Hutchinson Cancer Center
Newman, Erika Adams, M.D. ....	University of Michigan at Ann Arbor
Newman, Lisa A., M.D., M.P.H. ....	University of Michigan at Ann Arbor
Nezafat, Reza, Ph.D.....	Harvard Medical School
Nfonsam, Valentine, M.D. ....	Louisiana State University
Ngamcherdtrakul, Worapol, Ph.D.....	PDX Pharmaceuticals, Inc.
Nghiemphu, Phioanh Leia, M.D.....	University of California, Los Angeles
Ngo, Thuy Thi Minh, Ph.D. ....	Oregon Health and Science University
Nguyen, Don X., Ph.D. ....	Yale University
Nguyen, Hien Van, Ph.D. ....	University of Houston
Nichols, Hazel B., Ph.D. ....	University of North Carolina at Chapel Hill
Nieva, Jorge J., M.D.....	University of Southern California
Ning, Shunbin, Ph.D.....	East Tennessee State University
Nivala, Jeffrey Matthew, Ph.D. ....	University of Washington
Nixon, Douglas F., M.D., Ph.D. ....	Weill Medical College of Cornell University
Norquist, Barbara, M.D. ....	University of Washington
North, Brian J., Ph.D. ....	Creighton University
Nunez-Smith, Marcella, M.O.T.H., M.D. ....	Yale University
Nyati, Mukesh K., Ph.D.....	University of Michigan at Ann Arbor

**0**

O’Dell, Walter G., Ph.D. ....	University of Florida
O’Neill, Suzanne C., Ph.D.....	Georgetown University
Obeng-Gyasi, Samilia, M.D., M.P.H.....	Ohio State University
Oberley-Deegan, Rebecca E., Ph.D. ....	University of Nebraska Medical Center
Odde, David J., Ph.D. ....	University of Minnesota
Odedina, Folakemi T., Ph.D.....	Mayo Clinic, Jacksonville
Odunsi, Kunle O., M.D., Ph.D.....	University of Chicago Medical Center
Oelze, Michael L., Ph.D. ....	University of Illinois, Urbana-Champaign
Offer, Steven, Ph.D.....	Mayo Clinic, Rochester
Ogembo, Javier Gordon, Ph.D.....	Beckman Research Institute of City of Hope
Oldenburg, Amy L., Ph.D.....	University of North Carolina at Chapel Hill
Olmez, Inan, M.D. ....	Pennsylvania State University Hershey Medical Center
Omilian, Angela, Ph.D.....	Roswell Park Cancer Institute
Onaitis, Mark, M.D.....	University of California, San Diego
Onar-Thomas, Arzu, Ph.D. ....	St. Jude Children’s Research Hospital

Ondrey, Frank G., M.D., Ph.D. ....	University of Minnesota
Onofrey, John Aaron, Ph.D. ....	Yale University
Opresko, Patricia L., Ph.D. ....	University of Pittsburgh
Opyrchal, Mateusz, M.D., Ph.D. ....	Indiana University Health
Orlando, Lori Ann, M.D. ....	Duke University
Orme, Jacob, M.D., Ph.D. ....	Mayo Clinic, Rochester
Ornelles, David Arnold, Ph.D. ....	Wake Forest University Health Sciences
Orringer, Daniel, M.D. ....	New York University School of Medicine
Osarogiagbon, Raymond U., M.B.B.S. ....	Baptist Memorial Hospital, Tipton
Osman, Iman, M.D. ....	New York University School of Medicine
Ostrowski, Michael C., Ph.D. ....	Medical University of South Carolina
Owen, Shawn C., Ph.D. ....	University of Utah
Owens, Philip, Ph.D. ....	University of Colorado, Denver

**P**

Pace, Lydia, M.D., M.P.H. ....	Brigham and Women's Hospital
Pachynski, Russell K., M.D. ....	Washington University
Pagoto, Sherry L., Ph.D. ....	University of Connecticut, Storrs
Pai, Sara Isabel, M.D., Ph.D. ....	Yale University
Pajonk, Frank, M.D., Ph.D. ....	University of California, Los Angeles
Pal, Ranadip, Ph.D. ....	Tech University
Palapattu, Ganesh S., M.D. ....	University of Michigan at Ann Arbor
Palle, Komaraiah, Ph.D. ....	Texas Tech University Health Sciences Center
Palmer, Gregory M., Ph.D. ....	Duke University
Palmer, Julie R., Sc.D., M.P.H. ....	Boston University Medical Campus
Palmer, Kenneth E., Ph.D. ....	University of Louisville
Palmer, Michelle A.J., Ph.D. ....	Vertex Pharmaceuticals, Inc.
Pan, Ping-Ying, Ph.D. ....	Methodist Hospital Research Institute
Pan, Xiaochuan, Ph.D. ....	University of Chicago
Pan, Zhen-Qiang, Ph.D. ....	Icahn School of Medicine at Mount Sinai
Pandey, Gaurav, Ph.D. ....	Icahn School of Medicine at Mount Sinai
Pandol, Stephen J., M.D. ....	Cedars-Sinai Medical Center
Pantelas, James ....	Patient Advocate
Papandreou, Ioanna, Ph.D. ....	Ohio State University
Papapetrou, Eirini, M.D., Ph.D. ....	Icahn School of Medicine at Mount Sinai
Paragh, Gyorgy, M.D., Ph.D. ....	Roswell Park Cancer Institute
Pardi, Darrell S., M.D. ....	Mayo Clinic, Rochester
Park, Elyse R., Ph.D., M.P.H. ....	Massachusetts General Hospital
Park, Jong Y., Dr.PH., M.P.H. ....	Moffitt Cancer Center
Park, Kwon-Sik, Ph.D. ....	University of Virginia
Park, Sean S., M.D., Ph.D. ....	Mayo Clinic, Rochester
Park, Sunggook, Ph.D. ....	Louisiana State University
Pasa-Tolic, Ljiljana, Ph.D. ....	Battelle Pacific Northwest Laboratories
Patankar, Manish S., Ph.D. ....	University of Wisconsin
Patel, Abhijit, M.D., Ph.D. ....	Yale University
Patel, Ketankumar D., Ph.D. ....	St. John's University
Patel, Ravi Bhasker, M.D., Ph.D. ....	University of Pittsburgh
Patierno, Steven R., Ph.D. ....	Duke University

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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY2023

Patnaik, Akash, M.D., Ph.D.....	University of Chicago
Patrie, Steven Matthew, Ph.D. ....	Northwestern University
Pauloski, Barbara R., Ph.D. ....	University of Wisconsin, Milwaukee
Pavlicova, Martina, Ph.D.....	Columbia University Health Sciences
Paz-Soldan, Valerie Andrea, Ph.D., M.P.H. ....	Tulane University of Louisiana
Peccoud, Jean M., Ph.D. ....	Colorado State University
Peehl, Donna M., Ph.D.....	University of California, San Francisco
Peitzman, Linda Ruth, M.D.....	HEALTHMYNE
Penet, Marie-France, Ph.D. ....	Johns Hopkins University
Pennell, Christopher A., Ph.D.....	University of Minnesota
Peppone, Luke Joseph, Ph.D., M.P.H.....	University of Rochester
Pereira, Deidre B., Ph.D.....	University of Florida
Perez, Bradford A., M.D. ....	Moffitt Cancer Center
Pergam, Steven Aaron, M.D., M.P.H.....	University of Washington
Perkins, Judy.....	Patient Advocate
Perkins, Susan M., Ph.D.....	Indiana University
Perumal, Omathanu Pillai, Ph.D.....	University of New Mexico
Peterson, Christine B., Ph.D.....	University of Texas MD Anderson Cancer Center
Peterson, Derick R., Ph.D.....	University of Rochester
Peterson, Joseph R, Ph.D. ....	Simbiosys, Inc.
Peterson, Lisa A., Ph.D. ....	University of Minnesota
Petrillo, Laura Anne, M.D. ....	Massachusetts General Hospital
Peyton, Shelly R., Ph.D.....	University of Massachusetts, Amherst
Pfister, Neil Thomas, M.D., Ph.D.....	University of Alabama at Birmingham
Philip, Philip Agop, M.D., Ph.D.....	Wayne State University
Pieper, Russell O., Ph.D.....	University of California, San Francisco
Pieper, Steven D.....	Isomics, Inc.
Pierobon, Mariaelena, M.D., M.P.H.....	George Mason University
Pili, Roberto, M.D.....	State University of New York at Buffalo
Pilon-Thomas, Shari, Ph.D.....	Moffitt Cancer Center
Pine, Sharon R., Ph.D. ....	University of Colorado, Denver
Piomelli, Daniele, Ph.D.....	University of California, Irvine
Platanias, Leonidas C., M.D., Ph.D. ....	Northwestern University at Chicago
Platz, Elizabeth A., Sc.D., M.P.H.....	Johns Hopkins University
Pleasure, David E., M.D.....	University of California, Davis
Plimack, Elizabeth, M.D.....	Fox Chase Cancer Center
Ploegh, Hidde L., Ph.D.....	Boston Children’s Hospital
Plon, Sharon E., M.D., Ph.D.....	Baylor College of Medicine
Poghosyan, Hermine, Ph.D., M.P.H. ....	Yale University
Polar, Yesim Gokmen, Ph.D.....	Emory University
Pomerantz, Mark M., M.D.....	Dana-Farber Cancer Institute
Pomerantz, Richard T., Ph.D.....	Thomas Jefferson University
Posadas, Edwin Melencio, M.D. ....	Cedars-Sinai Medical Center
Possemato, Richard Lewis, Ph.D.....	New York University School of Medicine
Pounds, Stanley Barrett, Ph.D.....	St. Jude Children’s Research Hospital
Powell, Charles A., M.D. ....	Icahn School of Medicine at Mount Sinai
Powell, Steven Francis, M.D.....	Sanford Health
Poynter, Jenny N., Ph.D., M.P.H. ....	University of Minnesota

Prahl, Scott Alan, Ph.D.	Oregon Institute of Technology
Prakash, Aishwarya, Ph.D.	University of South Alabama
Pratt, Rebekah J., Ph.D.	University of Minnesota
Pratt-Chapman, Mandi L., Ph.D.	George Washington University
Price, Richard J., Ph.D.	University of Virginia
Priceman, Saul, Ph.D.	Beckman Research Institute of City of Hope
Priebe, Waldemar, Ph.D.	University of Minnesota
Prigerson, Holly Gwen, Ph.D.	Weill Medical College of Cornell University
Prins, Robert M., Ph.D.	University of California, Los Angeles
Prior, Fred William, Ph.D.	University of Arkansas
Prives, Carol, Ph.D.	Columbia University
Pryma, Daniel A., M.D.	University of Pennsylvania
Purdy, John Gerard, Ph.D.	University of Arizona
Purrington, Kristen S., Ph.D., M.P.H.	Wayne State University
Pusztai, Lajos, M.D., Ph.D.	Yale University
Putluri, Nagireddy, Ph.D.	Baylor College of Medicine
Pyeon, Dohun, Ph.D.	Michigan State University

**Q**

Qi, Jianfei, Ph.D.	University of Maryland, Baltimore
Qi, Lei Stanley, Ph.D.	Stanford University
Qiu, Wei, Ph.D.	Loyola University, Chicago
Qiu, Yun, Ph.D.	University of Maryland, Baltimore
Quackenbush, John, Ph.D.	Harvard School of Public Health
Quade, Bradley J., M.D., Ph.D.	Brigham and Women's Hospital

**R**

Raab, Jesse R., Ph.D.	University of North Carolina at Chapel Hill
Rader, Janet S., M.D.	Medical College of Wisconsin
Raghunand, Natarajan, Ph.D.	Moffitt Cancer Center
Rahmatpanah, Farah Bakhshian, Ph.D.	University of California, Irvine
Rai, Kunal, Ph.D.	University of Texas MD Anderson Cancer Center
Rai, Shesh N., Ph.D.	University of Cincinnati
Raikar, Sunil Sudhir, M.D.	Emory University
Ramakrishnan, Viswanathan, Ph.D.	Medical University of South Carolina
Raman, Dayanidhi, Ph.D.	University of Toledo
Raman, Venu, Ph.D.	Johns Hopkins University
Ramaswamy, Bhuvanewari, M.D.	Ohio State University
Rameshwar, Pranela, Ph.D.	Rutgers, The State University of New Jersey
Ramos, Katherine, Ph.D.	Duke University
Ramsey, Alex Taylor, Ph.D.	Washington University
Ramsey, Haley Elizabeth, Ph.D.	Vanderbilt University Medical Center
Ran, Sophia, Ph.D.	Southern Illinois University School of Medicine
Rana, Basabi, Ph.D.	Jesse Brown Veterans Affairs Medical Center, Chicago
Rana, Bushra, Ph.D.	Team Net Medical
Randall, Leslie M., M.D.	Virginia Commonwealth University
Rangnekar, Vivek M., Ph.D.	University of Kentucky
Ranjan, Ashish, Ph.D., D.V.M.	Oklahoma State University, Stillwater



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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY2023

Rao, Arvind, Ph.D.	University of Michigan at Ann Arbor
Rao, Chinthalapally V., Ph.D.	University of Oklahoma Health Sciences Center
Rao, Ganesh, M.D.	Baylor College of Medicine
Rapchak, Barbara Ann,	Leap of Faith Technologies, Inc.
Rathinam, Vijay, Ph.D., D.V.M.	University of Connecticut School of Medicine and Dentistry
Rathmell, Jeffrey C., Ph.D.	Vanderbilt University Medical Center
Ratliff, Timothy L., Ph.D.	Purdue University
Raup Krieger, Janice Lee, Ph.D.	University of Florida
Raveis, Victoria H., Ph.D.	New York University School of Dentistry
Ray, Paresh Chandra, Ph.D.	Jackson State University
Ray, Ranjit, Ph.D.	Saint Louis University
Ray, Ratna B., Ph.D.	Saint Louis University
Re, Diane Berengere, Ph.D.	Columbia University Health Sciences
Reagan, Michaela R., Ph.D.	MaineHealth
Reams, Romonia Renee, Ph.D.	Florida Agricultural and Mechanical University
Reategui, Eduardo, Ph.D.	Ohio State University
Reddick, Wilburn E., Ph.D.	St. Jude Children’s Research Hospital
Reddy, E. Premkumar, Ph.D.	Icahn School of Medicine at Mount Sinai
Reddy, Kaladhar B., Ph.D.	Wayne State University
Reddy, Sangeetha Meda, M.D.	University of Texas Southwestern Medical Center
Redell, Michele S., M.D., Ph.D.	Baylor College of Medicine
Reed, Damon, M.D.	Johns Hopkins all Children’s Hospital
Reid, Tony R., M.D., Ph.D.	University of California, San Diego
Reindl, Katie, Ph.D.	North Dakota State University
Reiner, David, Ph.D.	Texas A&M University Health Science Center
Reis-Filho, Jorge, M.D., Ph.D.	Memorial Sloan Kettering Cancer Center
Reitman, Zachary, M.D., Ph.D.	Duke University
Rendle, Katharine, Ph.D., M.P.H.	University of Pennsylvania
Revzin, Alexander, Ph.D.	Mayo Clinic, Rochester
Reynolds, Charles Patrick, M.D., Ph.D.	Texas Tech University Health Sciences Center
Rhee, Connie Meeyoung, M.D.	University of California, Irvine
Ribisl, Kurt M., Ph.D.	University of North Carolina at Chapel Hill
Ricciardi, Michael, Ph.D.	George Washington University
Richardson, Christine A., Ph.D.	University of North Carolina at Charlotte
Ridlon, Jason Michael, Ph.D.	University of Illinois at Urbana-Champaign
Riese, David J., MOTH, Ph.D.	Auburn University at Auburn
Riley, James L., Ph.D.	University of Pennsylvania
Ringel, Matthew D., M.D.	Ohio State University
Rishi, Arun Kumar, Ph.D.	Wayne State University
Risques, Rosa Ana, Ph.D.	University of Washington
Rivera, Miguel Nicolas, M.D.	Massachusetts General Hospital
Rivers, Brian M., Ph.D., M.P.H.	Morehouse School of Medicine
Rix, Uwe, Ph.D.	Moffitt Cancer Center
Roberts, Megan C., Ph.D.	University of North Carolina at Chapel Hill
Roberts, Ryan D., M.D., Ph.D.	Research Institute Nationwide Children’s Hospital
Robertson, Erle S., Ph.D.	University of Pennsylvania
Robertson, Gavin P., Ph.D.	Pennsylvania State University Hershey Medical Center
Robertson, Keith D., Ph.D.	Mayo Clinic, Rochester



Robien, Kimberly Z., Ph.D.	George Washington University
Robine, Nicolas, Ph.D.	New York Genome Center
Robson, Paul, Ph.D.	Jackson Laboratory
Rocke, David M., Ph.D.	University of California, Davis
Rodday, Angie Mae, Ph.D.	Tufts University
Rodland, Karin D., Ph.D.	Oregon Health and Science University
Rodriguez, Annabelle, M.D.	University of Connecticut School of Medicine and Dentistry
Rodriguez, Elisa Marie, Ph.D.	Roswell Park Cancer Institute
Rodriguez, Natalia Maria, Ph.D., M.P.H.	Purdue University
Roe, Denise J., D.P.H.	University of Arizona
Rogers, Buck E., Ph.D.	Washington University
Roncali, Emilie, Ph.D.	University of California, Davis
Ronnekleiv-Kelly, Sean M., M.D.	University of Wisconsin-Madison
Rooney, Cliona M., Ph.D.	Baylor College of Medicine
Root, James C., Ph.D.	Memorial Sloan Kettering Cancer Center
Roper, Jatin, M.D.	Duke University
Rosario, Spencer Rae, Ph.D.	Roswell Park Cancer Institute
Rose, John B., M.D.	University of Alabama at Birmingham
Rosen, Steven Terry, M.D.	Beckman Research Institute of City of Hope
Rosenberg, Naomi, Ph.D.	Tufts University
Rosenblatt, Jacalyn, M.D.	Beth Israel Deaconess Medical Center
Rosenbluth, Jennifer M., M.D., Ph.D.	University of California, San Francisco
Rosenzweig, Margaret Q., Ph.D.	University of Pittsburgh
Roth, Kevin A., M.D., Ph.D.	Columbia University Health Sciences
Rothbart, Scott, Ph.D.	Van Andel Research Institute
Rouce, Rayne Helen, M.D.	Baylor College of Medicine
Roy, Hemant K., M.D.	Baylor College of Medicine
Roy, Ishan, M.D., Ph.D.	Northwestern University
Roy, Partha, Ph.D.	University of Pittsburgh
Roychowdhury, Sameek, M.D., Ph.D.	Ohio State University
Rozek, Laura, Ph.D.	Georgetown University
Rubinstein, Mark P., Ph.D.	Ohio State University
Ruddy, Kathryn Jean, M.D., M.P.H.	Mayo Clinic, Rochester
Rudin, Charles M., M.D., Ph.D.	Memorial Sloan Kettering Cancer Center
Ruffell, Brian, Ph.D.	Moffitt Cancer Center
Rui, Lixin, Ph.D.	University of Wisconsin-Madison
Runowicz, Carolyn D., M.D.	Florida International University
Rusling, James F., Ph.D.	University of Connecticut

**S**

Saccone, Nancy L., Ph.D.	Washington University
Saenger, Yvonne Margaret, M.D.	Albert Einstein College of Medicine
Safa, Ahmad R., Ph.D.	Indiana University-Purdue University at Indianapolis
Sahni, Nidhi, Ph.D.	University of Texas MD Anderson Cancer Center
Said, Jonathan W., M.D.	University of California, Los Angeles
Saini, Sharanjot, Ph.D.	Augusta University
Sakwe, Amos Malle, M.O.T.H., Ph.D.	Meharry Medical College
Salama, April, M.D.	Duke University

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**Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY2023**

Salerno, Elizabeth Ann, Ph.D., M.P.H.....	Washington University
Salgia, Ravi, M.D., Ph.D. ....	Beckman Research Institute of City of Hope
Salman, Huda, M.D., Ph.D., M.B.B.S. ....	Indiana University-Purdue University at Indianapolis
Saltz, Joel H., M.D., Ph.D.....	State University New York, Stony Brook
Salvemini, Daniela, Ph.D.....	Saint Louis University
Samkoe, Kimberley, Ph.D. ....	Dartmouth-Hitchcock Clinic
Sample, Jeffery T., Ph.D.....	Pennsylvania State University Hershey Medical Center
Sandler, Anthony D., M.O.T.H., M.D., M.D.O.T.....	Children’s Research Institute
Sang, Liyun Jessica, Ph.D.....	Accure Health, Inc.
Sapienza, Carmen, Ph.D.....	Temple University
Sardesai, Sagar, M.D. ....	Ohio State University
Sarkar, Devanand, Ph.D.....	Virginia Commonwealth University
Sasson, Aaron R., M.D.....	Stoney Brook University
Sastry, Jagannadha K., Ph.D.....	University of Texas MD Anderson Cancer Center
Savaraj, Niramol, M.D. ....	University of Miami Health System
Savkovic, Suzana D., Ph.D.....	Tulane University of Louisiana
Sayour, Elias, M.D., Ph.D.....	University of Florida
Scafoglio, Claudio, M.D., Ph.D. ....	University of California, Los Angeles
Scampavia, Louis Daniel, Ph.D.....	University of Florida
Scarpinato, Karin D., Ph.D.....	Kennesaw State University
Schabath, Matthew B., Ph.D.....	Moffitt Cancer Center
Scharpf, Robert B., Ph.D.....	Johns Hopkins University
Schatz, Jonathan H., M.D.....	University of Miami School of Medicine
Schatz, Michael, Ph.D. ....	Johns Hopkins University
Schae, Dorte, Ph.D. ....	University of California, Los Angeles
Scheinberg, David A., M.D., Ph.D.....	Memorial Sloan Kettering Cancer Center
Schell, Michael J., Ph.D. ....	Moffitt Cancer Center
Scherer, Laura D., Ph.D. ....	University of Colorado, Denver
Scherrer-Crosbie, Marielle, M.D., D.Sc. ....	University of Pennsylvania
Schiaffino, Melody K., Ph.D., M.P.H.....	San Diego State University
Schiemann, William, Ph.D.....	Case Western Reserve University
Schildkraut, Joellen M., Ph.D., M.P.H.....	Emory University
Schiltz, Gary E., Ph.D.....	Northwestern University
Schlumbrecht, Matthew, M.D., M.P.H. ....	University of Miami School of Medicine
Schmit, Stephanie L., Ph.D. ....	Cleveland Clinic Lerner College of Medicine Case Western Reserve University
Schmitt, Nicole Cherie, M.D.....	Emory University
Schoenberg, Nancy E., Ph.D.....	University of Kentucky
Schoenfeld, Elinor R., Ph.D.....	State University New York, Stony Brook
Schonbrunn, Ernst, Ph.D.....	Moffitt Cancer Center
Schootman, Mario, Ph.D.....	University of Arkansas for Medical Sciences
Schrum, Adam G., Ph.D.....	University of Missouri-Columbia
Schuettpelz, Laura G., M.D., Ph.D. ....	Washington University
Schulte, Reinhard W., M.D.....	Loma Linda University
Schultz, Zachary, Ph.D. ....	Ohio State University
Schwabe, Robert F., M.D.....	Columbia University Health Sciences
Schwartz, Ann G., Ph.D., M.P.H.....	Wayne State University
Schwartz, Jacob C., Ph.D.....	University of Arizona

Scott, Jacob Gardinier, M.D., Ph.D.	Cleveland Clinic Lerner College of Medicine Case Western Reserve University
Sears, Dorothy D., Ph.D.	Arizona State University-Tempe Campus
Sears, Rosalie C., Ph.D.	Oregon Health and Science University
Sedrak, Mina S., M.D.	University of California, Los Angeles
Seelig, Georg, Ph.D.	University of Washington
Segal, Brahm H., M.D.	Roswell Park Cancer Institute
Segal, David J., Ph.D.	University of California, Davis
Seligmann, Bruce E., Ph.D.	Biospyder Technologies, Inc.
Selove, Rebecca, Ph.D., M.P.H.	Tennessee State University
Selvaraj, Periasamy, Ph.D.	Emory University
Semmes, Oliver John, Ph.D.	Eastern Virginia Medical School
Sempere, Lorenzo, Ph.D.	Michigan State University
Sen, Subrata, Ph.D.	University of Texas MD Anderson Cancer Center
Sen, Triparna, Ph.D.	Icahn School of Medicine at Mount Sinai
Senapati, Satyajyoti, Ph.D.	University of Notre Dame
Seo, Youngho, Ph.D.	University of California, San Francisco
Serda, Rita Elena, Ph.D.	University of New Mexico
Sevick-Muraca, Eva M., Ph.D.	University of Texas Health Science Center, Houston
Shafirstein, Gal, Sc.D.	Pop Biotechnologies, Inc
Shah, Dhaval K., Ph.D.	University of Buffalo Foundation
Shah, Nilay, M.D.	Research Institute Nationwide Children's Hospital
Shah, Pares K.	Mindleaf Technologies Inc.
Shahriyari, Leili, Ph.D.	University of Massachusetts
Shailubhai, Kunwar, Ph.D., M.B.A.	Pennsylvania Institute of Biotechnology
Shajahan-Haq, Ayesha N., Ph.D.	Georgetown University
Shaker, Anisa, M.D.	University of Southern California
Shan, Guogen, Ph.D.	University of Florida
Shanmugam, Malathy (Mala), Ph.D.	Emory University
Shannon, Jackilen, Ph.D., M.P.H.	Oregon Health and Science University
Shannon, William D., Ph.D.	William D. Shannon Consulting, LLC
Shao, Yiping, Ph.D.	University of Texas Southwestern Medical Center
Shao, Yongzhao, Ph.D.	New York University School of Medicine
Shapiro, Geoffrey I., M.D., Ph.D.	Dana-Farber Cancer Institute
Sharabi, Andrew B., M.D., Ph.D.	University of California, San Diego
Shariff-Marco, Salma, Ph.D., M.P.H.	University of California, San Francisco
Sharifi, Nima, M.D.	University of Miami School of Medicine
Sharma, Arati, Ph.D.	Pennsylvania State University Hershey Medical Center
Sharma, Dipali, Ph.D.	Johns Hopkins University
Sharma-Walia, Neelam, Ph.D.	Rosalind Franklin University of Medicine and Science
Shelat, Anang A., Ph.D.	St. Jude Children's Research Hospital
Shen, Zhiyuan, M.D., Ph.D.	Rutgers, Biomedical and Health Sciences
Shenkman, Elizabeth A., Ph.D.	University of Florida
Sheth, Rahul Anil, M.D.	University of Texas MD Anderson Cancer Center
Shetty, Kirti, M.D.	University of Maryland Medical Center
Shevde, Lalita A., Ph.D.	University of Alabama at Birmingham
Shi, Hua, M.D., Ph.D.	State University of New York at Albany
Shi, Huidong, Ph.D.	Augusta University

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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY2023

Shi, Lewis Zhichang, Ph.D., M.B.B.S.....	University of Alabama at Birmingham
Shiao, Stephen L., M.D., Ph.D.....	Cedars-Sinai Medical Center
Shields, Anthony Frank, M.D., Ph.D.....	Wayne State University
Shields, Peter G., M.D.....	Ohio State University
Shih, Ie-Ming, M.D., Ph.D.....	Johns Hopkins University
Shilatifard, Ali, Ph.D.....	Northwestern University at Chicago
Shinde, Rahul Suresh, Ph.D.....	Wistar Institute
Shiozawa, Yusuke, M.D., Ph.D.....	Wake Forest University Health Sciences
Shmulevich, Ilya, Ph.D.....	Institute for Systems Biology
Shroyer, Kenneth Reed, M.D., Ph.D.....	State University New York, Stony Brook
Shu, Hui-Kuo, M.D., Ph.D.....	Emory University
Shu, Xiao-Ou, M.D., Ph.D., M.P.H.....	Vanderbilt University Medical Center
Shulman, Lawrence N., M.D.....	University of Pennsylvania
Sicklick, Jason Keith, M.D.....	University of California, San Diego
Siddik, Zahid H., Ph.D.....	University of Texas MD Anderson Cancer Center
Siegfried, Jill M., M.O.T.H., Ph.D.....	University of Minnesota
Siegmund, Kimberly D., Ph.D.....	University of Southern California
Sieren, Jessica C., Ph.D.....	University of Iowa Healthcare
Sigel, Keith Magnus, M.D., M.P.H.....	Icahn School of Medicine at Mount Sinai
Silber, Andrea, M.D.....	Yale New Haven Hospital
Silva, Ariosto S., Ph.D.....	Moffitt Cancer Center
Simmen, Rosalia C., Ph.D.....	University of Arkansas for Medical Sciences
Simon, Tamara Danielle, M.D.....	Children’s Hospital of Los Angeles
Simpson, Melanie A., Ph.D.....	North Carolina State University, Raleigh
Singh, Brij B., Ph.D.....	University of Texas Health Science Center
Singh, Karan P., Ph.D.....	University of Texas Health Center, Tyler
Singh, Nathan, M.D.....	Washington University
Singh, Rajesh, Ph.D.....	Morehouse School of Medicine
Singh, Sheila K., M.D., Ph.D.....	McMaster University
Singh, Udai P., Ph.D.....	University of Tennessee Health Science Center
Siracusa, Linda D., Ph.D.....	Seton Hall University
Sirsi, Shashank Ramesh, Ph.D.....	University of Texas, Dallas
Sisti, Christina.....	Patient Advocate
Skardal, Aleksander, Ph.D.....	Ohio State University
Skates, Steven J., Ph.D.....	Massachusetts General Hospital
Skinner, Heath Devin, M.D., Ph.D.....	University of Pittsburgh
Skorski, Tomasz, M.D., Ph.D., D.Sc.....	Temple University
Skoulidis, Ferdinandos, M.D., Ph.D.....	University of Texas MD Anderson Cancer Center
Slingluff, Craig Lee, M.D.....	University of Virginia
Slominski, Andrzej T., M.D., Ph.D.....	University of Alabama at Birmingham
Slovin, Susan Faith, M.D., Ph.D.....	Memorial Sloan Kettering Cancer Center
Smiraglia, Dominic J., Ph.D.....	Roswell Park Cancer Institute
Smirnov, Alex I., Ph.D.....	North Carolina State University, Raleigh
Smith, A. Gordon, M.D., F.A.A.N.....	Virginia Commonwealth University
Smith, Andrew Michael, Ph.D.....	University of Illinois at Urbana-Champaign
Smith, Brian J., Ph.D.....	University of Iowa
Smith, Bruce F., Ph.D., V.M.D.....	Auburn University at Auburn
Smith, Danielle, Ph.D., M.P.H.....	Roswell Park Cancer Institute

Smith, Lloyd M., Ph.D.	University of Wisconsin-Madison
Smith, Sophia K., M.O.T.H., Ph.D.	Duke University
Snetselaar, Linda G., Ph.D.	University of Iowa
Snuderl, Matija, M.D.	New York University School of Medicine
Snyder, Joshua Clair, Ph.D.	Duke University
Solheim, Joyce C., Ph.D.	University of Nebraska Medical Center
Soliman, Amr, M.D., Ph.D., M.P.H.	City College of New York
Solomon, David A., M.D., Ph.D.	University of California, San Francisco
Somani, Amrita Basu, Ph.D.	University of California, San Francisco
Sondak, Vernon K., M.D.	Moffitt Cancer Center
Song, Jianxun Jim, Ph.D.	Texas A&M University Health Science Center
Song, Yongcheng, Ph.D.	Baylor College of Medicine
Sood, Anil K., M.D.	University of Texas MD Anderson Cancer Center
Soper, Steven Allan, Ph.D.	University of Kansas, Lawrence
Sorace, Anna C., Ph.D.	University of Alabama at Birmingham
Sorkin, Dara H., Ph.D.	University of California, Irvine
Sosa-Pineda, Beatriz, Ph.D.	Northwestern University at Chicago
Sosman, Jeffrey A., M.D.	Northwestern University
Sosnovik, David E., M.D.	Massachusetts General Hospital
Soundararajan, Rama, Ph.D.	University of Texas MD Anderson Cancer Center
Souroullas, George P., Ph.D.	Washington University
Spagnuolo, Paul Anthony, Ph.D.	University of Guelph
Sparreboom, Alexander, Ph.D.	The Ohio State University
Speers, Corey W., M.D., Ph.D.	Case Western Reserve University
Spellman, Paul T., Ph.D.	University of California, Los Angeles
Spicer, Timothy Patrick, Ph.D.	University of Florida
Spiegelman, Donna L., Sc.D.	Yale University
Spiotto, Michael T., M.D., Ph.D.	University of Texas MD Anderson Cancer Center
Spitz, Douglas Robert, Ph.D.	University of Iowa
Spivack, Simon D., M.D., M.P.H.	Albert Einstein College of Medicine
Springer, Brian C., M.P.H.	Moffitt Cancer Center
Srivastava, Akhil, Ph.D.	University of Missouri School of Medicine
Srivastava, Pramod K., M.D., Ph.D.	University of Connecticut
Stadtmauer, Edward A., M.D.	University of Pennsylvania
Staedtke, Verena, M.D., Ph.D.	Johns Hopkins University
Staib, Lawrence H., Ph.D.	Yale University
Staicu, Ana-Maria, Ph.D.	North Carolina State University, Raleigh
Stantz, Keith M., Ph.D.	Purdue University
Staras, Stephanie A. S., Ph.D.	University of Florida
Stehlik, Christian, Ph.D.	Cedars-Sinai Medical Center
Stein, Gary S., Ph.D.	University of Vermont
Stemmler, Timothy Louis, Ph.D.	Wayne State University
Stengel, Kristy, Ph.D.	Albert Einstein College of Medicine
Stern, Mariana C., Ph.D.	University of Southern California
Stevens, Alexandra, M.D., Ph.D.	Baylor College of Medicine
Stevens, Courtney Joyce, Ph.D.	Dartmouth-Hitchcock Clinic
Stewart, Sheila A., Ph.D.	Washington University
Still, Amanda Nicole Haymond, Ph.D.	George Mason University



Stipp, Christopher S., Ph.D.	University of Iowa
Stopeck, Alison T., M.D.	State University New York, Stony Brook
Stover, Daniel G., M.D.	Ohio State University
Strey, Helmut H., Ph.D.	State University New York, Stony Brook
Strom, Carla, M.L.A.	Wake Forest University Health Sciences
Stromnes, Ingunn Margarete, Ph.D.	University of Minnesota
Stroup, Antoinette Marie, Ph.D.	Rutgers, Biomedical Health Sciences
Stupack, Dwayne G., Ph.D.	University of California, San Diego
Stupp, Roger, M.D.	Northwestern University
Sturgeon, Kathleen M., Ph.D.	Pennsylvania State University Hershey Medical Center
Su, L Joseph, Ph.D., M.P.H.	University of Texas Southwestern Medical Center
Su, Min-Ying L., Ph.D.	University of California, Irvine
Su, Ying-Hsiu, Ph.D.	Baruch S. Blumberg Institute
Subramanian, Kumar, M.O.T.H., M.S.	Phoenix Biosystem, Inc.
Subramanian, Subbaya, Ph.D.	University of Minnesota
Suh, Nanjoo, Ph.D.	Rutgers, The State University of New Jersey
Suls, Jerry M., Ph.D.	Feinstein Institute for Medical Research
Suman, Vera Jean, Ph.D.	Mayo Clinic, Rochester
Summers, Matthew K., Ph.D.	Ohio State University
Sun, Virginia Chih-Yi, R.N., Ph.D.	Beckman Research Institute of City of Hope
Sundararajan, Radhika Lu, M.D., Ph.D.	Weill Medical College of Cornell University
Suneja, Gita, M.D.	University of Utah
Sung, Kyung Hyun, Ph.D.	University of California, Los Angeles
Sung, Patrick, Ph.D.	University of Texas Health Science Center
Svatek, Robert Scott, M.D.	University of Texas Health Science Center
Swanson, Benjamin J., M.D., Ph.D.	University of Nebraska Medical Center
Sweis, Randy F., M.D.	University of Chicago
Syed, Sana, M.D., M.B.B.S.	University of Virginia
Sykulev, Yuri, M.D., Ph.D.	Thomas Jefferson University
Synold, Timothy W., Ph. M.D.	Beckman Research Institute of City of Hope
Szmulewitz, Russell Z., M.D.	University of Chicago

**T**

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Takiar, Vinita, M.D., Ph.D.	University of Cincinnati
Talos, Flaminia, M.D., Ph.D.	State University New York, Stony Brook
Tamura, Masaaki, Ph.D., D.V.M.	Kansas State University
Tanaka, Takemi, Ph.D.	University of Oklahoma Health Sciences Center
Tang, Li, M.D., Ph.D.	Roswell Park Cancer Institute
Tan Hehir, Cristina A., Ph.D.	Biogen IDEC
Tansey, William Patrick, Ph.D.	Vanderbilt University
Taouli, Bachir, M.D.	Icahn School of Medicine Mount Sinai
Taube, Joseph H., Ph.D.	Baylor University
Tavana, Hossein, Ph.D.	University of Akron
Taylor, Jeremy M.G., M.O.T.H., Ph.D.	University of Michigan at Ann Arbor
Teachey, David T., M.D.	University of Pennsylvania
Tearney, Guillermo J., M.D., Ph.D.	Massachusetts General Hospital
Teitz, Tal, Ph.D.	Creighton University



Tekmal, Rajeshwar R., Ph.D. ....	University of Texas Health Science Center
Tempera, Italo, Ph.D. ....	Wistar Institute
Teoh, Melissa Lai Tee, Ph.D. ....	University of Nebraska Medical Center
Terry, Kathryn L., Sc.D. ....	Brigham and Women’s Hospital
Tessema, Mathewos, Ph.D., D.V.M. ....	Lovelace Biomedical Research Institute
Tew, Kenneth D., Ph.D., D.Sc. ....	Medical University of South Carolina
Tewari, Muneesh, M.D., Ph.D. ....	University of Michigan at Ann Arbor
Thakur, Archana, Ph.D. ....	University of Virginia
Thakur, Mathew Laxman, Ph.D. ....	Thomas Jefferson University
Thaxton, Jessica E., Ph.D. ....	University of North Carolina at Chapel Hill
Thayer, Sarah P., M.D., Ph.D. ....	Louisiana State University Health Science Center, Shreveport
Theogarajan, Luke Satish Kumar, Ph.D. ....	University of California, Santa Barbara
Thiagalingam, Sam, Ph.D. ....	Boston University Medical Campus
Thomas, Christoforos, D.O.T.H. ....	Methodist Hospital Research Institute
Thomas, Lawrence J., Ph.D. ....	Celldex Therapeutics, Inc.
Thomas, Ryan M., M.D. ....	University of Florida
Thomas-Tikhonenko, Andrei, Ph.D. ....	Children’s Hospital of Philadelphia
Thompson, Caroline Avery, Ph.D., M.P.H. ....	University of North Carolina at Chapel Hill
Thompson, Craig B, M.D. ....	Memorial Sloan Kettering Cancer Center
Thompson, Erika L., Ph.D., M.P.H. ....	University of North Texas Health Science Center
Thompson, Hayley S., Ph.D. ....	Wayne State University
Thompson, Patricia Ann, Ph.D. ....	Cedars-Sinai Medical Center
Thomson, Cynthia A., Ph.D. ....	University of Arizona
Thomson, Maria D., Ph.D. ....	Virginia Commonwealth University
Thoreen, Carson Cornell, Ph.D. ....	Yale University
Thorne, Stephen H., Ph.D. ....	Kalivir Immunotherapeutics
Thrul, Johannes, Ph.D. ....	Johns Hopkins University
Tindle, Hilary A., M.D., M.P.H. ....	Vanderbilt University Medical Center
Ting, David Tsai, M.D. ....	Massachusetts General Hospital
Tiwari, Pallavi, Ph.D. ....	University of Wisconsin-Madison
Toftagen, Cindy, R.N., Ph.D. ....	Mayo Clinic, Jacksonville
Tomaszewski, John E., M.D. ....	State University of New York at Buffalo
Torok, Natalie J., M.D. ....	Stanford University School of Medicine
Tran, Phuoc T., M.D., Ph.D. ....	University of Maryland, Baltimore
Triche, Timothy J., M.D., Ph.D. ....	Children’s Hospital of Los Angeles
Triozi, Pierre L., M.D. ....	Wake Forest University Health Sciences
Troester, Melissa A., Ph.D., M.P.H. ....	University of North Carolina at Chapel Hill
Tropsha, Alexander, Ph.D. ....	University of North Carolina at Chapel Hill
Truman, Andrew William, Ph.D. ....	University of North Carolina, Charlotte
Tsai, Susan, M.D. ....	Medical College of Wisconsin
Tseng, George C., Sc.D. ....	University of Pittsburgh
Tseng, Hsian-Rong, Ph.D. ....	University of California, Los Angeles
Tsirigos, Aristotelis, Ph.D. ....	New York University School of Medicine
Tucker, Erik Ian, Ph.D. ....	Aronora, Inc.
Tukey, Robert H., Ph.D. ....	University of California, San Diego
Tulsky, James A., M.D. ....	Dana-Farber Cancer Institute
Tuohy, Joanne, Ph.D., D.V.M. ....	Virginia Polytechnic Institute and State University

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### Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY2023

Turcotte, Lucie Marie, M.D., M.P.H..... University of Minnesota  
Tussing-Humphreys, Lisa, Ph.D..... University of Illinois at Chicago  
Tworowska, Izabela, Ph.D..... Radiomedix, Inc  
Tyner, Jeffrey Wallace, Ph.D..... Oregon Health and Science University  
Tyson, Darren R., Ph.D..... Vanderbilt University

#### U

Ulaner, Gary Allan, M.D., Ph.D..... Hoag Memorial Hospital Presbyterian  
Uldrick, Thomas S., M.D..... Fred Hutchinson Cancer Center  
Unertl, Kim M., Ph.D..... Vanderbilt University Medical Center  
Unger, Evan Charles, M.D..... Nuvox Pharma, LLC  
Upadhyay, Geeta, Ph.D..... Uniformed Services University Health Sciences  
Uppaluri, Ravindra, M.D., Ph.D..... Dana-Farber Cancer Institute  
Uribarri, Jaime, M.D..... Icahn School of Medicine at Mount Sinai  
Urrutia, Raul A., M.D..... Medical College of Wisconsin  
Usmani, Saad, M.B.B.S..... Carolinas Medical Center  
Uy, Geoffrey L., M.D..... Washington University

#### V

Vachani, Anil, M.D..... University of Pennsylvania  
Vakoc, Christopher, M.D., Ph.D..... Cold Spring Harbor Laboratory  
Van Besien, Koen Walter, M.D., Ph.D..... Case Western Reserve University  
VanBrocklin, Henry F., Ph.D..... University of California, San Francisco  
Vander Griend, Donald James, Ph.D..... University of Illinois at Chicago  
Van Dyk, Linda F., Ph.D..... University of Colorado Health Science Center, Denver  
Van Gerwen, Maaik, M.D., Ph.D..... Icahn School of Medicine at Mount Sinai  
Van Landeghem, Laurianne Chantal, Ph.D..... North Carolina State University Raleigh  
VanWyk, Jill, M.D..... University of Colorado, Denver  
Varadarajan, Navin, Ph.D..... University of Houston  
Varadhachary, Atul, M.D., Ph.D..... Fannin Partners, LLC  
Varady, Krista Amy, Ph.D..... University of Illinois at Chicago  
Vargas, Carlos E., M.D..... Mayo Clinic, Arizona  
Varghese, Oomman K., Ph.D..... University of Houston  
Varley, Katherine Elena, Ph.D..... University of Utah  
Veeraraghavan, Harini, Ph.D..... Memorial Sloan Kettering Cancer Center  
Velazquez, Kandy T., Ph.D..... University of South Carolina, Columbia  
Velcheti, Vamsidhar, M.D., M.B.B.S..... New York University  
Velu, Sadanandan E., Ph.D..... University of Alabama at Birmingham  
Vera-Licona, Paola, Ph.D..... University of Connecticut School of Medicine and Dentistry  
Verbridge, Scott S., Ph.D..... Virginia Polytechnic Institute and State University  
Verhaak, Roel G.W., Ph.D..... Yale University  
Versace, Francesco, Ph.D..... University of Texas MD Anderson Cancer Center  
Vesely, Sara Katherine, Ph.D., M.P.H..... University of Oklahoma Health Sciences Center  
Viale, Andrea, M.D..... University of Texas MD Anderson Cancer Center  
Viator, John A., Ph.D..... Duquesne University  
Vibhakar, Rajeev, M.D., Ph.D., M.P.H..... University of Colorado, Denver  
Vidt, Meghan Elise, Ph.D..... Pennsylvania State University  
Vijayvergia, Namrata, M.D., M.B.B.S..... Fox Chase Cancer Center

Vilarinho, Silvia, M.D., Ph.D. .... Yale University  
 Vile, Richard G., Ph.D. .... Mayo Clinic, Rochester  
 Villanueva, Augusto, M.D., Ph.D. .... Icahn School of Medicine at Mount Sinai  
 Vinci, Christine, Ph.D. .... Moffitt Cancer Center  
 Visconte, Valeria, Ph.D. .... Cleveland Clinic Foundation  
 Viswanathan, Srinivas Raghavan, M.D., Ph.D. .... Dana-Farber Cancer Institute  
 Vlashi, Erina, Ph.D. .... University of California, Los Angeles  
 Vogel, Carl-Wilhelm E., M.D., Ph.D. .... University of Hawaii at Manoa  
 Vranceanu, Ana-Maria, Ph.D. .... Massachusetts General Hospital  
 Vrljic, Marija, Ph.D. .... Scalmibio, Inc

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Waanders, Angela J., M.D., M.P.H. .... Lurie Children’s Hospital of Chicago  
 Wadas, Thaddeus J., Ph.D. .... University of Iowa  
 Wagner, Carston R., Ph.D. .... University of Minnesota  
 Wagner, John E., M.D. .... University of Minnesota  
 Wagner, Lynne I., Ph.D. .... University of North Carolina at Chapel Hill  
 Wakeland, Edward K., Ph.D. .... University of Texas Southwestern Medical Center  
 Wald, David, M.D., Ph.D. .... Case Western Reserve University  
 Walker, Brian, Ph.D. .... Indiana University-Purdue University at Indianapolis  
 Wall, Donna A., M.D. .... University of Toronto  
 Wall, Kristin Marie, Ph.D. .... Emory University  
 Wallace, Kristin, Ph.D. .... Medical University of South Carolina  
 Wallace, Mark S., M.D. .... University of California, San Diego  
 Wallington, Sherrie Lee, Ph.D. .... George Washington University  
 Walsh, Judith Mary Eileen, M.D., M.P.H. .... University of California, San Francisco  
 Wang, Andrew Zhuang, M.D. .... University of Texas Southwestern Medical Center  
 Wang, Chi, Ph.D. .... University of Kentucky  
 Wang, Gavin Yong, M.D., Ph.D. .... Medical University of South Carolina  
 Wang, Hong, Ph.D. .... University of Pittsburgh  
 Wang, Hongbing, Ph.D. .... University of Maryland, Baltimore  
 Wang, Hongkun, Ph.D. .... Georgetown University  
 Wang, Hsiao-Lan, R.N., Ph.D. .... University of Alabama at Birmingham  
 Wang, Jing, Ph.D. .... University of Texas Southwestern Medical Center  
 Wang, Liang, Ph.D. .... Moffitt Cancer Center  
 Wang, Linghua, Ph.D. .... University of Texas MD Anderson Cancer Center  
 Wang, Lisa L., M.D. .... Baylor College of Medicine  
 Wang, Michael, M.D. .... University of Texas MD Anderson Cancer Center  
 Wang, Molin, Ph.D. .... Harvard School of Public Health  
 Wang, Ning, Sc.D. .... Northeastern University  
 Wang, Qien, M.D., Ph.D. .... Ohio State University  
 Wang, Rongfu, Ph.D. .... University of Southern California  
 Wang, Ruoning, Ph.D. .... Research Institute Nationwide Children’s Hospital  
 Wang, Shaopeng, Ph.D. .... Arizona State University-Tempe Campus  
 Wang, Shizhen Emily, Ph.D. .... University of California, San Diego  
 Wang, Tza-Huei Jeff, Ph.D. .... Johns Hopkins University  
 Wang, Victoria, M.D., Ph.D. .... University of California, San Francisco  
 Wang, Wei, Ph.D. .... University of California, San Diego

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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY2023

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Wang, Xiao-Jing, M.D., Ph.D.....	University of California, Davis
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Wang, Y. Alan, Ph.D.....	Indiana University-Purdue University at Indianapolis
Wang, Yinghong, M.D., Ph.D.....	University of Texas MD Anderson Cancer Center
Wang, Yongqiang Andrew, Ph.D. ....	Sphere Biologics, LLC
Wang, Zihui, Ph.D.....	Methodist Hospital Research Institute
Wani, Sachin, M.D.....	University of Colorado, Denver
Ward, Jeffrey P., M.D., Ph.D.....	Washington University
Ware, Carl F., Ph.D.....	Sanford Burnham Prebys Medical Discovery Institute
Warfel, Noel Andrew, Ph.D. ....	University of Arizona
Warner, Jeremy Lyle, M.D.....	Rhode Island Hospital
Warren, Christopher L., Ph.D.....	Proteovista, LLC
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
Weaver, Kathryn Elizabeth, Ph.D., M.P.H.....	Wake Forest University Health Sciences
Weber, David Joseph, Ph.D.....	University of Maryland, Baltimore
Webster, Nicholas J., Ph.D. ....	University of California, San Diego
Wechsler, Marissa Elizabeth, Ph.D.....	University of Texas, San Antonio
Wechsler-Reya, Robert J., Ph.D.....	Columbia University Health Sciences
Wehbe, Firas Hazem, M.D., Ph.D. ....	Northwestern University at Chicago
Wei, Jian-Jun, M.D. ....	Northwestern University at Chicago
Wei, Qingyi, M.D., Ph.D.....	Duke University
Wei, Zhi, Ph.D.....	New Jersey Institute of Technology
Weichert, Jamey P., Ph.D.....	University of Wisconsin-Madison
Weidhaas, Joanne B., M.D., Ph.D.....	University of California, Los Angeles
Weigel, Brenda J., M.D. ....	University of Minnesota
Weimer, James, Ph.D. ....	Vanderbilt University
Weinberg, Andrew D., Ph.D. ....	Providence Portland Medical Center
Weinberg, Armin D., Ph.D.....	Baylor College of Medicine
Weiser, Daniel A., M.D.....	Albert Einstein College of Medicine
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, Stanley H., M.D.....	Rutgers, Biomedical and Health Sciences
Weiss, William A., M.D., Ph.D.....	University of California, San Francisco
Welch, Danny R., Ph.D. ....	University of Kansas Medical Center
Wellberg, Elizabeth, Ph.D.....	University of Oklahoma Health Sciences Center
Wells, Keith H., Ph.D.....	Meissa Vaccines, Inc.
Wellstein, Anton, M.D., Ph.D.....	Georgetown University
Weltman, Arthur, Ph.D.....	University of Virginia
Wen, Hong, Ph.D. ....	Van Andel Research Institute
Weroha, Saravut, M.D., Ph.D.....	Mayo Clinic, Rochester
Whelan, Rebecca Jean, Ph.D.....	University of Kansas, Lawrence

White, Rebekah, M.D.....	University of California, San Diego
Whiteside, Theresa L., Ph.D. ....	University of Pittsburgh
Whiteson, Katrine, Ph.D.....	University of California, Irvine
Wibowo, Henky, M.S.....	Phenomapper, LLC
Wickersham, Karen Ellen, Ph.D.....	University of South Carolina
Wieder, Robert, M.D., Ph.D.....	Rutgers, State University of New Jersey Medical School
Wiemels, Joseph Leo, Ph.D.....	University of Southern California
Wiemer, Andrew J., Ph.D.....	University of Connecticut Storrs
Wiley, Patti, M.B.A. ....	On the Wings of Angels
Wilky, Breeelyn Ann, M.D.....	University of Colorado, Denver
Willett, Christopher George, M.D. ....	Duke University
Williams, Donna L., Dr.PH., M.P.H.....	Louisiana State University Health Sciences Center
Williams, Jennie L., Ph.D.....	State University New York, Stony Brook
Williams, John Charles, Ph.D.....	Beckman Research Institute of City of Hope
Williams, Noelle Sevilir, Ph.D.....	University of Texas Southwestern Medical Center
Williamson, Stephen K., M.D.....	University of Kansas Medical Center
Willman, Cheryl L., M.D.....	Mayo Clinic, Rochester
Wilson, Keith T., M.D.....	Vanderbilt University Medical Center
Wingard, John R., M.D.....	University of Florida
Winter, Stuart Sheldon, M.D. ....	Children’s Hospitals and Clinics
Wise-Draper, Trisha M., M.D., Ph.D. ....	University of Cincinnati
Wittenburg, Luke A., Ph.D., D.V.M.....	University of California, Davis
Witze, Eric S., Ph.D. ....	University of Pennsylvania
Wojiski, Sarah, M.O.T.H., Ph.D. ....	Jackson Laboratory
Wolf, Timothy J., Ph.D., D.O.T.H. ....	University of Missouri, Columbia
Wolin, Edward ....	Icahn School of Medicine at Mount Sinai
Woloschak, Gayle E., Ph.D.....	Northwestern University at Chicago
Wong, Albert J., M.D.....	Stanford University
Wong, Chung F., Ph.D.....	University of Missouri, St. Louis
Wong, David T., D.M.D., D.O.T.H.....	University of California, Los Angeles
Wong, Kwok Kin, M.D., Ph.D. ....	New York University School of Medicine
Wong, Melissa H., Ph.D.....	Oregon Health and Science University
Wong, Pak Kin, Ph.D. ....	Pennsylvania State University
Wong, Sandra L., M.D.....	Dartmouth College
Wong, Season Sze-Shun, Ph.D.....	AI Biosciences, Inc.
Woo, Christina, Ph.D.....	Harvard University
Woo, Sukyung, Ph.D.....	State University of New York at Buffalo
Woods, Nicholas Taylor, Ph.D.....	University of Nebraska Medical Center
Woster, Patrick M., Ph.D.....	Medical University of South Carolina
Wrangle, John M., M.D., M.P.H.....	Medical University of South Carolina
Wu, Lily, M.D., Ph.D. ....	University of California, Los Angeles
Wu, Lizi, Ph.D.....	Cornell University
Wu, Teresa, Ph.D.....	Arizona State University-Tempe Campus
Wu, Yun, Ph.D.....	State University of New York at Buffalo

**X**

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Xia, Jun, Ph.D. ....	State University of New York at Buffalo



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 Xie, Jin, Ph.D. .... University of Georgia  
 Xie, Yang, M.D., Ph.D., M.P.H..... University of Texas Southwestern Medical Center  
 Xing, Fuyong, Ph.D. .... University of Colorado, Denver  
 Xing, Lei, Ph.D..... Stanford University  
 Xu, Bing, Ph.D. .... Brandeis University  
 Xu, Hua, Ph.D..... Yale University  
 Xu, Liang, M.D., Ph.D..... University of Kansas  
 Xu, Mingjiang, M.D., Ph.D..... University of Texas Health Science Center  
 Xu, Yanxun, Ph.D..... Johns Hopkins University  
 Xue, Xiaonan Nan, Ph.D..... Albert Einstein College of Medicine

**Y**

Yamashiro, Darrell J., M.D., Ph.D. .... Columbia University Health Sciences  
 Yan, Nan, Ph.D. .... University of Texas Southwestern Medical Center  
 Yang, Feng-Chun, M.D., Ph.D. .... University of Texas Health Science Center  
 Yang, Guang-Yu, M.D., Ph.D..... Northwestern University at Chicago  
 Yang, Jin-Ming, M.D., Ph.D. .... University of Kentucky  
 Yang, Ju Dong, M.D..... Cedars-Sinai Medical Center  
 Yang, Jun, Ph.D. .... St. Jude Children’s Research Hospital  
 Yang, Vincent W., M.D., Ph.D..... State University New York, Stony Brook  
 Yang, Xinmai, Ph.D. .... University of Kansas, Lawrence  
 Yang, Zhibo, Ph.D..... University of Oklahoma  
 Yannelli, John R., Ph.D. .... University of Kentucky  
 Yantasee, Wassana, Ph.D., M.B.A. .... Oregon Health and Science University  
 Yao, Qizhi C., M.D., Ph.D. .... Baylor College of Medicine  
 Yap, Jeffrey T., Ph.D..... University of Utah  
 Yarbrough, Wendell G., M.O.T.H., M.D. .... University of North Carolina at Chapel Hill  
 Yates, Melinda S., Ph.D..... University of North Carolina at Chapel Hill  
 Ye, Bihui Hilda, Ph.D..... Albert Einstein College of Medicine  
 Ye, Wen, Ph.D..... University of Michigan at Ann Arbor  
 Ye, Yuzhen, Ph.D. .... Indiana University  
 Yeh, Elizabeth S., Ph.D. .... Indiana University-Purdue University at Indianapolis  
 Yeh, Hsin-Chih, Ph.D..... University of Texas, Austin  
 Yeh, Iwei, M.D., Ph.D..... University of California, San Francisco  
 Yeh, Shuyuan, Ph.D..... University of Rochester  
 Yendamuri, Saikrishna, M.D. .... Roswell Park Cancer Institute  
 Yennu, Sriram, M.D..... University of Texas MD Anderson Cancer Center  
 Yesilkoy, Filiz, Ph.D. .... University of Wisconsin-Madison  
 Yin, Xiao-Ming, M.D., Ph.D. .... Tulane University of Louisiana  
 Ying, Haoqiang, M.D., Ph.D. .... University of Texas MD Anderson Cancer Center  
 Ying, Jun, Ph.D..... University of Arkansas for Medical Sciences  
 Ying, Mingyao, Ph.D..... Kennedy Krieger Institute, Inc.  
 Yokota, Hiroki, Ph.D. .... Indiana University-Purdue University at Indianapolis  
 Yom, Sue S., M.D., Ph.D..... University of California, San Francisco  
 Yoon, Angela Jiyeon, M.P.H., D.D.S..... Medical University of South Carolina  
 Yotebieng, Marcel, M.D., Ph.D., M.P.H. .... Albert Einstein College of Medicine  
 Young, Jeanne Parham, B.A. .... Childhood Brain Tumor Foundation



Young, Kristina H., M.D., Ph.D. .... Providence Portland Medical Center  
 Yu, Bo, M.D. .... Stanford University  
 Yu, Jane, Ph.D. .... University of Cincinnati  
 Yu, Jindan, Ph.D. .... Emory University  
 Yu, Jiyang, Ph.D. .... St. Jude Children’s Research Hospital  
 Yu, Kenneth H., M.D. .... Memorial Sloan Kettering Cancer Center  
 Yu, Qingzhao, Ph.D. .... Louisiana State University Health Sciences Center  
 Yu, Xue-Zhong, M.D. .... Medical College of Wisconsin  
 Yuan, Jian-Min, M.D., Ph.D., M.P.H. .... University of Pittsburgh  
 Yustein, Jason, M.D., Ph.D. .... Emory University

**Z**

Zafari, Zafar, Ph.D. .... University of Maryland, Baltimore  
 Zage, Peter E., M.D., Ph.D. .... University of California, San Diego  
 Zahrbock, Cary, M.O.T.H., O.T.H. .... National Coalition for Cancer Survivorship  
 Zaika, Alexander I., Ph.D. .... University of Miami School of Medicine  
 Zaki, Hasan, Ph.D. .... University of Texas Southwestern Medical Center  
 Zamarin, Dmitriy, M.D., Ph.D. .... Icahn School of Medicine at Mount Sinai  
 Zang, Chongzhi, Ph.D. .... University of Virginia  
 Zaren, Howard A., M.D. .... St. Joseph’s Candler Health System, Inc.  
 Zarrinpar, Ali, M.D., Ph.D. .... University of Florida  
 Zask, Arie, Ph.D. .... Columbia University New York, Morningside  
 Zauderer, Marjorie G., M.D. .... Memorial Sloan Kettering Cancer Center  
 Zavros, Yana, Ph.D. .... University of Arizona  
 Zeh, Herbert J., M.D. .... University of Pittsburgh at Pittsburgh  
 Zell, Jason, D.O., M.P.H. .... University of California, Irvine  
 Zeng, Defu, M.D. .... Beckman Research Institute of City of Hope  
 Zeng, Jing, M.D. .... University of Washington  
 Zhan, Huichun, M.D. .... Northport Veterans Affairs Medical Center  
 Zhan, Xiaowei, Ph.D. .... University of Texas Southwestern Medical Center  
 Zhang, Hui, Ph.D. .... Johns Hopkins University  
 Zhang, Jennifer Yunyan, Ph.D. .... Duke University  
 Zhang, Jianjun, M.D., Ph.D. .... Indiana University-Purdue University at Indianapolis  
 Zhang, Jianjun, M.D., Ph.D. .... University of Texas MD Anderson Cancer Center  
 Zhang, Jie, Ph.D. .... Indiana University  
 Zhang, Jin, Ph.D. .... University of California, San Diego  
 Zhang, Jingsong, M.D., Ph.D. .... Moffitt Cancer Center  
 Zhang, Jiwang, M.D., Ph.D. .... Loyola University Chicago  
 Zhang, Kui, Ph.D. .... Michigan Technological University  
 Zhang, Ruiwen, M.D., Ph.D. .... University of Houston  
 Zhang, Shaun Xiaoliu, M.D., Ph.D. .... University of Houston  
 Zhang, Tian, M.O.T.H., M.D. .... University of Texas Southwestern Medical Center  
 Zhang, Wei, Ph.D. .... Northwestern University at Chicago  
 Zhang, Xiaoli, Ph.D. .... Ohio State University  
 Zhang, Xiaoting, Ph.D. .... University of Cincinnati  
 Zhang, Xuehong, M.D., Sc.D. .... Brigham and Women’s Hospital  
 Zhang, You-Wei, Ph.D. .... Case Western Reserve University  
 Zhang, Yuesheng, M.D., Ph.D. .... Virginia Commonwealth University

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Appendix E-3: Consultants Serving on Special Emphasis Panels (SEPs) in FY2023

Zhang, Yuhang, Ph.D.	University of Cincinnati
Zhang, Zhen, Ph.D.	Johns Hopkins University
Zhao, Di, Ph.D.	University of Texas MD Anderson Cancer Center
Zhao, Jianjun, M.D., Ph.D.	Cleveland Clinic Lerner College of Medicine Case Western Reserve University
Zhao, Lihui, Ph.D.	Northwestern University at Chicago
Zhao, Shaying, Ph.D.	University of Georgia
Zhao, Zhizhuang Joe, Ph.D.	University of Oklahoma
Zheng, Bin, Ph.D.	University of Oklahoma
Zhou, Binhua P., M.D., Ph.D.	University of Kentucky
Zhou, Gang, Ph.D.	Augusta University
Zhou, Jin-Rong, Ph.D.	Beth Israel Deaconess Medical Center
Zhou, Shibin, M.D., Ph.D.	Johns Hopkins University
Zhou, Xianghong Jasmine, Ph.D.	University of California, Los Angeles
Zhou, Xiaobo, Ph.D.	University of Texas Health Science Center Houston
Zhu, Cheng, Ph.D.	Georgia Institute of Technology
Zhu, Hong, Ph.D.	University of Virginia
Zhu, Jian, Ph.D.	Ohio State University
Zhu, Liqin, Ph.D.	St. Jude Children's Research Hospital
Zhu, Qianqian, Ph.D.	Roswell Park Cancer Institute
Zhu, Shizhen, M.D., Ph.D.	Mayo Clinic, Rochester
Zhu, Timothy C., Ph.D.	University of Pennsylvania
Zhu, Yong, Ph.D.	Yale University
Zhu, Yuan, Ph.D.	Children's Research Institute
Zhu, Yuwen, Ph.D.	University of Colorado, Denver
Zilberberg, Jenny, Ph.D.	Hackensack University Medical Center
Zinkel, Sandra S., M.D., Ph.D.	Vanderbilt University
Zipfel, Warren R., Ph.D.	Cornell University
Zlotta, Alexandre, M.D.	Sinai Health System
Zullig, Leah L., Ph.D., M.P.H.	Duke University
Zylberberg, Claudia, Ph.D.	Akron Biotechnology, LLC

**Total number of Reviewers: 2,363**

**Total number of times reviewers served: 3,032**

## 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>.

<b>C Series: Research Construction Programs</b>	
<b>C06</b>	<p><b>Research Facilities Construction Grants</b></p> <p>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.</p>
<b>D Series: Institutional Training and Director Program Projects</b>	
<b>D43</b>	<p><b>International Training Grants in Epidemiology</b></p> <p>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.</p>
<b>DP1</b>	<p><b>NIH Director's Pioneer Award (NDPA)</b></p> <p>To support individuals who have the potential to make extraordinary contributions to medical research. The NIH Director's Pioneer Award is not renewable.</p>
<b>DP2</b>	<p><b>NIH Director's New Innovator Awards</b></p> <p>To support highly innovative research projects by new investigators in all areas of biomedical and behavioral research.</p>
<b>F Series: Fellowship Programs</b>	
<b>F30</b>	<p><b>Ruth L. Kirschstein National Research Service Award (NRSA) for Individual Predoctoral M.D./Ph.D. Degree Fellows</b></p> <p>To provide predoctoral individuals with supervised research training in specified health and health-related areas leading toward a research degree (e.g., Ph.D.).</p>
<b>F31</b>	<p><b>Ruth L. Kirschstein National Research Service Award for Predoctoral Individuals</b></p> <p>To provide predoctoral research training to individuals to broaden their scientific background and extend their potential for research in specified health-related areas.</p>
<b>F32</b>	<p><b>Ruth L. Kirschstein National Research Service Award for Individual Postdoctoral Fellows</b></p> <p>To provide postdoctoral research training to individuals to broaden their scientific background and extend their potential for research in specified health-related areas.</p>
<b>F33</b>	<p><b>Ruth L. Kirschstein National Research Service Award for Senior Fellows</b></p> <p>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.</p>

<b>F99/ K00</b>	<b>The NCI Predoctoral to Postdoctoral Fellow Transition Award</b> To encourage and retain outstanding graduate students who have demonstrated potential and interest in pursuing careers as independent cancer researchers.
<b>K Series: Career Development Programs</b>	
<b>K01</b>	<b>The Howard Temin Award (no longer supported through use of the K01 by the NCI; see the K99/R00)</b> 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.
<b>K01</b>	<b>Mentored Career Development Award for Underrepresented Minorities</b> To support scientists committed to research who are in need of both advanced research training and additional experience.
<b>K05</b>	<b>Established Investigator Award in Cancer Prevention, Control, Behavioral, and Population Research</b> 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.
<b>K07</b>	<b>Cancer Prevention, Control, Behavioral, and Population Sciences Career Development Award</b> 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.
<b>K08</b>	<b>Mentored Clinical Scientists Development Award</b> 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.

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

<b>K23</b>	<p><b>Mentored Patient-Oriented Research Career Development Award for Underrepresented Minorities</b></p> <p>To support the career development of investigators who have made a commitment to focus their research on patient-oriented research. This mechanism provides support for a period of supervised study and research for clinically trained professionals who have the potential to develop into productive clinical investigators in patient-oriented research.</p>
<b>K24</b>	<p><b>Mid-Career Investigator Award in Patient-Oriented Research</b></p> <p>To provide support for clinicians to allow them protected time to devote to patient-oriented research and to act as mentors for beginning clinical investigators. The target candidates are outstanding clinical scientists engaged in patient-oriented research who are within 15 years of their specialty training, who can demonstrate the need for a period of intensive research focus as a means of enhancing their clinical research careers, and who are committed to mentoring the next generation of clinical investigators in patient-oriented research.</p>
<b>K25</b>	<p><b>Mentored Quantitative Research Career Development Award</b></p> <p>This award allows an independent scientist in a highly technical field of research to identify an appropriate mentor with extensive experience in cancer research and to receive the necessary training and career development required to become involved in multidisciplinary cancer research.</p>
<b>K99/ R00</b>	<p><b>NIH Pathway to Independence (PI) Award</b></p> <p>The Pathway to Independence Award, which is part of the NIH Roadmap Initiative but is known as the Howard Temin Award within the NCI, will provide up to 5 years of support consisting of two phases. The initial phase will provide 1 to 2 years of mentored support for highly promising postdoctoral research scientists. This phase will be followed by up to 3 years of independent support contingent on securing an independent research position. Award recipients will be expected to compete successfully for independent R01 support from the NIH during the career transition award period. The PI Award is limited to postdoctoral trainees within 5 years of completion of their training who propose research relevant to the mission of one or more of the participating NIH Institutes and Centers.</p>
<b>L Series: Loan Repayment Program</b>	
<b>L30</b>	<p><b>Loan Repayment Program for Clinical Researchers</b></p> <p>To provide for the repayment of the educational loan debt of qualified health professionals involved in clinical research. Qualified health professionals who contractually agree to conduct qualified clinical research are eligible to apply for this program.</p>
<b>L32</b>	<p><b>Loan Repayment Program for Clinical Researchers From Disadvantaged Backgrounds</b></p> <p>To provide for the repayment of the educational loan debt of qualified health professionals from disadvantaged backgrounds involved in clinical research. Qualified health professionals from disadvantaged backgrounds who contractually agree to conduct qualified clinical research are eligible to apply for this program.</p>
<b>L40</b>	<p><b>Loan Repayment Program for Pediatric Research</b></p> <p>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.</p>



<b>L50</b>	<b>Loan Repayment Program for Contraception and Infertility Research</b> 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.
<b>L60</b>	<b>Loan Repayment Program for Health Disparities Research</b> 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.
<b>P Series: Research Program Projects and Centers</b>	
<b>P01</b>	<b>Research Program Projects</b> 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.
<b>P20</b>	<b>Exploratory Grants</b> 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.
<b>P30</b>	<b>Center Core Grants</b> 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.
<b>P41</b>	<b>Biotechnology Resource Grants</b> 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.
<b>P50</b>	<b>Specialized Center Grants</b> 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.

<b>R Series: Research Projects</b>	
<b>R01</b>	<p><b>Research Project</b></p> <p>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.</p>
<b>R03</b>	<p><b>Small Research Grants</b></p> <p>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.</p>
<b>R13</b>	<p><b>Conferences</b></p> <p>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.</p>
<b>R15</b>	<p><b>The NIH Academic Research Enhancement Awards (AREA)</b></p> <p>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.</p>
<b>R21</b>	<p><b>Exploratory/Developmental Grants</b></p> <p>To encourage the development of new research activities in categorical program areas. (Support generally is restricted in the level of support and duration.)</p>
<b>R24</b>	<p><b>Resource-Related Research Projects</b></p> <p>To support research projects that will enhance the capability of resources to serve biomedical research.</p>
<b>R25E</b>	<p><b>Cancer Education Grant Program (CEGP)</b></p> <p>A flexible, curriculum-driven program aimed at developing and sustaining innovative educational approaches that ultimately will have an impact on reducing cancer incidence, mortality, and morbidity, as well as on improving the quality of life of cancer patients. The CEGP accepts investigator-initiated grant applications that pursue a wide spectrum of objectives, ranging from short courses to the development of new curricula in academic institutions; to national forums and seminar series; to hands-on workshop experiences for the continuing education of health care professionals, biomedical researchers, and the lay community; 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.</p>

<b>R25T</b>	<p><b>Cancer Education and Career Development Program</b></p> <p>To support the development and implementation of curriculum-dependent, team-oriented programs to train predoctoral and postdoctoral candidates in cancer research team settings that are highly interdisciplinary and collaborative. This specialized program is particularly applicable to the behavioral, prevention, control, nutrition, and population sciences but should also be considered by other areas of research (e.g., imaging, pathology) that will require sustained leadership, dedicated faculty time, specialized curriculum development and implementation, interdisciplinary research environments, and more than one mentor per program participant to achieve their education and research career development objectives.</p>
<b>R33</b>	<p><b>Exploratory/Developmental Grants, Phase II</b></p> <p>To provide a second phase for support of innovative exploratory and developmental research activities initiated under the R21 mechanism. Although only R21 awardees are generally eligible to apply for R33 support, specific program initiatives may establish eligibility criteria under which applications could be accepted from applicants who demonstrate program competency equivalent to that expected under R33.</p>
<b>R35</b>	<p><b>Outstanding Investigator Award (OIA)</b></p> <p>To provide long-term support to experienced investigators with outstanding records of cancer research productivity who propose to conduct exceptional research. The OIA is intended to allow investigators the opportunity to take greater risks, be more adventurous in their lines of inquiry, or take the time to develop new techniques. The OIA would allow an Institution to submit an application nominating an established Program Director/Principal Investigator (PD/ PI) for a 7-year grant.</p>
<b>R37</b>	<p><b>Method to Extend Research in Time (MERIT) Award</b></p> <p>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.</p>

<b>R38</b>	<p><b>Stimulating Access to Research in Residency (StARR)</b></p> <p>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.</p>
<b>R50</b>	<p><b>Research Specialist Award</b></p> <p>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.</p>
<b>R55</b>	<p><b>James A. Shannon Director's Award</b></p> <p>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.</p>
<b>R56</b>	<p><b>High-Priority, Short-Term Project Award</b></p> <p>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.</p>
<b>R61</b>	<p><b>Phase 1 Exploratory/Developmental Grant</b></p> <p>The R61 award mechanism for exploratory/developmental projects. The R61 mechanism is suitable for projects that are at their inception, conceptual, or idea-based phase. In this phase, the technical feasibility of the proposed technology or methodology should not yet have been established. Preliminary data are not required but are accepted if available. If preliminary data are sufficient to suggest the feasibility of the approach is established, then consideration should be given to submitting to the companion R33.</p>
<b>RL1</b>	<p><b>Linked Research Project Grant</b></p> <p>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.</p>

**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.

<b>R41</b>	<b>STTR Grants, Phase I</b> 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.
<b>R42</b>	<b>STTR Grants, Phase II</b> 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.
<b>R43</b>	<b>SBIR Grants, Phase I</b> 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.
<b>R44</b>	<b>SBIR Grants, Phase II</b> 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.
<b>S Series: Research-Related Programs</b>	
<b>SC1</b>	<b>Research Enhancement Award</b> 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).
<b>SC2</b>	<b>Pilot Research Project</b> Individual investigator-initiated pilot research projects for faculty at MSIs to generate preliminary data for a more ambitious research project.
<b>Si2/ R00</b>	<b>Lasker Clinical Research Scholar Program</b> This program will support the research activities during the early-stage careers of independent clinical researchers.
<b>S06</b>	<b>Minority Biomedical Research Support (MBRS)</b> 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.

<b>S07</b>	<p><b>Biomedical Research Support Grants (NCRR BRSG)</b></p> <p>As an example of this funding mechanism, the NIH issued a Request for Applications (RFA) in FY2004 to provide short-term interim support for institutional activities that will strengthen oversight of human subjects research at institutions that receive significant NIH support for clinical research. Although there is considerable flexibility in the types of activities that could be supported under the 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).</p>
<b>S10</b>	<p><b>Biomedical Research Support Shared Instrumentation Grants (NCRR SIG)</b></p> <p>The National Center for Research Resources (NCRR) initiated its competitive Shared Instrumentation Grant (SIG) Program in FY1982. Shared Instrumentation Grants provide support for expensive state-of-the-art instruments utilized in both basic and clinical research. This program is designed to meet the special problems of acquisition and updating of expensive shared-use instruments that are not generally available through other NIH funding mechanisms, such as the regular research project, program project, or center grant programs. Applications for funds to design or to advance the design of new instruments are not accepted. The objective of the program is to make available to institutions with a high concentration of NIH-supported biomedical investigators expensive research instruments that can only be justified on a shared-use basis and for which meritorious research projects are described.</p>
<b>S21</b>	<p><b>Research and Institutional Resources Health Disparities Endowment Grants—Capacity Building</b></p> <p>To strengthen the research and training infrastructure of the institution, while addressing current and emerging needs in minority health and other health disparities research.</p>
<b>T Series: Training Programs</b>	
<b>T15</b>	<p><b>Continuing Education Training Grants</b></p> <p>To assist professional schools and other public and nonprofit institutions in the establishment, expansion, or improvement of programs of continuing professional education, especially for programs of extensive continuation, extension, or refresher education dealing with new developments in the science and technology of the profession.</p>
<b>T32</b>	<p><b>NIH National Research Service Award—Institutional Research Training Grants</b></p> <p>To enable institutions to make National Research Service Awards to individuals selected by them for predoctoral and postdoctoral research training in specified shortage areas.</p>
<b>T34</b>	<p><b>Undergraduate NRSA Institutional Research Training Grants</b></p> <p>To enhance the undergraduate research training of individuals from groups underrepresented in biomedical, behavioral, clinical, and social sciences through Institutional National Research Service Award Training Grants in preparation for research doctorate degree programs.</p>



<b>U Series: Cooperative Agreements</b>	
<b>U01</b>	<b>Research Projects—Cooperative Agreements</b> To support a discrete, specified, circumscribed project to be performed by the named investigators in an area representing their specific interests and competencies.
<b>U10</b>	<b>Cooperative Clinical Research—Cooperative Agreements</b> 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.
<b>U13</b>	<b>Conference—Cooperative Agreements</b> 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.
<b>U19</b>	<b>Research Program—Cooperative Agreements</b> 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.
<b>U2C</b>	<b>Resource-Related Research Multicomponent Projects and Centers Cooperative Agreements</b> 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.
<b>U24</b>	<b>Resource-Related Research Projects—Cooperative Agreements</b> To support research projects contributing to improvement of the capability of resources to serve biomedical research.
<b>U42</b>	<b>Animal (Mammalian and Nonmammalian) Model, and Animal and Biological Materials Resource Cooperative Agreements</b> 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.
<b>U43</b>	<b>Small Business Innovation Research (SBIR) Cooperative Agreements—Phase I</b> 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.
<b>U44</b>	<b>Small Business Innovation Research (SBIR) Cooperative Agreements—Phase II</b> 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.

<b>U54</b>	<p><b>Specialized Center—Cooperative Agreements</b></p> <p>To support any part of the full range of research and development from very basic to clinical; may involve ancillary supportive activities such as protracted patient care necessary to the primary research or R&amp;D effort. The spectrum of activities comprises a multidisciplinary attack on a specific disease entity or biomedical problem area. These differ from program projects in that they are usually developed in response to an announcement of the programmatic needs of an Institute or Division and subsequently receive continual attention from its staff. Centers also may serve as regional or national resources for special research purposes, with assistance from staff of the funding component in identifying appropriate priority needs.</p>
<b>U56</b>	<p><b>Exploratory Grants—Cooperative Agreements</b></p> <p>To support planning for new programs, expansion, or modification of existing resources, and feasibility studies to explore various approaches to the development of interdisciplinary programs that offer potential solutions to problems of special significance to the mission of the NIH. These exploratory studies may lead to specialized or comprehensive centers. Substantial Federal programmatic staff involvement is intended to assist investigators during performance of the research activities, as defined in the terms and conditions of award.</p>
<b>UE5</b>	<p><b>Research Education Cooperative Agreements Program</b></p> <p>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.</p>
<b>UG1</b>	<p><b>Clinical Research Cooperative Agreements—Single Project</b></p> <p>To support single project applications conducting clinical evaluation of various methods of therapy and/or prevention (in specific disease areas). Substantial Federal programmatic staff involvement is intended to assist investigators during performance of the research activities, as defined in the terms and conditions of the award. NOTE: The UG1 is the single-component companion to the U10, which is used for multi-project applications only.</p>
<b>UG3</b>	<p><b>Phase 1 Exploratory/Developmental Cooperative Agreement</b></p> <p>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.</p>
<b>UH2/ UH3</b>	<p><b>Exploratory/Developmental Cooperative Agreement Phase I/II</b></p> <p>To support the development of new research activities in categorical program areas. (Support generally is restricted in level of support and in time.)</p> <p>The UH3 provides a second phase for the support for innovative exploratory and development research activities initiated under the UH2 mechanism. Although only UH2 awardees are generally eligible to apply for UH3 support, specific program initiatives may establish eligibility criteria under which applications could be accepted from applicants demonstrating progress equivalent to that expected under the UH2.</p>

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

AA	Assessment and Authorization	DCLG	Director's Consumer Liaison Group (now NCRA)
ACD	Advisory Committee to the Director	DCP	Division of Cancer Prevention
ACRWH	Advisory Committee on Research on Women's Health	DCTD	Division of Cancer Treatment and Diagnosis
AHRQ	Agency for Healthcare Research and Quality	DEA	Division of Extramural Activities
AIDS	Acquired Immune Deficiency Syndrome	DEAIS	DEA Information System
AISB	Applied Information Systems Branch	DFO	Designated Federal Official
ARA	Awaiting Receipt of Application	DOC	Division, Office, and Center
AREA	Academic Research Enhancement Award	DPDU	DEA Processing and Distribution Unit
ATO	Authorization to Operate	DRR	Division of Receipt and Referral
BRSRG	Biomedical Research Support Grant	ECB	Electronic Council Book
BSA	Board of Scientific Advisors	eCPS	electronic Contract Proposal Submission
BSC	Board of Scientific Counselors	EDRN	Early Detection Research Network
CBIIT	NCI Center for Biomedical Informatics and Information Technology	EPMC	Extramural Program Management Committee
CCG	Center for Cancer Genomics	eRA	electronic Research Administration
CCR	Center for Cancer Research	ESI	Early-Stage Investigator
CCSG	Cancer Center Support Grant	eTUG	eRA Technical Users Group
CCT	Center for Cancer Training	FACA	Federal Advisory Committee Act
CD	Career Development	FDA	U.S. Food and Drug Administration
CDC	Centers for Disease Control and Prevention	FFRDC	Federally Funded Research and Development Center
CEGP	Cancer Education Grant Program	FLARE	Fiscal Linked Analysis of Research Emphasis
CGCHR	Center for Global Cancer Health Research	FNLAC	Frederick National Laboratory Advisory Committee
CIT	Center for Information Technology	FNLCR	Frederick National Laboratory for Cancer Research
CMM	Committee Management Module	FOA	Funding Opportunity Announcement
CMO	Committee Management Office	FOIA	Freedom of Information Act
CoC	Council of Councils	FY	Fiscal Year
CRCHD	Center to Reduce Cancer Health Disparities	GOCO	Government-owned, contractor-operated
CSR	Center for Scientific Review	HHS	U.S. Department of Health and Human Services
CSSI	Center for Strategic Scientific Initiatives	IC	Institute/Center
CTAC	Clinical Trials and Translational Research Advisory Committee	IITAG	Informatics and IT Advisory Group
DAP	Digital Analytics Program	IMAT	Innovative Molecular and Cellular Analysis Technologies
DCB	Division of Cancer Biology	IMPAC	Information for Management, Planning, Analysis, and Coordination
DCCPS	Division of Cancer Control and Population Sciences	IRG	Initial Review Group
DCEG	Division of Cancer Epidemiology and Genetics		

## Appendix G: Glossary of Acronyms

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IRM	Information Resources Management	PAR	Reviewed Program Announcement
IT	Information Technology	PCP	President's Cancer Panel
LOI	Letter of Intent	PCRB	Program Coordination and Referral Branch
LRP	Loan Repayment Program	PHS	Public Health Service
MBRS	Minority Biomedical Research Support	PI	Principal Investigator
MERIT	Method to Extend Research in Time	PRESTO	Program Review and Extramural Staff Training Office
MSI	Minority-Serving Institution	RAEB	Research Analysis and Evaluation Branch
NCAB	National Cancer Advisory Board	R&D	Research and Development
NCI	National Cancer Institute	RFA	Request for Applications
NCRA	NCI Council of Research Advocates (replaces DCLG)	RFP	Request for Proposals
NCRR	National Center for Research Resources	RIO	Research Integrity Officer
NDPA	NIH Director Pioneer Award	RO	Referral Officer
NEES	NIH Enterprise Ethics System	RPG	Research Project Grant
NExTRAC	Novel and Exceptional Technology and Research Advisory Council	RPRB	Research Programs Review Branch
NIAAA	National Institute on Alcohol Abuse and Alcoholism	RTCRB	Research Technology and Contracts Review Branch
NIAID	National Institute of Allergy and Infectious Diseases	RTRB	Resources and Training Review Branch
NIBIB	National Institute of Biomedical Imaging and Bioengineering	SA	Staff Assistant
NIDA	National Institute on Drug Abuse	SAM	System for Award Management
NIGMS	National Institute of General Medical Sciences	SBIR	Small Business Innovation Research
NIH	National Institutes of Health	SBIRDC	SBIR Development Center
NIMHD	National Institute on Minority Health and Health Disparities	SEER	Surveillance, Epidemiology, and End Results
NOFO	Notice of Funding Opportunity	SEP	Special Emphasis Panel
NRSA	National Research Service Award	SIC	Special Interest Category
OBF	Office of Budget and Finance	SIG	Shared Instrumentation Grant
OCPL	Office of Communications and Public Liaison	SPL	Scientific Program Leadership
OD	Office of the Director	SPORE	Specialized Program of Research Excellence
OEA	Office of Extramural Applications	SPRS	Secure Payee Registration System
OER	Office of Extramural Research	SRB	Special Review Branch
OFACP	Office of Federal Advisory Committee Policy	SREA	Scientific Review and Evaluation Activities
OHAM	Office of HIV and AIDS Malignancy	SRO	Scientific Review Officer (formerly Scientific Review Administrator)
OIA	Outstanding Investigator Award	STTR	Small Business Technology Transfer Research
OPERA	Office of Policy for Extramural Research Administration	T&E	Training and Education
ORRPC	Office of Referral, Review, and Program Coordination	TEAG	Trans-NCI Extramural Awareness Group
PA	Program Announcement	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/ncab-meetings.htm>

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

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

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

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

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

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

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

<https://deainfo.nci.nih.gov/advisory/bsc/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.

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



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