Société de recherche sur le cancer

Cancer Research Society

2022

OPERATING GRANTS

Program Description and Guidelines

New this year

- *Description of Proposed Project:* Applicants are required to include a maximum of **five (5) pages** for the description of the project with ***tables and figures embedded***
- *Career Status*: Select between Young, Mid-Career or Established Investigator.
- *Current and Pending Support:* Only the Main Applicant is required to provide information about current and pending support.
- *Abridged Résumé and Publications:* Refer to instructions in section below.

Effective November 9, 2021 – September 1, 2022

This document was last updated November 9, 2021

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1. Program Description

Founded in 1945, the Cancer Research Society (CRS) is a Canadian not-for-profit organization whose sole mission is to fund research on all types of cancer to help prevent, detect, and treat this disease.

The Operating Grants competition is the principal means by which CRS fulfills its mission to support fundamental, early translational and environment-cancer research on all types of cancer.

The competition is held every year and is open to researchers across Canada. Both new and established researchers are encouraged to apply. All valid proposals undergo a diligent peer-review process and are scored based on scientific merit and originality.

Operating grants are usually awarded for a period of **two years** for a maximum amount of **$60,000** per year.

2. Eligibility Requirements

CRS Operating Grants are intended to support Canadian researchers in their pursuit to advance scientific knowledge in the following three (3) areas:

1) Fundamental/basic cancer research
2) Early translational cancer research, including preclinical research cellular or animal models, biomarkers for diagnostics and prognosis and imaging
3) Research studying the environmental causes of cancer including viruses, pollutants, work environment, lifestyle and diet.

The following research areas are not eligible for Operating Grants:

- Clinical trials;
- Applied research for the development or improvement of tools such as instruments, medical devices, software, questionnaires, information tools, patient registries, biobanks, TMA collections, etc.;
- Psychosocial or social studies, survivorship, etc.;
- Health care economics, or any study aiming at measuring the use and costs of the health care system;
- Any other type of research not included in the main three funded areas.

Please contact us at grants@src-crs.ca should you have doubts about the eligibility of your project.

There must be only one main applicant, **Principal Investigator (PI)**, and one host institution who will be responsible for administering the grant, if awarded. All other applicants are considered co-applicants.

Applicants and co-applicants must hold an academic appointment at a Canadian university or accredited institution to be eligible to apply for a CRS Operating Grant. Applicants must have their own laboratory and the possibility of hiring students and postdoctoral fellows.

Postdoctoral fellows, research associates, staff and research scientists without an academic appointment are **not** eligible to apply.

Definitions and Rules

- ***Principal Investigator (Main Applicant).*** *Individual responsible for leading all aspects of the project. All applicants must hold an academic appointment at a Canadian university or accredited institution. They must have their own laboratory and the possibility of hiring students and postdoctoral fellows. There must be only one main applicant for the purposes of this award.*
- ***Co-applicant.*** *Individual who actively participates on the project but does not hold a leadership role. Co-applicant must hold an academic appointment at a Canadian university or accredited institution. They must have their own laboratory and the possibility of hiring students and postdoctoral fellows.*
  All co-applicants must reside in Canada.
- ***Collaborators.*** *Individual(s) who contribute to the project in a specialized manner and may be from outside of Canada; however, CRS funds must not be transferred outside of the country. A collaborator will not be listed as a co-applicant, however, must provide a letter of support detailing the involvement in the project.*
- *A* ***Young Investigator*** *is an independent investigator, who has started their career in a university or research institution within the last 5 years (i.e. after August 31, 2017).*
- *A* ***Mid-Career*** *is an independent investigator who has held an academic position in a university or research institution for 5-15 years.*
- *An* ***Established Investigator*** *is an independent investigator who has held an academic position in a university or research institution for more than 15 years.*
- *All Principal Investigators and co-applicants must sign the "Disclaimer and Indemnity" page, at the time of Full Proposal submission.*

3. Application and Review process

The main applicant/PI must register at the CRS Research Portal, ProposalCentral, click HERE

The application process is comprised of two stages: 1) **Letter of Intent** (LOI) submission, and if invited, 2) **Full Proposal** submission. All applicants must submit a LOI that will include a high-level description of their research project goals. Refer to section 5 for LOI submission instructions. LOIs are reviewed for conformity and quality by CRS at the time of submission. Once the LOI has been reviewed, the applicant will be notified via e-mail as to whether or not they have been invited to submit a Full Proposal.

Both LOI and Full Proposal must be submitted electronically at the CRS Research Portal, ProposalCentral click HERE.

LOIs must be received by **December 9, 2021, 11:59 pm (ET).**

Full Proposals must be received by **February 16, 2022, 11:59 PM (ET).**

Only complete proposals received by the submission deadline will be considered. Proposals that do not respect the guidelines will be rejected.

Full proposals are evaluated by an expert panel made up of renowned Canadian and international scientists, with expertise in specific areas of cancer research. Each proposal is initially reviewed and scored by two expert and impartial reviewers; and subsequently, the proposal is presented, discussed and scored by the entire panel. The average score is then calculated. To be considered for funding, a **project must have received a minimum score of 7.5 out of 10.**

Reviewers use the following criteria to evaluate a proposal:

- The file of the applicant must demonstrate their capacity or potential to be a competitive researcher at the provincial, national, and international level;
- Quality of the proposed project and originality of the research plan;
- Ability of the applicant to conduct the research in their respective milieu;
- Significance of the project to cancer research;
- Strengths and weaknesses of the proposal;
- Budget appropriate to the proposed project.

The Operating Grants are awarded to the proposals with the highest scores. All applicants, regardless of their score, will be notified of the outcome of their application in August 2022.

If an applicant refuses the award, CRS may offer the grant to the next meritorious proposal on the list.

The Cancer Research Society's decisions are final.

4. Key Dates

Call for proposals	November 9, 2021
Letter of Intent submission deadline	**December 9, 2021, 11:59PM**
Invitation to submit Full Proposal	December 14, 2021
Full Proposal submission deadline	**February 16, 2022, 11:59PM**
Update publication list deadline	April 15, 2022
Review process completed, awards announced	August 2022
Grant start date	September 1, 2022

The submission deadlines will be strictly enforced. Times are Eastern Time (ET).

Applicants are encouraged to submit their LOI and Full Proposal well in advance of the deadline. The CRS Research Portal, ProposalCentral, automatically shutdowns submission after the deadline has passed.

5. Letter of Intent Instructions

An LOI submission is compulsory for the 2021 CRS Operating Grants Competition and must be completed via the CRS Research Portal, ProposalCentral, by **December 9, 2021, 11:59 pm (ET).** Click HERE to access ProposalCentral

Applicants may submit more than one LOI, but there will be a maximum of 1 new project proposal per main applicant.

Applicants should be mindful that the information provided in the LOI will automatically populate those sections in the Full Proposal. If the LOI is approved, the applicant will be notified by an automated email from ProposalCentral stating that they may proceed to the Full Proposal phase.

The LOI should be submitted by the Principal Investigator managing the project and must include:

- **Title Page**: (81 characters maximum): Provide title that adheres to character limit, including spaces and punctuation; characters exceeding the limit will be truncated.
- **Type of application:** Specify whether the application is new, renewal or resubmission.
    - *Renewal:* Applicants who currently hold a CRS Operating Grant that will end August 31, 2022 may apply for a renewal.

- *Resubmission:* A resubmission is defined as a revised version of a proposal that was unsuccessful in a previous Operating Grant competition. Applicants will be required to upload the previous Evaluation Reports.

- **Targeted funding opportunities (optional):** CRS may offer additional targeted funding opportunities to Young Investigators and/or for specific types of cancer. Refer to the list of *targeted funding opportunities*. If applicable, justify the relevance of your selection(s); at least 80% of the project must be on the cancer type selected.
- **Abstract:** Describe the research aims, anticipated outcomes and their potential impact for patients. Character limit of 5000.
- **Panel:** Applicants must indicate, based on the research area and topic, their first and second choice among the 5 expert review panels. The second choice **must differ** from the first one. CRS will do its best to respect the applicant's first choice, however, reserves the right to assign the proposal to the most suitable panel. Refer to Appendix A for areas of expertise covered by each panel.

6. Full Proposal Instructions

Only applicants who have submitted a LOI will be invited to complete a full proposal. Applicants can submit only one (1) new project application, as the main applicant. This limit does not apply for renewal applications. A researcher may also participate in other projects as a co-applicant.

Full proposals must be received by **February 16, 2022, 11:59 PM (ET).**

The degree of conciseness and clarity can significantly influence the evaluation of the application.

All information required for the evaluation of the proposal must be submitted electronically through ProposalCentral. Applicants will be asked to append certain documents by using the designated page in ProposalCentral. Documents sent by email will not be accepted.

Applicants must follow the instructions regarding the number of pages and/or documents to be uploaded and their respective format. Character limit within each section in ProposalCentral is clearly indicated and must also be respected (longer responses will be truncated).

Please note that non-compliance to the guidelines could lead to an administrative rejection of a submitted application prior to its scientific evaluation.

The Full Proposal must be submitted by the Principal Investigator of the managing Institution and must include:

- **Disclaimer and Indemnity Form:** This form must be signed by all applicants, co-applicants and their respective officials. Electronic signatures are accepted. A copy of the duly signed form must be appended in section 14 "Upload Attachment". French version of the Disclaimer and Indemnity form is also available.
- **Co-Applicants:** All co-applicants must reside in Canada. Co-applicant is defined as an individual who actively participates on the project but does not hold a leadership role. Co-applicant must hold an academic appointment at a Canadian university or accredited institution. They must have their own laboratory and the possibility of hiring students and postdoctoral fellows.

- **Title Page:** *(Same as LOI)*

  If applicable, provide the following information:
  - *Renewal:* A brief progress report of the original proposal, including status of key research objectives/aims (2500 characters maximum).
  - *Resubmission:* A resubmission allows the applicant the opportunity to address key critiques raised in the previous Evaluation Reports (2500 characters maximum). Copies of the Evaluation Reports must be uploaded in section 14 "Upload Attachments".
- **Abstract:** *(Same as LOI)*
- **Lay Summary:** Summary of the research project in lay terms to be understood by those who are not in biomedical research (for press release and communications to donors). Character limit of 1500. Although optional, applicants are strongly encouraged to provide the French version of the lay summary. Character limit of 1500.

Description of Proposed Project: Describe the proposed research project using a **maximum of 5 pages (8.5" x 11")**, font *Arial 11 pt. or Times New Roman 12 pt. or similar, single spacing, minimum 2 cm margins.* Supporting figures and tables for preliminary data should be embedded in the 5-page research proposal, a *9-pt.* font may be used for figure texts. The font type and size may vary, but figures, tables and graphs, and their accompanying legends must be readable when printed on **one** 8.5" x 11" page at normal (100%) scale. Non-compliance to the guidelines could lead to an administrative rejection of a submitted application prior to its scientific evaluation. The project description must include the following elements:

- Brief overview of recent literature with references.
- Proposed aim(s)/objectives in line with two-year period of the grant and budget.
- Methodology: Describe the proposed experimental or theoretical approach, the rationale for the approach showing awareness of the complexities involved and referring to the budget as appropriate. State how the data will be collected and analyzed. If the proposed project can be perceived as a repetition or a confirmation of results already published, make sure to

describe the additional impact of your results. **If warranted, include any preliminary data in this section.**

- Research Team: Describe the expertise and contributions of the applicant, co-applicants and key personnel in relation to the proposed project.
- Collaborators: Describe the expertise and contributions of the collaborators. Attach letters of support in Section 14 Upload Attachments.
- Impact: Significance of the proposed research and expected outcomes.

Upload the **5-page detailed research proposal with the figures and tables embedded** using the designated button at the bottom of the section. List of references cited in the proposal must be uploaded in section 14, no page limit.

- **Targeted Funding Opportunities:** *(Same as LOI)*
- **Review Panel:** *(Same as LOI)*
- **Budget Period Detail:** Indicate, in Canadian dollars, the financial requirements for 2 years. This grant is limited to $60,000/year for a maximum of 2 years.

Eligible Expenses:

- Salaries of students and post-doctoral fellows;
- Salaries of research staff (research assistant, research associate, technician);
- Research supplies;
- Publication fees;
- Up to $2,500 per year for attending meetings, seminars or conferences, registration, travel, accommodation, etc.

Non-Eligible Expenses:

- Remuneration of principal investigators, co-investigators and collaborators
- All indirect expenditures related to layout organization and reorganization; facilities leasing and maintenance, or the indirect costs covered by the host institution;
- Equipment purchase (i.e.: computer, etc.);
- Sabbatical or maternity/parental leave;
- Meetings, seminars or conferences expenses in excess of $2,500 per year;
- Living expenses;
- Clinical drug trials.

Funds may not be transferred outside Canada.

Stipends for a postdoctoral trainee or a graduate student, paid from a CRS operating grant, must follow the guidelines set by the host institution. The guidelines ensure equity within the research group and academic unit.

- **Budget Summary and Justification:** All budget items, including salaries and stipends, must be justified in terms of the objectives and milestones of the project. For every item in the budget, the main applicant must provide a complete breakdown of the amounts requested for the project. Where there are subprojects, clearly itemize the budgetary requirement for each one.

  For salaries, indicate the person's name, if known, or the position, the categories of employment, and the proposed salaries. Indicate the expected contributions of each person to the proposed research. Also include, but do not necessarily limit to, publication fees, costs of sample analysis, and user fees.

- **Current and Pending Support:** The principal investigator must include all sources of research support currently held or applied for, including but not limited to grants (including any from the CRS) and contracts. Any current start-up fund must be indicated.

  CRS will not award funds if overlapping and/or comparable support for a project has been obtained (even partially) from another agency, as each application funded by CRS has to be original. An incomplete declaration may lead to cancellation of the grant and a request for the reimbursement of paid installments.

- **Institution Contacts:** Provide information the following contacts:
  - *Financial Officer:* Name and address for distribution of funds.
  - *Grants Officer:* Name and address of the institutional representative authorized to sign the Research Funding Agreement.

- **Organizational Assurances:** Indicate whether or not certificates are required for the proposed research project.

  Biosafety Certificate: All projects involving work with potentially biohazardous materials require a biosafety certificate. These include 1) cell lines of all origins, 2) living animals, 3) human samples and 4) potentially pathogenic nucleic acids. All researchers working in a wet lab must provide this certificate.

  Animal Care Certificate: All projects involving the use of living animals require an animal care certificate.

Human Ethics/Human Stem Cells: Every project involving human or human stem cells requires the approval of the Research Ethics Board of the principal investigator's institution.

Human Biospecimens: CRS is committed to ensuring that high quality biospecimens are used in research that its funds, as these yield high and reproducible quality data. For this reason, all researchers who are awarded CRS funds will be required to submit evidence of registration/enrollment of the funded project's biospecimen collection with a quality assurance program before funds are released.

There are a number of internationally recognized programs that provide assurance of a known standard and level of quality for biospecimens. These programs include the Canadian Tissue Repository Network (CTRNet) and programs such as CAP, ISO or CLIA (learn more). Participation in external quality assurance programs will be considered eligible grant expense

Required certificates may follow the application's approval for funding, but must all be received before the first installment.

- **Abridged Résumé and Publications**

  This section must be filled out by the main applicant and all co-applicant(s). For each applicant, please create a single document composed of the following sections:

  - EDUCATION: Include baccalaureate or other initial university education and include post-doctoral training.
  - ACADEMIC, RESEARCH AND INDUSTRIAL EXPERIENCE: In addition to your current position, list in chronological order, previous employment, experience, and honours.
  - PUBLICATIONS: List in chronological order COMPLETE references, including titles, for all publications during the past five years, and for earlier publications if pertinent to this application (references only! No description or summary of papers).
  - INTERRUPTION: Provide explanations for all interruptions of scientific work (maternity leave, illness, moves, etc.).
  - FUNDING: Provide funding received for the last 5 years.

  The last name followed by the first name of the applicant must appear in the top right-hand corner of each applicant's single document.

Append the document(s) in section 14.

- **Upload Attachments:** Every document must be clearly identified. For each document to be uploaded, the following information must appear on each page: the title of the document in the top left-hand corner, last name and first name in the top right-hand corner (of the applicant or co-applicant, as appropriate) and the page number in the bottom right-hand corner.

    - Abridged Résumé and Publications (Applicants and Co-Applicants)
    - Description of the proposed research. Maximum 5 pages with tables and figures embedded
    - List of References (no page limit)
    - Disclaimer and Indemnity Form (Signature Page)
    - Required Certificates (if available)
    - Letter(s) of Collaboration (optional)
    - Reviewer 1 (resubmission only)
    - Reviewer 2 (resubmission only)

- **PI Demographics:** The information is helpful to CRS when analyzing the demographics of their applicant, will not be used as part of the review process.

7. Contact information

For questions regarding the **2022 Operating Grants Competition,** contact the Cancer Research Society at grants@src-crs.ca.

For questions regarding **ProposalCentral**, contact Customer Support

Monday through Friday 8:30am - 5:00pm Eastern Time

By e-mail: pcsupport@altum.com

8. Appendix A: Panels

All proposals will be evaluated by a peer-review committee (panel) made up of 14 to 17 Canadian and/or international scientists with expertise in the appropriate domains of cancer research.

Applicants must indicate, based on the research area and topic, their first and second choice among the 5 expert review panels. The second choice must differ from the first one. CRS will do its best to respect the applicant's first choice, however, reserves the right to assign the proposal to the most suitable panel.

Panel A: Cell Signaling

Expertise: Signal transduction

- Roles and mechanisms of growth factors, cytokines, chemokines
- Mechanisms of apoptosis
- Cell migration, adhesion and chemotaxis
- Cell cycle
- Regulation of protein activity via interactions or modifications
- Animal models

Panel B: Pharmacogenetics/Cancer Immunology

Expertise: Mechanisms of action of chemotherapeutic drugs

- Pharmacological drug development
- Mechanisms of drug resistance
- Immunotherapy and animal models
- Immunological studies and cancer prognosis
- Tumour immunology
- Genes, viruses or viral genes, vaccines as anti-cancer drugs
- Radiations and radiosensitizers as therapeutic tools

Panel C: Tumour suppressor genes, oncogenes and DNA repair

Expertise: Transcriptional and translational regulation

- Tumour suppressor genes and oncogenes

Mechanisms of action of oncolytic viruses, viral oncogenesis
DNA damage and repair, DNA replication
Epigenetic mechanisms
DNA integrity and genomic instability
Cell cycle

Panel D: Tumour progression and metastasis

Expertise: Cell culture and animal models
Angiogenesis
Late events implicated in cancer progression
Metastasis progression model
Cell adhesion and invasiveness

Panel E: Early translational research and epidemiology

Expertise: Tumour imaging
Biomarkers discovery and validation
Diagnostics and prognostic assays
Pre-clinical studies
Environmental epidemiology (physical, biological, chemical)
Clinical epidemiology