

Innovation Catalyst Grant Program Guidelines

BACKGROUND

In June 2023, the Arthur J.E. Child Foundation made a transformative gift of \$50 million to the Alberta Cancer Foundation, aimed at establishing the Arthur J.E. Child Comprehensive Cancer Centre as a global leader. To achieve this, it's vital for teams to seize emerging opportunities to maintain and enhance excellence in research and clinical practice. The Arthur Child Innovation Catalyst Grant Competition, part of this significant donation, will promote innovation and empower the team to boldly pursue transformative opportunities in cancer research and care.

The Innovation Catalyst Grant will draw from the Emerging Opportunities pillar of the donation, facilitating the acquisition and application of new technologies and strategies in precision oncology. It will support the development of innovative diagnostics and therapeutics, including those with commercial potential, and foster new teams to tackle complex challenges in this field. The grant will also leverage existing infrastructure and provide matching funds for competitive applications, ensuring that the Arthur Child remains at the forefront of cancer care and research.

A Strategic Roadmap, created by cancer research leaders at the Arnie Charbonneau Cancer Institute and the Arthur J.E. Child Comprehensive Cancer Centre, outlines potential opportunities enabled by the fund. One key opportunity is to support high-risk/high-reward ideas in precision oncology through the Innovation Catalyst Grant. With the Advisory Committee's approval, guidelines have been established for the purpose, use, administration, adjudication, and reporting of the competition.

FUNDING COMPETITION GOAL

This funding opportunity encourages teams to develop and/or apply new ideas, methods, technologies, and interventions.

We are looking for proposals that focus on **precision oncology interventions and/or their clinical- or population-level implementation.**

THEMATIC AREAS:

- **Precision diagnostics:**
 - Develop and/or test a novel device, biological test, imaging modality, or other tool to screen, detect, and/or monitor cancer
 - Develop and/or test a computational approach, AI/ML tool, algorithm, or other data-driven intervention to screen, detect, and/or monitor cancer
 - Correlative studies for clinical trials
- **Precision therapeutics:**
 - Develop and/or test a novel vaccine, synthetic drug, living medicine, adjuvant agent, and/or therapeutic approach to treat cancer

- Refine/improve an existing cancer treatment approach, including radiotherapy, surgery, or other modalities, to manage cancer more precisely
- **Real-world impacts of precision oncology approaches:**
 - Test new strategies, interventions, and approaches for implementing new precision diagnostics, models of care, or therapeutics into practice
 - Conduct economic analyses related to the implementation of precision oncology approaches
 - Conduct research on patient experiences, real-world outcomes, and/or survivorship related to the implementation of precision oncology approaches

Proposals can be exploratory or proof-of-concept, aimed at pursuing a novel line of inquiry, filling knowledge gaps, generating preliminary data, or testing new concepts or approaches. This competition is particularly focused on funding research that may not typically receive support from traditional sources. A goal of this competition is to position investigators for success in future external funding competitions.

While preliminary data is not required for application, a strong justification for the proposal is essential.

Applicants are encouraged to utilize local resources, such as core facilities, and to share the products of the work, such as data or methods or other outputs, with other researchers in the community, as appropriate, with the aim of strengthening cancer research capacity in the area.

ELIGIBILITY

Researchers may be a team member on a maximum of two research proposals. An investigator can serve as a principal applicant on only one proposal and may also be a team member on one additional proposal. Applications will be screened at the Notification of Intent (NOI) stage to ensure compliance with these conditions.

Researchers and teams located in or around Calgary, Alberta, are invited to apply. While teams can include members from outside Calgary, they must be led by someone affiliated with the Arthur Child and/or Arnie Charbonneau Cancer Institute through their connection with the University of Calgary and/or Cancer Care Alberta or Alberta Health Services. Additionally, projects can involve partnerships with industry or commercial entities if needed for the research.

FUNDING AVAILABLE

The total funding available for this competition is \$1,200,000.

A single project may request a maximum budget of \$200,000 over two (2) years.

Projects that exceed these amounts would be expected to provide a plan for leverage.

We anticipate funding six projects, although the number of awards may increase based on the review committee's recommendations and the availability of funds. The funding amounts and the

frequency of grant cycles may be adjusted depending on current resources. Any unused funds from a given year may be reallocated to future grant cycles.

While funding cannot overlap with other existing grants or awards, large projects that require additional leveraging funds or build on previously awarded grants are eligible. The work to be enabled by the Innovation Catalyst Grant must be novel.

WHAT THE FUNDING COULD BE USED FOR

Allowable expenditures include salary support for research and clinical staff, graduate students, post-doctoral fellows, clinical trainees, and patient-family partners. Funds may also be used for research costs such as consumables, equipment, services, software, clinical or administrative data access, data storage, and other relevant expenses. Additionally, travel expenses can be covered to support conference registration, as well as travel costs for visiting scientists and other clinical researchers coming to Calgary. Other reasonable expenses may also be included, subject to approval by the Advisory Committee.

Funds must be utilized within 24 months of receipt by the awarded projects or recipients. They should be held by a principal applicant affiliated with the University of Calgary and/or Cancer Care Alberta or Alberta Health Services.

Research team funding is intended to support specific expenses that enhance cancer research initiatives. The following costs are not eligible for funding:

- Faculty salary
- Facility renovations or structural alterations
- Legal costs associated with generating or reviewing agreements, applications related to intellectual property, patents, or commercial product development
- Travel, registration fees, accommodation, or other costs related to presenting research that are not directly tied to the work described in the application

APPLICATION PROCESS:

The application process includes two steps: Notice of Intent and the Full Application.

NOTICE OF INTENT (NOI)

PURPOSE

Applicants will be invited to submit a brief Notice of Intent (NOI). The NOI is required for registration purposes and to help with the identification of reviewers. The NOI will **not** be used to triage proposals, unless it is determined that the proposal, as presented in the NOI, is not eligible for the competition as per the criteria outlined above. The applicant will be notified if the NOI is not eligible.

Applicants must submit an NOI by the deadline to charbonneau@ucalgary.ca. Late submissions will not be accepted. Two weeks after the NOI submission deadline, applicants will receive instructions for how to proceed to full application.

FORMAT

Each NOI must include:

- Name, affiliation(s), location, and brief biosketch of Principal Applicant
- Each principal applicant must hold a permanent academic, research, and/or clinical appointment with the University of Calgary and/or Cancer Care Alberta or Alberta Health Services and be eligible to apply for and hold grant funding at their institution.
- Biosketch should follow the same format as the CIHR Biosketch.
- Title of proposal
- Brief description (one page max) of the proposal, including an overview of how the proposed work will achieve the goals and expectations of the Innovation Catalyst Grant.
- Names and affiliation(s) of proposed team members and collaborators (if applicable). Team members and collaborators may be added or removed in the full proposal
- Anticipated operational impacts, if applicable
- Declaration that the proposed work will not overlap with any existing grants or awards
- Anticipated requirement for ethics, animal certificates, and/or biosafety certificates
- Names, affiliations and email addresses of two to three potential scientific reviewers
- Institutional signatures will not be required at the NOI stage.

FULL APPLICATION GUIDE AND EVALUATION CRITERIA

The full application for the funding competition consists of several key components:

- **Lay Summary:** A clear conveyance of the project's essence.
- **Proposal:** A detailed description of the project, addressing the following:
 - How it aligns with the Funding Competition Goal
 - Background/Rationale
 - Approaches/Methods, including potential challenges and strategies for mitigation
 - Significance and Anticipated Impacts
 - Team and Research Environment, including relevant partnerships
- **References:** A list of sources cited in the proposal.
- **Timeline and Milestones:** Key dates and deliverables for the project.
- **Budget:** Detailed justification of costs, including any sources of leveraged funding.

The main body of the proposal, encompassing the Background/Rationale, Approach/Methods, Significance and Anticipated Impacts, and Team and Research Environment, is limited to five (5) pages, with an allowance of two additional pages for figures. Please note that the total page count does not include the Lay Summary, References, Timeline, or Budget.

FORMAT

Proposals should be formatted using a 12-point Arial or other sans serif font, with 2.54 cm margins all around and line spacing set to 1.08. Any proposals that exceed the maximum page limit will have the excess pages removed before being reviewed.

REVIEW PANEL

An external review panel will be constituted. The panel will include at least three independent reviewers, including subject matter experts, people with lived experience of cancer, and other knowledge users or stakeholders as deemed appropriate.

Names and affiliations of principal applicants and cancer research team members, as well as research team proposal titles, will be shared with review panel members for the purposes of identifying any real or perceived conflicts of interest, based on CIHR's Conflict of Interest definition.

Each application will be assigned at least two independent reviewers. Review panel members will review all proposals using an evaluation rubric, provided below under 'Evaluation Criteria'. Following deliberations, the Review Panel will make funding recommendations to the Emerging Opportunities Fund Steering Committee.

EVALUATION CRITERIA

Applicants will be expected to demonstrate through their proposals that the project or initiative will foster innovation, has a strong rationale and scientifically sound approach, leverages and/or builds on or builds up local strengths and local sourcing (e.g., core facilities) for the components of the research, wherever possible, is feasible within the timelines of the competition, has a clear line-of-sight to impacts in the clinical and/or the population, and is supported by a strong team and/or research environment. Results and outputs of the work are expected to be shared locally, as appropriate. The proposed work should aim to build research capacity in the particular area of focus, seek to attract support from other sources in the longer term, and create new opportunities for collaboration and capacity-building.

Awards will be determined primarily based on:

Criterion #1 - Relevance to the Purpose

The proposal must clearly demonstrate the development or application of new ideas, methods, technologies, or interventions, aiming to fill a significant knowledge gap, generate preliminary data, or test a novel concept. Consideration should also be given to how the project might enhance resources that support multiple researchers or initiate a new team effort. The work must be transformative, contributing valuable knowledge to the field and having the potential for significant impact.

Criterion #2 – Scientific Merit

The quality and significance of the research question and proposed objectives will be assessed. A solid understanding of the field must be demonstrated, along with a clear rationale for the proposed work. The research approach should be scientifically sound and logical, aiming to fill a meaningful knowledge gap rather than merely validating existing studies. Proposals should be transformative and creative.

Criterion #3 – Feasibility

The adequacy of proposed timelines, resources, budget, and research environment will also be evaluated to determine their sufficiency for addressing the project or initiative. Objectives need to be realistic and achievable within the defined timelines and budget. Any resources or support planned for use—such as access to space, equipment, patients, staff, or data—must have prior approval and buy-in from the University of Calgary, Cancer Care Alberta, Alberta Health Services, or other relevant stakeholders. Additionally, there should be a clear plan for obtaining ethics approval within six months of receiving the award.

Criterion #4 – Significance and Impact

The proposed project should demonstrate a clear pathway to clinical impact, with an aim to fill existing knowledge gaps and create new opportunities for collaboration and capacity-building that may not be feasible with other funding sources. Additionally, the project should have the potential to attract support from other competitive funding sources in the long term. Ideally, the work will build on or strengthen local capabilities and resources.

Criterion #5 – Research Team

The proposal will be evaluated based on the extent of expertise present within the team to achieve its objectives. Each team member's role in addressing the research goals, including leadership and management responsibilities, must be clearly outlined. Additionally, principles of equity, diversity, and inclusion should be considered in the composition and functioning of the team.

BUDGET & FUNDING

- A total of \$1,200,000 is available for this funding call.
- A single project may request a maximum budget of \$200,000 over two (2) years.
- While funding cannot overlap with other existing grants or awards, large projects that require additional leveraging funds or build on previously awarded grants are eligible. The work to be enabled by the Innovation Catalyst Grant must be novel.
- Maximum 24-month funding window to achieve outcomes, shorter timelines are allowed.
- A one-time no-cost 12-month extension may be requested and considered for approval.

The principal applicant is responsible for managing expenditures in accordance with the approved budget.

REPORTING REQUIREMENTS

Award recipients must acknowledge funding through the Arthur Child Innovation Catalyst Grants in all presentations, media and publications that result from the funded proposal.

An interim progress report will be required at 12 months. A final report will also be required within 90 days after the award is completed. These reports will detail the use of funds provided by the grant, progress to date, any unexpected changes to the project or initiative, and any reportable outcomes.