



Intramural Research Grant Program Guidelines

These Guidelines (the “Guidelines”) describe the requirements for the Canadian Blood Services Intramural Research Grant program. The Intramural Research Grant program terms and conditions may be altered without notice. Applicants should always refer to the latest edition of the Guidelines.

I. General Program Information and Priorities

Canadian Blood Services is a not-for-profit charitable organization. Regulated by Health Canada as a biologics manufacturer and primarily funded by the provincial and territorial ministries of health, Canadian Blood Services operates with a national scope, infrastructure and governance that make it unique within Canadian healthcare. In the domain of blood, plasma and stem cells, we provide services for patients on behalf of all provincial and territorial governments except Quebec. The national transplant registry for interprovincial organ sharing and related programs reaches into all provinces and territories, as a biological lifeline for Canadians. Through our research, development and education activities, we facilitate the creation, translation, and application of new knowledge to support a safe, effective, and responsive system of blood and related biologics for Canada.

The objective of the Intramural Research Grant program is to support research that will advance knowledge in specific research priorities, as described below. Increasing the stock of knowledge underpinning blood transfusion and blood-related stem cell transplantation practices will lead to new discoveries that will improve the safety and efficacy of blood products and the blood system in general. The research supported through the Intramural Research Grant program will contribute to Canadian Blood Services reaching its overall goal of attaining excellence in the manufacturing and distribution of biological products and in the provision of clinical services and will contribute to Canadian Blood Services corporate strategy to meet changing patient needs by providing lifesaving products and services.

Research Priorities:

- Promoting appropriate blood product utilization;
- Ensuring an adequate blood product supply;
- Minimizing the adverse effects of blood product transfusion;
- Optimizing blood product quality;
- Replacing or improving blood products through new therapies or technologies.

Blood product is defined as a therapeutic product derived from donation of blood or of stem cells capable of producing blood cells after transplantation. Blood products include red blood cell and platelet concentrates, plasma and plasma derivatives (including plasma proteins and related products), and hematopoietic stem cells (including those derived from cord blood). Applications focusing predominantly on therapies that do not involve blood products will only be considered if a convincing case is made that the research addresses one of the research priorities stated above.

Another objective of the Intramural Research Grant program is to support and maintain a network of researchers who are dedicated to addressing the needs of Canadian Blood Services. As such, the program requires a minimum of two investigators per team, including a minimum of one Canadian Blood Services-affiliated investigator per team.

The Intramural Research Grant program competition is held annually. For the 2022 competition, the funding available is \$2,400,000.

II. ELIGIBILITY

- **Principal Investigator:** The Principal Investigator must be affiliated with a Canadian academic program as a faculty member. The Principal Investigator is responsible for submitting the application, delivering the project as approved, and reporting on project progress to Canadian Blood Services.
- **Team composition:** The project team must include at least two investigators (including the Principal Investigator) and at least one of the investigators must be affiliated with Canadian Blood Services (i.e., Canadian Blood Services Scientist, Medical Officer/Director/Consultant, or Adjunct Scientist). For help identifying a Canadian Blood Services-affiliated investigator to join the project team, applicants can contact centreforinnovation@blood.ca.
- All investigators must have a defined role in the project, and their expertise must be clearly required to adequately address the project goals. Investigators are expected to require material budget items of some nature. All investigators must be affiliated with a Canadian academic program as faculty members.
- **Collaborators:** Collaborators with a defined role in the project may complement the team but are not eligible for funding. Their role in the project is to provide a specific service or expertise (e.g., access to equipment, provision of specific reagents, statistical analysis, etc.).
- **Program objective and research priorities:** Intramural Research Grant applications must be aligned with the program objective and one or more of the research priorities identified in Section I. Applications that are not relevant will not be considered for funding.

- **Budget:** The proposed project budget must not exceed \$200,000 per year for a maximum duration of two years (\$400,000 total) across three fiscal years. Funding will be administered in three installments over the two-year award term, in alignment with Canadian Blood Services' fiscal year (April 1 to March 31).
 - Funds cannot be used for salary support for investigators (i.e., individuals who are eligible to apply for operating funds from the federal agencies).
 - Funds may be used for trainee stipends, research staff salaries (e.g., research assistants, technicians, etc.), the purchase of expendable materials and supplies, the purchase and maintenance of experimental animals, project team collaborative and networking activities (e.g., team meetings, conference calls, travel), and knowledge dissemination activities (e.g., publication costs). Travel expenses will be supported to a maximum of \$3,000 per year.
 - The purchase of small items of equipment is permissible; however, the maximum that can be spent on equipment over the two-year grant funding period is \$8,500 (exclusive of applicable taxes). Small equipment including electronic devices comprising communication, computer, or audiovisual devices may be purchased using these funds. Canadian Blood Services assumes ownership of all items purchased with Intramural Research Grant funds.
 - Funds cannot be used towards equipment maintenance or service contracts.
 - Intramural Research Grant funds are only to be used towards the direct costs of research; no funding is to be used for indirect costs (e.g., institutional overhead).

III. APPLICATION PROCESS

The application process for the Intramural Research Grant program is comprised of two phases: Registration and Application.

i) Registration Phase

- Complete the Canadian Blood Services Intramural Research Grant Registration Form as per the Instructions in the Registration Form.
- Submit the Registration Form by email to centreforinnovation@blood.ca on or before the deadline, as per the Instructions in the Registration Form. **No registration forms will be accepted after the deadline.**
- Canadian Blood Services will acknowledge receipt of the Registration Form by email. **It is the responsibility of the applicant to ensure the Registration Form has been received by Canadian Blood Services.** Please contact us if your Registration Form is not acknowledged (see Section VII for contact information).

- Canadian Blood Services will perform an administrative and relevancy review of the Registration Forms to determine if the proposed applications are in alignment with the Intramural Research Grant program objectives and research priorities (see Section I) and to assess that basic eligibility criteria have been met (see Section II). The information provided in the Registration Form will also be used to determine the expertise required to review applications.
- The administrative and relevance review will be performed within ten (10) business days of the Registration Form deadline.
- Canadian Blood Services will contact all registrants and provide the full Application Form to those that are determined to be relevant and that meet the basic eligibility criteria. No feedback on the proposed project will be provided to the registrants.

Applicants must submit a Registration Form in order to receive the full Application Form.

ii) Application Phase

Eligible applicants who have completed the Registration Form will be invited, by email, to submit a full grant application. **Unsolicited applications will not be accepted.**

- Complete the Canadian Blood Services Intramural Research Grant Program Application Form and prepare the supporting documents for the Application Package, as per the Instructions in the Application Form.
- Submit the Application Package (Application Form and supporting documents) by email to centreforinnovation@blood.ca on or before the competition deadline, as per the instructions in the Application Form. **No applications or additional material will be accepted after the deadline.**
- The duly received Intramural Research Grant Program Application Package constitutes an agreement to adhere to the conditions governing the grant.
- Canadian Blood Services will acknowledge receipt of the Application Package by email. **It is the responsibility of the Applicant to ensure the Application Package has been received by Canadian Blood Services.** Please contact us if your Application Package is not acknowledged (see Section VII for contact information).

IV. REVIEW PROCESS

All applications will be subjected to rigorous peer review by experts external to Canadian Blood Services. The evaluation of applications is as follows: (1) written evaluations are obtained from subject matter experts; and (2) applications and written evaluations are discussed and evaluated at a Grant Review Committee meeting.

i) Intramural Research Grant Review Committee Composition

A Grant Review Committee (“Review Committee”) composed of subject matter experts will be convened by Canadian Blood Services. An appropriate Review Committee will be formed depending on the number and nature of applications received for the competition. Review Committee members are appointed by a Canadian Blood Services executive responsible for the competitive funding programs. The Chair is selected from the ranks of previous Review Committee members if possible. The Review Committee will be supported by written reviews obtained from subject matter experts external to Canadian Blood Services and the Review Committee.

Subject matter experts and Review Committee members will be asked to disclose any perceived conflict of interest with an application. The Chair of the Review Committee will determine if it constitutes a conflict of interest and what measures – such as recusal – are required.

ii) Evaluation Criteria

Applications are reviewed to identify those with the highest scientific merit and with the greatest likelihood of success in generating novel and timely knowledge relevant to one or more Research Priorities.

The feasibility of the research, the relevance, significance and impact of the research, and the project team will all be considered in the application evaluation. Considerations for the criteria are as follows:

Feasibility of the Research:

- Are the overall strategy, methodology, and analyses appropriate to accomplish the specific aims of the project?
- Are the timelines and related deliverables of the project realistic?
- Does the proposal identify potential challenges and appropriate mitigation strategies?

Relevance, Significance and Impact of the Research:

- Are the objectives of the project aligned with the Research Priorities?
- Do the objectives respond to identified needs?
- Will the project produce new data and concepts and advance the state of knowledge?
- Are the anticipated project contributions likely to lead (in the short and/or long term) to improved safety and efficacy of blood products and/or the blood system?
- Have project considerations related to sex and gender-based analysis+ been considered and described and if they have not been considered, has an explanation been provided?

Project Team:

- The expertise of the investigators in the proposed area of research and with the proposed methodology.
- The expertise of the investigators as demonstrated by scientific productivity over the past five (5) years.
- The appropriateness of the project team to carry out the proposed research in terms of complementarity of expertise and synergistic potential.
- The level of engagement and/or commitment from the investigators and collaborators.

Applications will be assessed on a common adjudication scale:

Range	Description
4.5 – 5.0	An outstanding proposal that communicates a sound and creative experimental plan with a high likelihood of important knowledge generation. Shortcomings are minimal.
4.0 – 4.4	An excellent proposal that communicates a sound and creative experimental plan with a likelihood of important knowledge generation. Improvements possible.
3.5 – 3.9	A very good proposal with meritorious aspects that should be funded if sufficient resources permit. Some improvements necessary.
3.0 – 3.4	A good proposal with deficiencies that could be improved in a resubmission but is not fundable as currently presented. Improvements necessary.
2.6 – 2.9	A fair proposal that should not be funded. Major revisions required.
0 – 2.5	A poor proposal that fails to provide convincing information and/or has serious inherent flaws or gaps.

The application's budget will also be assessed but will not influence the overall application evaluation. Reviewers will be required to assess if the requested budget is appropriate to support the proposed project and is well-justified.

iii) Review Process

Canadian Blood Services will perform an administrative review of all applications for completion and to ensure basic eligibility criteria are met. Applications deemed ineligible will not proceed to review and applicants will be notified.

Canadian Blood Services will obtain written reviews for each application from subject matter experts. These written reviews will be provided to the Review Committee as supporting documents. The Chair of the Review Committee will assign two Review Committee members to review each application, one as primary reviewer and the other as secondary reviewer. Assignments will be made based on the subject matter of the applications in relation to the



expertise of the Review Committee members and any identified conflicts of interest. Both reviewers will prepare written reviews in advance of the Review Committee meeting.

The Chair will convene and oversee the Review Committee meeting. For each application, the Chair will invite the primary and secondary reviewers to announce their preliminary scores. The Chair will then invite the primary reviewer to present the salient features of their review to the Review Committee and to justify their preliminary score. The secondary reviewer will then be invited to identify any review features that differ from that of the primary reviewer and to address any additional points made in the written reviews obtained from the external reviewers. Both reviewers will also be invited to identify any budgetary concerns.

The primary and secondary reviewers will arrive at a consensus score and answer any questions from other Review Committee members. Once a consensus score is reached, all Review Committee members will score the application within ± 0.5 of the consensus score by secret ballot.

The mean scores of all Review Committee members will be used to rank the applications. Applications with a mean score below 3.5 will not be considered for funding. If there are any ties in the mean score of the applications in the fundable range, ties will be broken by consensus. The Chair will then return to the issue of budgetary concerns, to secure agreement on any financial reductions to proposals in the fundable range.

The Chair will moderate all Review Committee discussions, ensure a fair and timely process, and communicate the final rankings and comments of the Review Committee to Canadian Blood Services. In addition, the Chair will summarize the recommended budgets for each application. The Chair shall communicate any issues of concern raised by the Review Committee in the same manner. Canadian Blood Services staff provide administrative support to the Chair.

The Chair's recommendations will be used to make funding decisions, subject to final approval by a Canadian Blood Services executive responsible for the competitive funding programs. Funding decisions will also consider applicants' current levels of Canadian Blood Services competitive funding to ensure equitable access to research funds.

Decisions will be communicated in writing to all applicants in a timely manner following the Review Committee meeting. Applicants will be provided with all reviewers' written evaluations (anonymized).

Successful applicants will be given an Acceptance of Research Funding form to be signed and completed by the Awardees (applicant and their co-investigators, as appropriate) and their institutions. Following the return of the completed Acceptance of Research Funding form, an Awardee will be issued a Transfer of Funds Agreement to facilitate the funds transferring to the institution paid.



V. General Terms and Conditions of the Grant

These Guidelines, including the terms and conditions of the grant, may be altered by Canadian Blood Services without notice. Awardees and their institutions shall comply with the latest edition of the Guidelines.

AWARDEE AND INSTITUTION RESPONSIBILITY

The Awardee's institution must agree to provide adequate research facilities and to administer the Grant in accordance with the terms and conditions of the Grant as per the Guidelines.

The Awardee, its institution, and the Project Team will comply with all applicable laws and policies pertaining to privacy and confidentiality in dealing with information and records related to the project.

START DATE

The Intramural Research Grant should begin within six (6) months of October 1 2022.

DURATION OF GRANT

The duration of an Intramural Research Grant is two (2) years.

CONDITIONS OF FUNDING

The Awardee must respect any limitations placed on the use of Intramural Research Grant funds as outlined in the formal notification of decision.

The Awardee must ensure that any research project involving humans includes a research protocol that is consistent with the principles set out in the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans* and that appropriate records are maintained. The Awardee will provide such records to Canadian Blood Services upon request.

The Awardee must immediately notify Canadian Blood Services (see Section VII), of their inability, for any reason, to carry out or complete the research for which the Grant was received. Any change in the research plan or in the location of tenure of the Intramural Research Grant recipient requires the prior approval of Canadian Blood Services. Revisions must be submitted to Canadian Blood Services (see Section VII).

Funding for Canadian Blood Services competitive funding programs, including for the Intramural Research Grant Program, is provided by the federal government (Health Canada) and the provincial and territorial ministries of health. Should Canadian Blood Services funding levels become unavailable or decrease due to unforeseen circumstances, Canadian Blood Services reserves the right to reduce, defer or cancel funding of grants received through this funding opportunity.



USE OF FUNDS

Intramural Research Grant program funding may be used for the payment (salary and benefits, where applicable) of research staff (e.g., research assistants, technicians, etc.), the payment (stipend and benefits, where applicable) of research trainees (e.g., post-doctoral fellows, graduate students, or summer students), the purchase of expendable materials and supplies, the purchase and maintenance of experimental animals, project team collaborative and networking activities (e.g., team meetings, conference calls, travel), and knowledge dissemination activities (e.g., publication costs). Travel expenses will be supported to a maximum of \$3,000 per year per IRGP project (maximum \$6,000 per IRGP project). The purchase of small items of equipment is permissible; however, the maximum that can be spent on equipment over the two-year funding period is \$8,500 (exclusive of applicable taxes). Small equipment including electronic devices comprising communication, computer, or audiovisual devices may be purchased using these funds. Canadian Blood Services assumes ownership of all items purchased with Intramural Research Grant funds. Funds cannot be used towards equipment maintenance or service contracts. Intramural Research Grant program funding may also be used for the payment of contracted services on a fee for service basis (e.g., statistical support), but under no circumstances may a Principal Investigator, Co-Investigator, or Collaborator be personally remunerated.

Canadian Blood Services supports only the direct costs of research. No funding is to be used for indirect costs (e.g., institutional overhead).

PROGRESS REPORTS

Progress reports detailing scientific findings and project accomplishments are due annually in March for the duration of the grant. A final report is due within one (1) month of the Grant end date. Additional progress reports may be requested during the tenure of the Grant. A progress report template will be provided to the Principal Investigator.

Materials submitted to Canadian Blood Services may be shared at the discretion of Canadian Blood Services. The Principal Investigator shall ensure that any materials submitted to Canadian Blood Services do not infringe third party intellectual property rights and comply with appropriate copyright and academic authorship standards.

DISSEMINATION AND PUBLICATIONS

Any publications, reports, or public presentations resulting from work conducted with an Intramural Research Grant must acknowledge the support of Canadian Blood Services. Detailed instructions on acknowledging support from the Intramural Research Grant program will be provided.



OFFICIAL LANGUAGES

Where appropriate, the Awardee should deliver its services, programs, projects, or activities in both official languages.

RECORDS

The Awardee and its institution must keep all records, information, databases, reports, financial information, costs and expenditures, and all other documentation related to the project for a period of six (6) years from the end of the Period of Grant.

Canadian Blood Services and/or its funders shall have the right to: (i) monitor and review project through site visits or other means, and (ii) conduct inspections of financial records or audit the Awardee, institution, and Project Team, to confirm compliance with these Guidelines and the appropriate use of funds. Canadian Blood Services shall have the right to share copies of reviews, evaluations, and audit reports with its funders.

The Auditor General of Canada also reserves the right to conduct an inquiry into the Project Team's use of funds. The Awardee, Institution, and Project Team shall cooperate with Canadian Blood Services, its funders and/or the Auditor General of Canada and his/her representatives or agents in connection with such a review, audit, or inquiry and shall grant access to its documents, records, and premises as required for purposes of any such review, audit, or inquiry. The results of an inquiry by the Auditor General of Canada may be reported to Parliament in a report of the Auditor General.

VI. Financial Administration of Grant Funds

Financial administration of the Grant funds will be through the Canadian Blood Service competitive funding programs' secretariat. The secretariat will instruct Canadian Blood Services' Finance Services to transfer the approved funds to the Awardee's institution, subject to the terms of a transfer of funds agreement completed by the Awardee and its institution. The Awardee and its institution are responsible for administering the funds according to the Guidelines and for financial reporting on expenditures using Form 300 or equivalent to Canadian Blood Services.

Awardees are expected to exercise appropriate stewardship over the financial resources entrusted to them from Canadian Blood Services. In no circumstances shall the total disbursement exceed the funds available for the Grant. Expenditures exceeding the Grant will be neither assumed or reimbursed by Canadian Blood Services. The Awardee and its institution will return to Canadian Blood Services any funds to which it is not entitled, including payments made in error and paid costs that are not eligible for reimbursement.

Funding will be administered over two-years in three installments aligned with Canadian Blood Services' fiscal year. Funds unspent in one installment shall be systematically carried over into



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Intramural Research Grant Program Guidelines

subsequent installments. Requests for a no-cost budget extension to extend resources into a third year must be made in writing to Canadian Blood Services (See Section VII) three (3) months before the end of the grant. Unspent funds remaining at the end of the project must be returned to Canadian Blood Services.

VII. Contact and Enquiries

Enquiries about this competitive funding program should be addressed to centreforinnovation@blood.ca or (613) 739-2496.