RETpositive/LUNGevity Translational Research Award Program for RET-positive Lung Cancer

IMPORTANT NOTES TO READ BEFORE PROCEEDING:

RETpositive is partnering with LUNGevity Foundation ("LUNGevity") to issue an RFA specific to the study of RET-positive lung cancer.

LUNGevity Foundation advises applicants to read the entire RFA, including eligibility requirements and other terms and conditions, before starting an application.

An applicant who is deemed ineligible for this award and/or does not follow the instructions for preparing the application will be disqualified and the application not reviewed.

The RETpositive/LUNGevity TRanslational Research Award Program for RET-positive Lung Cancer uses a two-step application process. An applicant must first submit a letter of intent (LOI). Only a subset of applicants will be invited to submit a full application after the LOIs are reviewed.

Detailed instructions for submitting an RET-positive Lung Cancer Research Award Program application, including critical dates, begin on page 10.

This award application process will be managed through proposalCENTRAL.

RETpositive

RETpositive is a 501 © (3) patient-driven group that aims to improve the quality of life and life expectancy of RET-positive cancer patients through increased awareness, emotional support, advocacy, and medical research funding for RET driven cancer. For more information about RETpositive, please visit https://www.ret-positive.org

LUNGEVITY FOUNDATION

LUNGevity Foundation is a 501(c)(3) philanthropy specifically focused on funding research for the early detection and effective treatment of lung cancer. LUNGevity’s mission is to improve mortality rates of lung cancer patients through the development of protocols and tools for early detection of lung cancer, early intervention in the disease progression, and treatments, including targeted therapy and immunotherapy. LUNGevity focuses on translational science. For more information about LUNGevity Foundation, please visit www.LUNGevity.org.

RET-POSITIVE LUNG CANCER RESEARCH AWARD PROGRAM

FUNDING OPPORTUNITY DESCRIPTION

Goal of the program:

To fund high-impact research that seeks to transform the future for patients diagnosed with RET-positive lung cancer by changing RET-positive lung cancer into a chronic or curable condition.
Overview:

RETpositive is partnering with LUNGevity Foundation to support RET-positive non-small cell lung cancer research. RETpositive will leverage LUNGevity’s scientific review process as well as fund its research through the Foundation. This research will address critical unanswered questions in the RET space. This award program is separate from, and in addition to, LUNGevity’s Career Development, Early Detection, and Targeted Therapeutics award programs. It aligns well with the Foundation’s mission of funding high-impact science.

With this award, RET-positive patients are expediting the research process themselves both by fundraising and crowdsourcing. In addition to fundraising, members of RETpositive are also committed to facilitating research by offering up their available histories, opinions, tissues, bodily fluids (blood, urine, etc.), and/or any other specimens or information about their condition to the funded investigators.

The recipient(s) of the award will be announced no earlier than January 2022. The award(s) may be for a maximum of $100,000 per year for two years, for a maximum award of $200,000.

RET-positive Lung Cancer Research Award Program requirements

The research project(s) that will be funded is (are) expected to have a direct impact on the outcomes of patients with advanced RET-positive lung cancer, but innovative proposals that address other unmet needs in the RET-positive lung cancer space are also invited for submission. This RFA will NOT address proposals related to psychosocial research proposals.

Successful applicants are required during the duration of the award term to share their research progress with the members of RETpositive and the LUNGevity team (Scientific Advisory Board, other reviewers, and other awardees) every six months virtually as well as annually at the LUNGevity science meeting.

Scientific scope:

The goal of the award is to fund impactful proposals in the RET-positive lung cancer space. Potential areas of exploration include, but are not limited to, the following types of projects:

- Novel non-TKI treatment approaches such as immunotherapies, mechanisms to degrade proteins, and other small molecule inhibitors
- Novel combination-treatment approaches, based on rational hypotheses
- Identification of predictive biomarkers of response/ctDNA clearance and tailoring treatments
- Novel applications of liquid and tissue biopsies (and/or other methodologies) to improve understanding of TKI resistance and/or tailor therapy
- Research that improves our understanding of the biology of RET-positive lung cancer

Projects are to include at least one aim that is translational and directly related to improvement of patient outcomes and/or will lead to a clinical trial. Proposals which focus on contemporary targeted therapeutics would be highly valued over those that choose to investigate older therapies, unless a strong biologic rationale for the use of the latter is articulated.

Final selection of the project(s) to be funded will be contingent on scientific review and availability of funds.

Award eligibility:

If an applicant does not currently meet an eligibility requirement, but either will meet it soon or has special circumstances that prevent it from being met, the applicant must let us know at the
time the LOI is submitted. A page with the information should be attached to the back of the biosketch.

**Education and Experience:** At the time of the award term, an applicant (who must be a principal investigator for the proposed research) must 1) hold a doctoral degree and 2) have a faculty appointment with a university-based academic institution or a research institution that is not formally associated with a university. An applicant may be at any level of research experience.

An applicant must be an independent, self-directed researcher for whom their institution must provide space and other resources customary for independent investigators. The application must convey the commitment of the institution to the applicant and the proposed research activities.

**Current LUNGevity award:** An applicant with a LUNGevity award that would be concurrent with a 2021 RET-positive Lung Cancer Research Award is not precluded from applying.

**Geographical Restriction:** The Award Program is open to applications that include an international collaborator. At the time of application, an international collaborator (who is not employed by a U.S. institution and either is or is not a United States citizen) must name a co-investigator who 1) is employed by a U.S. institution and stays so throughout the duration of the award term and 2) is either a U.S. citizen or a foreign national with one of the immigration statuses outlined in the following paragraph. Disbursement of funds for the award must be made through a U.S. institution to allow timely commencement of project.

Applicants are not required to be U.S. citizens or to be employed by a U.S. institution. At the time of application, if an applicant is employed by a U.S. institution, they must be a United States citizen or a foreign national holding one of the following visa immigration statuses: permanent resident (Green Card), exchange visitor (J-1), temporary worker in a specialty occupation (H-1, H-1B), Canadian or Mexican citizen engaging in professional activities (TC or TN), or temporary worker with extraordinary abilities in the sciences (O-1). This applicant/awardee must be employed by a U.S. institution throughout the duration of the award term.

**Award information:**

**Award Structure and Allocation:**

An awardee may receive up to $200,000 over two years. No more than 25% of the requested budget may be used for an investigator’s salary and/or fringe benefits and no more than 10% of the total award budget may be used for overhead/indirect costs. None of the requested budget may be used for permanent equipment.

Award funds may be used for the salary and fringe benefit costs of personnel other than the applicant. Fringe benefit costs may only be expended upon the stipulation that they cannot be obtained from another source.

Allowable costs for clinical trials include: expenses related to subject recruitment (such as participation incentives, subject remuneration, phlebotomy charges, etc.), clinical laboratory analyses of human subjects or their samples (such as clinical laboratory assays, imaging charges, etc.), and correlative studies. The award may be used to assist with operational costs. However, drug costs will not be covered. The applicant must provide a letter of commitment of support for the project from the pharmaceutical partner, including that they will provide the drug.

**Duration:** The RET-positive Lung Cancer Research Award is subject to six-month reviews and may be granted for up to two years. The second, third, and fourth periods of support are based on demonstrating satisfactory progress in the previous period.
Factors considered in evaluating applications:

Some of the factors considered when reviewing applications include:

- **Innovation** – Does the project address a previously uninvestigated area of RET-positive lung cancer?
- **Scientific merit and feasibility of the research plan**, including partnerships
- **Impact** – How will the research findings from the project move to the clinic within 1-2 years and impact patients? What plans does/do the applicant(s) have for the clinical application of the findings of the project?
- **Research environment** – Does the applicant have access to institutional resources required for the successful completion of the proposed project?
- **Appropriateness of the requested budget** to complete the proposed research project/Other sources of funding, including potential overlap with proposed project

OTHER TERMS AND CONDITIONS:

Following are the other terms and conditions that apply to the RET-positive Lung Cancer Research Award:

**Animal Use**

The RET-positive Lung Cancer Research Award Program allows animal use in biomedical research only when no other means of obtaining scientifically sound, valid, and useful results are available. Applicants must ensure that only the minimum number of appropriate animals required to obtain and validate results shall be used. In cases requiring the death of an animal, only the most appropriate and humane form of euthanasia shall be used consistent with the purpose of the research.

Whenever animal use is a part of the RETpositive/LUNGevity-funded research project, applicants must provide RETpositive/LUNGevity with institutional endorsements that the research facility, its research, and its employees adhere to the appropriate animal welfare regulations in their country. In the U.S., these include:

- Animal Welfare Act
- USDA rules
- National Research Council *Guide for the Care and Use of Laboratory Animals*
- Public Health Service Policy on Humane Care and Use of Laboratory Animals

In addition, those applicants who are invited to submit a full application must include in their materials the following documents:

- Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) accreditation.
- Institutional Animal Care and Use of Committee (IACUC) approval.

A project is **not** eligible for an award if the research proposal involves animals and the institution does not have accreditation from the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC), or does not hold a current Public Health Service (PHS) Animal Welfare Assurance, or does not have accreditation from the United States Department of Agriculture or does not have accreditation from the Institutional Animal Care and Use Committee (IACUC).
Authorized Award Holders:

The RET-positive Lung Cancer Research Awards are granted only to an individual; awards are not awarded to institutions. No award may be held by or transferred to another individual.

Award Payment Schedule:

RETpositive/LUNGevity will issue the initial award payment no earlier than January 2022 but as soon as the agreement document is fully executed. Assuming award renewals, contingent on meeting milestones, RETpositive/LUNGevity will issue the second payment following award renewal. The second payment will be made only after the awardee’s funding balance has decreased to $25,000 or less.

Biohazards:

Biohazards are broadly defined to be recombinant and/or infectious and tumor materials that may be deleterious to normal organisms upon controlled exposure. Research involving biohazards requires one paper copy of the appropriate institutional committee approval at the time a full application is submitted.

Carryover of Funding:

Carryover of funding into the second, third and fourth funding period requires prior approval by RETpositive/LUNGevity. All requests must be in writing and received by RETpositive/LUNGevity 60 days prior to the end of the first funding period. When making the request, the awardee must indicate the amount and from what budget-line and to what budget-line the carryover monies are being applied. In the case of supplies, all items must be itemized.

Change in Budget:

Requests for changes in budget require prior approval by RETpositive/LUNGevity. All requests must be in writing and received by RETpositive/LUNGevity 60 days prior to the end of the second six-month funding period. When requesting a change in budget, the awardee must indicate the amount and from what budget-line and to what budget-line the monies are being transferred. In the case of supplies, all items must be itemized.

Change of Institution:

Transfer of the RETpositive/LUNGevity award from one institution to another requires prior approval by RETpositive/LUNGevity. All requests must be in writing. All unexpended funds must be returned to LUNGevity within 45 days of transfer approval. Once LUNGevity receives the unexpended funds, they will be reissued to the new institution after an agreement document with the new institution has been fully executed.

Equal Employment Opportunity:

RETpositive/LUNGevity awards will be awarded to individuals working in institutions identified as Equal Opportunity Employers.

Equipment Purchase:

None (0%) of the award budget may be used for the purchase of permanent equipment.
Equipment Repair & Service Contracts:

None (0%) of the award budget may be used for repair or service contract costs for institutional equipment.

Financial Reports:

An interim financial report is required at the same time as each of the interim progress reports. In addition, at the conclusion of the award period, RETpositive/LUNGevity requires a complete financial disbursement report covering the entire award period. The disbursement report must reflect the award expenditures as approved by RETpositive/LUNGevity. Any funds used for unauthorized expenditures or unexpended funds must be returned to LUNGevity, with the disbursement report, within 60 days of the award termination date.

Human Subjects:

Whenever human participants are a part of the RETpositive/LUNGevity-funded research project, the following documents must be received before any award monies are released:

• A copy of the Institutional Review Board (IRB) approval (or non-U.S. equivalent) and approved patient consent forms.

LUNGevity encourages applicants to submit their projects to the appropriate human subjects Institutional Review Board at the time of application.

• A copy of the appropriate institutional committee approval for research involving human adult stem cells or use of human fetal tissue.

If the proposed research project involves human subjects, the population sampled shall be inclusive of the general population of relevance to the scientific question posed, without restriction in regard to gender, race, age, and socioeconomic status. Proposals that intentionally restrict the population sampled must include a compelling scientific rationale for such design.

Malpractice Liability:

RETpositive/LUNGevity will not assume responsibility for and the institution will indemnify and hold RETpositive/LUNGevity harmless from any lawsuit, claim, judgment, damages, awards, or malpractice arising from research or investigations related to an award.

Other Funding:

RETpositive/LUNGevity research funds will not be awarded to duplicate any work that is being supported by other funding agencies. Partial funding from a pharmaceutical company for a phase 1 trial is encouraged. Details about additional funding sought for the same project should be provided in the full application.

Overhead/Indirect Costs:

Overhead or indirect costs are permitted up to 10% of the award and are not incremental to the award. Duplication of indirect costs on subcontracts is not allowed.

Patent and Intellectual Property Policy:
Inventions and discoveries from research performed during the term of the RETpositive/LUNGevity award will be subject to the current RETpositive/LUNGevity patent policy as well as to the patent policies of the institution where the work is performed. The LUNGevity policy is described in full on page 8.

**Progress Reports:**

Interim written progress reports are due every six months. Interim reports are the basis for the decision to award the next round of funding. A final written report is also required 45 days after the conclusion of the project. These reports are in addition to the progress presentations that will be made annually at the LUNGevity science meeting. Six-month virtual progress reviews will take place.

**Project Support Expenditures:**

No award shall be used for the purchase of furniture or computers, the construction or renovation of facilities, payment of honoraria or membership dues, payment for tuition, the purchase of textbooks or periodicals, or payment for secretarial support.

**Public Access Policy:**

All peer-reviewed articles supported in whole or in part by the RETpositive/LUNGevity grant must be made available in the PubMed Central online archive. The RETpositive/LUNGevity public access policy is described in full on page 9.

**Publication Expenditures:**

The maximum amount of funds expendable for publication costs is $1,000 per year. All publication costs must directly relate to the RETpositive/LUNGevity project.

**Publications and Conference Presentations:**

All publications and/or presentations at scientific conferences and meetings based on research conducted from this award must include a citation of RETpositive/LUNGevity as a supporting entity as follows: “This study was supported by a grant from RETpositive/LUNGevity Foundation.” Reprints of abstracts, manuscripts, or other articles that reflect research done after award acceptance must be submitted to RETpositive/LUNGevity.

**Student Tuition:**

RETpositive/LUNGevity will not pay tuition for awardees or any key personnel.

**Supply Purchases:**

Upon conclusion of the award, supplies purchased with award funds become the property of the institution at which the work was done.

**Tobacco-Funded Research**

RETpositive/LUNGevity will not provide research or other funding to applicants who have received direct funding or funding from agencies of the tobacco industry.

**Travel Expenditures:**

The maximum amount of funds expendable for travel is $3,000 per year per investigator. These travel funds can only be used if the work related to this grant is being presented in poster/oral presentation/abstract form. Travel to LUNGevity meetings is paid directly by the Foundation and should not be included in the $3,000.
RETPOSITIVE/LUNGEVITY FOUNDATION PATENT AND INTELLECTUAL PROPERTY POLICY

a. All inventions or intellectual property made with support in whole or in part by research or training grants or awards from LUNGEVITY must be reported at the earliest practical time to the Research and Program Services Division. The grantee institution or individual awardee agrees to notify LUNGEVITY immediately of the decision to apply for letters patent or other legal protection for intellectual property, and to consider seriously and in good faith any comments or objections LUNGEVITY may have concerning such applications. LUNGEVITY agrees to keep all information confidential and to not release any information relating to such inventions, intellectual property or applications. All patenting expenses shall be borne by the grantee institution or individual awardee unless the intellectual property is ceded to LUNGEVITY (see paragraphs b and c).

b. Title to any invention or intellectual property shall reside in the grantee institution to the extent that such title is claimed by the institution under its patent policy or procedure and paragraphs c-e shall apply. If a grantee institution has no established patent policy or procedure for administering inventions or intellectual property, or if the institutional patent policy or procedure does not claim rights for the institution or individual inventor, then LUNGEVITY shall have the right to determine the disposition of invention or intellectual property rights and paragraphs c-d shall not apply.

c. No patent, patent application or other type of protection shall be abandoned without first notifying the Research and Program Services Division. At such time, the grantee institution and individual awardee shall give LUNGEVITY the opportunity to take title to the invention or other intellectual property.

d. The grantee institution shall agree that when it licenses any invention or intellectual property it will obligate the licensee as follows: The licensee agrees to exert its best efforts to commercialize or cause to be commercialized the invention or intellectual property as rapidly as practical, consistent with sound and reasonable business practices and judgment. In the event that the licensee has failed to commercialize the invention or intellectual property within the number of years determined to be reasonable for the invention or intellectual property, the grantee institution upon conferring with LUNGEVITY shall have the right to convert an exclusive license to a non-exclusive license or to terminate a non-exclusive license. If the licensee or grantee institution has an ongoing and active research, development, manufacturing, marketing or licensing program as appropriately directed toward the production and sale of the invention or intellectual property, the same would be deemed to be sufficient evidence that the licensee or grantee institution has commercialized the invention or intellectual property.

e. LUNGEVITY and RETpositive reserve the right to public acknowledgment for inventions or intellectual property resulting from support by LUNGEVITY and RETpositive; however, LUNGEVITY and RETpositive name and logo may not be used in association with an invention or intellectual property without prior approval of LUNGEVITY and RETpositive.
RETPOSITIVE/LUNGevity Foundation Public Access Policy

LUNGevity, in partnership with RETpositive, is funding biomedical research in order to better understand the causes of lung cancer and to advance its prevention, diagnosis, and treatment. The main output of this research is new knowledge. To ensure this knowledge can be accessed, read, applied, and built upon in fulfillment of our goals, LUNGevity and the RETpositive expect its researchers to disseminate their findings, including publishing in peer-reviewed journals.

In addition, it is a condition of this award that all peer-reviewed articles supported in whole or in part by its grants must be made available in the PubMed Central online archive. PubMed Central is a database of full-text biomedical journal articles available online without a fee, hosted by the National Library of Medicine in the National Institutes of Health. Once posted in PubMed Central, results of research become more accessible, prominent, and integrated, making it easier for scientists worldwide to pursue biomedical research. It also makes this information accessible to LUNGevity and the RETpositive, as well as patients, clinicians, educators, students, and others.

Award recipients are required to deposit an electronic copy of their final peer-reviewed manuscripts in PubMed Central immediately upon acceptance for journal publication and take the steps necessary to link that manuscript to the appropriate RETpositive/LUNGevity grant. The manuscript is to be made publicly available in PubMed Central no later than six months after the official date of journal publication. RETpositive/LUNGevity award recipients must acknowledge RETpositive/LUNGevity grant support in every article arising from such funding. The acknowledgment statement must include the applicable grant number. The award recipients must notify RETpositive (by emailing xxx@xx.com) and LUNGevity Foundation (by emailing Margery Jacobson at mjacobson@LUNGevity.org) of any articles arising from such funding. This will enable the RETpositive and LUNGevity to link the published outputs of research to the support that has been provided. LUNGevity and RETpositive also encourage award recipients to publish in peer-reviewed open access journals with a policy of immediate availability of the published version without restriction and permits use of non-salary/stipend grant funds to pay associated publication fees.
Applicants will be allowed to submit their letter of intent (LOI) beginning August XX, 2021.

**Letter of Intent (LOI)**

The letter of intent must include:

- A **narrative** that includes:
  1. **Rationale** for the project with details on how the project will impact clinical care of RET-positive lung cancer patients
  2. Planned **specific aims** (may be modified slightly in the full application)
  3. Brief statement of the **overall experimental approach**
  4. Brief statement describing the **clinical context** in which the therapeutic strategy will be used
  5. Brief statement of the **quantitative metrics/performance** that the approach should achieve to show clinical utility
  6. Pertinent **references**

The narrative should be typed in Arial 11-point type, single-spaced, with .5” margins. It should not exceed a total of **two pages**, including the references.

- An **NIH biosketch** of the applicant(s): principal investigator and co-principal investigators only. Note that “other support” should include the value of the support. Support should include past, current, and pending.

- If the proposed project is a clinical trial: a letter of support from the pharmaceutical partner that includes confirmation that the partners will provide the drug.

No budget information or other supporting materials should be included.

Templates and detailed instructions can be found at [https://proposalCENTRAL.com](https://proposalCENTRAL.com).

Applicants are required to electronically submit the LOI **by September 17, 2021 (11:59pm EST)** via proposalCENTRAL: [https://proposalCENTRAL.com](https://proposalCENTRAL.com). Extensions will not be given. Once an LOI has been submitted electronically via proposalCENTRAL, it cannot be changed.

A sponsoring institution signature is not required.

Applicants will be notified by email no earlier than **October 11, 2021**, whether they may proceed with the full application. RETpositive/LUNGevity will **not** provide results of the peer review process.

**Full Application**

Only invited applicants may prepare and submit a full application. Instructions for how to proceed will accompany the invitation.

Among other materials, the full application must include:

A **narrative** to include these eight components in this order:

1. **Scientific Abstract** that would be appropriate for a reviewer of a peer-review journal
2. **Lay Abstract** that explains your project completely in lay terms that will be clear to individuals who do not have a scientific background. Specific details on how the project will have a near-term impact on the clinical outcome of RET-positive lung cancer patients should be included.
3. **Background**: Present the ideas and reasoning behind the proposed research; include relevant literature citations. Describe previous experience most pertinent to this application.

4. **Hypothesis or Objective**: State the hypothesis to be tested or the objective to be reached.

5. **Specific Aims**: Concisely explain the project's specific aims. Please include a description on whether and how you propose to include biospecimens from RET-positive lung cancer patients in your proposed experiments.

6. **Research Strategy**: Describe the experimental design, methods, and analyses, including appropriate controls, in sufficient detail for analysis. Address potential problem areas and present alternative methods and approaches.

7. **Statistical Analysis Plan**: A detailed statistical analysis plan is required for all applications and is limited to 1 single-spaced page. The analysis plan should define the primary objectives, study design, and planned analyses supporting the study hypotheses. Justification of the proposed sample size or number of patient samples to be analyzed should be stated and include all parameters required for calculation: the type I error rate, power, and target effect size. Detail regarding analysis methods, groups to be compared, and other assumptions made (for example, regarding accrual rates, follow up, etc.) should also be included. Ideally, the applicant will collaborate with a biostatistician on their grant proposal, including this analysis plan. In the event that methods from other quantitative sciences are planned (for example, bioinformatics or computational biology), it is recommended that the applicant also collaborate with experts from those respective fields to develop their application and analysis plan. It is recommended that candidates use a full page of the application for their statistical analysis plan.

8. **Other funds available to support the proposed project**, such as funds provided by drug companies for part of a clinical trial (as applicable)

9. **A few pertinent references**

The narrative should be typed in Arial 11-point type, single-spaced, with .5” margins. Clarity and brevity are highly desirable qualities in an application. The narrative should not exceed a total of **6 pages** including the references.

- NIH **biosketches** of all PIs and Key Personnel. The biosketches should be limited to five pages each. Again, "Other Support" should include the value of the support. Support includes past, current, and pending.

- If the proposed project is a clinical trial: a letter of support from the pharmaceutical partner that includes confirmation that the partners will provide the drug.

- **Budget information** by six-month period, along with a justification

- If relevant, the following documents:
  - a copy of the documents listed on page 4-5 in the “Animal Use” section
  - a copy of the biohazard document named on page 5 in the “Biohazards” section

- Do not include reprints of your previous publications.

Templates and more detailed instructions for all of the above materials and any other materials that must be included can be found at https://proposalCENTRAL.com.

Applicants are required to electronically submit the full application by **November 5, 2021** (11:59pm EST), via proposalCENTRAL: https://proposalCENTRAL.com. Extensions will not be given. Once a full application has been submitted electronically, it cannot be changed.
Applicants will be notified by email no earlier than **January 2022** whether they will receive an award. RETpositive/LUNGevity will provide results of the peer review process for **full** applications.

Awardees will receive formal agreement documents at the time of or soon after award notification. These must be signed by both the awardee and an authorized representative of the sponsoring institution and then returned to LUNGevity before any funds will be released.

**APPLICATION ASSISTANCE**

For answers to questions regarding programs, eligibility, policies, terms and conditions, or instructions for the letter of intent or full application, please contact:

Margery Jacobson  
Senior Research and Education Services Manager  
mjacobson@LUNGevity.org  
312-407-6109

For help with the proposalCENTRAL electronic application process, please contact:

Help Desk at proposalCENTRAL  
pcsupport@altum.com  
1-800-875-2562