



Request for Proposals: 2023 LCRF Research Grants on Understanding Resistance in Lung Cancer

1. Program Summary

Lung cancer is responsible for more deaths worldwide than any other cancer accounting for an estimated 130,180 deaths annually in the United States alone¹. The last 10-15 years have seen accelerated clinical trials and FDA approvals of numerous lung cancer therapies including several targeted and immunotherapies. Despite these advances drug resistance limits the therapeutic potential of these therapies and there is a need to understand mechanisms of drug resistance and develop approaches to overcome and prevent resistance. In 2023, in partnership with leading patient advocacy organizations, this grant mechanism will focus on understanding the development, prevention, and therapy of resistance by supporting projects that are identifying, characterizing, treating or preventing resistance to therapies in lung tumor cells, tissues, mouse models, and/or patients. Work supported through this mechanism will address important mechanistic questions and developmental therapeutics across histological subtypes of lung cancer (including lung adenocarcinoma, squamous cell carcinoma and small cell lung cancer) and across the care continuum including newly designed targeted therapies and immunotherapies. These studies will enhance the momentum of improving lung cancer outcomes and have the potential to increase survivorship.

We encourage applications on a wide variety of topics related to understanding resistance including:

- Mechanisms of resistance to targeted therapies for oncogene-driven lung cancers including, but not limited to (ALK+, EGFR, KRAS and MET)
- Biology and mechanisms of drug resistance to lung cancer therapies i.e. chemotherapy, immunotherapy and radiotherapy
- Novel treatment approaches and new therapies to overcome and/or prevent resistance to lung cancer therapies.
- Novel diagnostic approaches to monitor treatment response and relapse

2. Eligibility Criteria

Investigators must be affiliated with a non-profit academic or research institution and must be post-doctoral researchers, clinical fellows, or investigators at any level of research experience.

Applicants from US-based and international institutions are eligible to apply and may hold any residency/citizenship status. Applicants may only apply for one LCRF grant per grant cycle. Applicants are prohibited from applying if they have received funding from the LCRF within the last 4 years. Ineligible investigators with these or other special circumstances may request review by contacting the LCRF grants office (see Inquiries section below) before submitting an application.

3. Budget Requirements

The maximum award amount is \$150,000 for a period of two years (disbursed at \$75,000 per year). Additional budget requirements and considerations include the following:

- Funding from this award may not be used to support institutional indirect / facilities and administrative costs.
- The LCRF grant must be the primary source of support for the project. Additional secondary funding (e.g. for core services support) is permitted.
- There is no limit on the amount of salary support that may be requested. However, appropriate justification for all budget items is required. Any salary requests in excess of 20% of the total budget must be explicitly justified.
- Any equipment costs must be limited and directly applicable to the research project (i.e. large, general equipment costs are not permitted).
- Direct patient care costs reimbursable by other sources may not be included.
- Travel and publication costs are permitted.

4. Data Sharing and Open Access Policy

LCRF is committed to promoting open science by helping to increase access to investigators' findings and improving collaboration and data sharing among the lung cancer research community. Accordingly, it is a condition of LCRF funding that all peer-reviewed articles supported in whole or in part by LCRF funds must be made available in the PubMed Central online archive no later than twelve months after publication. In addition, LCRF grantees must indicate explicitly in all reports, publications, and other research communications whether the data, methods used in the analysis, and materials used to conduct the research will be made available to any researcher for purposes of reproducing the results or replicating the procedure. At the time of submission of the full proposal, all investigators must indicate if they will or will not make their data, analytic methods, and study materials available to other researchers.

5. Application Instructions and Requirements

- A. Go to <https://proposalcentral.com/> and login under the "Application Login" section. After logging in, complete your Professional Profile before starting an application. If you are already registered with ProposalCentral, access the site and log in with your Username and Password. If you do not have an account yet, please click on "Need an account?" and follow the instructions.
- B. Click on the "Grant Opportunities" Tab.
- C. A list of applications will be displayed. The list of applications can be filtered for just this organization by clicking "Filter by Grant Maker" at the top and selecting "Lung Cancer Research Foundation" in the drop-down menu. Find the "LCRF Pilot Grant" and click the "Apply Now" button in the "Apply Column".
- D. See the deadlines for the LOI stage, if applicable, and the Proposal stage. **All deadlines are in US Eastern Time.** If a document icon is showing, you can click on it to download it. This includes necessary information about the deadline from the grant maker.
- E. Click the link or download the document in the Contact Information column. Clicking the link opens an email to the program administrator. If a document is provided instead, it includes the grant maker contact information.

All applications for funding must be submitted online at Proposal Central through a two-stage process consisting of a letter of intent (LOI) and full proposal. Applicants may only apply for one LCRF grant per grant cycle. Upon submission and review of the LOI, applicants whose submission is reviewed favorably

will be invited to complete a full proposal. Any applications for an extension of a previously awarded grant require resubmission as a new complete application (LOI and subsequent full proposal) and must include an update describing the progress made during the prior award period. Specific Aims at the LOI stage do not require references, and should not exceed 1 page. Text should be Arial, Times New Roman, Palantino Linotype, Courier New, Georgia, or Helvetica 11-point font or higher. Margins should not be less than 0.5" on standard letter paper (8 ½" x 11"), and you must verify the margins on the documents that you upload.

The following application components are required for a complete submission:

Letter of Intent	Full Proposal
<ul style="list-style-type: none"> • General Information / Demographics • Specific Aims (one page in length) • NIH Biosketch (NIH Biosketch Instructions) 	<ul style="list-style-type: none"> • Lay Summary • Specific Aims (one page in length) • Narrative (six pages maximum): <ul style="list-style-type: none"> ○ Background and Significance ○ Preliminary Data (if applicable) ○ Experimental Approach ○ References (not included in page-limit) • Success Factors (half page) • Timeline • Future Plans (half page) • Budget • Letter(s) of Support

Additional Considerations:

- All LOIs must include the NIH biosketch (five pages maximum length) of the primary investigator and any key personnel involved in the project.
- At the full proposal stage, applications must include at least one letter of support from the principal investigator’s program director/advisor affirming the following statements:
 - The applicant will be officially affiliated with or employed by the institution during the grant period.
 - There is adequate institutional space and equipment to accomplish the proposed project.
 - The program director/advisor confirms his/her commitment to and provision of institutional space and equipment for the grantee.

6. Timeline

- LOI submission deadline: March 10, 2023
- Applicants notified of LOI decision: April 17
- Full proposal submission deadline: May 31st
- Notification of award: November 2023
- Project start: December 1, 2023

7. Evaluation of Applications

All applications are evaluated using a two-stage review process that includes review of LOIs and select full proposals. Only applicants whose LOI is reviewed favorably will be invited to submit a full proposal. At each stage, the evaluation consists of an administrative, a comprehensive review by LCRF’s Scientific Advisory Board and a review conducted with patient advocates (see figure below). At the LOI stage,

evaluations will focus on high-level aspects of the research proposal including overall rationale, feasibility, and potential impact on the lung cancer field. At the full proposal stage, submissions will additionally be evaluated for sound scientific rationale, study design, feasibility, and creativity/innovation. Similar to an NIH R21 award, reviewers at the full proposal stage will be asked to provide an impact score reflecting their assessment of the likelihood for the project to exert a sustained, powerful influence on the field of lung cancer research and/or reducing disparities in lung cancer outcomes.



8. Award Notification and Announcement

All applicants will be notified of their award status by the date specified in the Timeline section above. Regrettably, due to the high volume of submissions, LCRF is not able to provide feedback on LOIs or proposals that are not selected to receive an award.

9. Post-award Reporting Requirements

During the funding period, all investigators are required to submit at least two progress reports including the following:

Report Type	Due Date
Interim Report	At conclusion of year one of the grant term
Final Report (includes financial summary report)	Within sixty days of conclusion of the grant term

All reporting is required to be done in ProposalCentral, and additional reports may be assigned when project terms are amended (e.g. in the case of a no-cost extension or institutional transfer). Receipt of the second year of funding is contingent upon submission and approval of the interim progress report at the conclusion of the first year of the grant term.

10. Inquiries

For questions, please contact the LCRF office at grants@lcrf.org or via phone at +1 (212) 588-1580.