Physician Scientist Fellow Award Guidelines and Instructions

Effective July 1, 2023 – June 30, 2024

The Leukemia & Lymphoma Society of Canada
2 Lansing Square, Suite 601-2
Website: *www.bloodcancers.ca*

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Key Points

- It is highly recommended to access the LLSC Research Portal, Proposal Central, at http://proposalcentral.com/to begin the application process well in advance of any deadlines.

- It is recommended that final submissions at each stage (Letter of Intent/Full Application) be completed prior to the deadline for both the LLSC and CIHR. No aspects of the application will be accepted past the deadline.

- All components of the Application must be present in the order indicated in this document.

- All formatting must adhere to the policy stated in this document.

- The deadlines stated in the Key Dates section are strictly enforced. No exceptions are made to this policy.

- Contact paul.oconnell@lls.org with any questions.

Program Description

The Leukemia & Lymphoma Society of Canada (LLSC) is Canada's largest voluntary health organization dedicated to funding blood cancer research, education and patient services. The mission of LLSC is to cure all forms of blood cancer and improve the quality of life of patients and their families. Since its founding in 1955, LLSC has invested millions of dollars for research specifically targeting blood cancers and continues to fund innovative research to advance more breakthrough therapies.

To this end, LLSC also supports community service programs, advocacy, and public and professional education.

LLSC supports research through the **Physician Scientist Fellow Award** grant program.

The intent of the Physician Scientist Fellow Award is to encourage early-stage specialist Physicians to pursue a career in blood cancer research. The award is specifically targeted at MDs near, or recently at, the completion of specialty training in hematology, oncology, hematopathology, pathology, or other related disciplines and who have initiated or have immediate plans to begin supervised research training directed at blood cancers.

This opportunity is designed to foster, through provision of a contribution to their salary, the acquisition of skills and independence to conduct research in blood cancers at the basic laboratory, preclinical, clinical or combined levels.

This grant is for salary only. Funding up to a **maximum of $85,000 per year for two years** is available (up to a maximum total of $170,000 for the two years). Grant funding will be made in two annual payments.

The objective of this funding opportunity is to build research capacity encouraging early-stage Physician scientists to pursue a career in blood cancer research by supporting a new clinical researcher in initiating and conducting research at the basic laboratory, preclinical, and/or clinical level.

Funds for competitive applications will be awarded on the basis of scientific merit, using a priority rating, and will include evaluation of ethical research. The Scientific Review Panel (SRP) will review all applications.

Eligibility

Applicants to the Physician Scientist Fellow Award Program must meet the following criteria to be eligible for funding:

- Hold a MD.
- Applicants must have completed or be in their last year of their fellowship in hematology, oncology, hematopathology, pathology, or other related disciplines. Applicants are welcome to contact LLSC (paul.oconnell@lls.org) to determine their eligibility to apply.
- Applicants must be enrolled in either a Master's or PhD program, or as a post-doctoral fellow at the time of application.
- Must propose research directly relevant to blood cancer.
- Research may be performed in the same laboratory as where their graduate degree research was performed (e.g. Master's or PhD, if applicable).
- The maximum award per year is **$85,000** for salary only. A Physician Scientist Fellow's salary may be supplemented by funds from another source. Indirect costs may not be included. The final value of the Award may be limited by the applicant's Sponsoring Institution's salary range.
- Expenditures for laboratory costs/equipment, travel, tuition, etc. are not permitted. The awarded value will be limited to the amount requested in the submitted proposal.
- It is anticipated that the proposed research will occupy a majority of the applicant's research time. However, there are no requirements for a certain percent effort in our budget template.
- Must have a Sponsor (or Sponsor/co-Sponsor pair) that has significant experience in the blood cancer field.
- Must have a Sponsor with adequate funding that supports the research proposed. As it is required that the applicant's Sponsor have current grants to fund the proposed research (Physician Scientist Fellow Awards will provide salary support), it is expected that there will be some overlap with current research support. Applications that include writing and figures directly from a Sponsor's prior work will be unfavorably reviewed, with the exception of figures in the Background section of the application.
- Must be on a clear trajectory to an independent career in hematology/oncology with a focus on blood cancer and clinical translation. Applicants with little or no prior blood cancer experience will be considered provided there is clear evidence of a path forward in a career in blood cancer. The Sponsor (or Sponsor/co-Sponsor pair) must be appropriate for this career path.
- Have at least 50% protected time for research.
- Must demonstrate the need for continued funding.

Sponsorship

All Physician Scientist Fellow Award applicants must have a Sponsor who provides mentorship, an appropriate research environment and research funds for the proposed project.

For your application to be eligible for consideration the sponsor must:

- be the head of the laboratory in which the applicant is performing, or will be performing, the proposed research;
- demonstrate adequate space and resources are available for the duration of the award;
- must have active grant(s) (peer-reviewed, national level) to support the research proposed in the application. The presence of funding will be assessed at the eligibility phase, while the details of the blood cancer relevance of that funding will be assessed after full application submission. Research support that ends prior to the Award start date will not be used as evidence of adequate support.

Applicants may have a co-sponsor who will serve as second mentor to their research project and career. A co-sponsor is necessary in cases where the applicant's Sponsor does not have the required expertise in blood cancer. Conversely, the co-Sponsor may provide basic scientific or technical expertise to an applicant who's Sponsor does not have that expertise. The review panel will look most favorably on the applicant's with the most qualified mentorship, whether that be from a single Sponsor or a Sponsor/co-Sponsor pair.

The role of the co-Sponsor is not to provide research funding. If the primary sponsor does not have adequate research funding, the applicant is not eligible.

Definitions

"Co-principal investigator" or "co-applicant" refers to a researcher who will be in charge of specific administrative and scientific aspects of the research project, whether or not that researcher has a formal relationship with the Host Institution. Adjunct professors and appointments that are for status only can fall under these categories. Graduate students, postdoctoral fellows, research associates, technical support employees, and investigators working outside of Canada are not included under these categories. These individuals are not eligible to receive grant-funded salary support.

A "collaborator" or "co-investigator" refers to individuals who will make substantial intellectual contributions to the research project or have contributed to the drafting of the application itself, but who are not eligible to be included as "Co-Principal Investigators" or "Co-applicants". Students, postdoctoral fellows, research associates, lay contributors (including patient partners) and investigators based outside of Canada may be included in this category. Students, post-doctoral fellows and research associates may receive salary support from a grant.

Individuals who have been affected by cancer are considered patient/survivor/caregiver participants/partners. This category may include anyone who is at high risk of cancer, has been diagnosed with cancer, or provides physical and emotional care to someone with cancer but not in a professional or vocational capacity. Patient partners and caregivers can act as "collaborators" or "co-investigators" depending on responsibilities and impact of contribution to the proposed project.

For any questions of eligibility or unusual circumstances not described above, please contact LLSC.

A Principal Investigator may only submit **ONE** Application per application cycle and cannot serve as a Principal Investigator OR Co-Principal Investigator on more than ONE Application per cycle. A Co-Investigator (also known as Collaborator) CAN serve as Co-Investigator on more than one Application. A Principal Investigator or Co-Principal Investigator can serve as a Collaborator on other Applications (See **Definitions** below).

Co-Principal Investigators, Co-Investigators, Collaborators, and Key Personnel:

- The Co-Principal Investigator is responsible for developing the Aims of the project.
- The Co-Investigator (who can also be referred to as Collaborator) is responsible for carrying out the Aims of the project.
- A Principal Investigator CANNOT be named as a Principal Investigator or a Co-Principal Investigator on another application during the same application cycle.
- A Principal Investigator can be listed as a Co-Investigator or a Collaborator on another application in the same cycle, without limit to the number of applications.
- A Collaborator or Co-Investigator can be named on more than one application or funded grant, without limit.
- Patient Partners are patients or caregivers/family members of patients who have direct experience with the disease or intervention being studied but are not participants in the study that may be a part of the research project. Patient Partners can also be collaborators or co-investigators

Application Process

The application process will occur in **two** phases:

- Phase I: Submission and consideration of a Letter of Intent (LOI).
- Phase II: The invitation for and submission of a Full Application.

All application processes, including both the LOI and Full Application submissions, must be made electronically through the LLSC Research Portal, Proposal Central (https://proposalcentral.com/). Application templates can be found on this system. Contact paul.oconnell@lls.org with any questions.

Applications will be reviewed via a peer review process by a diverse group of external experts covering the scientific and medical aspects of the review. Final funding recommendations are approved by our independent Medical and Scientific Advisory Committee and Board of Directors.

Only complete applications received by the submission deadline date will be considered. Applications which exceed page limits will not be considered (see **Letter of Intent Phase Instructions** and **Full Application Phase Instructions**).

Key Dates

Phase	Date
Call for Proposals	September 18, 2023
Letter of Intent (LOI) due	Oct 26, 2023, 4:00 pm (EST)
Notification of Full Application Invite	Nov 2023
Full application deadline	January 25, 2024, 4:00 pm EST
Review Panel Meeting	March 2024
Notification of Awards	May 2024
Award Start Date	July 2024

The submission deadlines will be strictly enforced through Proposal Central, which automatically shuts down submissions after the deadline has passed.

It is highly recommended that submissions are done well before the deadline, as internet traffic may be slow near the deadline, which may result in difficulties in submission. In addition, LLSC's response time to questions may be delayed by the high volume received near the deadline.

Letter of Intent (LOI) General Information

Each Applicant must submit an LOI that will include a structured abstract describing the overall proposal in the following sections with a total character limit of 4000:

1. Background and Preliminary Data
2. Goals and Objectives
3. Expected Outcomes and Scientific Significance
4. Statement on Patient Partnership and EDI considerations
5. Name and title of Sponsor and Sponsoring Institution

The LOI template is found on our grants management website: https://proposalcentral.com/

LOIs should provide brief descriptions of how the goals and/or approaches are novel and innovative, and what impact the research may have on blood cancer. The LOI should also identify the Sponsor and Sponsoring Institution. All LOIs will be reviewed, and those judged to be the most promising, competitive and responsive to the goals of the program will be invited to submit a Full Application. The Applicant will be notified via e-mail as to whether or not they have been invited to submit a Full Application. If invited for Full Application submission, the Applicant will immediately have access to the application submission capability in Proposal Central.

Letters of Intent are due **Oct 26, 2023, at 4PM EST**.

Full Application General Information

The deadline to submit all Full Applications is **January 25, 2024 at 4 PM EST**. Full Applications will only be accepted via (http://proposalcentral.com/). The submission deadlines will be strictly enforced.

Please follow character limits and page lengths carefully. Failure to adhere to these instructions will result in administrative disqualification of your application. Contact paul.oconnell@lls.org with any questions.

Full Applications will be reviewed after the **January 25**, **2024** submission deadline by a peer review committee composed of a diverse group of external experts (including patient partner representatives). An application that does not meet the program goals, scope or guidelines will be administratively disqualified. Applications will be assigned an initial score by the primary and secondary reviewers. Only applications that fall above a scoring level determined by program staff and the committee chair will be discussed in detail for final ranking by the entire committee. Applications will be evaluated for potential significance, novelty, innovation and feasibility. Once ranked by the peer review panel, the highest scoring proposals will be reviewed by the LLSC Scientific Review Panel (SRP). The SRP will identify those proposals to be funded based on

scientific merit, responsiveness to programmatic goals and budget availability. Final approval of funding will be made by the appropriate governing boards of the LLSC.

Applicants will be notified in **May 2024** of the funding decision. Please do not call or email LLSC to determine whether the Application has been received, when it will be reviewed or the results of the review. Funding decisions are relayed by email only and are not available by telephone. Please also check Proposal Central for the status of your Application.

All priority scores are confidential in that they are available to LLSC's Scientific Review Panel and LLSC's Board of Directors only. Feedback may only be provided for Applications discussed by the full review committee. Written critiques of the Application are not formally provided to Applicants.

Evaluation Criteria

To support the objectives of this funding opportunity, the following evaluation criteria will be used:

Applicant/Sponsor

- Qualifications of the applicant, including prior research training, experience and independence (relative to career stage).
- Expertise of the applicant in the proposed area of research and with the proposed methodology.
- Evidence of a clear trajectory to an independent career in hematology/oncology with a focus on blood cancer and clinical translation.
- Quality and appropriateness of the Mentorship (training plan for career development in blood cancer research).

Research Approach

- Direct relevance of proposed research to blood cancer.
- Clarity of the research question.
- Completeness of the literature review and relevance to study design/research plan.
- Clarity of rationale for the research approach and methodology.
- Appropriateness of the research design.
- Appropriateness of the research methods.
- Feasibility of the research approach (including recruitment of subjects, project timeline, preliminary data where appropriate, etc.).
- Anticipation of difficulties that may be encountered in the research and mitigation plans for management.
- Inclusion of sex and gender in research design where appropriate.

Originality of the Proposal

- Potential for the creation of new knowledge.

- Originality of the proposed research, in terms of the hypotheses/research questions addressed, novel technology/methodology, and/or novel applications of current technology/methodology.

Impact of the Research

- Research proposed addresses a significant need or gap in the understanding, diagnosis, and/or treatment of blood cancer in Canada.
- Potential for a significant contribution to the improvement of the health of Canadians and/or to the development of more effective health services and products.
- Appropriateness and adequacy of the proposed plan for knowledge dissemination and exchange.

Research Environment

- Suitability of the environment (mentor[s], milieu, and project) to support the applicant.
- Availability and accessibility of personnel, facilities and infrastructure required to conduct the research.
- Suitability of the environment for the training of personnel**.**

Patient Partnership

- Is patient partnership integrated into the project?
- Indication of how patient partnership is integrated in project a meaningful way
- Indication of how patient partner partners are recognized and included as members of the project team

EDI considerations

- Is sex, as a biological variable, taken into account in the research design, methods, analysis and interpretation, and/or dissemination of findings?
- Is gender, as a socio-cultural factor, taken into account in the research design, methods, analysis and interpretation, and/or dissemination of findings?
- Are diversity considerations (e.g. conditions, expressions and experiences of different groups identified by age, education, sexual orientation, parental status/responsibility, immigration status, Indigenous status, religion, disability, language, race, place of origin, ethnicity, culture, and other attributes) taken into account in the research design, methods, analysis and interpretation, and/or dissemination of findings?
- Have social determinants of health been taken into account in the research design methods, analysis and interpretation, and or dissemination of findings? These may include income and social protection, education, unemployment and job insecurity, working life conditions, food insecurity, housing, basic amenities and the

environment, early childhood development, social inclusion and non-discrimination, structural conflict

Letter of Intent Phase Instructions

Letters of Intent are due **Oct 26, 2023, at 4PM EST** via Proposal Central (http://proposalcentral.com/).

The Applicant should carefully craft the information requested in the LOI as this information is automatically populated into the Full Application. If the LOI is approved, the Applicant will be notified by an automated email from Proposal Central stating that he/she may proceed to the Full Application phase.

- Project Title (75 characters maximum): Provide a title that adheres to the character limit
- Principal Applicant: The Principal Investigator (or PI) is the Applicant
- Sponsor
- Institution and Contacts: Please provide the necessary contact information
- Lay summary that includes the Rationale, Objectives, Methodology, Significance, and a statement on Patient Partnership and EDI considerations (4000 characters maximum)
- Keywords

Full Application Phase Instructions

Please follow character limits and page lengths carefully. Failure to adhere to these instructions will result in administrative disqualification of your application. All application processes must be completed using our grants management website (http://proposalcentral.com/). Contact paul.oconnell@lls.org with any questions.

Attachments must be submitted in NO smaller than size 12 font, single-spaced, with one inch margins on letter size (8.5" x 11") paper.

The following components comprise the Full Application:

Project Title (75 characters maximum)

Principal Applicant Information

Sponsor Information

Institution and contacts

Co-principal investigator (If applicable)

Project Description

- Statement (in layman's terms, not to exceed 1500 characters), for press release.
- Scientific abstract of the proposed research (4500 characters maximum).
- Keywords

Budget Period Details (See Proposal Central form for specific details):

- This grant is for salary only. Research-related costs must be supported through sponsor's grants. Expenditures for laboratory costs/equipment, travel, tuition, etc. are not permitted. The awarded value will be limited to the amount requested in the submitted proposal. The amount requested will be the amount awarded, should the Award be approved for funding.
- On these pages, there should be a full justification of funds required, for both year one and year two of funding. The maximum annual total cost towards salary cannot exceed $85,000.00/year. The aggregate cost over 2 years cannot exceed $170,000.00. Should the application be funded, the amount requested will be the amount awarded, even if the requested amount is less than $85,000/year. The final value of the Award may be limited by the applicant's Sponsoring Institution's salary range.
- **Permissible direct costs** include the following:
    - $85,000 per year will be attributed to the salary of the Grantee.

Budget Summary and Justifications (See Proposal Central form for specific details):

- Attach detailed justification of budget items.

Organizational Assurances

- Please indicate whether the work involves biohazardous materials, animal experiments or human subjects. Appropriate forms may either be appended to the application or provided once notice of funding is given; the applicant will have 45 days to provide the appropriate documents once funding has been approved.

Research Proposal

- Description of previous related research in 1 page.

- Description of proposed research (max 5 pages). The last paragraph of the application should have the heading "**Significance to hematologic malignancy**". In this section, the applicant should clearly state how the proposed work addresses the problem of hematologic malignancies.

- Research proposal appendix – reference, figures, tables, etc. (does not count towards page total).

- Five –year plan – applicant must outline their career plan for the next 5 years and how this award will help them achieve this.
    - In this section, the applicant must describe their career plan which includes:
        - how the applicant expects to achieve this plan
        - how the proposed project fits into their plan
        - how the proposed project will contribute to the health of Canadians
        - how the proposed research address translational research objectives

Sponsor Letter

The Sponsor Letter must be on institutional letterhead must contain the following:

- Description of the applicant's position and how the applicant's research is integrated in the overall laboratory.
- Brief description of how much of the application was written by the applicant; this should include certification that the "Previous Work/Preliminary Data" section includes only data generated by the applicant.
- The Sponsor's experience in mentorship, which summarizes the information contained in the Sponsor Mentor Table.
- Source of funding for the applicant's research. Training plan to develop the applicant into an independent researcher, Physician, or other professional whose major function will be to directly or indirectly enhance the lives of blood cancer patients; this is an integral component of the review process.
- Sponsor signature.

Patient Partnership Plan

- Maximum 1 pg
- The integration of Patient Partners as part of the project team can help transform research design and execution.
- Provide a patient partnership plan that outlines how the study will embed Patient Partners as part of the research to ensure the research is aligned with patient partnership principles. Describe how Patient Partners will be engaged at the various stages of the project. This should include:
    - The Patient Partner(s) and/or their communities who will be engaged (e.g., individual Patient Partners, patient advocacy organizations, etc.).
    - Roles and responsibilities of the Patient Partners. (Activities could include protocol design, review of patient-facing materials, clinical trial execution, identification of barriers and opportunities, and knowledge translation.)
    - Inclusion of a patient partner onboarding process and development of Terms of Reference (especially for longer term research programs)
- Suggested references:
    - Canadian Cancer Clinical Trials Network (https://3ctn.ca/for-researchers/patient-public-involvement/)
    - Clinical Trials Transformation Initiative (https://www.ctti-clinicaltrials.org/)
    - Strategy for Patient-Oriented Research (https://cihr-irsc.gc.ca/e/45851.html)
    - Clinical Trials Ontario (https://www.ctontario.ca/patients-public/resources-for-engaging-patients/)

EDI considerations

- Maximum 1 pg
- Recognizing the variable impacts of cancer on different populations and demographics, LLSC expects that sex, gender and diversity dimensions (plus other intersectionalities (SGBA+)) will be considered into research proposal, analysis and dissemination of results.
- Please provide a response for each question, and we urge the inclusion of these dimensions into your proposal, when applicable.
    - Is sex, as a biological variable, taken into account in the research design, methods, analysis and interpretation, and/or dissemination of findings?
    - Is gender, as a socio-cultural factor, taken into account in the research design, methods, analysis and interpretation, and/or dissemination of findings?
    - Are diversity considerations (e.g. conditions, expressions and experiences of different groups identified by age, education, sexual orientation, parental

status/responsibility, immigration status, Indigenous status, religion, disability, language, race, place of origin, ethnicity, culture, and other attributes) taken into account in the research design, methods, analysis and interpretation, and/or dissemination of findings

- Have social determinants of health been taken into account in the research design methods, analysis and interpretation, and or dissemination of findings? These may include income and social protection, education, unemployment and job insecurity, working life conditions, food insecurity, housing, basic amenities and the environment, early childhood development, social inclusion and non-discrimination, structural conflict

- Suggested resources:
  - The Principal Applicant is encouraged to complete one of the sex- and gender-based analysis online training modules through the CIHR Institute of Gender and Health. Please select and complete the training module most applicable to your research project.
  - For additional information on sex, gender and health research, applicants are encouraged to review the "How to integrate sex and gender in research" section on the CIHR website.

Publications

- Selected list of publications in past 5 years (peer reviewed only); with total number of peer reviewed publications (exclude abstracts). Indicate publications where LLSC support has been acknowledged (if any).

Collaboration/Support Letters (Optional)

- When there are significant collaborations, letters of support are helpful. This is particularly important when access to patient samples, animal models, or specialized equipment outside of the Sponsor's laboratory or department is necessary for the proposed research. If a company asset is required and is not commercially available from scientific supply companies, such as proprietary drugs, a letter from the company supplying this asset should accompany the application. The letters must be signed and be on institutional/company letterhead.

Attachments

- Curriculum Vitae (CIHR biosketch format, Principal applicantsand Sponsor)
- Publications
- Research Proposal

- Sponsor Letter
- Patient Partnership Plan
- EDI consideration letter
- Relevant figures (Maximum of 5)
- Letter(s) of Collaboration (optional)
- Appropriate forms for Human and Animal experimentation and Biohazards.
- Signature Page (Once all of the mandatory fields are complete, the signature page is available for e-signing on Proposal Central and can be e-signed by the appropriate person(s))
    - Signatures of principal and co-applicants with dates.
    - Name and signature of head of the department or appropriate academic officer (e.g., Dean or Associate Dean Research), with date.
    - Name of signature of the financial officer, with date.

Customer Support

Please contact:
PROPOSAL CENTRAL Customer Support
By e-mail: pcsupport@altum.com
By phone: +1 800 875 2562 (Toll-free U.S. and Canada) or
+1 703 964 5840 (Direct Dial International)
Normal Business Hours: 8:30am - 5:00pm Eastern Time
(Available Monday through Friday)