AMERICAN CANCER SOCIETY FLATIRON HEALTH

REAL-WORLD DATA IMPACT AWARD

APPLICATION INSTRUCTIONS

EFFECTIVE JANUARY 2024

ELECTRONIC APPLICATION DEADLINE: April 1, 2024

AMERICAN CANCER SOCIETY, INC.

Extramural Discovery Science

Website: http://www.cancer.org

Program Contact: kimberly.clarke@cancer.org

MISSION

The American Cancer Society's mission is to improve the lives of people with cancer and their families through advocacy, research, and patient support, to ensure everyone has an opportunity to prevent, detect, treat, and survive cancer.

TABLE OF CONTENTS

Change of Address: Notify the program office by email if a mailing address, email address, or phone number has changed since submission. Include the PI and application number on the correspondence and update this information in proposalCentral.

Change of Institution: If the applicant changes institutions between application submission and peer review, contact the Scientific Director to inquire how this may impact review.

4. REQUIRED INFORMATION

Project Title: Do not exceed 150 characters including spaces; avoid abbreviations if possible. **Note:** The title will truncate after 81 characters on the title page.

Principal Investigator/Applicant Information: Some (or all) of the required information from your Professional Profile may already be displayed. If any information is outdated, ***stop*** and update your Professional Profile before finalizing this section and submitting your application. Please keep all contact information current.

PI Data: The PI demographic info

PBI: Predominantly Black Institution
TCU: Tribal Colleges and Universities

Institutional Official: Indicate the name and address of the official authorized to sign for the institution. Institutional Officials may electronically sign the front page if required by the institution, but this is not required by ACS for submission. The PI must give the Institutional Official access to the application for e-signing to be completed. Provide a mailing address for disbursement of funds, in the event that your grant is awarded funding.

Technology Transfer Officer (TTO): Indicate the name and email address of the TTO. The TTO is responsible for technology transfer and other aspects of the commercialization of research that take place at a university. The TTO will be responsible for reporting all IP updates to the ACS should the project be awarded funding.

Department Chair: Indicate the name, department, and email address of the Department Chair. The electronic signature of the Department Chair is not required by the ACS.

Key Personnel: Individuals who contribute to the scientific development or execution of a project in a substantive and measurable way (whether or not they receive salaries or compensation under the grant) are considered Key Personnel. Key Personnel can include individuals at the master's or baccalaureate level (such as graduate students and research assistants) if they meet this definition. "Zero percent" or "as needed" are not acceptable levels of involvement. **The PI is always considered Key Personnel, but do not list them under key personnel on proposalCentral.**

REQUIRED SUPPORTING DOCUMENTS FOR NAMED PERSONNEL

Personnel	Designated	Biosketch	S Documentation	Included in Budget & Justification	Letters
Principal Investigator	Yes[a]	Yes	Yes	Yes	N/A
Co-Investigator	Yes	Yes	Yes[b]	Yes[c]	Letter of Agreement/Support[b]
Collaborator	Yes	Yes	Yes[b]	Yes[c]	Letter of Agreement/Support[b]
	No	No	No	No	
Consultant	Yes	Yes	Yes, if paid[b]	Yes, if paid[c]	Letter of Agreement/Support[b]
	No	No	No	Yes,if paid	
Other	No	No	No	Yes	No

[a] The PI is always considered key personnel but supporting documents should **not** be duplicated in the Key Personnel section on proposalCentral.

[b] For postdoctoral fellows, technicians, and graduate students, other support documentation is not required.

[c] If key personnel are not being paid, percent effort is still required.

3 Tm 0 G 0.0a7M340000912 0 n BT /86 Tf 1 0 0 1 303.55 1d 0

A **Co-Investigator** is a vital scientific contributor (at the same or a different institution), often bringing a needed expertise to the research team. This person commits some level of measurable effort to the project and is therefore Key Personnel, whether compensated or not.

A **Collaborator** plays a lesser role in the thinking and logistics of the project than a Co-Investigator. Depending on the role and effort, a collaborator may be designated as Key Personnel and may be compensated.

A **Consultant** provides expert advice most often for a fee. If the consultant contributes to the scientific development or execution of a project substantively and measurably, he or she should be designated as Key Personnel.

Other is defined as individuals who are compensated for their contribution to the project but are not considered Key Personnel (e.g., student assistants, technical staff).

5. GENERAL AUDIENCE SUMMARY

The general audience summary provides an overview of the proposed research for people who are ***not*** trained in the sciences. This summary may be read by peer review stakeholders, ACS staff members, potential donors, and the public. **Stakeholders** are individuals without formal scientific or medical training who are full voting members of peer review panels. The stakeholder uses the general summary to evaluate how the proposed work will benefit cancer patients and their families.

ACS staff members use these summaries to identify projects that align with the specific interests of **donors** and may share them with donors.

Staff may use the summary for communicating to local media about ACS-funded studies. Summaries of all grants funded by the Society are also made available to the **public**. Therefore, do not include proprietary/confidential information.

The general audience summary should ***not*** duplicate the structured technical abstract and should be written in an understandable way for the general public. Describe concisely the background, significance, question(s) being asked, information to be obtained, and potential impact of your proposed research. If symbols or Greek characters must be used, they should be spelled out to avoid formatting problems.

This form is 0 G00000912 0 612 792 reW*nBT/F1 11.04 Tf1 0 0 1 456.82 332.93 Tm0 G.00000912 0 612 792 r

The American Cancer Society may share the structured technical abstract under a non-disclosure agreement with a third party. Therefore, do not include proprietary information. Please notify us if

General purpose equipment – Equipment such as computers or laptops used primarily or exclusively in

Awards that provide only salary support for the Principal Investigator. If the salary support for the PI's contribution to the project is

what measures will be implemented to keep personally identifiable private information confidential.

Collaborating sites: List any collaborating sites where research on human subjects will be performed and describe the role of those sites and collaborating investigators in performing the proposed research. Explain how data from the site(s) will be obtained, managed, and protected.

10.

6. APPROACH
Is the proposed research feasible and are the conceptual or clinical framework, design, methods, and analyses adequately developed, well-integrated, well-reasoned, and appropriate to the aims of the project? Is the research timeline realistic? Are potential pitfalls, alternative approaches, and future plans articulated?

7. ENVIRONMENT AND RESOURCES
Will the scientific environment and institutional support contribute to the probability of success? Will the project benefit from unique features of the scientific environment, subject populations, collaborative arrangements, or emerging technologies?

8. LIKELIHOOD OF SUCCESS
Degree to which the research team is likely to achieve stated aims within the timeline, budget environment, and other resources available and are their findings/data actionable in some way at the end of the project period.

9. BUDGET
NOT TO BE CONSIDERED IN SCORING

Evaluate the overall budget and individual budget categories with respect to the award cap and the project aims. other resources ava

APPENDIX A: CLASSIFICATION CATEGORIES - AREAS OF RESEARCH

The areas of research are based on seven broad categories called the Common Scientific Outline (CSO) developed by the International Cancer Research Partnership (ICRP):

1. Biology
2. Etiology
3. Prevention
4. Early Detection, Diagnosis and Prognosis
5. Treatment
6. Cancer Control, Survivorship and Outcomes Research

Applicants are asked to select from the following codes:

1 BIOLOGY

Research included in this category looks at the biology of how cancer starts and progresses as well as normal biology relevant to these processes.

1.1 **Normal Functioning**

Examples of science that would fit:

Developmental biology (from conception to adulthood) and the biology of aging

Normal functioning of genes, including their identification and expression, and the normal function of gene products, such as hormones and growth factors

1.3 Cancer Initiation: Oncogenes and Tumor Suppressor Genes

Examples of science that would fit:

Genes and signals involved in growth stimulation or repression, including oncogenes (Ras, etc.), and tumor suppressor genes (p53, etc.)

Effects of hormones and growth factors and their receptors such as estrogens, androgens, TGF-beta, GM-CSF, etc.

Research into the biology of stem cell tumour initiation

1.4 Cancer Progression and Metastasis

Examples of science that would fit:

Latency, promotion, and regression

Expansion of malignant cells

Interaction of malignant cells with the immune system or extracellular matrix

Cell mobility, including detachment, motility, and migration in the circulation

Invasion

Malignant cells in the circulation, including penetration of the vascular system and extravasation

Systemic and cellular effects of malignancy

Tumor angiogenesis and growth of metastases

Role of hormone or growth factor dependence/independence in cancer progression

Research into cancer stem cells supporting or maintaining cancer progression

i canc

Identification/confirmation of genes suspected or known to be involved in ""sporadic"" cancer events; for example, polymorphisms and/or mutations that may affect carcinogen metabolism (e.g., CYP, NAT, glutathione tr

Research included in this category looks at identifying individual and population-based primary prevention interventions, which reduce cancer risk by reducing exposure to cancer risks and increasing protective factors.

Chemopreventive agents and their discovery, mechanism of action, development, testing in model systems, and clinical testing

Other (non-vaccine) preventive measures such as prophylactic surgery (e.g., ma

5.1 Locali

Identifying mechanisms of action of existing cancer drugs and novel drug targets, including cancer stem cells for the purposes of treatment/identifying drug targets

Drug discovery and development, including drug metabolism, pharmacokinetics, pharmacodynamics, combinatorial chemical synthesis, drug screening, development of high throughput assays, and testing in model systems, including that which may aid treatment planning in stratified/personalised medicine

Investigating the molecular mechanisms of drug resistance (including the role of cancer stem cells) and pre-clinical evaluation of therapies to circumvent resistance

Development of methods of drug delivery

Research into the development of systemic therapies to prevent recurrence

5.4 Systemic Therapies - Clinical Applications

Examples of science that would fit:

Clinical testing and application of treatments administered systemically such as cytotoxic or hormonal agents, novel systemic therapies such as immunologically directed therapies (treatment vaccines, antibodies, antibiotics, theranostics or other biologics), gene therapy, angiogenesis inhibitors, apoptosis inhibitors, whole body hyperthermia, bone marrow/stem cell transplantation, and differentiating agents, adjuvant and neo-adjuvant treatments, systematically-delivered nanoparticles/microsomes, cell-based therapies, manipulation of the microbiome etc.

Phase I, II, or III clinical trials of promising therapies administered systemically

Side effects, toxicity, and pharmacodynamics

Clinical testing of systemic therapies to prevent recurrence and prevent and treat metastases

5.5 Combinations of Localized and Systemic Therapies

Examples of science that would fit:

Development and testing of combined local and systemic approaches to treatment (e.g., radiotherapy and chemotherapy, or surgery and chemotherapy)

Clinical application of combined approaches to treatment such as systemic cytotoxic therapy and radiation therapy

Development and clinical application of combined localized and systemic therapies to prevent recurrence and prevent and treat metastases

5.6 Complementary and Alternative Treatment Approaches

Examples of science that would fit:

Discovery, development, and clinical application

Examples of science that would fit:

Research into patient-centered outcomes

Quality of life

Pain management

Psychological impacts of cancer survivorship

Rehabilitation, including reconstruction and replacement

Economic sequelae, including research on employment, return to work, and vocational/educational impacts on survivors and their families/caregivers

Reproductive issues

Long-term issues (morbidity, health status, social and psychological eW*nB7912 792 reW*nBTG[,)e20 0

Trends in use of interventional strategies in populations (e.g., geographic variation)

6.3 Population-based Behavioral Factors

Examples of science that would fit:

Research into populations' attitudes and belief systems (including cultural beliefs) and their influence on behaviors related to cancer control, outcomes and treatment. For example, how populations' beliefs can affect compliance/interaction with all aspects of the health care/service provision

Research into the psychological effects of genetic counselling

Research into behavioral barriers to improving cancer care/survivorship clinical trial enrollment

6.4 Health Services, Economic and Health Policy Analyses

Examples of science that would fit:

Development and testing of health service delivery methods

Interventions to increase the quality of health care delivery

Impact of organizational, social, and cultural factors on access to care and quality of care, including studies on variations or inequalities in access among racial, ethnic, geographical or socio-economic groups

Studies of providers such as geographical or care-setting variations in outcomes

Effect of reimbursement and/or insurance on cancer control, outcomes, and survivorship support

Health services research, including health policy and practice and development of guidelines/best practice for healthcare delivery across the diagnostic/preventive/treatment spectrum

Analysis of health service provision, including the interaction of primary and secondary care

Analyses of the cost effectiveness of methods used in cancer prevention, detection, diagnosis, prognosis, treatment, and survivor care/support

Ethical, legal or social implications of research/health service delivery (e.g. genetic counselling)

Research into systemic or operational barriers to trial enrollment

6.5 Education and Communication Research

Examples of science that would fit:

Development of generic health provider-patient communication tools and methods (e.g., telemedicine/health)

6.9 Resources and Infrastructure Related to Cancer Control, Survivorship, and Outcomes Research

Examples of science that would fit:

Informatics and informatics networks

Clinical trial groups related to cancer control, survivorship, and outcomes research

Epidemiological resources pertaining to cancer control, survivorship, and outcomes research

Statistical methodology or biostatistical methods pertaining to cancer control, survivorship and outcomes research

Surveillance infrastructures

Centers, consortia, and/or networks pertaining to cancer control, survivorship and outcomes research

Development and characterization of new model systems for cancer control, outcomes or survivorship, distribution of models to scientific community or research into novel ways of applying model systems, including but not limited to computer-simulation systems, software development, in vitro/cell culture models, organ/tissue models or animal model systems. Guidance note: this should only be used where the focus of the award is creating a model. If it is only a tool or a methodology, code to the research instead.

Psychosocial, economic, political and health services research frameworks and models

Education and training of investigators at all levels (including clinicians and other health professionals), such as participation in training workshops, conferences, advanced research technique courses, and Master's course attendance. This does not include longer-term research-based training, such as Ph.D. or post-doctoral fellowships.

“tumorspecific” treatments, such as infusion of natural killer immune cells, have had limited success. This project will use several approaches to improve refractory solid tumor by testing an antibody recognized neuroblastoma and osteosarcoma tumor cells. Success of any of these approaches will be a breakthrough for children with refractory or relapsed neuroblastoma and osteosarcoma.

Selection of Priorities

Treatment: 100%

Example 5

Prostate cancer (PCa) diagnosis and mortality rates are higher in African-American (AA) men compared to Caucasian-American (CA) men. AA patients respond poorly to treatments, and the PCa tumors are more aggressive than those in CA patients. We have identified a cellular dysfunction in tumors from AA PCa patients that may contribute to treatment in AA patients. In this project we will screen AA PCa tumors for this dysfunction (Etiology) and determine if treatments that target the cellular dysfunction in AA P

Health Equity: 100%

Example 8

According to the ACS Facts and Figures, colorectal cancer (CRC) is the third most common cancer and third leading cause of death among men and women in the US. Trend data, especially over the last decade, reveals increased CRC incidence for individuio0. 342.0y 6.1 1 66611 0 0 ( )391 66a(ea)0