

INSPIRE RESEARCH CHALLENGE

SUPPORTING EARLY CAREER RESEARCHERS

Guidelines for research grant applications



American
Institute for
Cancer
Research



World
Cancer
Research
Fund



Wereld
Kanker
Onderzoek
Fonds



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.

As a network, we influence policy at the highest level and are trusted advisors to governments and to other official bodies from around the world.

CONTENTS

1. Background and context	2
Eligibility	2
2. World Cancer Research Fund International INSPIRE Research Challenge	3
Scope	3
Funding	3
Budget	4
Application process	4
AI use in grants administration	5
3. Remit	6
Research Priority Areas for the 2026–27 Grant Call	9
Definitions	10
Recommended study types and considerations	11
Cancer Prevention Recommendations	13

These Guidelines set out the INSPIRE Research Challenge’s eligibility criteria, research remit, funding rules and review process. Applications are submitted through Proposal Central. Applicants should also read the current [Grant Terms and Conditions](#) and [FAQs](#) on our website.

1. Background and context

Over the past four decades, the World Cancer Research Fund Network (WCRF Network) has built a reputation as the global authority on diet, nutrition, physical activity and cancer. World Cancer Research Fund International (WCRF International) manages and administers the INSPIRE Research Challenge and the Regular Grant Programme on behalf of the WCRF network of charities that fund approved grants: World Cancer Research Fund (WCRF) in the United Kingdom, Wereld Kanker Onderzoek Fonds (WKOF) in the Netherlands, and the American Institute for Cancer Research (AICR) in the United States.

The WCRF Network was among the first to recognise and support research on how lifestyle factors could reduce cancer risk and improve outcomes for people living with and beyond cancer. Three Expert Reports, four decades of funding research projects, annual conferences highlighting the latest research and the Global Cancer Update Programme, have all cemented the WCRF Network as the most trusted source of the latest evidence.



Eligibility

The **INSPIRE Research Challenge** is open to ECRs, defined as someone who was awarded their PhD or equivalent higher research degree between 2 and 7 years ago (full-time equivalent) and is working in research. Time spent on career breaks, such as official parental or medical leave, may be subtracted from the time since PhD or equivalent higher research degree completion. If applicants have worked outside of research since their degree completion, they must be able to explain their relevant research experience that qualifies them to conduct this independent project.

Eligible applicants must be employed on a research contract at a university, medical school, hospital or research institute. The INSPIRE Research Challenge is open to eligible researchers globally.

Applicants are expected to demonstrate conceptual independence from their supervisor(s) or mentor(s), and provide proof of support for their application from their current supervisor. The Letter of Support must confirm the applicant's ability to conduct the proposed research independently and describe the expertise and support available within the research team.

Only one application per Lead Applicant (Principal Investigator) per WCRF Network grant cycle (RGP or IRC) is permitted. Current WCRF Network grant holders are not eligible to apply to the INSPIRE Research Challenge.

A maximum of three applications will be accepted from one institution in any one grant cycle; it is the responsibility of the Lead Applicant and the lead institution to coordinate the number of applications submitted. Institutions are encouraged to contact us to discuss the prioritisation of their applications, if needed. The Regular Grant Programme has a separate limit of three applications per institution per grant cycle.



The concepts pioneered by the WCRF/AICR Cancer Prevention Recommendations are now the mainstay of public health cancer (and other non-communicable diseases) prevention initiatives and clinical practice. Despite this huge success, cancer incidence and the burden of disease remain unacceptably high, so the need for further research remains urgent.

The WCRF Network has always been at the forefront of innovative research, new ideas and fostering progress in the field of diet, nutrition and cancer. As part of our continued commitment to accelerating progress, WCRF International is running the **INSPIRE Research Challenge**, in parallel with our **Regular Grant Programme**.

The INSPIRE Research Challenge is aimed at **Early Career Researchers (ECRs)** and will prioritise innovative, bold and creative proposals with the potential to catalyse rapid and impactful advances in cancer prevention, treatment and survivorship.

2. World Cancer Research Fund International INSPIRE Research Challenge

Scope

Applicants are encouraged to be bold. INSPIRE Research Challenge funding will accelerate novel research ideas that provide unique insights to challenge current conventions and longstanding dogma or take advantage of emerging themes and technologies.

INSPIRE Research Challenge funding aims to support the development of new research ideas/concepts, the combination of research areas in innovative ways, the establishment of new collaborations, and/or the application of new innovative methods or technologies.

Proposed projects must have direct relevance to cancer prevention, treatment or survivorship and may address any or all stages of the cancer journey.

For the 2026–27 grant call, applications must focus on at least one of the six **Research Priority Areas** described later in this document.

Proposals should address modifiable factors including diet, nutrition (including ingested dietary contaminants), physical activity, body composition and sleep. The INSPIRE Research Challenge also accepts proposals addressing psychological stress, pathogens, and immune function, where their relevance to human cancer and the proposed Research Priority Area is clearly justified.



We anticipate that the greatest opportunities will present themselves at the intersection of previously independent ideas, approaches and topics that may not have previously been combined. Opportunities may also exist in the application of approaches or concepts adapted from other diseases or conditions that may not yet have been investigated with respect to cancer.

Proposals must address an explicitly stated hypothesis and clearly state objectives that will enable the applicant to test that hypothesis. The use of experimental murine models must be justified regarding their relevance to human cancers and must align with **AMRC guidance** for the use of animals in research.

Evidence synthesis approaches, such as systematic reviews and meta-analyses, and applications that propose solely cell line studies will not be considered.

Applicants should clearly state the expected cancer-related outcomes of their proposal, and the anticipated potential for exploration with future funding. Applicants must demonstrate the feasibility of their proposal as well as the suitability of their research environment.

Funding

Maximum funding: Up to £75,000 for the duration of up to 12 months. The budget must be submitted in pounds sterling (GBP).

Funds can be used for any justifiable direct research expenses including the Lead Applicant's salary, salaries for other project personnel, supplies, essential equipment, Open Access publication fees, travel, services, miscellaneous research costs, and Patient and Public Involvement and Engagement (PPIE) costs. Lead Applicants are expected to use any Open Access publication funding available through their institution before requesting these costs from the INSPIRE Research Challenge.

All requested costs must be itemised and justified, and salary requests must state the percentage of time to be spent on the project.

Please note that we do not cover overhead expenses (also referred to as indirect costs or facilities and administration fees).

Funding will be available for 12 months and stated objectives must be achievable within that timeframe.

INSPIRE Research Challenge

Budget	Maximum amount	Requirements
Equipment	£700	All items should be itemised. Any single items over £700 should be fully explained and justified.
Personnel	No maximum	
Supplies	No maximum	
Travel	£2000	For attending conferences where findings related to the grant project are disseminated. Travel costs unrelated to conferences should be included under Miscellaneous.
Open Access Publication	£3000	Applicants should seek to utilise transformative agreements available through their Lead Institution for research paper publication wherever possible, before allocating grant funds to Open Access costs.
Miscellaneous	No maximum	All costs should be clearly itemised and justified. Please note , the grant cannot be used for training courses, overheads or institutional expenditure.
PPIE	No maximum	At least one budget item for PPIE should be included. If absent, this should be fully justified.

Application process

Applications must be submitted through Proposal Central, and all applicants and signatories will need to make a Proposal Central account. Applicants are encouraged to create an **ORCID account** if they do not already have one, and to link their up-to-date academic record to their application.

After submission, the application must be approved by the applicant's Head of Department and Finance Officer before WCRF International receives it. Applicants should allow these colleagues at least three working days to approve the application before the deadline.

1) LETTER OF INTENT:

Submission of a Letter of Intent (LOI) application is a mandatory component of the INSPIRE Research Challenge application process. Only one LOI may be submitted by each applicant.

After the LOI deadline, the WCRF International Research Funding team, with the support of the INSPIRE Panel Chairs, will triage applications. Triage checks that the applicant, lead institution and research team meet the eligibility requirements and that the application is complete. It also checks that the proposed research



addresses an eligible exposure and cancer-related outcome, has clear relevance to human cancer, uses an appropriate study model, falls within the programme's remit and meets the main budget and duration requirements. Applications that do not meet these requirements, or have missing information or attachments, may be rejected at triage. Triage outcomes are approved by the Panel Chairs; applications where there is uncertainty are referred to the Panel for review.

LOIs that pass triage are assessed by the INSPIRE Grant Panel for scientific merit, feasibility, novelty and alignment with the remit and Research Priority Areas. The Panel advises which applicants should be invited to submit a full application. This assessment does not involve a formal LOI Panel meeting. An invitation to submit a full application is highly competitive. The LOI phase is not merely an administrative step. Applicants are encouraged to consider application quality to be equivalent to standards required for scientific publication.

2) FULL APPLICATION:

Following the review of the LOIs, shortlisted applicants will be invited to submit a full application. Full applications will be reviewed by independent external peer reviewers. Applicants will be asked to nominate at least two, preferably three, potential reviewers who can provide an informed and impartial assessment and have no connection to the study or institution or collaboration with the research team in the previous three years. The INSPIRE Research Challenge Panel will then review the full applications and peer reviews at the Grant Panel Meeting. Applications will be assessed for scientific merit, feasibility, novelty, potential impact and alignment with the remit and Research Priority Areas.

3) VIRTUAL INTERVIEWS FOR SHORTLISTED APPLICANTS:

Following the Panel meeting, shortlisted Lead Applicants will be invited to a virtual interview as the final assessment step. The interview gives applicants an opportunity to demonstrate their conceptual independence, ability to lead the proposed research, understanding of their methods and the feasibility of the project. Only the Lead Applicant should attend. Interviews will include a short presentation followed by questions from the INSPIRE Panel Chairs and WCRF International staff.

Applicants will be asked to do a brief presentation, which should introduce the applicant and their relevant experience, then cover the research question, methods, novelty, potential impact and future directions.



AI use in grants administration

Artificial intelligence (AI) tools may be used to support the administrative assessment of grant applications against established triage criteria and to assist in identifying potentially suitable peer reviewers based on relevant expertise. These tools operate solely in an advisory capacity: they will not make automated funding, eligibility, triage, reviewer-selection or other decisions, and all outputs will be subject to meaningful review and approval by appropriately authorised WCRF International personnel, who retain full responsibility for each decision. AI use will be governed by applicable data-protection legislation, confidentiality obligations and WCRF International policies, with proportionate technical and organisational safeguards (including controlled access, data minimisation, secure processing, appropriate retention arrangements and supplier due diligence) applied to protect personal, confidential and commercially sensitive information. Information will be processed only for authorised grant-administration purposes and shared with service providers only under appropriate contractual and data-protection arrangements. AI-assisted outputs will be treated as recommendations requiring independent human judgement and will not be relied upon as the sole basis for any decision affecting an applicant or prospective reviewer.

Contact

For queries regarding applications,
please email inspire@wcrf.org

For technical issues with Proposal Central,
pcsupport@altum.com

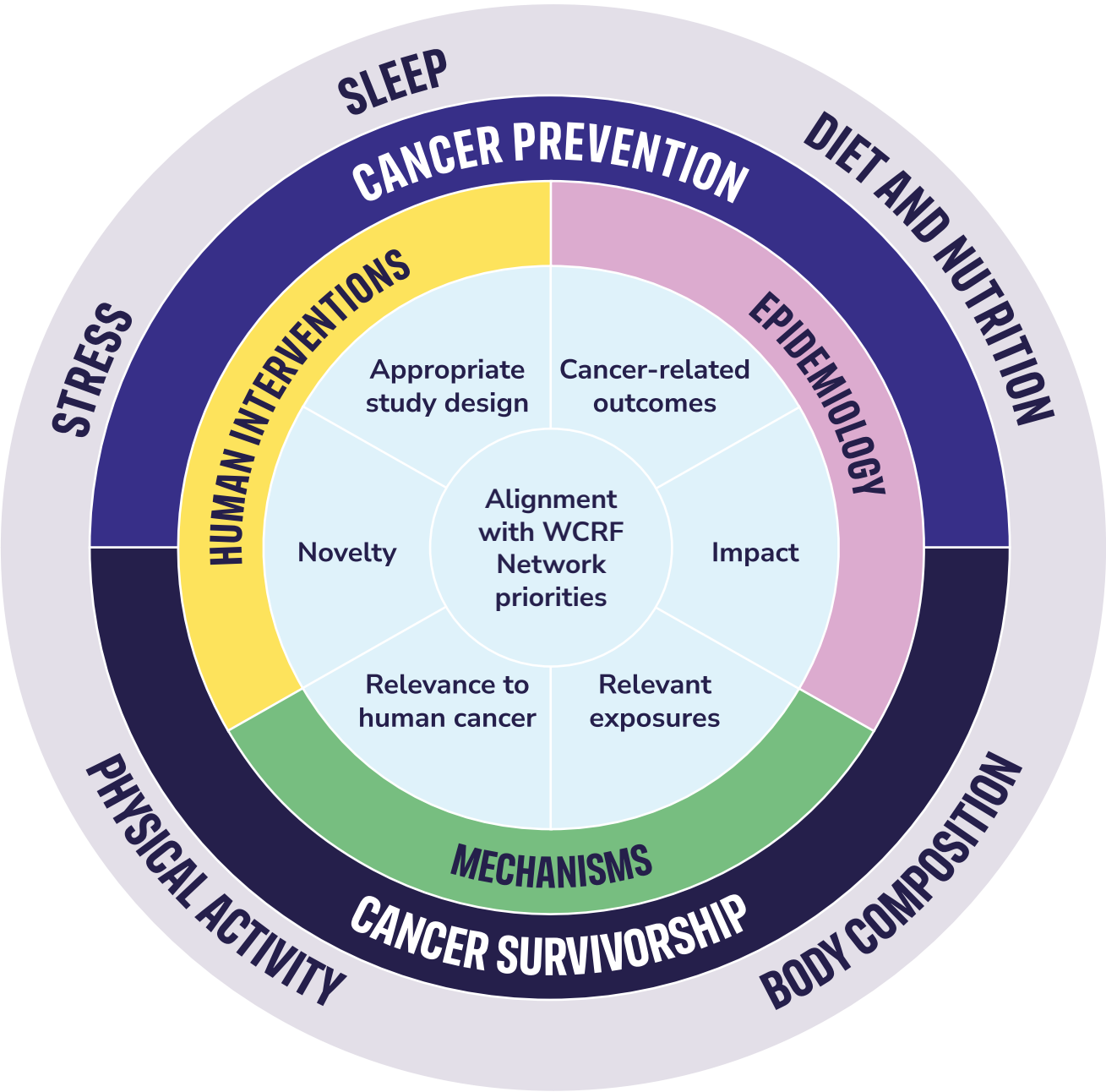
3. REMIT

The aim of the INSPIRE Research Challenge is to fund bold, innovative, and creative proposals with the potential to catalyse rapid and impactful advances in cancer prevention, treatment and survivorship.

All 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. All objectives and aims in an application must fall within the INSPIRE Research Challenge remit.



Figure 1: Principles of the INSPIRE Research Challenge



Relevant exposures

Relevant exposures encompass both confirmed and possible modifiable cancer risk factors related to diet, nutrition, physical activity, body composition and sleep. The INSPIRE Research Challenge also considers psychological stress, pathogens and immune function where their relevance to human cancer is clearly justified. The rationale for the chosen exposure must be adequately justified in the application.

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

- **Diet and nutrition.** Diet, dietary patterns, other diet-related behaviours, and foods, food components and dietary supplements where these are part of the usual diet. Focusing on the role of isolated food or herb extracts or items that are not part of the usual diet will not be accepted. Markers of nutritional status, including physiological or metabolic markers, body composition, and measures of growth, development and maturation.
- **Ingested contaminants.** Environmental contaminants in food or drinking water may be studied where there is a clear, evidence-based rationale for their relevance to human cancer. Exposures must reflect usual human exposure levels; contaminants encountered only through other routes, such as air pollution or occupational exposure, are outside this category.
- **Physical activity, physical fitness, sedentary behaviours, and metabolic or other markers related to physical activity.**
- **Sleep and circadian-related exposures, including sleep duration, timing, quality and regularity; sleep-wake patterns; circadian rhythms and disruption, and related behaviours such as chronotype and shift work**
- **Psychological stress, pathogens and immune function are also considered relevant exposures for the INSPIRE Research Challenge, provided their relevance to human cancer and alignment to one of the Research Priority Areas are clear.**



Exposures must be relevant to usual human experiences. Mechanistic research exposures should be in a form that would feasibly 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

Cancer-related outcomes should be specific and well defined. 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.

Relevant outcomes include cancer endpoints and recognised surrogate markers that reflect the cancer process, such as mammographic density, colorectal adenomas, leucoplakia and Barrett’s oesophagus. Risk factors such as obesity, oxidative stress and hormone levels are not, on their own, cancer outcomes. Treatment-related outcomes, such as pathological complete response, may also be relevant. Applicants must justify their choice of any intermediate or surrogate marker.

Cancer prevention

In the Cancer Prevention Research Area, body composition (eg, adiposity) and behaviour change are not appropriate outcomes, although they could be appropriate exposures.

Cancer survivors

A wider range of outcomes is acceptable in the Cancer Survivors Research Area. These include overall survival, cancer recurrence, metastasis, quality of life during and after treatment, second primary cancers, treatment effectiveness, tolerability and toxicity, 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 murine models, will only be considered for relevant studies that examine mechanistic pathways of the cancer process. The relevance of any proposed murine model to humans and to human cancer must be clearly explained. Applications that propose solely cell line studies will not be considered.

Please note: Studies in non-mammalian systems will not be considered. The direct relevance of xenograft or induced- tumour models to human cancer prevention or survivorship, 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 must be clearly described, including the species and any genetic modification of an animal model.

The questions we ask are based on the advice of the National Centre for the Replacement, Refinement & Reduction of Animals in Research (NC3Rs). The NC3Rs is a UK-based scientific organisation dedicated to the 3Rs. These questions allow applicants to demonstrate how they have considered the 3Rs in their research. For more information visit nc3rs.org.uk

Studies involving humans or animals must obtain the appropriate ethical approval and the relevant licenses and/or certification. WCRF International 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: 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 INSPIRE Grant Panel can adequately assess the scientific merit and feasibility of the proposal. Applicants should provide a project timeline and explain how they will secure any necessary ethical approvals, access to data, licences or data-transfer agreements. They should identify significant risks to delivery and explain how these will be managed. 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 a compelling rationale to support the hypothesis that will be tested and to demonstrate the feasibility of the study.

Please note: Applications must include adequate details of the proposed statistical methods, including power calculations and a clear justification of the sample size, where applicable.

We strongly recommend that input from a trained statistician/biostatistician is obtained before submitting an application.

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 that they have secured the appropriate expertise across all relevant disciplines in their research team (eg, through consulting, collaborating and/or staffing provision).

Novelty

Applicants must describe and justify the novelty of the proposed research. Applications should propose a novel research question from careful interpretation of existing evidence, and/or propose an innovative approach to an existing research question: the aim is to test new or innovative ideas, but feasibility of the proposed study must also be addressed. Applicants should show how their proposal builds on the existing body of knowledge, including relevant findings from the Global Cancer Update Programme, and explain what the INSPIRE award could make possible that has not yet been tested.

Impact

To make an impact, funded research must contribute to a better understanding of the role of modifiable lifestyle factors in cancer prevention, treatment and survival, consistent with the vision and mission of the WCRF Network. Ultimately, proposed research should have a clear line of sight to making a difference in people's lives. The outcome of the research must contribute toward helping to reduce the risk of developing cancer or improve outcomes in people living with and beyond cancer.

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.**

Applicants should distinguish what the 12-month project can achieve from the longer-term impact that may depend on further research or funding.



Patient and public involvement and engagement

WCRF International recognises and strongly supports the value of Patient and Public Involvement and Engagement (PPIE) in ensuring that studies are relevant, meaningful, and aligned with the needs and perspectives of those directly affected by the outcomes. Therefore, applicants should understand the importance of PPIE and provide details of any PPIE activities already undertaken for the development of the proposal, or any plans for potential future PPIE as the study progresses.

Patient and Public Involvement refers to actively working with patients or members of the public; for example, to shape research questions, outcomes, study design or conduct.

Patient and Public Engagement refers to sharing research and its findings with relevant audiences. Taking part in a study as a research participant does not, by itself, constitute PPIE.

Applicants should explain the proposed role of patients or the public and include any associated costs in the budget.

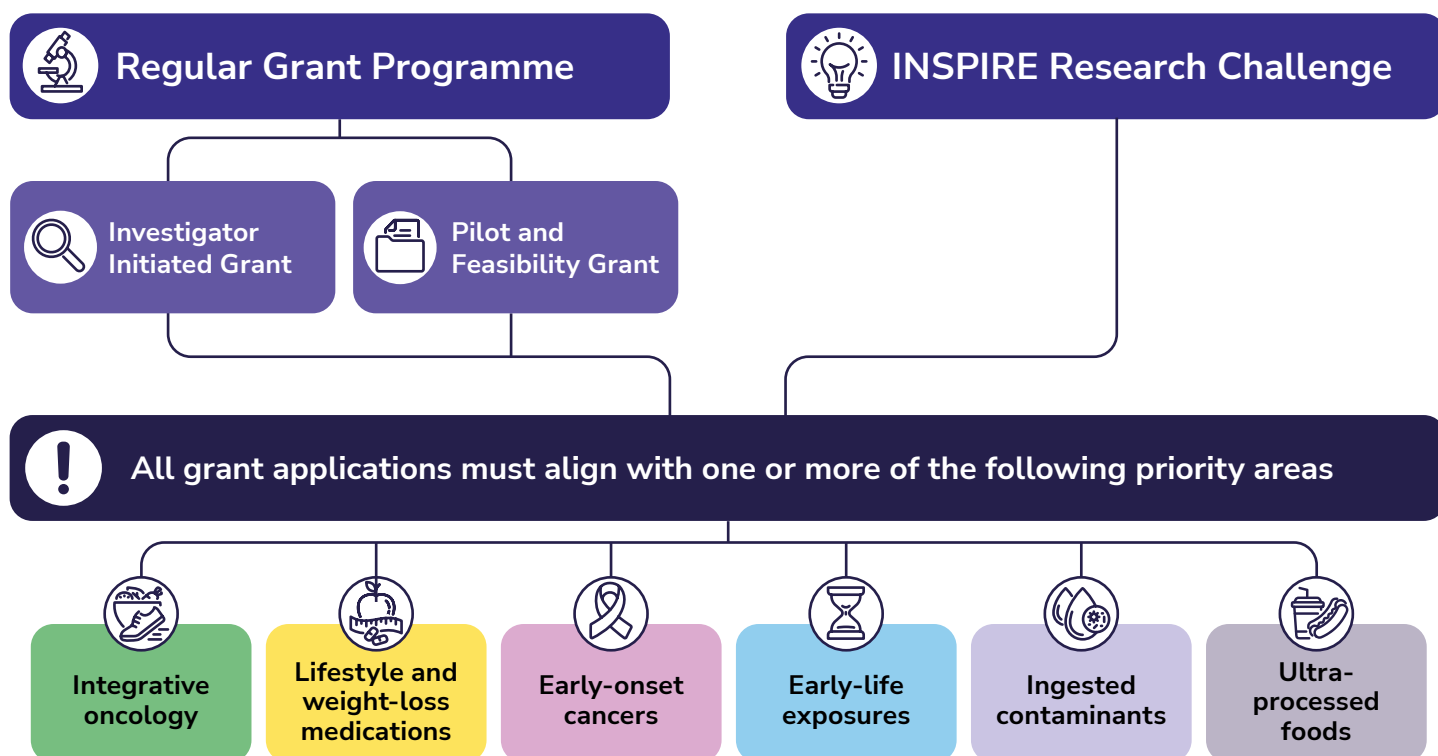
For more information on public and patient involvement and engagement in research, visit amrc.org.uk/guidance-and-tools-for-public-involvement and consult the **WCRF PPIE Guidelines** document.



RESEARCH PRIORITY AREAS FOR THE 2026–27 GRANT CALL

For the 2026–27 grant call, applications must focus on at least one of the six priority areas, identified through evidence gaps highlighted by the Global Cancer Update Programme, our strategic objectives and consultation with our scientific stakeholders. Applications may span more than one priority area where this is scientifically justified; applicants should identify all relevant areas and make the main alignment of the proposed research clear. Alignment with a priority area does not replace the usual requirements for scientific quality, relevance to WCRF International's remit, feasibility and potential impact.

Grant calls 2026–27



DEFINITIONS

1. Integrative oncology

This priority area focuses on diet, physical activity, body composition, sleep, prehabilitation and other relevant supportive-care interventions delivered alongside conventional cancer treatment in childhood and adulthood. Research should determine which interventions work, for whom and at what stage of the cancer pathway, and how they can be incorporated safely and effectively into routine oncology care. Studies should address outcomes that matter to patients and for clinical practice, including treatment tolerance and toxicity, quality of life, physical function, symptom control, recurrence and longer-term health. Applications on broadly or loosely defined complementary therapies that do not have a clear link to WCRF International's remit or that lack a strong scientific rationale, are outside the intended scope of this priority area.

2. Lifestyle and weight-loss medications

This priority area examines how diet, physical activity and behavioural support can be integrated with weight-loss medications, including GLP-1-related medicines across cancer prevention, treatment and survivorship. Research should address cancer-specific benefits and risks, including cancer incidence and relevant risk biomarkers, nutritional status, body composition and lean-mass preservation, physical function, treatment tolerance and effectiveness, quality of life, recurrence and survival. Studies should consider the timing, duration and discontinuation of weight-loss medications, and seek to distinguish the effects of the medications themselves from those attributable to weight loss, metabolic improvements and lifestyle changes. Research should also examine whether effects vary by medication, cancer type, treatment stage or population characteristics, and consider inequalities in access and use where relevant.

3. Early-onset cancers

This priority area seeks to explain the increasing incidence and prevalence of early-onset cancers to establish whether their modifiable risk factors and biology differ from cancers diagnosed later in life. This priority area considers cancers diagnosed in early adulthood, defined as 18–50 years old. Research may consider lifecourse exposures, including diet, body composition, physical activity and sleep, alongside tumour characteristics and relevant biological pathways.

4. Early-life exposures

This priority area investigates how modifiable exposures from preconception through pregnancy, infancy, childhood and adolescence influence cancer risk later in life. Research should define the exposure precisely and, where appropriate, define the approach/model being used within the study (for example, critical developmental window/sensitive period, accumulation, trajectory, pathway, social mobility or mixed model) and may consider maternal, paternal and intergenerational factors, diet, growth, body

composition, physical activity, sleep and relevant ingested exposures. The long interval between early-life exposure and cancer means that studies should use robust methods to address familial and socioeconomic confounding and, where possible, combine epidemiological evidence with biomarkers or mechanistic evidence.

5. Ingested contaminants

This priority area investigates the role of ingested contaminants in food and drinking water in cancer prevention and survivorship. Relevant exposures may include endocrine-disrupting chemicals, pesticides, heavy metals, persistent organic pollutants and micro- and nano-plastics, where there is a clear and evidence-based rationale for cancer relevance. Research should consider cumulative exposure and mixtures, identify credible biological or causal pathways, and distinguish the effects of ingested contaminants from those of overall diet, occupation, air pollution and correlated social or geographical factors.

6. Ultra-processed foods

This priority area seeks to clarify whether and how ultra-processed food consumption influences cancer risk and survivorship. Research should move beyond associations based solely on broad ultra-processed food classification systems to identify whether specific processing characteristics, additives, changes to food structure or related biological pathways may be causal. Studies should address limitations in food classification and dietary assessment, account for changes in the food supply over time, and distinguish the effects of processing from those of energy intake, body composition, overall diet quality, the nutritional composition of individual foods and other relevant determinants of health. Exposure data must reflect, or demonstrate clear relevance to, contemporary products and consumption patterns. Applications that do not adequately account for changes in food formulation, processing and consumption over time will not be considered.



RECOMMENDED STUDY TYPES AND CONSIDERATIONS

The following guidance outlines study types and approaches that may be particularly effective in addressing the identified evidence gaps, although other well-justified approaches may also be appropriate.



1. Integrative oncology

This area includes pragmatic clinical intervention studies, including multicentre studies embedded in oncology services and studies designed to generate implementation-ready evidence. Pilot and feasibility studies may be appropriate to test whether a future fully powered trial of the intervention can be conducted, while mechanistic studies nested within interventions can help explain effects on tumour-host biology and response to treatment. Analyses of existing treatment and survivorship cohorts may also be informative. Proposed studies should be adequately powered for their primary outcomes and proportionate to the available funding; large trials powered for survival are unlikely to be feasible without substantial existing infrastructure or co-funding.

Our work on cancer survivors in CUP Global identified many limitations in the current evidence which makes interpretation of associations between exposures and health outcomes challenging. The CUP Global expert Panel made recommendations to strengthen future research and address these limitations, and we will prioritise applications using strong study designs which address these. The Panel's research recommendations are summarised below and described in detail in our two recent reports on **colorectal** and **breast cancer** survivorship.

1. **Reverse causation is a particular issue in this population, especially regarding body weight. Conducting well-designed clinical trials and prospective cohorts that account for differences in cancer sub-types, timing and types of treatment (for example surgery, medication), stage at diagnosis, and other patient characteristics (for example co-morbidities, age, race and ethnicity) should be prioritised. These factors should be accurately measured and reported.**

2. **Using more accurate methods to assess “usual” pre-diagnosis dietary intake, physical activity and body weight, with more accurate reporting of the timing of exposures, and accurate measurement of potential confounding factors. Measurement of exposures pre and post diagnosis, and preferably repeated measures over time to capture changes after diagnosis and “usual” pre-diagnosis behaviour, are recommended.**
3. **Providing further information on the biological pathways that may explain the relationships between diet, nutrition, physical activity, body weight and cancer/non-cancer outcomes would be informative.**
4. **More inclusive and representative study populations are needed. Increasing diversity and inclusivity of study populations and accurate characterisation of samples is recommended.**

2. Lifestyle and weight-loss medications

Relevant study types may include clinical intervention studies combining weight-loss medications with dietary, physical activity or behavioural support, including among people receiving or who have completed cancer treatment. Prospective observational studies, secondary and pooled analyses of established cohorts, and studies using linked electronic health records or pharmacy data may also be appropriate, including well-designed target-trial emulations. Studies should assess body composition and nutritional status where relevant rather than relying on BMI alone. Mechanistic and biomarker studies should prioritise human samples linked to clinical outcomes and investigate whether effects are explained by weight loss and improved metabolic health or by weight-loss-independent pharmacological mechanisms. Given the limited duration of follow-up and long latency of many cancers, research on mechanisms, intermediate biomarkers, treatment outcomes and other survivorship outcomes may be more feasible than definitive trials powered to assess cancer incidence, recurrence or survival.



3. Early-onset cancers

We welcome secondary analyses of established cohorts, including international pooled analyses that bring together sufficient numbers of early-onset cancer cases. Where studies or datasets are combined, applicants should explain how differences in exposure measurement and cancer-outcome definitions will be reconciled so that the data are comparable. Strong proposals may also include repeated exposure measures, cancer-registry linkage, robust causal-inference methods, and molecular epidemiology or tumour-characterisation data. Substantial extensions of existing collaborations may be appropriate, but proposals to establish new long-term cohorts are unlikely to generate timely evidence.

4. Early-life exposures

We particularly encourage secondary analyses of established birth or lifecourse cohorts and international pooled analyses that increase statistical power and population diversity. Extending existing cohorts through continued follow-up or cancer-registry linkage, repeated assessment of exposures and during specific developmental periods, comparing family members or using naturally occurring changes in exposure, and incorporating epigenetic, biomarker or other mechanistic evidence may help determine whether observed associations are causal. Human-relevant preclinical studies may also help address defined mechanistic gaps. Establishing new standalone cohorts without adequate follow-up or cancer outcomes is unlikely to be suitable; proposals should build on accessible data, samples and infrastructure. Our lifecourse research has identified key differences in the impact of early life exposures and different site-specific cancers (for example, early life BMI and colorectal and breast cancer). Because of this, research needs to define the outcome of interest clearly.

5. Ingested Contaminants

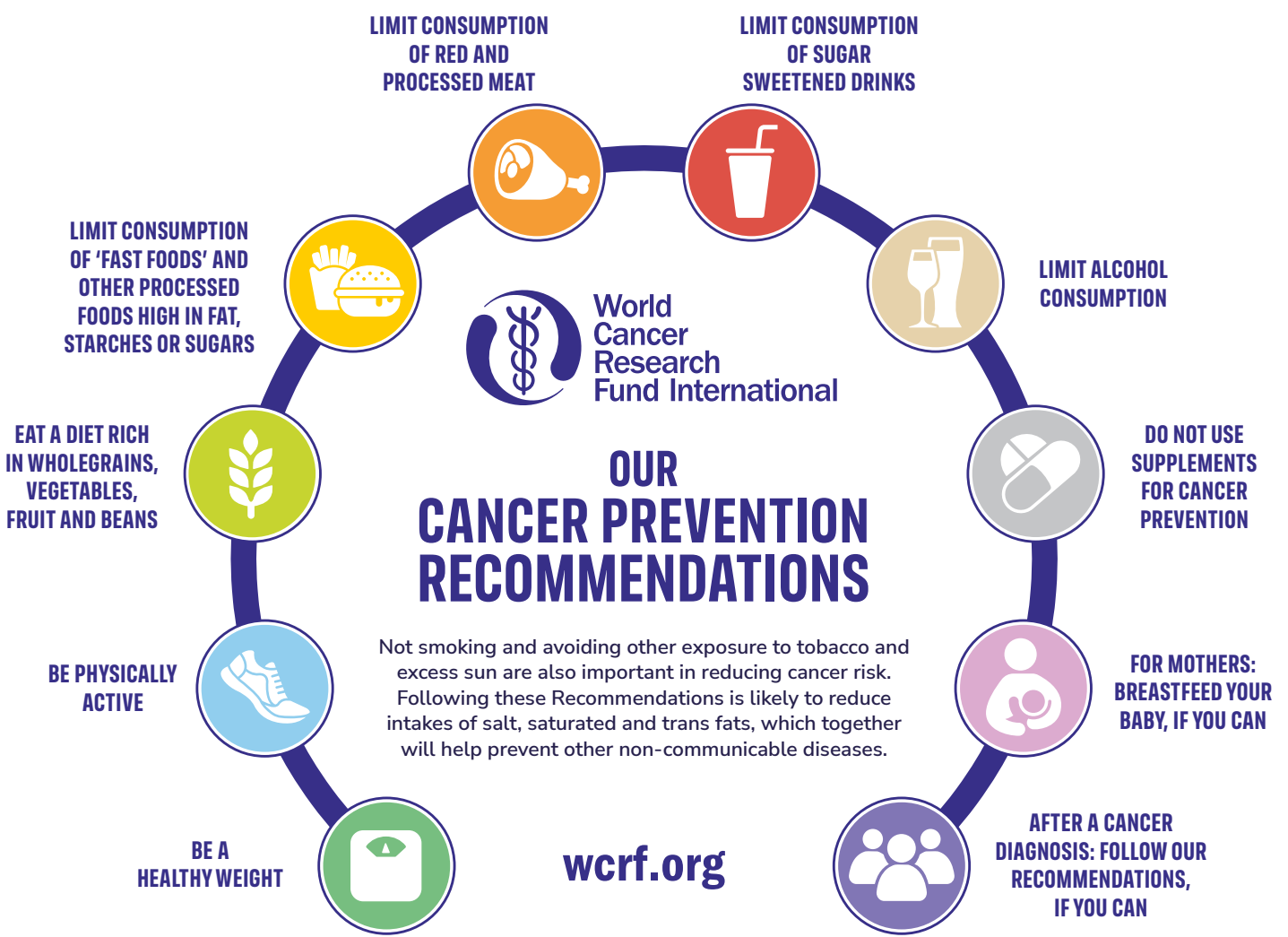
Suitable approaches may include secondary analyses of established cohorts using repeated or otherwise validated biomonitoring, together with international pooled analyses where harmonisation is feasible. Studies assessing cumulative and combined exposure to multiple contaminants, prospective studies, research using mechanistic biomarkers, and carefully justified human-relevant laboratory or animal studies may help determine whether observed associations are causal. Targeted primary data collection may be appropriate where it examines a specific measurement gap. Questionnaire-only exposure assessment, environmentally unrealistic doses, exclusively cell-line studies and single-contaminant analyses without validation or a credible causal pathway are unlikely to be competitive.

6. Ultra-processed foods

This priority area may be addressed through longitudinal analyses using repeated dietary assessments and novel or technologically advanced methods, including objective biomarkers and refined classification approaches. Studies should consider relevant exposure periods and

cancer latency, capture changes in ultra-processed food consumption, product formulation and processing over time, and specify appropriate comparator or substitution foods. Carefully controlled feeding studies, short-term mechanistic interventions and human-relevant laboratory research may be used to isolate specific processing characteristics, components, biological mechanisms or pathways. Proposals should avoid treating all ultra-processed foods as biologically equivalent and should investigate differences across ultra-processed food subgroups, products and population groups. Studies should also consider the timing and duration of exposure, differences among ultra-processed food subgroups, the foods they replace in the diet, plausible biological mechanisms, and variation in exposure and effects across population groups.

CANCER PREVENTION RECOMMENDATIONS



World Cancer Research Fund International

Upper Ground Floor, 140 Pentonville Road, London N1 9FW

Tel: +44 (0)20 7343 4200

Email: international@wcrf.org

 facebook.com/WoCRF

 linkedin.com/company/wcrf

wcrf.org