

ADVANCED RESEARCH GRANTS PROGRAM

REQUEST FOR PROPOSALS FOR SCIENCE AND TECHNOLOGY PROJECTS

REFERENCE: FY 2024-25

PROGRAM GUIDELINES ADVANCED RESEARCH GRANTS

Revised on November, 2024



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Introduction

The mission of the Puerto Rico Science Technology and Research Trust (the Trust) is to invest, facilitate, and build capacity to continually advance Puerto Rico's economy and its citizens' well-being through innovation-driven enterprises, science, and technology through our main pillars: Research & Development, Entrepreneurship and Public Health. To fulfill its objectives, the Trust shall perform the following tasks, among others:

- Increase the financing available for science and technology development activities in Puerto Rico,
- Support the commercialization of products and services based on science, technology, or research,
- Foster private investments in science and technology research or development activities and projects, and in expanding high technology and multinational companies highly active in Puerto Rico,
- Increase the investment in innovations through the alliance of public and private institutions.

In light of its mission, and to further the objectives as described above, the Trust is pleased to issue this Request for Proposal (**RFP**) for the **Advanced Research Grants Program** (**ARG**) as a solicited proposal mechanism to entice the science and technology community in Puerto Rico to submit proposals for funding consideration. As such, the goal trough this RFP process is to provide proof-of-concept funding to advance locally developed science and technology projects to a point where these will be able to be further developed through alternate sources of funding (e.g., federal R&D funding, angel and private investments, etc.) and/or commercialization (through licensing, sales, acquisitions, vertical venture integration or a combination of these).

The purpose of the ARG Program Guidelines is to disseminate information to prospective applicants to enable them to develop and submit proposals to the Trust. As such, this document,

- Describes the types of projects for which applications will be considered,
- Describes the funding available and the process and requirements for submitting applications; and,



• Explains the criteria for evaluating proposals.

*Please note that the Trust reserves the right to fund any or none of the proposals submitted under this RFP process.

Points of Contact

For questions about the ARG process, contact the Grants Advisory Team only through grants @ prsciencetrust.org. Answers will be provided in 48-72 hours.

Eligible Applicants

Proposals are solicited from the following entities <u>duly incorporated in Puerto Rico according to the laws</u> of the Commonwealth of Puerto Rico:

- Startups
- Established companies
- Private and State Academic Institutions
- Other Non-Profit Research Institutions

*Principal Investigators (PIs) must have a full-time academic or research appointment at their organization.

Individuals are not allowed to submit proposals.

Although collaborations with entities outside of Puerto Rico and abroad are allowable, funding will be awarded to **entities duly established in Puerto Rico for work done primarily and for the benefit of Puerto Rico.**

Eligible Activities

To qualify for funding, projects in Basic/Translational Research and Technology/Product Development for Commercialization must focus on one of the following strategic fields:

- Aerospace
- Agriculture



- Biotechnology and Natural Sciences
- Clean Technologies and/or Renewable Energy
- Clinical Trials
- Electronics
- Environmental Sciences
- Information and communication technologies
- Medical Devices
- Other areas that the Trust, at its discretion, determines will result in the growth of research, development, and commercialization of science and technology in Puerto Rico.

Award and Funding Information

• <u>Funding Mechanism</u>: Awards will be made in the form of Cooperative Agreements. This funding instrument enables the Trust to exert, as necessary, programmatic involvement before and after the award is made, including successfully monitoring the awardee's accomplishment of mutually agreed milestones.

It is important to note that the ARG does not allow multiple submissions by the same applicant.

Applicants can only apply to one funding mechanism when there is more than one RFP open simultaneously in the Research Grants Program.

Current grantees of the Trust are ineligible to apply for this RFP, while past grantees who have fulfilled their contracts are eligible to submit applications.

- Estimated Number of Awards: 8 to 10. However, the Trust reserves the right to fund any or none of the proposals submitted under this RFP process.
- <u>Funding per Award</u>: Under this solicitation, proposals may be submitted for funding of up to \$150,000, which includes both direct and indirect costs. Award recipients will receive \$75,000 upon execution of the agreement. The remaining \$75,000 will be disbursed after the grantee submits a mid-point progress report demonstrating Page **5** of **18**



successful compliance with the project milestones outlined in the proposal.

- <u>Procurement System</u>: The Trust provides a procurement system for grantees to help facilitate their purchases. If a grantee opts to use this system, the funds designated for materials and equipment will be held by the Trust, while the remaining funds will be disbursed to the institution. Please note that, at this time, we are unable to purchase animals. Participation in this procurement system is optional.
- <u>Project Period</u>: Project duration must be a minimum of twelve months but not greater than twenty-four months. Funding awards are expected to be issued during the period of June 2025 for proposals submitted under this solicitation.

The Cooperative Agreement will be issued for twenty-four months; however, this does not prevent the researcher from completing the project in twelve months if that timeline was established in the proposal.

**A no-cost extension may be considered if necessary to ensure adequate completion of the originally approved project. However, it will be limited to a maximum of one additional year.

• <u>Matching Requirements</u>: While matching is not mandatory, it is strongly encouraged. Matching contributions can be in the form of cash or relevant in-kind donations.

Allowable Costs

The following costs are eligible to conduct research and development efforts pertaining to an Eligible Activity as described above:

Direct Costs:

- <u>Personnel Costs</u>: Salaries of key personnel to conduct the work as presented in the proposal.
- <u>Fringe benefits</u>: Only those payments required by law should be included, such as



social security, federal and state unemployment benefits, and state disability.

- <u>Stipends</u>: Stipends for undergraduate and/or graduate students who are participating in the project may be included. This may also cover tuition expenses.
- <u>Consultant Fees</u>: Fees for consulting services or any other type of remuneration paid to technical advisors consulted regarding research and development.
- <u>Materials and supplies</u>: An item of property, excluding equipment, that costs less than \$5,000 each.
- Equipment: Property items that cost \$5,000 or more and have a service life of over one year are considered equipment. The purchase of equipment must be essential to the project and must be fully justified.
- <u>Out-of-Jurisdiction-Travel</u>: Travel expenses will be covered only if necessary for the completion of the proposed work. All expenses must be fully justified and itemized by destination and cost. This can include travel-related costs for transportation, lodging, and meals. The allowance for air travel will typically not exceed the cost of a round-trip, economy airfare. All travel must receive pre-approval from the Trust and should not exceed \$5,000 per award. Please note that travel within Puerto Rico, including mileage, meals, and lodging, is not permitted.
- <u>Sub award</u>: to engage a third-party organization, when needed, to perform a scientific or programmatic portion of the sponsored project. Must be less than 50% of the costs for the entire grant.

Indirect Costs:

• <u>Indirect Costs</u>: Indirect costs refer to expenses that cannot be easily linked to a specific cost objective, such as a particular organizational activity or project. However, these costs are essential for the overall operation of the organization. Examples of indirect costs include salaries and related expenses for personnel in accounting, human



resources, and purchasing, as well as expenses for rent, depreciation, and utilities. These indirect costs are capped at 20% of the total funding awarded.

The following costs are <u>not</u> eligible:

- Unreasonable costs based on the proposed scope of work. All costs <u>must</u> be fully justified;
- Acquisition of real property;
- Costs incurred pre-award, including proposal preparation costs;
- Maternity or sick leave expenses;
- Redundancy or other terminations costs;
- Contingency costs;
- Hospitality and entertainment costs;
- Journal subscription costs; and
- Relocation expenses.
- Travel in Puerto Rico, including mileage, meals, and lodging.
- Direct or indirect support for any lobbying effort or for contribution to the political campaign of any candidate or for contribution to any political party or similar organization.

Info Sessions

The Trust will be hosting several briefings for individuals interested in submitting a proposal. These sessions will offer an overview of the submission and evaluation process, as well as a forum for potential applicants to ask questions. Specific dates for the sessions will be announced on https://prsciencetrust.org/research-grants-program.

Application Process

The Advanced Research Grants RFP application process consists of two phases: Letter of Intent (LOI) and Full Proposal. The LOI phase is open to all eligible applicants while <u>the Full proposal phase is by</u> invitation only.

Applications will be received only through our Grants application platform (powered by Wizehive) available at https://prsciencetrust.org/research-grants-program, under the Advanced Research Grants Page 8 of 18



Program section.

User Profile

To gain access to the application forms, the applicant must first register by creating a user profile. Information on the User Profile will be used as a statistical metric and not as an evaluation criteria. The Principal Investigator must submit both the LOI and the Full proposal. The user profile must provide information about the PI as well as the contact information for the Institution's Research and Development Administrator.

Letters of Intent (LOI)

Interested applicants must first submit a LOI. The applicant will have the option to apply under one of the following categories: **Basic/Translational Research** and **Technology/Product Development for Commercialization**. LOIs under both categories must provide the following information:

- Description of the Research or Technology to be developed, including the current status of the project, significance and innovation (7,000 characters with spaces).
- Rationale for funds requested including the project's plan and the goals expected to be accomplished with the Trust funds (3,500 characters with spaces).
- Description of the Project Management Team (5,600 characters with spaces) including the involvement of third parties when applicable.

LOIs under Technology/Product Development for Commercialization must also include:

• Statement of Market opportunity (3,500 characters with spaces).

LOIs are only to be submitted electronically through the Grants Application Platform at https://prsciencetrust.org/research-grants-program, under the section titled Advance Research Grants *Program.* No other forms of LOI submission (including .pdf or MS Word documents, etc.) will be accepted. Attachments to the LOI will not be reviewed.



If the Puerto Rico Science, Technology & Research Trust finds that the project proposed in the LOI is responsive to the selection criteria and has the potential to contribute to the strategic research and technology areas of interest of the Trust, the applicant will be invited to submit a Full Proposal.

******Please note that an invitation to submit a Full Proposal will not constitute intent to award.

BEACON

If invited to submit a Full Proposal for the ARG, you are required to maintain a complete profile in BEACON, our comprehensive platform designed to collect, display, analyze, and report on academic activities across Puerto Rico. BEACON serves as an essential tool for advancing research excellence by providing a centralized system to track and showcase academic output, collaborations, and research metrics. A complete profile ensures that your contributions and qualifications are accurately reflected, supporting the evaluation process and enhancing opportunities for institutional and external recognition.

If you do not have a profile, you may request one through <u>https://prsciencetrust.org/beaconplatform/</u>

*Your BEACON profile will be evaluated for completeness during the Full Proposal Phase. Your profile must be populated in the following areas:

- ABOUT
 - o Overview
 - Research Interests
- PUBLICATIONS
- PROFESSIONAL ACTIVITIES
- TEACHING ACTIVITIES
- GRANTS

Full Proposals

Proposal Format

Proposals must be submitted using the Grants application platform available through the Trust website. Only applicants invited to submit a full proposal will have access to the application form. Key Page **10** of **18**



personnel curriculum vitae documents, support letters, figures, and bibliography (see *Proposal Content* section) should be included as attachments through the same application platform.

Confidential Information

The Trust discourages the inclusion of confidential/proprietary information as part of the proposal. Patentable ideas, trade secrets, privileged or confidential commercial or financial information, disclosure of which may harm the applicant, should be included in applications only when such information is necessary to convey an understanding of the proposed project.

If the application includes such information, clearly mark each line or paragraph on the pages containing the proprietary/privileged information with a legend similar to: "The following contains proprietary/privileged information that (name of applicant) requests not be released to persons outside the Trust, except for purposes of review and evaluation."

Proposal Content

The following information will be requested during proposal submission:

• **Title:** Please provide the project title, the name of the proposing institution, and the name and contact email of the principal investigator.

Abstract (1,500 characters with spaces): A brief technical summary including project background, significance, main objectives and expected outcomes. The abstract of awarded proposals will be published on the Trust website.

- Executive Summary (3,500 characters with spaces): Please provide an overall technical project description that is understandable to a technically competent non-specialist. Include a summary of the project's duration, cost, key performance milestones, and deliverables. Additionally, the proposer should highlight the novelty or originality of their proposal, whether this pertains to technical aspects, market focus, or both.
- Research/Technology Background (7,000 characters with spaces): The technology and/or proposed scientific advancement should be placed in a state-of-the-art context Page 11 of 18



of similar, related and competing efforts being carried out worldwide. Explain the technology and/or scientific advancement and answer the following: How is the technology/discovery novel and unique? In the case of technology development, if the technology is being transferred from a local research institution, provide the name of the institution, and briefly explain the type of agreement reached with the institution. For all proposals, in this section we encourage a brief discussion of why this funding mechanism is particularly adequate for the idea (as opposed to funding from other agencies or other funding mechanisms).

- **Preliminary Data** (7,000 characters with spaces): What has the proposer achieved so far in terms of research, development, and commercialization efforts? Please describe how the preliminary data supports the hypothesis that will be tested and the overall feasibility of the project. Be sure to refer to any figures in the text, and include them as an attachment.
- Research Plan, Statement of Work (SOW), Milestones, and Deliverables (10,500 characters with spaces): Include an overall project plan that includes a Statement of Work with task descriptions, quarterly technical performance milestones, and specific final program deliverables. The inclusion of timelines or Gantt charts is highly encouraged. How will success on the project be measured? The proposals should clearly state the expected duration of the project and a rationale for it.
- Project Management and External Collaborators (7,000 characters with spaces): Provide a summary of the project team members, including their relevant skills and time commitment to the proposed project. Curriculum vitae of key personnel are to be included in appendix material (see below). If the project is to be conducted in collaboration with a third-party entity (e.g., a collaboration with academia, other private entity, etc.) please provide information about the third-party entity and their expected scope of work. If specific consultants will be critical for the project's success, please also include a summary of their role and include their CV in the appendix.
- Resources and Environment (3,500 characters with spaces): Describe the resources Page 12 of 18



(e.g. equipment and facilities) that will be used to conduct the proposed work and how these contribute to the probability of success. If resources are to be accessed from third-party collaborators, provide evidence of third party's support to the project.

• Budget and Budget Narrative (10,500 characters with spaces): Itemize and justify all proposed direct costs for personnel, materials, equipment, travel, subcontractors, consultants, and/or suppliers, and facilities.

Proposals under the category **Technology/Product Development for Commercialization** must also include the following information:

- Intellectual Property (3,500 characters with spaces): If appropriate, include a description of the intellectual property (IP) landscape for the technology or innovation. How does the applicant plan to protect any IP resulting from this project? Describe any IP obtained at present and/or any IP that is planned on being sought and protected prospectively.
- **Commercialization Plan** (7,000 characters with spaces): When applicable, provide a clear and concise description of the proposed technology's market potential and the planned path to commercialization. The description needs to, at a minimum, address the following basic questions:
 - Who will be doing the commercialization?
 - What is the timetable for commercialization?
 - How will the plan be carried out?
 - How much (in round numbers) will the commercialization cost?
 - What are the initial target markets and their approximate size?
 - Who are your initial customers and what value does the technology provide to them?
 - What is the competitive advantage that will help your product succeed?
 - The potential economic development impact (e.g., company collaborations, startups, spinouts, new or enhanced product offerings, job creation, licensing
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opportunities, etc.) and any related special circumstances should be clearly described.

Appendix Material (not included in within characters limit established for full proposals):

- **Key Personnel Curriculum Vitae** (4 pages maximum per person, NIH, NSF or BEACON bio-sketch format encouraged).
- Support Letters Provide all appropriate letters of support, including any letters necessary to demonstrate the support of key consultants and collaborators included in the application. Also include, if applicable, letters from current and/or prospective customers or commercialization partner in support of the proposed project (these must be submitted on institution letterhead from authorized personnel). This section must also include a letter of institutional commitment from authorized personnel that acknowledges support for the application, describes any institutional support (e.g., resources, intellectual environment, administrative structures, etc.) available to the research team, and, if applicable, includes information regarding matching funds or in-kind support for the application. In-kind support in the form of faculty time-release is highly encouraged.
- Figures Include only relevant figures mentioned in the text.
- **Bibliography,** if applicable.

Evaluation Criteria

Applications will be reviewed for completeness and for responsiveness to this program. Incomplete or non-responsive applications will not be considered. For previous grantees, past achievements and compliance with their agreements will be considered during the evaluation process.

Proposal review will be carried out according to the following criteria:

 Approach and technical merit - Is the overall strategy, methodology, and analysis wellreasoned and appropriate for achieving the project's specific aims? Are potential Page 14 of 18



problems, alternative strategies, and benchmarks for success clearly presented? If the project is in its early stages of development, does the strategy effectively establish feasibility, and are there plans in place to manage particularly risky aspects?

- Innovation Does the application challenge and aim to shift existing research or clinical practice paradigms by using novel theoretical concepts, approaches, methodologies, instrumentation, or interventions? Are these concepts, approaches, methodologies, instrumentation, or interventions new to a specific field of research, or are they innovative in a broader context? Is there a proposal for refining, improving, or applying theoretical concepts, approaches, methodologies, instrumentation, or interventions in a new way?
- **Significance** Does the project address an important problem, a critical barrier, or a market need? If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved? How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field? Does the proposed project have commercial potential to lead to a marketable product, process, or service?
- Investigator(s) Are the proposers and their teams' capabilities and experience relevant to the proposed work, and can they effectively execute the project to achieve meaningful results?
- Environment and Collaboration Will the scientific environment in which the work will take place contribute to the likelihood of success? Are the institutional support, equipment, and other physical resources available to the investigators sufficient for the proposed project? Will the project benefit from unique characteristics of the scientific environment, the subject populations, or collaborative arrangements? Additionally, projects involving industry-academia collaborations that lead to technology transfer and/or commercialization will receive extra consideration. Projects that leverage existing resources and enhance the research landscape in Puerto Rico will also be prioritized.



• **Budget and Budget Justification** - The budget appropriateness, project duration, and proposed level of effort are essential. While not required, matching funds can show the proposer's commitment to the project.

Proposals under the category **Technology/Product Development for Commercialization** will also be evaluated under the following criteria.

• Viability of the Commercialization Plan. Reviewers will evaluate each proposal based on the quality of this section. The evaluation will consider how effectively the proposer presents their case in terms of: a) market potential, b) path to commercialization (including who will be involved, when and how it will occur, and the financial aspects), and c) potential economic development impact (such as company collaborations, startups, spinouts, new or improved product offerings, job creation, and licensing opportunities).

As part of the Trust economic development strategy, the Trust actively encourages collaborative projects, be it between researchers, between institutions or between industry and academia. A proposal selected for an award will have, at a minimum, the following attributes:

- A significant opportunity exists to enhance Puerto Rico's scientific and educational landscape, aligning it with local and global initiatives.
- A high-quality, relevant, and innovative project with clearly defined deliverables and performance milestones.
- When applicable, there is a significant potential for economic impact in Puerto Rico as outlined in the Commercialization Plan. This potential may manifest in various forms, such as technology licensing, the creation of new companies, job generation, collaborations between companies, or product development and expansion.



Selection Process

Award recommendation decisions will be made by the Trust's Board of Trustees, based on the advice of an External Peer Review Committee (**EPRC**) and the Scientific Revision Board (**SRB**).

The EPRC will be comprised of experts in areas of relevance to the funding priorities of the Trust and appropriate to the topics covered by the letters of intent selected for the second round of applications. To ensure a fair and open competition, EPRC members will not take part in the review and selection deliberations involving any situation which could create a clear conflict of interest. EPRC members will be required to sign a *Conflict of Interest and Confidentiality Statement* and respect the confidentiality of the information provided in proposals.

The role of the SRB is to provide technical, administrative, and scientific expertise in order to help the Puerto Rico Science, Technology & Research Trust's Grants Program determine which research projects better fit its funding priorities as an organization. They will revise the top ranked proposals and provide recommendations on which research projects we should present to the Board of Trustees for funding.

Final grant funding approval is granted by the Board of Trustees. The Trust retains the right to: a) award all, some, or none of the submitted proposals and b) select specific parts of individual proposals for funding.

Scoring

The Trust utilizes a 9-point rating scale (1 = exceptional; 9 = poor), similar to the NIH's rating scale. Each reviewer assigned to an application evaluates the proposal's strengths and weaknesses within each review criteria and scores each separately. In addition, each reviewer of an application gives a preliminary overall impact score for that application. The preliminary scores are used to determine which applications will be discussed in full at the EPRC panels. For each application that is discussed, a final impact score is given by all eligible EPRC members (i.e., without conflicts of interest), including the assigned reviewers. Each member's score reflects his/her evaluation of the overall impact that the project is likely to have based on the Trust priorities and requirements.



Feedback to Applicants

All applicants will receive a copy of the ARG Review and Critique form. The copies will not include the names of the reviewers or any identifying information. These materials will be sent directly to the principal investigator. Please note that this process applies only to the full proposal review; feedback will not be provided for the Letter of Intent (LOI) phase.

Funds, Due Diligence and Contractual Terms

The Trust will use a Cooperative Agreement as the funding mechanism to award funds. Prior to receiving funding, selected grantees must successfully complete a due diligence review to the Trust's satisfaction and thereafter enter into an agreement setting forth the material terms of the award.

Negotiation Prior to Award of Contract

The Trust reserves the right to negotiate each, and every aspect of any proposal received in response to this RFP. In addition, the Trust may require additional cost data or documentation prior to the award of a grant that may result from this RFP. The Trust reserves the right to negotiate all terms and conditions of a final contract whether such terms and conditions are specified by this RFP.