



LEUKEMIA &
LYMPHOMA
SOCIETY®

Career Development Program Guidelines & Instructions

Fellow

July 1, 2023 – June 30, 2024

Application Deadlines	
Eligibility Phase deadline:	October 27, 2023; 3:00 PM (ET)
Letter of Intent Phase deadline:	November 15, 2023, 3:00 PM (ET)
Letters of Reference deadline:	December 1, 2023, 3:00 PM (ET)
Full Application Phase deadline:	December 1, 2023, 3:00 PM (ET)
Award Start date:	July 1, 2024

Table of Contents

What's New?	2
Application Compliance	2
About The Leukemia & Lymphoma Society, Inc.	3
Description of the CDP Fellow Award	3
Eligibility	4
Mission Relevance.....	10
Review Process & Applicant Notification.....	13
General Application Instructions.....	16
Detailed Eligibility Phase Instructions.....	17
Detailed Letter of Intent Phase Instructions	18
Detailed Full Application Phase Instructions	21
Uploading the project document and final submission.....	28

What's New?

Minimum stipend

There is now a minimum stipend going directly to new awardees, with a cap on the fringe benefit costs that the institution may take out of the total award amount. We have increased the award amount from \$60,000/year to \$70,000/year and we now have a requirement that the minimum stipend/salary going directly to the awardee is \$65,000/year. See the Description of the CDP Fellow Award section. Previously, institutions would often take out expenses related to the awardee benefits, effectively making the stipend much lower.

Childcare stipend

Fellows and Special Fellows who have certain childcare expenses may receive a stipend of up to \$3,600/year (beyond the Fellow award stipend). Though we understand that this is a fraction of the cost, the purpose is to provide funds to help defray some of the costs, making it easier for the Fellow/Special Fellow to accomplish their research goals.

Indirect costs

We have changed the formula for calculating indirect costs. The calculation is now with respect to the total award amount. See the Description of the CDP Fellow Award section.

Junior Sponsors and funding

Recognizing that junior investigators may be excellent Sponsors, we are relaxing the funding requirement for Sponsors with equal to or less than 5 years of independence. See Research Support Requirement section for specific details. This change will increase opportunities for eligible trainees who are under the direct mentorship of high quality, junior investigators. However, given the decreased experience of junior Sponsors, the competitiveness of applicants with junior Sponsors may be lower. In addition, the blood cancer relevance of the Sponsor's current research program must be clear.

Application Compliance

In prior award cycles, ~20-30% of eligibility requests were rejected. We have updated the eligibility form to make rejections far less likely, but it takes much more time to complete. **To avoid eligibility rejection, read these Guidelines & Instructions carefully and fill out the eligibility form completely. Your Sponsor must sign the form. Therefore, be sure to start this process early.**

A rejected applicant can only re-submit an eligibility request once.

In prior cycles, >10% of Career Development Program (CDP) applications submitted (from all non-clinical subcategories) were disqualified without full review based on non-compliance with the Mission Relevance of the application and environment. Carefully read the Mission Relevance and Mission Score sections to determine if The Leukemia & Lymphoma Society's CDP award mechanism best fits your research, mentorship environment, and career goals. The Leukemia & Lymphoma Society has recently taken an active role in making sure that our scarce funds go to applicants who are most closely aligned with our Mission.

In recent years, approximately 10-15% of all full applications had serious structural flaws. These include non-adherence to section lengths, font size, or missing attachments (e.g., a Sponsor Letter or Biosketch), or critical sections not completed (e.g., data attribution).

Applications with such flaws run the risk of administrative disqualification.

Carefully check the final version of your application prior to upload (even if someone else uploads for you).

About The Leukemia & Lymphoma Society, Inc.

The Leukemia & Lymphoma Society, Inc. (LLS) is a national voluntary health agency dedicated to the conquest of hematologic malignancies and relevant premalignant conditions. LLS supports research, patient aid, community service programs, advocacy, and public and professional education.

Description of the CDP Fellow Award

The Leukemia & Lymphoma Society supports talented blood cancer researchers in the early phase of their careers through the Career Development Program. CDP continues to provide a pool of dedicated researchers to advance the understanding and diagnosis of blood cancer, as well as the development of treatment and prevention options that will ultimately lead to a higher quality of life for blood cancer patients.

The **Fellow** Award is for 3 years and supports postdocs and instructors who are training for a career in blood cancer research and/or treatment.

The Fellow program supports high quality postdocs who have clearly demonstrated productivity and critical thinking in their graduate studies as well as in their short time as a postdoc. Funded Fellows who obtain an independent position during their funding period must terminate their award.

The maximum award per year is \$70,000 and includes a **minimum** of \$65,000 for the applicant's stipend. A Fellow's salary may be supplemented by funds from another source. Indirect costs may be included and cannot exceed 5% of the **total award amount** requested in the proposal, up to \$3,500 per year. Any remaining funds may be used for fringe benefits. Expenditures for laboratory costs/equipment, travel, tuition, etc. are not permitted (some exceptions to this rule apply in the case of K99 recipients). It is anticipated that the proposed research will occupy most of the applicant's time, though there are no requirements for a certain percent effort in our budget template.

Funded Fellows and Special Fellows may receive up to \$3,600/year for childcare expenses such as before or afterschool care, preschool, nursery school, nannies, au pairs, or other similar expenses that allow the parent to return to work in the lab. This is in addition to the CDP award stipend. The amount provided will depend on LLS budgetary considerations. These costs are not meant to offset other costs associated with a child (i.e., formula, diapering, etc.), nor will funding be provided when a family member is providing the childcare service (unless that family member is providing care through their childcare business). Though we understand that this stipend is a fraction of the typical yearly cost of childcare, we hope this will provide some relief to allow the parent to return to work in the lab. Please contact researchprogram@lls.org for questions.

The Leukemia & Lymphoma Society honors those CDP awardees whose awards are ending and who have done the most impactful work. One Fellow awardee will be honored with the **CDP Achievement Award**. This high honor will be given to the Fellow who has had the most impactful publication of **direct** relevance to blood cancer over the course of their Fellow funding period. An absolute requirement is that the publication must acknowledge support of The Leukemia & Lymphoma Society (preferably as a specific acknowledgement of this funding

mechanism*). Since we consider a CDP awardee to always be part of the LLS family while funded, **all** publications should acknowledge our support, regardless of the aims stated in the original application.* A further consideration is the total publication record and productivity during the award period as well as career trajectory. Lastly, some consideration will include whether the applicant has complied with reporting requirements as well as reasonable requests from LLS, such as participating in an LLS event.** *Though not guaranteed, we hope to continue the CDP Achievement Awards indefinitely.*

*Use this format when acknowledging The Leukemia & Lymphoma Society: "...was supported by a Fellow award from The Leukemia & Lymphoma Society."

**LLS realizes that not all requests can be fulfilled by the CDP awardee, but if multiple requests are either ignored or are not fulfilled, then this information will contribute to the final CDP Achievement Award decision.

Eligibility

Fellow applicants must...

- Have an appropriate Sponsor who:
 - Must be the head of a laboratory at a non-profit, academic institution where the applicant's research will be performed
 - Must be the applicant's primary mentor
 - Must be the applicant's direct supervisor, as documented by the institution's Human Resources department (or equivalent)*
 - Must be a tenure-track assistant professor or above (or equivalent)
 - Must not be nor have been the applicant's thesis advisor nor the head of the laboratory where the applicant's thesis research was performed
 - Must have at least three recent first/last author publications that **directly** impact our understanding of blood cancer (See Mission Score and Key Publications of Sponsor Demonstrating Blood Cancer Contributions sections)
 - Must have access to adequate funding to support the proposed research (See Research Support Requirement section)

*For applicants with an MD who are in a clinical fellowship (or equivalent), their direct supervisor may be the fellowship program's director while their research mentor may be someone else. In this case, the research mentor will be the Sponsor. Documentation of the role of the research mentor/Sponsor may be asked for during the eligibility phase.

Fellow applicants must also...

- Be a postdoc/instructor in their Sponsor's lab at the time of full application submission
- Not be in a graduate program at the award start date
- Have at least one first author, full length (which may include short reports), peer-reviewed, primary research publication available on PubMed by the full application due date* (**Not** including reviews, perspectives, conference/meeting presentations or abstracts, etc.)
- Not have any unexplained gaps in training
- Not have more than 3 years of **total** postdoctoral experience by the award start date (see Experience/Eligibility Clock for more details)
- Explain all positions and titles from the end of graduate or medical training in the eligibility request form; more detailed explanations are also required for those with

training that does not follow the standard US-based training or who have unusual position titles

- Explain, where appropriate, eligibility window extension requests in the Eligibility Window Extension section of the eligibility template, which may **only** be used to request expansion of the window of eligibility describing any of the following^{**}:
 - Dates of parental leave
 - Dates of military service
 - Dates related to Visa issues caused by governmental delays

*Peer reviewed manuscripts that are **fully** accepted by the eligibility due date are acceptable. A copy of the letter from the journal must be provided to LLS by the eligibility due date, and the manuscript must be published online (PubMed and/or on the journal’s website) by the full application due date for eligibility to be accepted and for the full application to be reviewed.

^{**}See Pauses to the Eligibility Clock section for complete details

Position Title

The Fellow award is intended for early-stage postdoctoral trainees. Generally, position titles must be “postdoctoral fellow,” “fellow,” or “instructor.” Other titles may be acceptable based on the applicant’s institutional rules if the position is equivalent to a mentored postdoctoral fellow/instructor, and if explained in the eligibility request form. Applicants whose titles significantly differ from the above examples must have a letter submitted by the full application deadline explaining the position and the terminology. This letter must come from the appropriate institutional representative that is in a position to explain this (e.g., Human Resources).

Citizenship

The program welcomes applications worldwide from appropriate non-profit academic institutions and investigators of any nationality.

Degree

Applicants must hold a PhD, MD, DVM, or equivalent degree by the full application due date. Applicants may not be in a degree-granting program at the award start date.

CDP Eligibility Outline for 2023-2024 Application Cycle

	Scholar	Scholar in Clinical Research	Special Fellow (2-year)	Special Fellow (3-year)	Fellow
Degree	MD, PhD, DVM, or equivalent	MD, PhD, DVM, or equivalent	MD, PhD, DVM, or equivalent	MD, PhD, DVM, or equivalent	MD, PhD, DVM, or equivalent
Earliest oral thesis defense date	N/A	N/A	June 30, 2019	June 30, 2020	June 30, 2021
Most recent oral thesis defense date	N/A	N/A	June 29, 2020	June 29, 2021	Eligibility Phase due date

	Scholar	Scholar in Clinical Research	Special Fellow (2-year)	Special Fellow (3-year)	Fellow
Total postdoctoral experience as of the funding start date	N/A	N/A	5 years	4 years	3 years
Independent faculty position required?^a	Yes	Yes	No	No	No
Earliest start date of independent position^a	January 1, 2016	January 1, 2014	N/A	N/A	N/A
Most recent start date	January 1, 2022	January 1, 2020	N/A	N/A	N/A
Applicant R01-level funding required?^b	Yes	No ^c	No	No	No
Sponsor R01-level funding required? (For Sponsors with <i>more</i> than 5 years of independence)	N/A	N/A	Yes	Yes	Yes
Sponsor R01-level funding required? (For Sponsors with equal to or less than 5 years of independence)	N/A	N/A	No ^d	No ^d	No ^d
At least 1 first author publication required?^e	Yes ^f	Yes ^f	Yes ^f	Yes ^f	Yes ^f
At least 1 corresponding author publication required as an independent investigator?^e	Yes ^f	No	No	No	No

^a Mentored faculty positions (e.g., Instructor) do not count as independent; all non-mentored positions **do** count as independent

^b See Research Support Requirement section

^c Funding may come from any source, but must be able to fund the active/proposed studies

^d For Sponsors with equal to or less than 5 years of independence, adequate funding may come from an R00, institutional startup funds, or other grants to sufficiently support the research

^e Full length, primary research publication (no reviews, perspectives, conference/meeting presentations, or abstracts)

‡Peer reviewed manuscripts that are **fully** accepted by the eligibility due date and that are published online (PubMed and/or the journal's website) by the full application due date are acceptable (see Eligibility section)

Experience/Eligibility Clock

Applicants must have a **total** of postdoctoral experience that is less than or equal to 3 years by the award start date (see Eligibility Outline table). All postdoctoral-level experience is added to obtain the level of postdoctoral training. The purpose of this rule is to be sure that Fellow awardees remain competitive. It is likely that mentored postdoc/instructor-level training beyond 7 years will have decreasing returns and may even be determinantal to success. Therefore, LLS funding reflects this, and we encourage trainees to avoid overly long training periods.

For those with only a PhD

For those with only a PhD as their doctoral degree, postdoctoral experience is measured from the oral thesis defense date. When there is no required oral thesis defense, other events signaling the end of graduate training will be considered. In these cases, details must be provided in the Other Information section of the eligibility form. In all cases, typically after a successful oral thesis defense, LLS starts the eligibility clock as soon as an institution considers a former graduate student as having a PhD.

For those with only an MD

For those with an MD, postdoctoral experience is measured when post-MD *research* training is sustained at greater than 50% of the time. This is generally the 2nd or 3rd year of the Hem/Onc Fellow period. Time in **clinical** training (with less than 50% research), where applicable, does not start the eligibility clock.

For those with an MD/PhD (continuous/sequential degrees)

For those with an MD/PhD obtained through a dual degree program or as sequential degrees with no gap between one training program and the next, postdoctoral experience is measured when post-MD/PhD *research* training is sustained at greater than 50% of the time. This is generally the 2nd or 3rd year of the Hem/Onc Fellow period. Time in **clinical** training (with less than 50% research), where applicable, does not start the eligibility clock.

For those with an MD and PhD with a gap between degrees

Those who obtain one doctoral-level degree and then do research before starting their next doctoral-level training program will have the research phase between programs counted as postdoctoral-level experience. The next graduate training period is not counted as postdoctoral experience, nor is any clinical training (with less than 50% research). After graduate and clinical training, the postdoctoral eligibility clock will resume as described in the prior situations.

There must be no unexplained gaps in training.

In some cases, LLS may ask the applicant to provide a letter from any applicable institution confirming date(s).

For all applicants:

- **All** postdoctoral research experience is counted against the eligibility clock.
- Time in **any laboratory as a postdoctoral fellow (or equivalent) is counted; the eligibility clock does not start with the start date in your current laboratory.**

Pauses to the eligibility clock

The following events may be used as a pause to the eligibility clock:

- Parental leave
- Military service
- Visa delays that are caused by governmental agencies*

These events, including dates, must be stated in the Eligibility Window Extension section of the eligibility form. A letter from your current Sponsor or former advisor stating the nature of the leave or Visa delays and the associated dates should be sent to researchprograms@lls.org by the full application deadline.

There are no other acceptable pauses to the eligibility clock.

The eligibility window extension's purpose is to provide equal opportunity to those whose research is unavoidably delayed. Those on parental leave or fulfilling military service are not performing research. ***Some*** who are applying for a Visa to do their postdoctoral research in another country ***may*** have a temporary disruption of their research and if so, LLS will consider this using the guidance below.*

*The eligibility window may be extended for unavoidable Visa delays. Those requesting such an extension must abide by these rules:

- The Visa application must have been submitted within 90 calendar days of their oral thesis defense date (or equivalent) or the end of their clinical training.
- Additions to this 90-day rule may be extended for another 90 days under specific circumstances to abide by governmental or institutional rules. The original steps in the Visa application process must be documentable and within the first 90 days mentioned in the first bullet point.
- Documentation is required. This may include documents from the government and the institution, as well as original email correspondence. All documents should be sent as an attachment to researchprograms@lls.org.
- Visa eligibility extensions are ***not*** given for applicants who have decided to stay in their graduate lab for an extended period beyond their oral thesis defense (or equivalent), nor will extensions be given for those transferring to a second postdoctoral position.

Career Trajectory

LLS encourages applications from Fellow candidates with diverse scientific backgrounds and who wish to pursue a career path that is directly beneficial to blood cancer patients. The Sponsor letter should detail the training plan for this career path. ***Applicants who are not pursuing a career in blood cancer research should not apply.***

Institution Affiliation

Applicants must be affiliated with a non-profit, academic institution at the time funding commences and for the duration of the award.

Research Support Requirement

Fellow Awards generally fund only salary (see the K99 discussion in the Other Career Development Support section for an exception). Applicants must have a Sponsor who has substantial funding to support the applicant's research. For Sponsors who have equal to or less than 5 years of independence, this funding may come from institutional startup funds, R00,

and/or other grants. For Sponsors with more than 5 years of independence, this funding will be from active grant(s) (peer-reviewed, national-level; substantial, multi-year funding*) on which the Sponsor is the PI or co-PI. In rare cases, research support may come from substantial and sustained institutional support beyond a startup package when other funding is not available. This funding must be directly earmarked to the Sponsor and must not be general institutional funds that are divided among multiple faculty. The presence of funding will be assessed at the eligibility phase, while the details of the Mission-relevance of that funding will be assessed after full application submission. In cases where funding starts after the eligibility due date but by the CDP funding start date, the applicant must send evidence from the funding agency of the award details to researchprograms@lls.org (including funding agency, type, total and annual award amounts, start date, and end date). This must be received by LLS by the full application due date.

*Funding typically will be an R01. However, funding from at least one grant having a minimum direct cost of \$200,000/year for at least 3 years is sufficient to qualify.

Research support that ends prior to the award start date may not be used as evidence of adequate support.

It is expected that there will be overlap of CDP applications with their Sponsor's currently funded grants. In some circumstances, a Fellow's proposal may have overlap with an application submitted by their Sponsor to LLS during the same application cycle. In these cases, the applicant must show that there is **current** funding to support their research (since CDP is salary only). Though we may consider such proposals, it is likely they will have a higher bar to reach during the review process. Contact researchprograms@lls.org for questions about specific proposals.

Application Limitations

Applicants may only submit one application. A Sponsor may sponsor one Fellow, one Special Fellow, as well as multiple Scholar applicants in this application cycle. ***The applicant is required to coordinate with their Sponsor to be sure that this policy is upheld.*** There is no limit to the number of applications submitted from a specific institution. It is acceptable for a Sponsor who currently has active Fellow and/or Special Fellow awardees in their lab to sponsor a Fellow applicant during another award cycle.

Other Career Development Support

No other equal or better career development-type award (as measured by the total award amount) may be held at the time of the award start date. If an equal (or better) career development-type award is activated after receiving a Fellow Award, the LLS award must be relinquished. Those who have previously held an equal (or better) career development-type award **may** apply for a CDP Award.

The exception to this rule is when an applicant has a K99 award. Current K99 awardees may apply for a Fellow award, and current Fellow awardees may accept a K99 award and keep the CDP Award, pending LLS approval. Certain information, including the aims of the K99 award, must be provided to LLS to ensure that the K99-funded research is directly relevant to LLS's Mission. Funding may be conditionally approved pending review of publicly available information once the K99 is activated. Funding from the Fellow Award may be used for any purpose related to the CDP application/award, whether it be awardee salary, technician salary, or research supplies, pending LLS approval. Note that the NIH/NCI has its own approval

process. It is recommended that Fellow applicants and Fellow awardees notify LLS of any developments in the K99 application process. Contact researchprograms@lls.org for questions about LLS's approval process for holding both awards.

If a career development-type award (of lower total value) is held by the applicant, this funding may be held concurrently with the LLS award at LLS's discretion, should the LLS award be funded. In all such cases, the LLS funding may only be used to support the applicant/awardee's salary. It is anticipated that the research proposed in the Fellow application will occupy most of the applicant's time, though there are no requirements for a certain percent effort in our budget template. LLS will not change any aspect of the Fellow award to accommodate other awards (with the exception of the K99 award).

In addition, an absolute requirement is that the other funding must support blood cancer research. Funding from organizations that are focused on diseases other than blood cancer may not be held concurrently with the Fellow award. This requirement reflects the necessity that a Fellow's research should be fully (or largely) focused directly on blood cancer.

Transfers

The application must be designed from the perspective of where the research will be performed. If a transfer to a different lab with a different Sponsor (within the same institution or at another institution) is being considered during the application process, the applicant must submit the application based on work that will be performed in the new laboratory and obtain the appropriate signatures from the new destination. In addition, the applicant must be in the new lab by the full application due date. Transfers to a new lab with a new Sponsor are not allowed between the full application due date and the award start date. Transfers to a new institution but with the **same** Sponsor are usually acceptable but must be approved by LLS. Transfers may be allowed after the award start date; however, transfers undergo a review, **and thus their approval is not guaranteed**. In addition, the Fellow Award is issued to an individual, and is not transferable to another person. Please notify LLS at least 30 days prior to the transfer date by contacting researchprograms@lls.org.

Change in Applicant or Awardee's Status

Applicants who are postdoctoral fellows or mentored, non-tenure track faculty (e.g., instructors) are eligible to apply. However, Fellow awardees cannot be independent faculty members and hold the Fellow award. Fellow Awards will not be given to those with independent positions, and those already funded must terminate their award if they transition to independence. LLS must be notified as soon as any change in status is contemplated. LLS reserves the right to require the return of any funds given after the start of an independent position. Any funds dispersed after this change in status making the awardee no longer eligible must be returned to LLS.

Mission Relevance

General

The purpose of LLS's CDP award mechanism is to support scientists who are pursuing a career in blood cancer research and/or treatment. Thus, the research of the applicant must address questions that are **directly** relevant to hematologic malignancies and/or relevant premalignant conditions/states. Relevance is determined by the experimental approach. The environment to pursue this research program must also be appropriate.

Correlation of a biological phenomenon with blood cancer is not sufficient evidence of relevance to LLS's Mission unless there are experiments to directly address this correlation.

Fellow applicants whose Sponsors do not have an established record of publications and funding demonstrating a commitment to blood cancer research will be disqualified without full review.

In prior CDP application cycles, multiple Fellow applicants were eliminated prior to full review for lack of direct blood cancer relevance of their current/proposed research and/or lack of appropriate blood cancer research experience of their Sponsor.

The proposed experiments must seek to answer questions about blood cancer. These experiments must use blood cancer patient samples, blood cancer cell lines, or mouse models appropriate for blood cancer. Research using other model systems must make it clear why those model systems are being used to address questions of direct relevance to blood cancer and why they are better suited than standard blood cancer models. ***The environment and expertise provided by the Sponsor must be appropriate to perform the blood cancer-relevant work.*** There must also be funding support for this research (see Research Support Requirement section).

Research Subject Matter

CDP applicants must have a research focus on hematological malignancies and relevant premalignant conditions. We are interested in all research studies on any of these subjects. The research may have a basic mechanistic focus to better understand these diseases or may be preclinical/clinical studies using any approach with the goal of achieving better therapeutic outcomes.

Immunotherapy-Specific Request for Proposals

We are particularly interested in funding the next generation of blood cancer researchers with an interest in immunotherapy. Researchers stepping up to the challenge of these important topics in blood cancer preclinical and clinical research are strongly encouraged to apply. All such studies should have the direct intention of improving blood cancer outcomes and must use the appropriate blood cancer models in their research plan.

- **Cellular Therapy**

We are interested in novel and innovative approaches to advance the next generation of cellular therapies for hematological malignancies. We are looking to go beyond new targets to identify approaches that improve cellular therapies, including armored constructs and other novel vector design. We seek improved CAR T cells as well as other cellular hosts, such as NK cells. In addition, studies to understand and/or address CRS and ICANs are sought.

- **Other Immunotherapies**

We seek new approaches to the broader spectrum of immunotherapies, including checkpoint inhibitors, vaccines, and antibodies (including bispecifics and ADCs). These approaches should harness biological insights of the immune response to identify more effective ways to approach immunotherapy in hematological malignancies.

- **Neoantigens**

We seek to use the current knowledge of neoantigens to identify novel approaches to harness neoantigens for therapeutic development. The use of approaches that can rapidly go from individual patients to personalized therapies for each patient is encouraged. We are also interested in the novel use of broadly expressed neoantigens for new therapeutic approaches in hematological malignancies.

- **Tumor Microenvironment**

We seek studies that use the current knowledge of the complex tumor microenvironment to identify novel therapeutic approaches that overcome the tumor suppressive aspects of the microenvironment. Further understanding of the biology of the tumor microenvironment is welcome, but we will give greater consideration to strategies to overcome the tumor suppressive effects of the microenvironment.

- **Resistance**

We are interested in a more complete understanding of resistance to all immunotherapies as well as innovative approaches to overcome this resistance. The use of samples from patients who have developed resistance to current immunotherapies, including those in clinical trials, is of high importance. Alternatively, the development and study of novel animal models of immunotherapeutic resistance is encouraged as well.

- **Combination Therapies**

We are interested in studies that provide more effective outcomes using immunotherapy combinations. This research must be mechanistically well justified. The strategies may include combining immunotherapies to different targets based on tumor expression but may also include combinations intended to overcome resistance mechanisms.

Post-Award Adherence to Aims

CDP Awards are selected in part based on the aims in the application. LLS requires approval for any substantial change to aims to continue receiving LLS funding. LLS understands that science does not progress in a direct path, and thus minor changes need not be approved by LLS (but should be indicated in annual progress reports). **Changes to the aims that substantially reduce the impact of the research on LLS's Mission will not be approved and funding may be reduced or eliminated. Changes to aims without prior approval from LLS may also result in termination of LLS funding.** Therefore, it is highly recommended that aims in the application be carefully crafted in terms of feasibility and blood cancer relevance, and that they are aims you intend to pursue. Careful consideration of aims during the application process will enhance the ability to modify research directions in a Mission-relevant fashion, should the need arise after funding commences.

Funded Fellows who do not show evidence of progress on blood cancer-relevant research may be terminated early at LLS's discretion. Progress is evaluated by LLS scientific staff annually after Progress Report submission, and this evaluation may also include an analysis of publicly available information regarding publications and meeting presentations.

Key Publications of Sponsor Demonstrating Blood Cancer Contributions

Fellow applicants must provide a description of publications that best highlight their Sponsor's contributions to the understanding of blood cancer. **Three publications from the past 10 years must be presented in the full application.** The Sponsor must have expertise in blood

cancer. This information will be used to determine the qualifications of the Sponsor to mentor the applicant's blood cancer-relevant research career.

These publications must:

- directly correlate with Mission Scores of 1, 2, or 3 (see Mission Score section)
- have the Sponsor as the corresponding author on all these publications; for Sponsors with equal to or less than 5 years of experience, the Sponsor may be the first author*
- be primary research publications
- be available on PubMed by the full application due date

*In cases whereby the Sponsor's publications from their training period are used, the relevance to blood cancer must still be clear in their current research program and current funding. If a Sponsor appears to be moving away from blood cancer, the Fellow's application may not be fully reviewed.

These publications must not:

- have only an indirect relation or no relation to blood cancer
- be review articles
- be manuscripts that are not available on PubMed on the full application due date

Though the applicant should get input from the Sponsor, this section must be written by the applicant.

Review Process & Applicant Notification

CDP applications are reviewed by an independent, voluntary panel of experts.

Review criteria for **Fellow** applications include:

- **Direct** relevance of proposed research to blood cancer
- Likelihood of the applicant pursuing a career in blood cancer research
- Prior accomplishments of the applicant (**graduate** research of the applicant need **not** be blood cancer-based)
- Qualifications of the Sponsor to mentor the applicant in blood cancer research
- Scientific quality of the proposal
- Access to applicable key materials and models, including patient materials, animal models, drugs, etc., to demonstrate feasibility of proposed experiments
- Clarity of presentation
- **Clear and robust training plan from the Sponsor**

Based on these criteria, the application receives a Priority Score based on the NIH scoring system.

Mission Scores

The applicant also receives a **Mission Score** to measure adherence of the application to LLS's Mission of curing blood cancer. CDP Awards must focus on those questions of **direct** relevance to blood cancer. The Mission Score will be assigned based on the overall focus of the application.

Proposals that do not have clear relevance to blood cancer will be disqualified without full review.

Mission Score of 1: Research that directly investigates the pathogenesis, diagnosis, or treatment of hematologic malignancies and/or relevant premalignant conditions/states. In addition, at least some experiments must include patients, and/or patient materials (including PDX models).

Mission Score of 2: Research that directly investigates the pathogenesis, diagnosis, or treatment of hematologic malignancies and/or relevant premalignant conditions/states. In addition, at least some experiments must use blood cancer cell lines and/or animal models of blood cancer.

Mission Score of 3*: Research that investigates basic mechanisms directly relevant to normal blood cell development, hematopoietic stem/precursor cell function, or immune responses that are *directly* relevant to blood cancer. These studies must have the intention of improving our understanding of blood cancer and must use appropriate models to understand these mechanisms in blood cells.

Mission Score of 4:** Research that investigates pathological processes that may be associated with blood cancer. These studies do not have the intention of improving our understanding of blood cancer, nor do they use appropriate models to understand these mechanisms in blood cells.

Mission Score of 5:** Research that investigates processes not directly associated with blood cancer or normal blood cell development/function.

*Proposals with a Mission Score of 3 are rare. Investigators interested in biological/pathological processes in blood cancer will generally be actively engaged in research that at least partially qualifies as a Mission Score of 1 or 2.

**Applications with a Mission Score of 4 or 5 will be eliminated without full review.

After the review panel meeting, Mission-relevant applications (Mission Scores 1, 2, and 3) will be rank-ordered based on their Priority Score and those within or near the payline will be presented to LLS’s oversight committees for approval. Funding will be based on ranking, Mission Scores, and LLS priorities. Funding status is relayed by email only and is not available by phone. All Priority Scores are confidential and are available only to LLS oversight committees and staff. Brief, anonymous feedback from the review panel may be provided but only when available.

Applicants can see the status of their application on the [LLS Research Portal](#). Up until final decisions are made, the status will be “Under Review.” After final decisions are made, the status will either be “Awarded” or “Waitlist,” or “Not Funded.” Please do not call or email regarding status updates.

Key Dates

Applicants can begin the application process once the program is open and can move through each step up until the deadline. Note that each step can be submitted early. As long as each step is done thoughtfully and meticulously, there may be an advantage to progressing through the steps well ahead of the deadlines.

Phase	Date
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Eligibility Phase: open	July 1, 2023
Eligibility Phase: close	October 27, 2023, 3:00 PM (ET)
Eligibility determination by LLS staff	Rolling
Notification of eligibility	By October 31, 2023
Letter of Intent Phase: open	Immediately after eligibility is approved
Letter of Intent Phase: close	November 15, 2023, 3:00 PM (ET)
Full Application Phase: open	Immediately after Letter of Intent Phase submission
Reference letters due	December 1, 2023, 3:00 PM (ET)
Full Application Phase: close	December 1, 2023, 3:00 PM (ET)
Award Notification*	May 2024
Award Start Date	July 1, 2024

*LLS's non-negotiable Funding Agreement Terms & Conditions are available on www.lls.org.

The submission deadlines will be enforced. Please note that all times are Eastern Time (ET). If any date falls on a weekend or US holiday, the deadline becomes the next business day.

It is highly recommended that submissions are done the day prior to the deadline.

Internet traffic may be slow near the deadline, which may result in difficulties in submission. In addition, LLS's response time to questions may be delayed by the high volume received near the deadline. Therefore, it is imperative that any questions be posed to LLS as far ahead as possible. Every year, a few applicants get caught with difficulty near the deadline. Some tried to submit after the deadline but did not have their application reviewed. ***The best way to avoid this problem is to submit every phase well ahead of the deadline.*** In addition, those who are rushing right up until the deadline are more likely to make mistakes that may reduce the fundability of the grant.

General Application Instructions

The CDP application process consists of 3 distinct phases: Eligibility*, Letter of Intent*, and Full Application.*

*Information provided at the earlier phases must match that provided at later phases. *Divergence between information provided at the Eligibility and/or Letter of Intent Phases and information provided at the Full Application Phase **may result in administrative disqualification; if not disqualified, any divergence may be shared with the review committee.***

Below are step-by-step instructions for applying:

1. Read these Guidelines & Instructions in full.
2. Log in to the [LLS Research Portal](https://lls.fluxx.io/) (<https://lls.fluxx.io/>) and select Career Development Program. Click "Apply to CDP" to begin the application process (well ahead of the deadline).
 - If you have applied to LLS in the past, you do not need to create a new registration and can log-in with your username (email address associated with your account) and your password. If you forgot your password, simply click the "reset or create password" link and enter your email address. The system will send your username and a link to update your password.
 - If you are a first-time user to the [LLS Research Portal](https://lls.fluxx.io/), please complete the intake form located at this link: [Account Creation Request](#) so an account can be created for you.
3. Familiarize yourself with the [LLS Research Portal](https://lls.fluxx.io/).
4. Follow the instructions on the [LLS Research Portal](https://lls.fluxx.io/) and this document to complete and submit your Eligibility Phase components. The Eligibility Phase requires completion of both the web form and the current eligibility form, which should be downloaded from the Project Document section of the web form.
5. You will receive an email notifying you of your Eligibility approval status, which happens after LLS staff review. It typically occurs within 24 hours, but may take up to 10 business days, which means you will benefit by doing this step early. Once your Eligibility is approved, return to the [LLS Research Portal](https://lls.fluxx.io/), select "New or Pending" under *Requests* on the left panel and follow the instructions on the site and in this document to submit your Letter of Intent Phase components.
 - You may be contacted by an LLS staff member if the information provided on your eligibility request suggests that you may be better suited for a different award category.
 - LLS staff will determine eligibility on a rolling basis using the criteria described in this document.
6. Reference letter **requests** are required during the Letter of Intent Phase. Applicants are responsible for making sure that all required reference letters are submitted by their letter-writers by the Full Application deadline.
7. Once you have submitted your Letter of Intent Phase information, you may immediately begin the Full Application Phase. Please carefully follow the instructions on the [LLS Research Portal](https://lls.fluxx.io/) and this document. The Full Application Phase requires completion of both the web form and the current application template, which must be downloaded from the Project Document section of the web form. **Failure to follow all application instructions may result in administrative disqualification of your application.**

- Contact researchprograms@lls.org with any questions about the application that are not addressed in the [LLS Research Portal](#) or this document.
- 8. Submit your Full Application to LLS prior to the Full Application deadline. We strongly recommend submitting well before the deadline, as site traffic on the day of and days leading up to the deadline will be heavy.
- 9. Character limits include spaces. Character and other length limits are strictly enforced on the web form and the uploaded project description template. Font must be black Arial 11 pt., including figure legends, which should be text boxes separate from the figure itself. ***If character limits and font restrictions are not adhered to, or the preset margins are altered, the application may be administratively rejected.***
- 10. Line spacing is preset in the Word document. ***Do not change the setting. Pasting text from another document into the template may result in a change in the line spacing.*** Check the line spacing in the template before pasting, and if there is a change after pasting, return the line spacing to the original setting. Any modifications in line spacing, particularly if the change allows for more text to fit into the page, ***may result in administrative rejection of your application.***
- 11. To create a fair process to all applicants, these Guidelines & Instructions and information on the [LLS Research Portal](#) must be followed. ***Do not ask for exceptions to these policies, including but not limited to exceptions to deadlines or making corrections to your document past the deadline.***

Carefully check every page of your application prior to submission. You are ultimately responsible for this submission, even if someone else submits on your behalf.

You may save your work and return to it at any time by clicking “Save.” Clicking “Submit” will lock your application and prevent further modification at that stage. Contact researchprograms@lls.org if you submit in error (must be at least one hour prior to before the deadline).

At any time during the application process, including after submitting your Full Application, you can check the status of your application by logging in to the [LLS Research Portal](#), selecting your application (under *Requests* in either “New or Pending” or “Submitted”), and referring to the Status in the yellow box at the top of the page.

If you have any technical difficulties with the [LLS Research Portal](#), please contact us at researchprograms@lls.org.

Detailed Eligibility Phase Instructions

Applicants may submit Eligibility Phase components upon opening of the program. It is recommended to submit as soon as possible, as there is no benefit to waiting. There are both webform components and an eligibility template that you must obtain from the [LLS Research Portal](#). Your completed eligibility template must be uploaded onto the [LLS Research Portal](#). Eligibility will be evaluated by LLS scientific staff on a rolling basis (see the Eligibility Review section below). If eligibility is approved, the applicant may proceed to the next phase of the application process. If eligibility is rejected, the applicant may submit one more time if new information is provided and the eligibility deadline has not passed.

All information requested on the eligibility form must be provided. Write “N/A” for anything not applicable to you.

The eligibility template is lengthy and must include information about your Sponsor. Both the applicant and Sponsor must sign the eligibility form prior to uploading. Therefore, it is highly recommended that this process is started well before the eligibility deadline.

Submission and Confirmation

You will receive an automated email stating that your information was successfully submitted within 2 business days of submission. If you have not received this email within 2 business days, contact researchprograms@lls.org. **It is recommended that you confirm each stage of the application process by checking your application status on the [LLS Research Portal](#); submitted Eligibility, Letter of Intent, and Full Application phases will be located in the “Submitted” Requests on the left side of the screen.**

Eligibility Review

LLS scientific staff will review eligibility on a rolling basis, and you will generally receive notification within 24 hours, but the process may take longer. Refer to Key Dates for details. **Contact researchprograms@lls.org if you have not received notification within 10 business days.**

If eligibility is accepted, you will have access to the Letter of Intent Phase.

Prior to the Eligibility Phase deadline, the applicant should carefully consider who will write reference letters on their behalf and alert them of the due date for these letters (See Reference Letters subsection in the Detailed Letter of Intent Phase Instructions). **Letters submitted past the deadline will not be accepted.** It is therefore beneficial to have a backup letter-writer in case one of your original writers is not able to submit on time.

Detailed Letter of Intent Phase Instructions

Applicants may access Letter of Intent Phase components as soon as their eligibility request is approved by LLS. The components on our grants management system must be completed by the Letter of Intent Phase deadline. This includes reference letter writer request information, which must be input into our grants management system by this deadline (however, reference letter writers should be contacted well before this time). Once these components on our grants management system are submitted, the applicant will have immediate access to the Full Application Phase components. Note that reference letters must be uploaded by the letter writers by the Full Application Phase deadline.

There are three main aspects of the Letter of Intent Phase:

- Reference letter requests (letter writer information added to our grants management system)
- Project information
- Collaborator/mentor information

The reference letter information can be added as soon as the application moves to the Letter of Intent Phase (after eligibility is approved). It is recommended to complete the reference letters information before starting the Title, Summary, and Project Information components, so that the writers get their submission instructions early (more details are found in the next section). Completion of the reference letters section by the applicant must happen prior to final submission of all Letter of Intent Phase components.

Reference Letters

The applicant must have reference letters submitted on their behalf. These letters must be submitted directly by the letter-writers to the [LLS Research Portal](#) (see Initiating Blind Reference Letters below). Reference letter requests must be done by the applicant during the Letter of Intent Phase, but the letters must be submitted by the letter writers by the Full Application deadline.

It is the responsibility of the applicant to ensure that the letters are submitted in the [LLS Research Portal](#) and received by the deadline. Letters received by LLS after the deadline will not be accepted.

If there are not at least 3 letters of reference received by the full application deadline, the application will be administratively disqualified.

Reference Letter Policies

- Reference letter information must be provided by the applicant at the Letter of Intent stage, but the letters are not due until the full application deadline
- Three letters are required
- No more than four letters will be accepted
- It is beneficial to have a backup letter-writer in case one of your original writers is not able to submit on time
- It is beneficial to add letter writer information to our grants management system as early as possible as well as to contact the letter writers early
- Though not required, it is beneficial to have two of the letters coming from outside your institution
- Letters are blinded to the applicant and must be uploaded directly by the writer

The Sponsor Letter is separate from the reference letters and therefore is not considered one of the three reference letters; Sponsor information should not be provided in the reference letters section on the [LLS Research Portal](#) (see Sponsor Letter section)

Initiating Blind Reference Letters

During the Letter of Intent Phase, the applicant must contact those who will write their reference letters. A section called “Request Blind Reference Letters” is available on the [LLS Research Portal](#) during the Letter of Intent Phase. For each letter-writer, press the green “+” button on the right side. A pop-up window will appear. Copy and paste the first name, last name, and email address of the letter-writer into the designated spaces. After adding this information press “Create Recommendation.” The pop-up will disappear, and an email will be automatically sent to the letter-writer. The email will contain a unique link that allows the writer to directly upload the letter to the [LLS Research Portal](#). This process is repeated for each of the letter-writers. If a name is added in error, such as your Sponsor’s name (which does not belong here), it cannot be deleted. Simply move on and add the name(s) that are needed here.

The email may end up in the letter-writer’s spam. Therefore, after the letter-writer’s information is added in the [LLS Research Portal](#), **it is critical for the applicant to follow up with each writer to be sure they received the email.** If they have not received this email within 2 business days, email researchprograms@lls.org, and the link will be re-sent to them.

The letters will not be viewable by the applicant. However, the applicant can view reference letter status on the [LLS Research Portal](#). Prior to each letter’s submission, a note will be visible

to the applicant indicating that no letter is uploaded. After the letter is uploaded, this note will change to indicate that the letter has been submitted.

Project Information

Provide the following after completing the initiation of blind reference letters. All information provided here must remain consistent with the full application. ***Significant divergence between information in this section and in the full application may negatively affect your funding chances.*** A common divergence includes stating that your model systems include patient samples, but your full application indicates no patient samples (nor any discussion of access to patient samples).

Project Summary

For funded applications, we post awardee information on our website. Together with the applicant's biographical information, there is a short Project Summary of the applicant's research. From there, a reader may choose to look at the longer Lay Description. Therefore, please provide a 3-5 sentence Project Summary describing your work. The total of all sentences should be no more than 500 characters, including spaces. Use this guide to structure the short paragraph:

- Overall question/focus of your research (1 sentence)
- High-level approach you will use to address this question (1 to 2 sentences)
- Outcome/goal of your research (1 to 2 sentences)

The overall goal is to provide a succinct overview of your research in a short, cohesive paragraph.

Title

Provide a succinct title to describe your research; 150-character limit, including spaces.

Research focus and details

Provide the following details that form the basis of your research. Only state information that is ***directly*** related to your research. This information must reflect what will be in your full application; significant divergence may negatively affect your funding chances. A common problem is listing "human patient samples" in this section but not describing human patient samples in the full application.

For each section, provide brief details using these criteria:

- Only provide information of direct relevance to your research
- Provide either the full name or the acronym but do ***not*** include both
- For multiple items, separate each by a comma; do not hit enter within the text box

Provide details for these items:

- Disease or Subject Focus
- Technological Approaches
- Model System(s); if you are working with human patients, put "human patients" or "human patient samples"

Collaborators and mentors

List the names and institutions of all investigators, outside of your institution, with whom you have significant and current interaction regarding your research project/program or your career

development. Individuals listed here may be contacted by LLS to verify their connection to your research.

- Include those who are outside your institution who you are collaborating with or who have a significant role in your career development
- Include only researchers who are at or above tenure-track level (or equivalent)
- Include only full names and institutions with no additional information
- Do not list their full institutional titles
- Do not include the names of those who are writing letters of reference

Submission and Confirmation

After clicking the “Submit” button, you will receive an automated email within 2 business days stating that your information was successfully submitted. If you do not receive this email confirmation, contact researchprograms@lls.org.

Immediately after Letter of Intent Phase submission, you will have access to the Full Application Phase and may proceed with the application.

Changes

Information collected in the Letter of Intent Phase will automatically populate fields in the Full Application Phase. Carefully and thoughtfully complete these sections as the fields are locked after the Letter of Intent Phase is completed. Letter of Intent Phase components must accurately reflect the focus of the full application. **Failure to follow these policies may result in disqualification of the application.** See the first paragraph in the Project Information section above.

At this stage, the applicant should follow up with those chosen to write reference letters to remind them of the upcoming deadline for letter submission.

Detailed Full Application Phase Instructions

Some sections of the full application will carry through from the Letter of Intent Phase. Information that carries through must not be modified; changes made to the Letter of Intent Phase components after the Letter of Intent Phase deadline may result in administrative disqualification of the full application. The remainder of the full application consists of web form components and elements to be uploaded as a **single PDF**.

Failure to submit as a single PDF in the order described on the template may result in disqualification of the application.

Three sections are required in this phase:

- Section 1: Abstracts and Brief Biography (webform and template in Section 2)
- Section 2: Project Description Template
- Section 3: Attachments

Section 1: Abstracts and Biography

Lay Description

The Lay Description should clearly state the relevance of your research to blood cancer and describe your current/proposed research, including the problem/question to be addressed, specific aims, and anticipated results using non-technical language that is easily understood by the lay community. Scientific/Greek characters or symbols must not be used. The Lay Description is essential for LLS to continue successful fundraising to support our current and

future grantees, including the later years of **your** award, should it be funded. Thus, we require a well-written Lay Description, with sufficient detail and suitable language for non-scientists. Be aware of your confidential information, as the Lay Description (and Project Summary) will be shared with others. **The Lay Description has a minimum of 2,000 characters and a maximum of 2,500 characters, including spaces.**

Helpful hints:

- Consider how you would communicate your research to a friend or family member who is educated *but is not a scientist*.
- Limit the use of scientific terms that are specific to your field.
- When specific scientific terms are necessary, be sure to include a brief definition.
 - When in doubt, err on the side of over-explaining.
- Avoid using too many acronyms and always define them before using (except for common acronyms like “DNA”).

Use the following list of questions as a guide for creating your Lay Description:

- What is the overall problem?
- What is the specific goal of your project? How does it fit into the overall problem?
- What is unique about **your** research? You must describe the specifics of your research and approach while avoiding being overly generic.
- What will be the indicators for success in this project?
- What will be the next steps for this project beyond your current specific aims?
- How will your research benefit blood cancer patients now or in the future? **If your research is distant from the clinic, it is critical to make the connection between your research and the benefit to *blood cancer patients* in the future.**

Scientific Abstract

The Scientific Abstract should accurately reflect your research (current/proposed). Though putting your research in a broader context may be useful, it is also important to avoid overstating your research beyond what you are actually doing. Do not use disease names or other terms that are not directly relevant to your research. **1,500 characters maximum, including spaces.**

Brief Biography

Provide a brief, professional biography introducing the applicant to a lay audience. **1,000 characters maximum, including spaces.**

Section 2: Project Description Template

(Downloaded from the [LLS Research Portal](#))

The template consists of the required elements listed in the Project Description Template Components section. You will find detailed instructions for each element on the full application template (as well as below). Please ensure that you provide all requested information. If you have any questions regarding these elements, please contact researchprograms@lls.org. **No information may be attached to the beginning of this template; such added information may result in administrative disqualification of the application.**

Use Arial 11 pt. black font in each section of the application. This includes figure legends, which must be a separate text box that uses Arial 11 pt. black font.

The figures themselves *may* have smaller text size and/or a different font. However, it is to ***your advantage*** to have figures that are easily readable by the reviewers. Reviewers who have difficulty understanding your figure, which often happens with small text within the figure, will more likely downgrade the score of your application.

Outside of the figures themselves, should any font be smaller than Arial 11 pt., the application may be administratively disqualified without review.

Line spacing is preset in the Word document. ***Do not change the setting. Pasting text from another document into the template may result in a change in the line spacing.*** Check the line spacing before pasting, and if there is a change after pasting, return the line spacing to the original setting. Any modifications in line spacing, particularly if the change allows for more text to fit into the page, ***may result in administrative rejection of your application.*** (We also anticipate very little pasting from other sources).

Project Description Template Components

- **Applicant and Project Information:** Provide Applicant and Sponsor Names and Institution, Project Title, Project Summary, and Scientific Abstract.
- **Career Development as a Blood Cancer Researcher:** Describe your training history, current project, and current training environment. Describe how these are providing you with appropriate training to be a blood cancer researcher. Research/training done ***prior*** to your current position does ***not*** need to be in blood cancer.
- **Mission Score:** This section provides the Mission Score definitions. Proper Mission Score classification is essential; ***improper classification may negatively affect your score.*** Therefore, it is critical to thoughtfully provide the Mission Scores wherever it is asked for. Contact researchprograms@lls.org for any questions about Mission Scores.
- **Key Publications of Sponsor Demonstrating Blood Cancer Contributions:** ***Carefully re-read the Mission Relevance and Mission Score sections of this document before proceeding.*** Describe 3 primary research publications from the past 10 years that best demonstrate your Sponsor's contributions to the understanding of blood cancer following the guidance in the template. Your Sponsor must generally be corresponding author on all, but for Sponsors with equal to or less than 5 years of independence, the Sponsor may be first author. This section is commonly done wrong. ***Only list publications that clearly fit within Mission Score 1, 2 or 3.*** This section will be checked by LLS scientific staff, and any significant divergence may result in administrative disqualification. If not disqualified, the divergence will be shared with the review committee. A common problem is listing only blood cancer models when there are also non-blood cancer models used. This is particularly problematic if only blood cancer models are listed, but most of the models are not blood cancer models. Accuracy in data presentation is critical for a successful career in science.
- **Mission Score of Proposed Research:**
 - Provide a Mission Score for each aim, followed by a brief description of the rationale for this assignment. ***The Mission Scores must directly reflect the Mission Score wording (and intent) in the Mission Score section of this document; Mission Scores must be assigned based on the major focus of that aim.*** Follow this with an overall Mission Score, which is based on the overall focus of the application. Generally, the numerically lowest Mission Score of the aims will correspond to the overall Mission Score. However, there needs to be a clear rationale for how the aims integrate to provide that overall Mission

Score. For example, an aim focused on gene expression analysis in human clinical trial patient samples will have a Mission Score of 1. (e.g., “Gene expression analysis of venetoclax-treated CLL patient samples from clinical trial [NCT number]” would be a sufficient explanation for a Mission Score of 1 for an aim). If the other aims have a Mission Score of 2, and all aims are well-integrated in a logical, scientific fashion, then the overall Mission Score will be 1. For a different example, if two aims use blood cancer cell lines and a third aim uses patient samples for most of that aim, the Mission Score will be 2 for the first two aims and 1 for the third aim. The overall Mission Score will be 1. However, if most of the aims are focused on blood cancer cell lines but there is only a sentence or two describing how results will be verified in patient samples, the Mission Score will be 2.

- The applicant-derived Mission Score will be a significant part of the review process. LLS scientific staff and the review panel will provide the final Mission Score. As long as the applicant provides a reasonable scientific explanation for the Mission Score, divergence between the LLS/reviewer-derived and the applicant-derived Mission Score will be considered a difference in opinion that will not negatively affect your application. However, divergence that is not supported by a logical scientific explanation will negatively affect your application. Please be thoughtful about assigning Mission Scores. A proper interpretation of how your research fits into the Mission Scores is important. Note that all Mission Scores of 1 and 2 are fundable, while many Mission Scores of 3 are also fundable. Therefore, there is no advantage to trying to stretch the explanation to fit into a Mission Score of 1; ***in fact, it may be disadvantageous to do so.***
- **Previous CDP Applications (if applicable):** If you previously submitted a CDP application that was not funded, briefly describe what has changed from that application. Your prior application may be shared with the current review committee.
- **Description of Models, Reagents, and Trials:** Provide information on the models, reagents, and trials described in your project description. This provides reviewers with an easily accessible reference source and serves to demonstrate feasibility of your research plans.
- **Graphical Abstract:** Provide up to two graphical abstracts to describe some aspect of your research, such as signaling pathways, overall approach, etc. This is similar to the graphical abstract in a Cancer Cell paper and provides reviewers (and others) with a quick overview of your research. Graphical abstracts must not be professionally developed. They must be developed primarily by the applicant using tools readily available in a typical lab (e.g., PowerPoint, Photoshop, Adobe Illustrator, BioRender, etc.). You will be judged on your ability to convey information in a simple manner, but you will not be judged on artistic ability. Do not rotate the image; it must be viewable by the reviewer without rotating the page. Avoid excessive use of words.
- **Project Description and Data Attribution:**
 - **Data Attribution:**
 - Provide appropriate attribution for all data/figures as well as “data not shown.” It should be clear which data/figures were generated primarily by the applicant and which data/figures were primarily generated by others. The Background section may contain data generated primarily by others. **The Previous Work/Preliminary Data section and the Experimental Design and Expected Outcomes section may only contain data/figures that were generated primarily by the applicant.**

- **Applications without appropriate and clear attribution in the Data Attribution tables as well as in the Project Description sections will be unfavorably reviewed and may be administratively disqualified.**
- **Project Description:**
 - Follow the order in the template.
 - If you do not have direct and demonstrable access to materials, access should be confirmed through letters of collaboration/support from the supplier. Lack of clear access to materials may indicate feasibility issues which may negatively affect the review of your application.
 - The text in the body of the Project Description sections as well as in the figure legends must clearly identify the model system(s) with enough description so that the reviewer understands the system. Use appropriate descriptors in these sections which may then refer to details in the Description of Models, Reagents, and Trials section.
 - Applications that appear to include writing and figures directly from their Sponsor's prior grant submissions will be unfavorably reviewed; the exceptions are figures in the Background and the "previous work" portion of the Previous Work/Preliminary Data section of the application template (but proper attribution is necessary). In addition, excessive and direct copying/pasting sections from publications is not acceptable. In cases where figures are used from publications, proper attribution must be clear in the figure itself, even if it is from the Sponsor's and/or applicant's publication. Failure to follow these rules will negatively affect your application (as it has in prior application cycles).
- **References:** Refer to the application template.
- **Applicant's First Author Publications***
- **Access to Non-Commercially Available Reagents, Drugs, and Models:** Confirm that you have (or will have) access to all reagents, drugs, and models necessary for the proposed research. This will be another component to assess the feasibility of your research.
- **Sponsor Mentor Table:** The Sponsor should complete this table.
- **Sponsor Letter:** Carefully follow the rules in these guidelines as well as the template. ***The Sponsor Letter forms a critical part of the review process. Applicants with Sponsor Letters that follow the rules and clearly outline appropriate mentorship will have a better chance of funding.***
- **Budget:** Refer to the application template.
- **Signature Page:** Please ensure all signatures requested are complete. *Electronic signatures are acceptable.*

***Applicant's First Author Publications**

Using the *Blood* citation format, list all first author publications.

These must be:

- First-author publications, including multiple first author publications (first authorship must be verifiable on the manuscript)
- Primary research-oriented publications (clinically oriented publications are acceptable, but must be primary observations/analyses)
- Peer-reviewed publications that are available on PubMed or the journal's website by the full application due date (full text must be available in one or both locations)

These must not be:

- Publications on which you are not first author
- Non primary research-oriented publications (reviews, perspectives, etc.)
- Methods papers
- Conference presentations
- Manuscripts submitted, under review/revision, or accepted but not yet published
- Manuscripts found only on a preprint server

Applications will be checked by LLS scientific staff for accuracy. **Significant deviations from publicly available information may result in administrative disqualification. Failure to follow these rules may cause an administrative disqualification of the application.**

Section 3: Attachments

The following sections must be attached to the end of the template (from Section 2) to create a single PDF. Attach in the order stated on the application template. No other information may be provided in this section.

NIH Biosketches and Other Support documents

Biosketches and Other Support documents must be provided and must follow the guidelines provided by the NIH. Please refer to the NIH guidelines for questions on how to fill out these documents. An eRA Commons User Name is not required. The Sponsor and the applicant must each have their own biosketch and their own Other Support documents. The applicant's Other Support should provide information on funding sources that list the applicant as the grant/award principal investigator; do not list the Sponsor's other support on the applicant's Other Support document. The Other Support document **must be a document separate from the biosketch**. You do not need to switch to a new version should the NIH update any format during the application process. Therefore, use the most recent format as of July 1 of this application cycle (though you may use a later version if you wish and if one becomes available). Do **not** use the postdoctoral fellowship version; do **not** include undergraduate/graduate courses and their associated grades.

Failure to provide separate Other Support Documents for the applicant and for the Sponsor may result in administrative disqualification.

Sponsor Letter

The Sponsor Letter forms a critical component of the review process, and it is therefore important to follow these rules. The Sponsor Letter must be signed and on institutional letterhead and must at least 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 and Experimental Design and Expected Outcomes sections of the application include **only** data generated primarily by the applicant.
- The Sponsor's experience in mentorship, which summarizes the information contained in the Sponsor Mentor Table.
- In recent years, LLS has updated the CDP criteria to become more Mission-driven. Therefore, if a Sponsor has formerly been involved with a CDP award and this is mentioned in the Sponsor Letter, the Sponsor must briefly describe how that CDP

funding directly impacted our understanding of blood cancer and/or impacted blood cancer patients.

- Source of funding for the applicant's research. All Sponsors should address this, but it is more critical for those Sponsors with equal to or less than 5 years of independence.
- **Training plan** to develop the applicant into an independent researcher, clinician, 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.

The Sponsor Letter is separate from the reference letters; **Sponsors may not write a reference letter.**

CDP no longer allows co-Sponsors. Therefore, do not attach any letters from those who are providing co-mentorship. Co-mentors are allowed to write a letter of reference that is separate from the application template (only 4 total letters of reference are allowed). ***Any such letters attached to the template may negatively affect your funding chances.***

Collaboration/Support Letters (Required where applicable)

When there are significant collaborations, letters of support are required. This is critical when access to patient samples, animal models, or specialized equipment outside of the applicant'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 **must** accompany the application. The letters must be signed and must be provided on institutional/company letterhead. ***Failure to provide this information will negatively affect the review of your application.***

Collaboration/support letters must be short-typically 1 or 2 brief paragraphs. Each should briefly describe what support will be given to your research program. **These letters should avoid any lengthy description of the positive attributes of you or your research** (a sentence or two is fine), otherwise, they will be considered letters of reference. ***There can only be 4 total letters of reference (submitted separately), otherwise the application may be administratively disqualified; therefore, instruct each writer of a collaboration/support letter to largely restrict their letter to the collaboration and/or service provided to prevent their letter from being considered a letter of reference.***

Letters attached must not be letters of reference. All letters of reference must be uploaded separately by the writer (and blinded to the applicant). ***Outside of the Sponsor Letter, any letter attached to the application that is not primarily a letter of collaboration and/or a letter stating access to materials and/or other resources may result in administrative disqualification of the application.***

Clinical Protocol Summary (Required where applicable)

Provide a summary (up to two pages) of any clinical protocols essential to the proposed research, including the NCT number. Include approval date and compliance number. Indicate if IRB approval is pending and provide a letter from the institutional official regarding IRB status. ***Do not attach a full clinical protocol.***

Full approval for any IRBs that are necessary for the research must be obtained by the award start date.

Assurances (Required)

All assurances that are applicable to your research must be accompanied by a signed letter from the **appropriate institutional official**, including assurances that are pending. Do not send letters signed by yourself nor from anyone outside of the designated institutional offices.

Any application without these letters attached will not be reviewed.

Human Subjects

Indicate if human subjects will be involved in the proposed research. The status (approved, pending, or exempt) of IRB (or equivalent institutional designation) approval must be provided. Documentation of any current or pending approvals must be contained in the full application. There is also a section on the web form that must be completed. An application may be submitted with IRB approval pending, but IRB approval must be obtained and provided to LLS prior to the award start date.

Laboratory Animals

Indicate if animals will be involved in the proposed research. The status and date of the Institutional Animal Care and Use Committee (IACUC) (or equivalent institutional designation) approval must be provided. The Animal Welfare Assurance number must be included. Documentation of any current or pending approvals must be provided in the full application template. There is also a section on the web form that must be completed. An application may be submitted with approval pending, but approval must be obtained and provided to LLS prior to the award start date.

Recombinant DNA

Indicate if the proposed research involves recombinant DNA. Documentation of any current or pending approvals must be contained in the full application template; there is also a section on the web form that must be completed.

Biohazard Statement

Indicate if the proposed research involves the use of biohazards. Documentation of any current or pending approvals must be contained in the full application template. There is also a section on the web form that must be completed.

No attachments besides those listed above should be included, nor should there be any attachments preceding the template (e.g., no cover letters). Applications that include additional documents besides those requested may be administratively disqualified.

Uploading the project document and final submission

Upload the full application components, as a single PDF, in the Project Document section on the web form.

All documents must be combined into a single PDF in the order listed above before uploading. Failure to submit as a single PDF in the order above may result in disqualification of the application.

Check each page of your PDF before uploading to be sure that everything is present and there are no issues with the text/figures. Changes to your PDF are not allowed past the deadline.

Submission and Confirmation

After clicking the “Submit” button, you will receive an automated email **within 2 business days** stating that your information was successfully submitted. **If you do not receive the email confirmation of submission, contact LLS at researchprograms@lls.org.** It is recommended that you confirm each stage of the application process by checking your application status on the [LLS Research Portal](#); submitted Eligibility, Letter of Intent, and Full Application phases will be located in the “Submitted” Requests on the left side of the screen.

Only one application document and one eligibility request document should be present. If extra documents remain after submission and before the deadline, email researchprograms@lls.org and let us know which documents to remove.

Carefully check your PDF prior to submission. If you notice problems with your PDF after you have submitted, email researchprograms@lls.org, and we will help you upload the correct document if you are unable to delete the incorrect document. ***This email must be received, with the correct document, prior to the deadline; there are no exceptions to this rule.***

Check the application prior to final submission. The applicant is ultimately responsible for the submission, regardless of who is uploading information on the [LLS Research Portal](#). Every year, we hear from a small number of applicants that notice problems with their application after the deadline. Applicants will avoid this problem by carefully checking their application prior to final submission. Submitting well ahead of the deadline is also beneficial.

Once the deadline has passed, only the following updates may be made:

- Significant updates to clinical trials:
 - IRB updates
 - Opening of the trial
 - Patient enrollment
 - Opening of new clinical sites
 - Efficacy and/or safety updates
- Manuscripts that are accepted for publication; the following must be provided via email to researchprograms@lls.org:
 - Complete list of authors as they appear on the accepted manuscript with your name in bold
 - Manuscript title
 - Journal
 - Date of publication or online ahead of print (if known)
 - A copy of the acceptance letter from the journal
- Updates regarding any transfers to a new institution (see Transfers section in Eligibility)