



American
Institute for
Cancer
Research

AICR

**GRANT APPLICATION
PACKAGE 2023**

OUR VISION

We want to live in a world where no one develops a preventable cancer.

OUR MISSION

We champion the latest and most authoritative scientific research from around the world on cancer prevention and survival through diet, weight and physical activity, so that we can help people make informed lifestyle choices to reduce their cancer risk.

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1. AICR and WCRF NETWORK RESEARCH GRANT PROGRAMS

The burden of cancer is predicted to rise significantly in the coming years and cancer mortality is predicted to become the leading cause of death in developed nations. However, most cancers are highly preventable and lifestyle factors can also have profound impacts on cancer-associated outcomes. The mission of the American Institute for Cancer Research (AICR) and World Cancer Research Fund (WCRF) Network is to eradicate preventable cancers attributable to diet, nutrition, body composition and physical inactivity and improve outcomes in cancer survivors. Our Investigator-Initiated Research Grant Program is a vital element in how we fulfill that mission.

World Cancer Research Fund Network operates two research grant programs that provide similar funding opportunities in different regions of the world:

- American Institute for Cancer Research (AICR) Research Grant Program, based in Arlington, VA, USA

AICR manages and administers the AICR Research Grant Program and accepts applications from the Americas (North America, Central America including the Caribbean and South America). AICR Grant Panel members review and recommend applications for funding, which are then presented to the AICR Board of Directors. The Board of Directors approves the grants for funding.

- World Cancer Research Fund International Research Grant Program, based in London, UK.

The World Cancer Research Fund International Research Grant Program accepts applications from anywhere in the world except the Americas.

2. INTRODUCTION AND IMPORTANT INFORMATION

AICR's Grant Program is dedicated to funding research on cancer prevention, treatment and survival related to diet, nutrition, body composition and physical activity. This document provides the key information you need to apply for funding from the AICR Grant Program.

Applications to the Investigator-Initiated Research Grant Program must address either the **Cancer Prevention** or the **Cancer Survivors** Research Area and align with at least one of the Research Themes (**Biological Mechanisms or Host Factors/Susceptibility**); for research in the area of Cancer Survivors, applications are invited to address a third theme of **Exposure-Outcome Relationships**. Applications must also adhere to AICR's research principles (see sections 4.1.-4.3.).

Grant application deadlines:

- AICR uses **proposalCENTRAL** for online submission of grant applications. There are two stages to the application process: (1) Letters of Intent and (2) Full Applications. **Letters of Intent are required from all applicants and must be submitted by January 20, 2023.**
- Previously submitted Full Applications may be revised. If a Full Application for a new Investigator-Initiated Research Grant was submitted in a previous grant cycle but the project was not funded, the Principal Investigator may submit a Letter of Intent to revise the application in the 2023 grant cycle. Not all revised projects will progress to the Full Application stage.
- Letters of Intent will be evaluated by AICR and Grant Panel members and a limited number of applicants will be invited to submit Full Applications. No reviewer feedback is provided to the applicant at the Letter of Intent stage.
- **Invitations to submit Full Applications will be issued by AICR by March 10, 2023.**
- **Full Applications must be submitted by May 19, 2023.**

AICR Investigator-Initiated Research Grant Program

Individual grants offer a maximum funding of \$150,000 plus 10 percent indirect costs provided over a two-year term. A limited number of three-year term Investigator-Initiated Research Grants (maximum of \$225,000 plus 10 percent indirect costs) may be funded. The three-year grants are only awarded to support the conduct of epidemiologic or intervention studies that cannot feasibly be conducted within the 2-year period (See section 5.4.).

Matching Grants. Matching grants follow the same eligibility requirements as Investigator-Initiated Research Grants. AICR is interested in working with for-profit corporations and/or non-profit organizations in funding cancer research consistent with AICR's areas of interest.

Eligibility to apply for an AICR grant:

- Principal Investigators must have a PhD, MD, or equivalent degree, and be research staff or a faculty member at a non-profit academic or research institution at the level of Assistant Professor (or its equivalent) or higher.

Applications for the AICR Grant Program will be accepted only from the Americas (North America including the United States and Canada, Central America, the Caribbean and South America). Applications from anywhere else in the world should be submitted to and administered by the RF International Grant Program (www.wcrf.org).

3. BACKGROUND AND CONTEXT

The AICR/WCRF Network is unique in its focus on preventing cancer and improving survival through diet, nutrition, body composition and physical activity. We collate and interpret the latest and most authoritative global scientific research on the links between cancer and diet, nutrition, body composition and physical activity. We then translate our findings into practical, clear, evidence-based recommendations on cancer prevention for use by health professionals, individuals and governments worldwide.

Since its inception in 2007, the **WCRF/AICR Continuous Update Project (CUP)** has built on the systematic literature review conducted for our 2007 WCRF/AICR Second Expert Report *Food, Nutrition, Physical Activity, and the Prevention of Cancer: a Global Perspective*. In 2018, WCRF/AICR published “*Diet, Nutrition, Physical Activity and Cancer – a Global Perspective*”, the Third Expert Report to update both the assessment of the evidence for the impact of each factor on cancer risk and revise the Cancer Prevention Recommendations the CUP provides thorough and timely reviews and expert panel assessments of the available peer-reviewed evidence. The CUP Reports have identified emerging research areas and knowledge gaps that could be addressed within our grant program. Equally, new data generated from studies funded through our grant program are included in the CUP review. Thus, the WCRF Network research grant programs and the CUP act synergistically to strengthen the scientific evidence on the impact of diet, nutrition, body composition and physical activity on cancer prevention and control.

The findings from the First, Second and Third Expert Reports have been remarkably consistent across almost three decades. The stability of these conclusions suggested that continuing this approach would be unlikely to change the majority of recommendations. Therefore, following the release of the Third Expert Report, WCRF/AICR engaged in a process of thoroughly reviewing all aspects of the CUP. The process, termed the CUP Transition, identified four broad areas in which several consequential knowledge gaps existed.

On 13 October 2022, the **Global Cancer Update Program (CUP Global)** was launched. CUP Global is a new updated and refocused future of our flagship research program - previously known as the Continuous Update Project. The CUP Global database contains over 12,000 papers on cancer prevention and survival, these have been synthesized and critiqued by over 140 scientists from 17 different countries. The CUP Global program analyses the findings from all the existing research, including the most recent research papers, to assess the strength of the evidence, reach consensus conclusions and, where possible, make recommendations.

The four broad areas are **Cancer Incidence, Cancer Survival, Obesity and Cancer Mechanisms**. Within these areas, knowledge gaps were identified in the focused priority topics, below:

- **Cancer Incidence:** Cancer subtypes; Dietary & Lifestyle Patterns; Life course
- **Cancer Survival:** Outcomes after adult cancer diagnosis (Breast, Colorectal & Prostate cancer); Survivors of Childhood Cancer
- **Cancer Mechanisms:** Biological processes linking cancer development to diet nutrition & physical activity
- **Obesity:** Physical activity and nutritional determinants of adiposity

We invite applicants to include an optional statement regarding the alignment of their proposed research project with the areas and CUP Global topics highlighted above. These areas align with the primary areas and themes described in the Grant Application Package. However, the priority topics provide an additional opportunity to emphasize the alignment of the proposed project with the priorities of the new phase of the CUP.

Visit our website for more information on the Continuous Update Project reports and the Third Expert Report at <http://www.aicr.org/continuous-update-project/>.

AICR has several programs and resources for cancer survivors and to assist individuals in assessing their lifestyle and improving adherence to the Cancer Prevention recommendations (<https://www.aicr.org/cancer-prevention/>). We particularly invite applications that integrate these evidence-based resources into proposed study designs:

Cancer Health Check: <https://www.aicr.org/cancer-health-check/>

Healthy10: <https://www.aicr.org/cancer-prevention/healthy-eating/new-american-plate/>

We also offer many educational materials for health professionals (<https://www.aicr.org/resources/for-health-professionals/>), caregivers (<https://www.aicr.org/resources/for-caregivers/>) and families and children (<https://www.aicr.org/resources/for-families-children/>) that may be incorporated into research projects where appropriate.

While cancer incidence overall is increasing, survival rates have significantly improved in recent decades. Consequently, in the United States of America alone, the number of cancer survivors has grown dramatically from an estimated 3 million cancer survivors in 1970 to more than 16 million in 2018. The CUP has identified fundamental knowledge gaps in the mechanisms underpinning the role of diet, nutrition, body composition and physical activity in both cancer progression and survival (<https://www.wcrf.org/sites/default/files/Future-research-directions.pdf>). There are particular gaps in our knowledge regarding the variability in responses to diet, nutrition, body composition and physical activity, among cancer survivors and their role in treatment, prognosis, survival and quality of life during and after treatment.

Therefore, our Investigator-Initiated Research Grant Program is committed to supporting two core Research Areas: **Cancer Prevention** and **Cancer Survivors**. Within these Research Areas, we invite proposals that address the following Research Themes (Figure 1):

3.1. RESEARCH AREAS AND THEMES

Applications to the Investigator-Initiated Research Grant Program must address the role of diet, nutrition, body composition or physical activity in either the **Cancer Prevention** or the **Cancer Survivors** Research Area.

Applications must also align with at least one of the Research Themes (**Biological Mechanisms** or **Host Factors/Susceptibility**); for research in the area of Cancer Survivors, applications are invited to address a third theme of **Exposure-Outcome Relationships** (Figure 1).

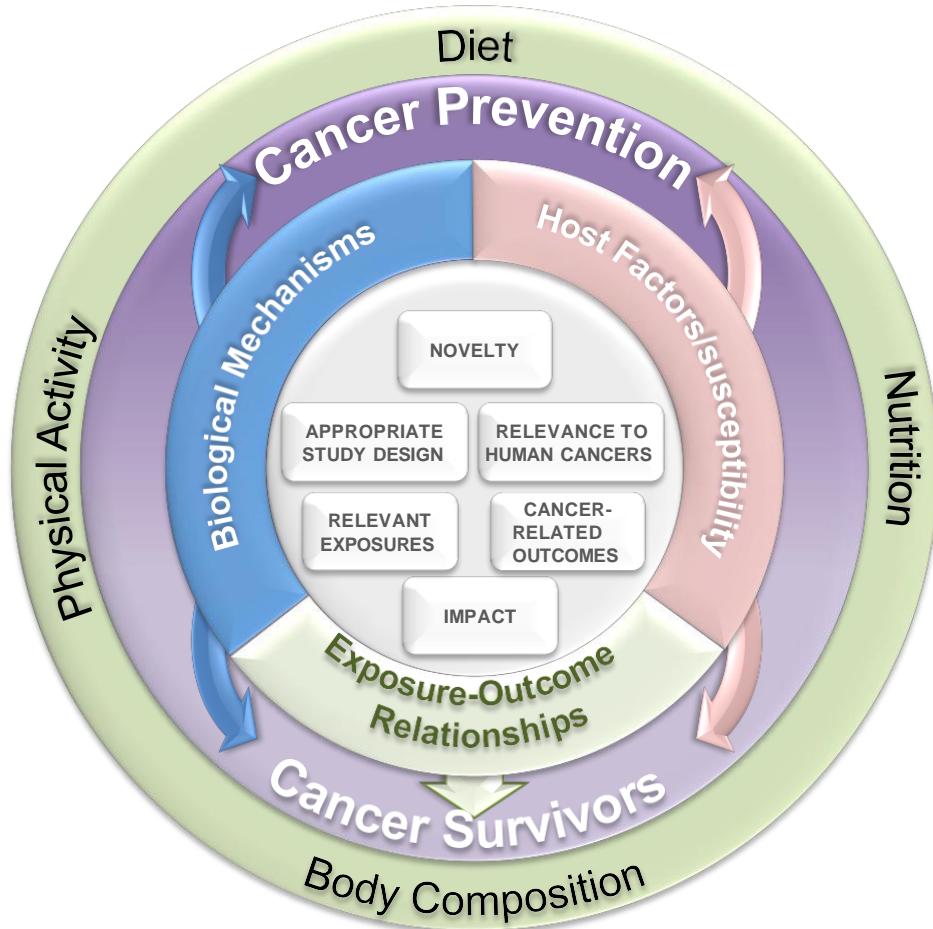


Figure 1: Research Areas, Themes, Principles and broad exposure categories on which the AICR Investigator-Initiated Research Grant Program is based.

1. **Biological Mechanisms Theme:** Research that will investigate the biological mechanisms that mediate the effects of diet, nutrition, body composition and physical activity on cancer risk (Cancer Prevention Area) and outcomes following a cancer diagnosis (Cancer Survivors Area).
2. **Host Factors/Susceptibility Theme:** Research that will investigate host factors that influence individual susceptibility to cancer development, progression or survivorship, and so contribute to explaining person-to-person variability in cancer risk and outcomes following a cancer diagnosis.
3. **Exposure-Outcome Relationships Theme (Cancer Survivors Area only):** Research that investigates exposure-outcome relationships related to the impact of diet, nutrition, body composition and physical activity on cancer-related outcomes following a cancer diagnosis.

4. INVESTIGATOR-INITIATED RESEARCH GRANT PROGRAM

CUP Global has identified significant gaps in our knowledge and understanding of the mechanisms that mediate the role of diet, nutrition, body composition and physical activity in cancer development and outcomes following a cancer diagnosis. The knowledge gaps directly inform our Investigator Initiated Research Grant Program so that we can prioritize issues of greatest scientific importance and with the highest potential for translation into effective strategies for cancer prevention and improved outcomes for people living with and beyond cancer.

4.1. RESEARCH AREAS

4.1.1. Cancer Prevention Research Area

We encourage research into the mechanisms that will provide insights into how established exposures, related to diet, nutrition, body composition and physical activity, lead to cancer. Additionally, we encourage research into the genetic, epigenetic or other host factors in relation to the impact of diet, nutrition body composition and physical activity on cancer risk; proposals that identify which individuals are more or less likely to respond to interventions based on modifying those exposures are also welcome.

4.1.2. Cancer Survivors Research Area

This Research Area focuses on individuals who have received a cancer diagnosis. We encourage research that will enhance our understanding of the mechanisms that link diet, nutrition, body composition and physical activity to outcomes following a cancer diagnosis. Furthermore, we encourage research into genetic, epigenetic or other factors that might influence the impact of diet, nutrition, body composition and physical activity on outcomes following a cancer diagnosis, as well as those factors that predict response to interventions designed to modify these exposures.

We also encourage broader research into the identification of exposure-outcome relationships between diet, nutrition, body composition, physical activity and outcomes following a cancer diagnosis, as robust evidence on these links is still limited (Figure 2). Approaches that provide evidence for causal relationships are strongly encouraged.

Both intervention and observational studies are acceptable, but exposures, outcomes and possible confounders must be well characterized. Applications that include objectives to characterize biological mechanisms relevant to outcomes amongst cancer survivors are also welcome.

The feasibility of proposed interventions is particularly pertinent in cancer survivorship research and must be clearly justified in the application. Proposals to conduct relevant and important systematic reviews in cancer survivors will also be considered. Applications submitted without sufficient evidence to support the feasibility, acceptability, clinical relevance, statistical power or expertise in the research team will not be considered.

4.2. RESEARCH THEMES

Within the **Biological Mechanisms Theme**, we encourage research that explores the molecular, cellular and physiological mechanisms that will enhance our understanding of the biological connection between relevant exposures and cancer development or progression, and so strengthen the inference of causality. This type of research must be relevant to the epidemiological and clinical body of knowledge. For example, some links identified in the Continuous Update Project reports might merit more investigation. Please refer to the individual reports on our website at: <http://www.aicr.org/continuous-update-project/>.

Research in this Theme is especially likely to benefit from interdisciplinary work and the use of new technologies, such as genomics, epigenomics and metabolomics; however, such studies should be hypothesis-driven and based on preliminary data. For

this Theme, we welcome both laboratory studies and epidemiological studies that explore the mechanisms underpinning links between diet, nutrition, body composition and physical activity, with cancer-related outcomes.

Within the **Host Factors/Susceptibility Theme**, we encourage research into the factors that might explain the variability between people in their susceptibility to cancer or the biological abnormalities predisposing to it. We also welcome research into the variability in response to treatment.

Variation in susceptibility to cancer or in its progression is likely to be influenced by host factors. These might be fixed, such as age, gender, ethnicity and genetic variation, or potentially modifiable, such as hormonal, immunological, metabolic and epigenetic influences. We are interested in how diet, nutrition, body composition and physical activity-related exposures,

throughout the life-course, might interact with or operate through these host factors to modulate personal susceptibility and response to therapy.

Within the **Exposure-Outcome Relationship Theme** in the Cancer Survivors Research Area, we especially encourage research into the role that diet, nutrition, body composition and physical activity can play in assisting cancer patients to overcome the side-effects of treatment, to improve their quality of life during and after the completion of treatment, to reduce the risk of metastasis and cancer recurrence, and ultimately to increase the duration and improve the quality of cancer survival. Under this theme, we encourage robust attempts at causal analysis when assessing exposure-outcome associations, for example, using instrumental variables analysis.

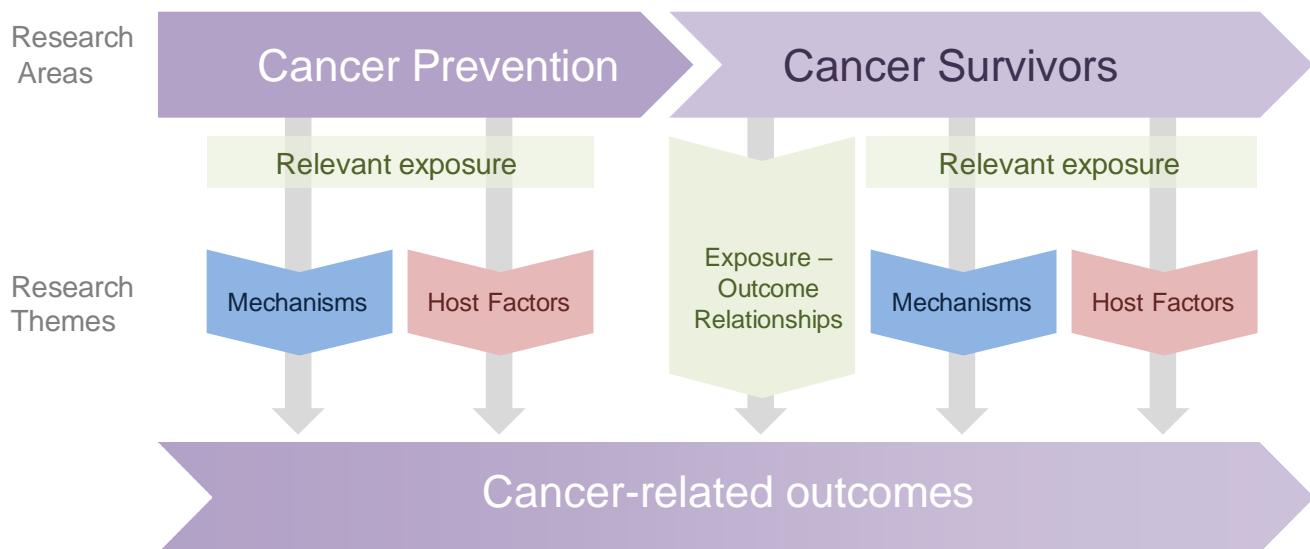


Figure 2: AICR Investigator-Initiated Research Grant Program schematic depicting the eligible approaches within each Research Area and Theme.

4.3. RESEARCH PRINCIPLES

In addition to addressing our core Research Areas and aligning with our Research Themes, applications must address all of the research principles (listed below) to be considered for review; applications that do not address all of our research principles will not be considered for funding (see Review process, section 5.5.)

Relevant Exposures

The aim of the grant program is to fund research that helps elucidate the role of exposures relevant to diet, nutrition, body composition and physical activity on cancer or cancer survivors. Relevant exposures encompass both confirmed and possible cancer risk factors related to diet, nutrition, body composition and physical activity. The rationale for the chosen exposure needs to be sufficiently justified in the application. For proposals in the Cancer Prevention Area, at least one of the proposal objectives must be focused on addressing the biological mechanisms or host factors/susceptibility through which the proposed exposure may modify cancer risk. For proposals in the Cancer Survivors Area, applications proposing the identification of exposures associated with cancer related outcomes are permissible. However, applicants are encouraged to incorporate investigations of relevant biological mechanisms and host factors/susceptibility, where possible.

Exposures must be well defined and could include, but are not limited to:

- Diet, dietary patterns, other diet related behaviors and – provided that they are part of the usual diet – food, food components and dietary supplements. ***Please note: proposals focusing on the role of isolated food constituents, dietary supplements or herbal extracts that are not part of the usual diet will not be considered.***
- Markers of nutritional status, including physiological or metabolic markers, body composition, and measures of growth, development and maturation.
- Physical activity, physical fitness, time spent being sedentary, metabolic or other markers related to physical activity.

■ New for 2023!

Additional lifestyle related exposures such as sleep and stress are considered relevant exposures for the 2023 Investigator Initiated Research Grant Program

Exposures must be relevant to usual human experiences. Mechanistic research exposures should be in a form that would normally be encountered *in vivo* and at a level that is relevant to usual human experience. Exposures in animal research must be justified in terms of relevance to exposure in humans and include the reasons why a human research model is not used. Extreme or unusual exposures (unlikely to be relevant to a large proportion of the population), in dose or method of administration, will not be considered.

Cancer-related outcomes

In this document the definition of “cancer” includes the whole cancer spectrum, both before and after diagnosis, from initiation to progression, metastasis and cancer mortality. Cancer-related outcomes should be specific and well defined. Relevant outcomes include cancer-related endpoints, including pre-malignant neoplastic changes (e.g., colorectal adenomas, Barrett’s esophagus and leukoplakia) or well-justified intermediate endpoints with acknowledged roles in carcinogenesis (e.g., mammographic density, chronic inflammation and proliferation). Applications must justify the use of a particular intermediate or surrogate marker.

Cancer Prevention

Please note that for the Cancer Prevention Research Area, body composition (e.g., adiposity) and behavioral change will not be considered appropriate outcomes, but they could be appropriate exposures (see above).

Cancer Survivors

In the Cancer Survivors Research Area, a wider range of

outcomes is acceptable. These include: overall survival, cancer recurrence, metastasis, quality of life during treatment, effectiveness of treatment, quality of life after treatment, development of second primary cancers, late-effects, chronic disease, co-morbidities, prognosis and body composition.

Relevance to human cancer

Studies must be justified in terms of their direct relevance to human cancer. Experimental designs outside *in vivo* human settings, such as animal models, will only be considered for relevant studies that examine mechanistic pathways of the cancer process. The relevance of any proposed animal model to humans and to human cancer must be clearly explained. Applications that propose solely cell line studies will not be considered.

Please note that studies in non-mammalian systems will not be considered. The direct relevance of xenograft or induced-tumor models to human cancer prevention or survivorship, related to diet, nutrition, body composition and physical activity, must be explicitly justified.

Applications proposing the use of animals must provide a detailed description of the proposed research involving animals and a strong and clear justification addressing why the research aims could not be met using an alternative study model. The experimental model needs to be clearly described, including the species and any genetic modification of an animal model.

Our policy is based on the advice of the United States Department of Agriculture Animal Welfare branch, which provides guidelines on the three Rs (*Replacement, Reduction and Refinement*) to reduce harm to animals in scientific experiments. These questions allow applicants to demonstrate how they have considered the three Rs in their research. More information can be found here:

<https://www.nal.usda.gov/awic/3rs-alternatives-technologies-and-approaches>.

Studies involving humans or animals will need the

appropriate ethical approval and the relevant licenses and/or certification. AICR/WCRF Network adheres to the guidelines from the Association of Medical Research Charities (AMRC) and subscribes to the AMRC policy on the use of animals in research. For more information, visit: www.amrc.org.uk/our-work/animal-research.

Appropriate study design

The study design must be appropriate to address the research question proposed. Sufficient information on the proposed study design must be provided so that the Review Panel can adequately assess the scientific merit and feasibility of the proposal. The research question should be formulated as a clear, specific and testable hypothesis and must be explicitly justified.

Please note: Applications proposing a case-control study or a cross-sectional study design, not nested in a cohort study, will only be considered if it is not feasible or appropriate to collect prospective data.

Applicants must provide data to support the hypothesis that will be tested and to demonstrate the feasibility of the study. Detailed power calculations for a specific primary outcome and a clear justification for the proposed sample size must be provided. **Please note: applications must include adequate details of the proposed statistical methods, including power calculations.** We strongly recommend that input from a trained statistician/biostatistician be obtained before submitting an application; this applies to all studies whether among animals or humans.

Epidemiological and clinical study designs should consider evidence from basic science; experimental study designs should be supported by epidemiological and /or clinical evidence. A multi-disciplinary and interdisciplinary approach to the research is encouraged and applicants must demonstrate they have secured the appropriate expertise across all relevant disciplines in their research team (e.g., through consulting, collaborating and/or staffing provision).

Where feasible, applicants should optimize resources through appropriate collaborations; e.g., the addition of a nutrition or physical activity component to an existing or planned study. When multiple studies are proposed from a single study population, a case-cohort design is

generally preferred to nested case-control designs.

Additionally, proposals to conduct important and relevant systematic reviews and meta-analyses will also be considered.

Novelty

Applicants must demonstrate that the proposed research is novel and original. Applications should propose a novel research question from careful interpretation of existing data, and/or propose an innovative approach to an existing research question: the aim is to test new or innovative ideas, but please note that applicants must still demonstrate the feasibility of their proposed study.

Applicants must demonstrate that they have carried out a thorough assessment of the existing body of knowledge, including the findings from the Continuous Update Project, to demonstrate the novelty and validity of the proposed research question.

Impact

To make an impact, funded research must contribute to a better understanding of the role of diet, nutrition, body composition and physical activity in cancer, consistent with the vision and mission of the AICR/WCRF Network. Ultimately it should have a clear line of sight to making a difference in people's lives. The outcome of the research must, in some way, contribute toward helping to reduce people's risk of developing cancer or improve outcomes in cancer survivors.

Applicants must demonstrate they have considered the potential impact of their research in relation to at least one of the following areas, as appropriate:

- Potential for translation into clinical practice
- Usefulness to other researchers in the field
- Outreach to the general public or patients
- Influence on public health, including, when relevant, in policy settings

Please Note:

Applications must address one or more Research Areas and Research Themes (section 4.1. & 4.2.).

All applications must adhere to the AICR Research Principles (section 4.3.).

AICR uses an online submission and grants management system (proposalCENTRAL) with a two-stage application process. Letters of Intent are required from all applicants.

5. INSTRUCTIONS FOR APPLICANTS

5.1. AICR Grant Application Timeline and Deadlines 2023

January 20, 2023	Deadline for Letters of Intent to be submitted <i>Please note: ALL applicants must submit a Letter of Intent</i>
March 10, 2023	Invitation from AICR for Full Applications online
May 19, 2023	Deadline for submission of Full Applications
July/August 2023	Grant Panel meets to review applications and prioritize grants on scientific merit
September 2023	Approval of grants for funding by the AICR Board of Directors
October 2023	Applicants notified of funding decisions
January 01, 2024	Funding begins

5.2. Eligibility

Research Grants are awarded to non-profit institutions (universities, medical schools, research institutes, etc.). Principal Investigators working at an institution in the United States must be a citizen of the United States or foreign national with either permanent residence status or a visa that is valid for the duration of the grant award.

Grant applications will not be accepted from agencies of the federal government or agencies supported entirely by any federal or foreign government. All applications must bear the signature of the official head of the organization or that of a designee, since grants are not made to individual researchers, but to the relevant institution.

AICR, in awarding grants, does not assume any responsibility for the conduct of the investigation or the acts or omissions of the investigator, since both are under the direction and control of the grantee's institution and are subject to its medical, ethical and scientific research policies.

Please note that, prior to a grant starting, the institution will need to accept the Terms and Conditions as covered in section 7 of this document. It is the responsibility of the applicant to make all appropriate departments aware of the Terms and Conditions before an application is submitted.

For **Investigator-Initiated Research Grants** and **Matching Grants**, the Principal Investigator must have a PhD, MD, or equivalent degree and be research staff or a faculty member at a non-profit academic or research institution at the level of Assistant Professor (or its equivalent) or higher.

5.3. Types of Applications

New Applications

Applications must be initiated with a Letter of Intent. Only one Letter of Intent per Principal Investigator per grant cycle is permitted.

Revised Applications

For the current grant cycle, unfunded applications from previous grant cycles are eligible to be revised. A Letter

of Intent is still required. Please note: not all applicants will be invited to proceed to the Full Application stage. The revised Full Application should contain an additional uploaded attachment, not to exceed 2 pages, entitled "Response to Reviewer Critiques," where issues raised by the reviewers are addressed. A revised application competes equally with all submitted applications in that cycle.

Renewal Applications

AICR Grants may not be renewed.

Award Terms

Investigator-Initiated Research Grants are generally made for a term of two years, although the applicant may specify a shorter period of time. A limited number of special Investigator-Initiated Research Grants may be made for a term of three years. Three-year grants will only be awarded to support epidemiologic or intervention studies that require additional start-up time.

5.4. Grant Budgets

Funds Available

Most Investigator-Initiated Research Grants are awarded for a maximum \$150,000, plus 10 percent in indirect costs, with a limit of \$75,000 direct costs for any one-year. The special start-up Investigator-Initiated Research Grants are awarded for a maximum of \$225,000, plus 10 percent in indirect costs, with a limit of \$75,000 direct costs for any one year.

Budgets must be realistic estimates of the funds required for the proposed research. Unless specified otherwise, grants are generally made to cover the costs of such items as salaries for staff, research equipment and expendable supplies. Accurate financial tracking and management of the grant is the responsibility of the Principal Investigator, together with the institution's finance department. Budgets should be submitted in U.S. dollars only.

Equipment

Requests for equipment in excess of \$500 should be itemized and justified on the budget attachment page.

The title for equipment costing more than \$500 must stay with the AICR-sponsored project. If the Principal Investigator moves to a new organization and continues the AICR-sponsored project, the equipment and the title will transfer to the new organization.

Travel

Monies should be budgeted to present a poster at the AICR Annual Research Conference on Food, Nutrition, Physical Activity and Cancer at least once during the grant period. The maximum allowance for travel is \$2,000 in any one year.

Institutional Expenditures

The grantee institution is expected to provide the required physical facilities and administrative services normally available to research institutions. AICR does not provide funds for items such as:

- Tuition and graduate fees
- Purchase of journals and books
- Purchase of laboratory or office furniture
- Payment of dues and memberships to professional societies
- Recruitment and relocation expenses
- Construction or maintenance of buildings
- Payment of non-medical or personal services to patients
- Payment of per diem charges for hospital beds

Indirect costs are computed at 10 percent of total direct costs.

5.5. Grant Application Review Process

AICR will accept Letters of Intent starting on December 12, 2022. **The deadline for LOI submissions is January 20, 2023 (11:59PM EST)**. Letters of Intent will be evaluated by AICR and Grant Panel members. A limited number of applicants will be invited to submit Full Applications. Grant Panel members review the Full Applications, which are discussed at the Grant Panel meeting. The Grant Panel is responsible for recommending a list of grants of sufficient scientific quality for funding to the AICR Board of Directors. Each

September, the Board gives final approval for funding. The funding year begins the following January.

Conflicts of Interest

Members of the AICR Grant Review Panel may not review an application submitted by (1) a member of the review panel, (2) a panel member's organization, or (3) a colleague who lists the panel member as having any responsibility or involvement in the project being reviewed or who collaborates or currently associates with the panel member in other capacities, which may or may not involve the application under consideration. In such cases, applications are reviewed by the other Grant Panel members or reviewers and the member is recused from all discussion on the proposed project.

Letters of Intent: Assessment

Letters of Intent may be submitted up until January 20 2023 (11:59PM, EDT). Letters of Intent are evaluated by AICR and Grant Panel members to assess scientific merit, relevance to AICR's research areas and themes, and adherence to AICR research principles. Principal investigators will be notified of the decision by March 10, 2023. No specific feedback will be given at the Letter of Intent stage for unsuccessful applications.

Full Applications: Assessment

The Principal Investigator for each proposal that is recommended for further consideration is invited to submit a Full Application. **Full Applications must be submitted by May 19, 2023 (11:59 PM, EST)**.

Full Applications are reviewed by AICR's Grant Panel and are evaluated for relevance to AICR's research areas, themes and principles; the scientific merit and novelty of the application; the qualifications, experience and productivity of the investigator; the facilities available; the budget; and the promise of the research for adding to our understanding of the role of food, nutrition, physical activity and weight management in relation to cancer prevention, treatment and survivorship.

Each application is reviewed by a primary reviewer, secondary reviewer and reader. Reviewers are asked to provide thoughtful and objective considerations of the

application in light of the review criteria and to judge the merit of each proposal independently of other proposals. Considerations for scoring include study design, hypothesis, supporting evidence, originality and feasibility in relation to timeline and budget, as well as relevance to AICR's research areas, themes and principles.

Primary and secondary reviewers provide written reviews that are discussed by the entire panel. The reader provides a score only. The Panel Chair leads the discussion and asks for input and comments from the other Panel members. The written reviews are provided in unattributed form to the applicants at the end of the review process. In order to prioritize discussion of the most fundable applications, applications will not typically be discussed by the panel if the overall preliminary score (from primary and secondary reviewers) is below a score agreed between the Panel Co-Chairs prior to the Panel meeting. Each panel member gives the approved application a numerical score, and these are averaged to prioritize them as a basis for funding decisions. Acceptance indicates that the application has sufficient merit to be worthy of funding; rejection indicates insufficient merit to warrant funding. Funding recommendations for accepted applications are based primarily on the priority scores assigned by the Grant Panel. Recommended grants are approved for funding by the AICR Board of Directors at their September meeting. Funding begins the following January.

AICR's grant program meets the general National Institutes of Health standards of peer review and funding. AICR support may be considered a "peer-reviewed, funded research project" and listed as competitive grant support on applications for research to government agencies and private funding organizations.

Outcome

Applicants will receive their priority score and copies of the primary and secondary reviews. Applications that are in the fundable range are presented at the AICR Board meeting at the end of September 2023. Successful applicants will be notified in writing by the

AICR Research Department in early October. The initial letter includes the dates of the budget period and the amount of funds authorized for obligation to the grantee institution during the period indicated; the terms and conditions binding upon the award; and all general terms applicable to the award (as contained in this document).

Collaboration with Other Organizations

AICR may occasionally enter into collaboration with for-profit corporations and/or non-profit organizations to fund cancer research consistent with AICR's areas of interest. Applications are evaluated using a peer review process and must meet the same high and rigorous standards as all other AICR funded grants.

6. APPLICATION PROCEDURES: GUIDANCE FOR COMPLETING THE APPLICATION FORMS

AICR uses proposalCENTRAL, an online submission system, for both the Letter of Intent and Full Application stages. This section provides guidance for completing the Letter of Intent and Full Application forms.

Instructions for each section of the Letter of Intent and the Full Application are outlined in separate documents entitled "Guidelines for Submitting an AICR Investigator-Initiated Research Grant Letter of Intent for the 2023 Grant Cycle" and "Guidelines for Submitting an AICR Investigator-Initiated Research Grant Full Proposal for the 2023 Grant Cycle." These documents are located in the Download Templates and Instructions step in proposalCENTRAL, as well as on the AICR website at www.aicr.org/grants.

Please Note:

Applications that do not clearly address the AICR specified research Areas, Themes and Principles (sections 4.1.-4.3.), or otherwise do not follow the instructions in this Grant Application Package, will not be reviewed.

6.1. Letter of Intent – First Stage of Application Process

All applicants must submit a Letter of Intent, with accompanying documentation. The link to the Letter of Intent guidelines and template attachments is available on the AICR website at www.aicr.org/grants.

Applicants will first need to register with proposalCENTRAL and then can leave and re-enter the application form at any point. The Letter of Intent must be submitted using the proposalCENTRAL website: <https://proposalcentral.com>.

1. Title Page

Include: project title, amount requested (direct and indirect costs), start date and duration of project, type of application (new or revision), Research Area (*Cancer Prevention/Cancer Survivors/Both*). The total funds requested must be given in U.S. dollars.

2. Download Templates and Instructions

IMPORTANT DATES	
January 20, 2023	Letters of Intent due
March 10, 2023	Full Applications invited
May 19, 2023	Full Applications due

The Grant Application Package (including AICR's Terms and Conditions) as well as instructions for how to complete each step are provided.

3. Enable Other Users to Access this Proposal

Applicants have the option to allow others to access their application. Three levels of permission are available: view only, edit and administrator.

4. Applicant/Principal Investigator

Include: name and contact details and post-baccalaureate degree information. This is automatically populated from the applicant's professional profile in proposalCENTRAL. Any changes must be made through the proposalCENTRAL professional profile section.

5. Institution and Contacts

Institution contact information is automatically populated from the applicant's lead institution in their professional profile. Please check to verify it is correct.

6. Scientific Abstract

The scientific abstract should be written at a level appropriate for experts in the field. The abstract must include: (a) study rationale, a statement of the primary hypothesis, objectives and description of the proposed project; (b) a statement of the relevance of the proposed research to diet, nutrition, body composition, physical activity and cancer; (c) up to 5 keywords describing the project. The abstract should not exceed 3,000 characters, including spaces.

7. Letter of Intent Attachments

Applicants will be asked to provide the following:

- (a) **Biographical sketch** for Principal Investigator (NIH biosketch is acceptable). Limit to 5 pages.

- (b) **Letter of Intent:** The *Letter of Intent Template* must be used for the submission of all Letters of Intent. This template can be found in the "Download Templates and Instructions" of the online application. Provide a summary of the proposed research plan and how it will address AICR's mission, research areas and research themes, as described in the 2023 AICR Grant Application Package. (Preferred structure: Overall Goal, Background, Objectives (recommend SMART objectives: Specific, Measurable, Attainable, Realistic, and Time-bound), Relevance to AICR Research Area, Impact).

8. Validate

Check for any missing required information. Applicants will not be able to submit their Letter of Intent without completing all required sections.

9. Submit

Applicants must submit their Letter of Intent once completed.

6.2. Full Application – Second Stage of Application Process

PLEASE NOTE: The Principal Investigator of a Letter of Intent recommended for further consideration will be invited to submit a Full Application. Upon notification of progression to the Full Application stage, applicants will be sent guidelines on how to submit their Full Application and the relevant template documents. Applicants will need to supply the following information:

- **Title Page**—carried over from Letter of Intent
- **Download Templates and Instructions**
 - Grant Application Package (PDF)
 - Full Application Instructions (PDF)
- **Enable Other Users to Access this Proposal**

- **Applicant/Principal Investigator**—carried over from the Letter of Intent and Professional Profile
- **Institution and Contacts**—carried over from the Letter of Intent
- **Key Personnel**
- **Summary and Abstract**—carried over from the Letter of Intent
- **Budget Period Detail**
- **Budget Summary**—carried over from the Budget Period Detail step
- **Other Support**
- **Organization Assurances**
- **Proposal Attachments**
- **PI Data Sheet**
- **Validate**
- **Signature Page(s)**—printed and signed, then uploaded as an attachment
- **Submit**

Questions

If you have any questions about these procedures, please contact the AICR Research Department at research@aicr.org.

6.3. Full Application – Proposal Attachments

In addition to filling out the online forms, applicants completing a Full Application are required to submit the following attachments:

- **Principal Investigator Biosketch (limit to 5 pages)**
- **Proof of non-profit status**
- **Proposal Narrative** (one PDF file, 10-page maximum):
Proposal Narrative Sections:

- Overall Goal
- Background and Rationale
- Specific Aims & Objectives
- Research Design and Methods
- Research Environment
- Impact Statement
- References (*not included in 10 page limit*)

(See *Guidelines for Submitting an AICR Investigator-Initiated Grant Full Proposal for the 2023 Grant Cycle* for details)

- **Response to Reviewer Critiques**—required for all revised applications (limit to 2 pages)
- **Signature Pages**—Download from signature page of online proposal
- **Appendix (optional)**—(limited to 40 pages when printed, single-sided)

Format for Attachments

- The body of the proposal should be typed, single-spaced. The type must be clear and readily legible, using only 12-point Times New Roman font or larger. A smaller point size will result in administrative rejection of the proposal.
- If constant spacing is used, there should be no more than 15 characters-per-inch (CPI), whereas proportional spacing should provide an average of no more than 15 CPI. Also, there must be no more than six lines of text within a vertical inch. Margins should be at least one-half inch from the top, bottom and both sides of the page. Pages should be numbered consecutively from the Background and Significance Page (page 1) through the References (last page). All pages should include the name of the Principal Investigator in the upper right corner.

7. PROCEDURES FOR FUNDED GRANTS: TERMS AND CONDITIONS

7.1. Getting Started

Notice

Successful applicants will be notified in writing by the AICR Research Department in early October 2023, after grants are approved for funding. The initial letter includes the dates of the budget period and the amount of funds authorized during the period indicated.

AICR Terms and Conditions

The “Procedures for Funded Grants” form needs to be signed by the Principal Investigator and the appropriate institutional representative before funding can begin. The form can be downloaded from the AICR proposalCENTRAL site.

Award Terms

Investigator-Initiated Research Grants generally are made for a term of 2 years, although the applicant may specify a shorter period of time. A limited number of grants are made for a term of 3 years. Awards are made without assurance of continued support beyond the designated term.

Funds Disbursement

Payments for Investigator-Initiated Research Grants will be made by AICR on a quarterly basis. Note that all funds are disbursed at the beginning of each quarter, starting with the commencement date of the grant term, and are disbursed in U.S. dollars. AICR’s Accounting Department will notify the designated institution of the official payment schedule.

7.2. Changes to the Grant

Budget

AICR allows the Principal Investigator justified transfers of funds between the following categories in the budget: personnel, equipment, supplies, travel and miscellaneous. Any budget transfer between categories that is greater than 25 percent requires prior written approval from

AICR. Transfers must be within the approved budget amounts.

Transfer to a New Institution

Grants may be transferred from one institution to another with prior written approval from AICR. The Principal Investigator of the grant is responsible for submitting the following to AICR, in a timely manner:

- A letter from the Principal Investigator requesting transfer of the grant to the new institution. The letter should include the Principal Investigator’s new contact information as well as the name and contact information for the new grants administration officer.
- Written release and a final report of expenditures from the original institution, together with the refund to AICR of any unexpended balance.
- Written acceptance of the grant by an authorized official of the new institution.

This also applies to grants that are transferred before the grant start date. AICR will notify the institution and the Principal Investigator of approval in writing.

Payments will be initiated to the new institution upon receipt of a final financial accounting of all expenditures from the original institution and a letter acknowledging that the grant has been accepted by the transfer institution.

Transfer to a New Principal Investigator

Grants may also be transferred from one Principal Investigator to another with prior approval from AICR. When a transfer from one Principal Investigator to another is sought, the original investigator must submit a request in writing, stating the reason for the requested change, with evidence that the proposed new investigator can complete the project. Also, include a completed biographical information section of AICR’s application form and a CV for the proposed new Principal Investigator. The new Principal Investigator must also

submit a letter to AICR. AICR will then notify the Principal Investigator in writing of its decision whether or not to transfer the grant.

Unfunded (no-cost) Extension

The grant period may be extended for up to one year without additional funds after prior written approval from AICR. Requests for extensions should be submitted no less than two months prior to the expiration of the grant period. Requests for extensions should be in the form of a letter explaining, in sufficient detail, the reason for the delay, the need for an extension and a description of the work that will be carried out during the extension. AICR will notify the Principal Investigator in writing of its decision whether or not to grant the extension.

Cancellation

A grant may be cancelled by either party with written notice of 30 days. In the event of cancellation by AICR, the institution granted the award will be reimbursed for all costs incurred and all non-cancelled commitments that formed part of the original grant that was approved. In the event of cancellation by the institution granted the award, any unexpended funds that have been advanced by AICR should be refunded to AICR.

7.3. Monitoring of Grants

Budget

Accurate financial tracking and management of the grant is the responsibility of the Principal Investigator together with the host institution's finance department.

Annual Progress Reports

At the end of each grant year, the Principal Investigator must submit a progress report (electronically via proposalCENTRAL), including abstracts and publications of research supported in whole or in part by AICR. If there are no published materials credited to the grant, the report should be no more than three typed pages and include any progress made on the specific aims as outlined in the grant application or other relevant information illustrating the status of the grant. At the discretion of AICR, funds for the second year of the grant

may be withheld based on the progress report or if progress reports are not submitted.

Final Scientific Report

Within **three months** of the completion of the grant period, AICR requires a final report to outline the project's accomplishments. The final report must be submitted using the Final Report Template that includes sections to summarize the main findings, completion of original objectives, impact of the project on cancer patients, populations and the cancer research community and future plans/directions. A list of publications, other scientific outputs and any media coverage related to the project should also be included.

Electronic copies of all publications or manuscripts in press must be included with the final report. Electronic copies of any publication published after the final report is submitted should be forwarded to AICR as soon as they are available.

Failure to submit a final report will result in automatic disqualification from submitting a grant application to AICR for a two-year period.

Final Financial Report

A final report of expenditures must be submitted within **three months** of the termination of the grant, together with the refund of any unexpended funds. Unexpended funds from an existing grant may only be carried forward as a no-cost extension to the grant term with the written permission of AICR.

AICR is not responsible for the over-expenditure of grant funds, for commitments against a grant not paid within 60 days after termination or for expenditures made before the starting date of a grant.

7.4. Dissemination

Publication

Publications resulting from research supported wholly or in part by AICR must contain an acknowledgment such as: "Supported by a grant from the American Institute for Cancer Research."

The Principal Investigator must send a copy of all papers submitted to journals for publication and must notify AICR as soon as a scientific paper is accepted for publication by a journal. This will enable the AICR press office, in consultation with the lead author, to decide whether the work should be the subject of a press release upon publication.

Failure to notify AICR of forthcoming publications may result in disqualification from submitting a grant application to AICR for a two-year period.

Conferences

Principal Investigators and their collaborators are strongly encouraged to attend and present a poster on their AICR-funded research at AICR's Annual Research Conference on Food, Nutrition, Physical Activity and Cancer, as well as at other appropriate conferences. Costs for such activities should be included as part of the budget available for travel and conferences, up to a maximum of \$2,000 per year.

Publicity

Publicity is absolutely vital to charities raising funds from members of the public. It is therefore likely that from time to time, researchers funded by AICR will be called upon to help with press inquiries regarding the topic of the grant. It is part of your grant acceptance that you agree to help whenever reasonably possible.

A high-resolution digital photograph of the Principal Investigator must be submitted prior to the start of the grant award. During the funding period grant recipients may be interviewed for communications materials.

7.5. Intellectual Property and Patents

AICR does not assume any rights and makes no claim to any intellectual property relating to an AICR grant. All rights regarding intellectual property will be resolved between the grantee and the grantee institution.

8. AICR/WCRF EXPERT REPORTS

Recommendations from the Third Expert Report

1. Be a healthy weight.
2. Be physically active.
3. Eat a diet rich in whole grains, vegetables, fruits and beans.
4. Limit consumption of “fast foods” and other processed foods high in fat, starches or sugars.
5. Limit consumption of red and processed meat.
6. Limit consumption of sugar-sweetened drinks.
7. Limit alcohol consumption.
8. Do not use supplements for cancer prevention.

Special Population Recommendations

9. For mothers: breastfeed your baby, if you can.
10. After a cancer diagnosis: follow our Recommendations, if you can.

Not smoking and avoiding other exposure to tobacco and excess sun are also important in reducing cancer risk.

The AICR/WCRF Third Expert Report, *Diet, Nutrition, Physical Activity and Cancer: a Global Perspective* is the most comprehensive report ever produced on the relationship of diet, nutrition and physical activity to cancer risk. Building on the report, the WCRF International Continuous Update Project is a global analysis of the most recent scientific research into the link between diet, nutrition (including body composition), physical activity and cancer.

For more information on the Third Expert Report and the Continuous Update Project, please visit the AICR website:
<http://www.aicr.org/continuous-update-project/>

Contact us for more information on the grant program and expert reports:

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