Rhode Island Research Alliance
Collaborative Grant Award
Guidelines

Submission Due Dates

Letter of Intent: October 24, 2016
Full Proposal: November 21, 2016

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INTRODUCTION

About the Rhode Island Science and Technology Advisory Council (STAC)
The Rhode Island Science and Technology Advisory Council (STAC) is a coalition of business, academic, medical and government leaders with the mission to recommend and initiate strategic investments that drive economic development and job creation by maximizing the economic impact of research, technology and innovation. STAC initiatives support the state's research and development activities by promoting collaboration across institutions and encouraging entrepreneurship and new company creation through the transfer of new technologies and discoveries into the marketplace. STAC is the State Governing Committee for RI NSF EPSCoR.

About Rhode Island NSF EPSCoR
The National Science Foundation (NSF) founded the Experimental Program to Stimulate Competitive Research (EPSCoR) as a mechanism to foster research and economic development. Rhode Island became an EPSCoR jurisdiction in 2004. By supporting research infrastructure statewide, RI NSF EPSCoR aims to: increase competitiveness for future funding; stimulate collaborative research; and enhance public understanding of scientific research. Rhode Island NSF EPSCoR partners with nine academic institutions across the state as well as with secondary schools, government, and industry and supports three Core Research Centers in Marine Life Science, Genomics, and Proteomics that are available to researchers and students statewide.

About the Rhode Island Research Alliance (RIRA)
To create stronger connections across the state's research organizations, STAC created RIRA to serve as a platform for promoting collaboration, maximizing state and federal investment in research and enhancing the state's R&D-related economic development opportunities. By promoting collaboration among the state's research universities, research hospitals, corporations and government agencies, the Alliance supports current research activities, strengthens the ability of Rhode Island investigators to attract federal and corporate research investment and spurs economic development and job growth.

About the Collaborative Research Grant Awards
RIRA provides grants to support a catalytic stage of inter-organizational, inter-disciplinary, collaborative research projects that are well positioned to attract substantial follow-on investment or have significant potential for technology development and commercialization. Funding from the Research Alliance provides a mechanism for teams of individuals to work together on important and promising research projects across Rhode Island's research colleges and universities, research hospitals, businesses and government agencies. To receive funding, proposals must clearly show how the combined efforts of the institutions can lead to results that could not be achieved by either alone. Research Alliance funding is also used to support research infrastructure development.

Research Themes

Approximately **$800,000** in competitive funding is offered as part of STAC's participation in Rhode Island's Cooperative Agreement with the National Science Foundation's (NSF) Experimental Program to Stimulate Competitive Research (EPSCoR). Projects for the 2017 Call for Proposals are eligible that address research questions related to the pending Rhode Island NSF EPSCoR Track-1 proposal focused on Coastal Ecology Assessment, Innovation, and Modeling.

Understanding, predicting, and enhancing the ecological health of coastal environments is vital to workforce development (WFD), economic growth, and coastal resilience in RI. Increasing anthropogenic stressors, such as global warming, sea level rise, and pollution, negatively impact coastal environments. These impacts yield complex and evolving biological interactions that respond to and influence ecosystem function. Predicting changes in ecosystem function and identifying biogeochemical markers that correlate with harmful events will enable us to devise and implement plans to mitigate these effects with intervening technologies or through changes in environmental policy and human behavior.

Eligible proposals will address one or more of the following research themes:

- How do interactions between natural and anthropogenic stressors impact ecologically and commercially important organisms?
- How can spatial and temporal detection of anthropogenic stressors (defined above) be enhanced in coastal environments?
- How can our understanding of biological and ecological complexity be advanced, incorporated within, and improve coastal ecosystem models?
- How does the environment affect humans and how can human behavior and responses be modified to improve coastal and economic sustainability?

Proposals should explain how the work 1) would lead to major new research opportunities that can be supported by federal agencies, corporations and/or foundations; 2) would contribute towards current or future economic development of the state through technology development and commercialization and/or 3) would contribute to infrastructure development that significantly advances the competitiveness of scientists in Rhode Island to secure additional funding.

Who May Apply

Rhode Island research institutions, including higher education, academic, medical or business and government organizations, may collaborate in applying for grant funding. Project teams must be collaborative in nature and include investigators from at least two distinct entities. Each collaborative team shall include a Rhode Island institution of higher education or a hospital. The University/College or a collaborating academic - medical partner shall serve as the prime grantee and the other entity(s) shall serve as the sub-recipient(s).

Persons are limited to serving as Principal Investigator (PI) on only one proposal and PIs must be tenure track or research faculty or the equivalent since these funds are intended to support long-term avenues of research activity. Projects currently funded by the Research Alliance are not eligible for continuation funding. Submission of a revised proposal that was not previously selected for funding is acceptable with an explanation of how the project has been revised.

Amount of Award & Length of Award
The maximum amount of any given award is $100,000 over a twelve-month period.

Submission Deadlines
All applicants are required to submit an electronic copy of a Letter of Intent by October 24, 2016. An electronic copy of the full proposal is due by November 21, 2016.

Letter of Intent Review
Letters of Intent are required for all proposed projects. The Letters of Intent will be reviewed for eligibility of the proposed team and responsiveness to the stated research themes. Letters of Intent will also assist in the selection of Peer Reviewers. If there is a concern with a proposed project, the Primary Investigator will be contacted to discuss the concerns.

Full Proposal Review and Evaluation
Funds will be awarded through an independent, competitive peer-review process. The competitive granting process will embrace review and evaluation criteria similar to those used by the National Science Foundation including intellectual merit and broader impacts of the proposal. The catalytic and collaborative nature of the proposed research activity will also be considered. A Selection panel appointed by STAC co-chairs will determine the awards. Selection of awardees will consider the quality of the research as judged by peer reviewers, alignment of the proposed work with the research questions and the ability of the activity to support the development of competitive research infrastructure in Rhode Island.

Award Announcement
Awards will be announced in March 2017.

Program Contact
For any questions regarding the Collaborative Research Grant Award guidelines, please contact Rachel Myroniuk by email at rachel.myroniuk@commerceri.com or by telephone at 401-278-9122.

Intellectual Property
Acceptance of this grant does not transfer any intellectual property rights. All information and findings derived from activities funded by Research Alliance grants remain the property of the grantees.

LETTER OF INTENT INSTRUCTIONS

Format

A brief Letter of Intent should be submitted by October 24, 2016 which includes:

1) the name of the PI and a list of the team of investigators involved, including names, titles, affiliated research organizations and contact information;
2) the project title;
3) a clear and concise statement of relation to the eligible RI NSF EPSCoR research theme(s);
4) a summary of the proposed activity suitable for publication. It should not be an abstract of the proposal, but rather a self-contained description of the activity that would result if the project were funded. The summary should be written in the third person and include a statement of objectives and methods to be employed. It must clearly address both the intellectual merit of the proposed activity and the broader impacts resulting from the proposed activity. It should be informative to other persons working in the same or related fields and, insofar as possible, understandable to a scientifically or technically literate lay reader;
5) a description of how this award will produce data or other results that will lead to major new research opportunities that can be supported by federal agencies, corporations and/or foundations; advance the project's potential for technology development and/or commercialization; advance or leverage Rhode Island's core capacity for visualization of science.
6) If the Letter of Intent is for infrastructure improvement, the preliminary proposal should also specifically include why the instrument or equipment is a critical addition to Rhode Island's research platform and how it will significantly advance the research competitiveness of scientists in Rhode Island to secure additional funding.

Letters of Intent should be typed, font size no smaller than 10 point, with standard margins (at least one inch).

Submission

Letters of Intent should be emailed by October 24, 2016 to riresearchalliance@commerceri.com. The subject line should read **PI last name, PI first name, Letter of Intent** (i.e. Myroniuk, Rachel, Letter of Intent). Word and PDF format will be accepted. Submissions will receive confirmation of receipt.

Review

The Letters of Intent will be reviewed for eligibility of the proposed team and responsiveness to the stated research themes. If there is a concern, the Primary Investigator will be contacted to discuss the concern. ***Applicants should assume eligibility and continue work on full proposals, unless otherwise notified by STAC staff.***

FULL PROPOSAL INSTRUCTIONS

Conformance with Instructions

Proposals should provide a concise, complete and clear description of the applicants' ability to meet the requirements set forth in the guidelines. It is important that all proposals conform to instructions and be complete. **Incomplete, late, or unsigned applications will be ineligible and will not be reviewed.**

Format

Proposals should be typed, font size no smaller than 10 point, with clearly marked pagination. Standard margins should be used (at least one inch). Sections to be included are listed below with an estimated length of each section provided for the PI's reference:

- Face Page (one page)
- Project Overview (one page)
- Table of Contents (one page)
- Project Summary (not to exceed one page)
- Project Description (not to exceed five pages)
- References (as needed)
- NSF formatted Bio sketches (two pages for each investigator)
- Budget (as needed)
- Unfunded Collaborations (letters of support as needed)
- Business Information (as needed)

Section Content

1) **Face Page** as supplied in the Appendix of these guidelines listing
    - project title, name, contact information and affiliated Rhode Island research institution for each principal investigator and co-principal investigator(s),
    - name and contact information for administrative official to be notified if award is made
    - name and signature of institutional office submitting the proposal. **This Sheet must have the authorizing signature of the lead institution proposing the work.**

2) **Project Overview** as supplied in the Appendix of the guidelines clearly stating
    - budget summaries (for each individual institution and aggregate)
    - catalytic nature of proposal
    - relation to eligible research themes
    - title and narrative description of the proposal suitable for use in the public press.

3) **Table of Contents (one page**) listing all sections and pagination.

4) **Project Summary (one page)** listing the intellectual merit and broader impacts of the project as well as the anticipated resulting activity related to follow-on funding or commercialization.

5) **Project Description (not to exceed 5 pages).** Brevity will assist the reviewers and STAC staff in evaluating proposals. The Project Description should provide a clear statement of the work to be undertaken and must include:
   - objectives for the period of the proposed work and expected significance;
   - relation to the present state of knowledge in the field, to work in progress by the PI under other support and to work in progress elsewhere;
   - an outline of the general plan of work, including the broad design of activities to be undertaken, and, where appropriate, a clear description of experimental methods and procedures and plans for preservation, documentation, and sharing of data, samples, physical collections, curriculum materials and other related research and education products;
   - how it meets the specific collaborative and catalytic requirements of this grant regarding: how the combined efforts of the institutions can lead to results that could not be achieved by one institution alone;
   - how the activity is catalytic in nature and will lead to major new research opportunities that can be supported by federal agencies, corporations and/or foundations;
   - how the activity can contribute towards current or future economic development of the state through technology development and/or commercialization potential;
   - how the activity significantly advances the research competitiveness of scientists in Rhode Island for federal and/or other funding;
   - how the activity advances state-wide research capacity.

6) **Reference information (as needed).** Each reference must include the names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, and year of publication. If the document is available electronically, the Website address also should be identified. Proposers must be especially careful to follow accepted scholarly practices in providing citations for source materials relied upon when preparing any section of the proposal. While there is no established page limitation for the references, this section must include bibliographic citations only and must not be used to provide parenthetical information outside of the five-page project description.

7) **NSF standard biographical sketches (two pages)**. Biographical information for the principal investigator and all co-principal investigator(s) should include professional preparation, appointment, publications and other activities. NSF instructions for biographical sketch preparation are reprinted in the Appendix.

8) **Budgets** for each participating institution for the duration of the research activities detailing all expenses including, when applicable, salaries and wages, equipment, travel and all direct costs. Budget items should follow standard NSF budget categories. **No indirect cost charges are allowed**; **funds may not be used for any indirect cost charges at any institutional partner in these grants.** The budget must include a justification narrative of expenses. The justification narrative must stipulate a total budget figure for the project not to exceed $100,000.00

9) **Unfunded Collaborations** with individuals not included in the budget should be described and documented with a letter from each collaborator.

10) **Business Information** must be supplied by a private sector Co-PI to include exact legal name of business, Federal Tax ID number, NAICS (North American Industry Classification) Code and current organizational structure of business (LP, LLP, S-Corp…). Private sector Co-PIs must also supply a Certificate of Good Standing from the Rhode Island Secretary of State and affirm they are current with all federal, state and city/town taxes.

Supplemental Documents
The following supplemental documents will be accepted:

Proprietary or Privileged Information: Patentable ideas, trade secrets, privileged or confidential commercial or financial information, disclosure of which may harm the proposer, should be included in proposals only when such information is necessary to convey an understanding of the project. Such information must be clearly marked and appropriately labeled.

List of Suggested Reviewers or Reviewers Not to Be Included: Proposers may include a list of reviewers who they believe are especially well qualified. Proposers may also designate an individual(s) they wish not to review the proposal and must indicate why.

Submission
Full proposals are due **November 21, 2016**. Final proposals should be submitted electronically through the online submission tool found on the RI STAC website. A direct link to the submission tool with instructions will be provided.

Applicants will receive a reply email confirming receipt of their full proposals. **Late, unsigned or incomplete applications will not be reviewed**.

Residual Funds

Residual funds shall be returned to the grantor.

PROCESSING AND REVIEW

Review Criteria

Each proposal will receive two independent peer reviews through a process managed by the American Association for the Advancement of Science (AAAS). Proposals will be evaluated using two National Science Board approved merit criteria: the intellectual merit and the broader impact of the proposed activity. The catalytic and collaborative nature of the proposed research activity will also be considered.

For intellectual merit, the proposal evaluation will consider i) the importance of the activity to advancing knowledge or understanding within its own field or across different fields; ii) the qualifications of the proposer (individual & team) to conduct the project, iii) the extent that the proposed activity suggests and explores creative and original concepts, and iv) how well the proposed activity is conceived and organized.

For broader impacts, the proposal evaluation will consider the potential for the proposed activity to benefit society and lead to the achievement of desired societal outcomes. These benefits and outcomes could include promoting education and training, broadening participation of under-represented groups, or enhancing infrastructure for research and education, among others.

For catalytic nature, the proposal evaluation will consider i) the degree to which the proposed activity is catalytic in nature; ii) the degree to which the proposed activity has the potential to lead to major research opportunities that can be supported by federal agencies, corporations and/or foundations; and iii) whether the proposed activity has significant potential to attract follow-on investment and/or technological development/commercialization.

For collaborative nature, please comment on the degree to which the combined efforts of the investigators will lead to results that could not be achieved by either on their own.

A Selection Panel of subject matter experts appointed by STAC will select awardees using the Peer Reviews and consideration of the degree to which the proposed activity will build the research capacity of Rhode Island and advance the competitiveness of RI scientists.

Funded projects will represent an extremely well-organized and well-constructed activity submitted by an experienced and competitive team, that is catalytic and collaborative in nature, provides a clearly identified plan for follow-on funding or commercialization, demonstrates outstanding potential to increase research capacity and infrastructure, and contributes to the enhancement of Rhode Island's R&D stature.

Award Notification

Awards will be announced in March 2017. Proposers will be notified by email of the success or declination of their grant request.

POST AWARD

Award Letter

Sponsoring institutions will be required to agree to all conditions regarding acceptance of the award including submission of required narrative and financial reports.

Progress and Final Reports

Progress and final reports will be required to assist the grantor in measuring how the expenditure of the grant 1) advances the research competitiveness of scientists in Rhode Island for federal funding technology development and/or commercialization potential; 2) advances collaboration across the state's academic and commercial research institutions; and 3) promotes current or future economic development.

Progress reports will be required stating the status of the research and any definitive results.

A final report which includes the following will be required within 30 days of the end of the grant performance period:

- how the research answered the goals stated in the proposal
- a description of next steps for the research
- revised budget with budget justification explaining changes
- a brief description of planned or applied for follow-on funding

A P P E N D I X

Rhode Island Research Alliance Grant Application
RIRA-CA-2017
Face Page

Project Title:

Principal Investigator (PI) Name & Title

Research Institution
Address

Phone/Email
Signature

Co-PI Name & Title

Research Institution
Address

Phone/Email
Signature

Co-PI Name & Title

Research Institution
Address

Phone/Email
Signature

Co-PI Name & Title

Research Institution
Address

Phone/Email
Signature

Lead Institution

ADMINISTRATIVE OFFICIAL TO BE NOTIFIED IF AWARD IS MADE

OFFICIAL SIGNING FOR APPLICANT ORGANIZATION

SIGNATURE & DATE

Assurances
The institution certifies that this proposal meets all eligibility requirements listed in the General Guidelines, and that all information contained in this application is true and correct to the best of its knowledge. The institution further certifies that it is in compliance with all applicable Federal, state and institutional regulations and policies relevant to the conduct of this project

Rhode Island Research Alliance Grant Application
RIRA-CA-2017
Project Overview

Project P.I. and Institution:

Project Title*:

Research themes:

Brief Description:

Catalytic Nature of the Project:

Budgetary Information:

A. Primary Grantee:	**Requested Funds**
1. Personnel	
Professional	
Student	
2. Equipment	
3. Supplies/Materials	
4. Travel/Meetings/Other	
Primary Grantee Total	
B. Subcontract I:	
1. Personnel	
Professional	
Student	
2. Equipment	
3. Supplies/Materials	
4. Travel/Meetings/Other	
Subcontract I Total	
C. Subcontract II:	*(if present)*
1. Personnel	
Professional	
Student	
2. Equipment	
3. Supplies/Materials	
4. Travel/Meetings/Other	
Subcontract II Total	
TOTAL	

***The title of the project must be brief, scientifically or technically valid, intelligible to a scientifically or technically literate reader. Information on this sheet should be suitable for use in the public press.**

Instructions for Preparing Biographical Sketches

A biographical sketch (limited to two pages) is required for each individual identified as a Primary or Co-Primary Investigator. The following information must be provided in the order and format specified below:

Professional Preparation

A list of the individual's undergraduate and graduate education and postdoctoral training as indicated below:

Undergraduate Institution(s)	Major	Degree & Year
Graduate Institution(s)	Major	Degree & Year
Postdoctoral Institution(s)	Area	Inclusive Dates (years)

Appointments

A list, in reverse chronological order, of all the individual's academic/professional appointments beginning with the current appointment.

Publications

A list of: (i) up to 5 publications most closely related to the proposed project; and (ii) up to 5 other significant publications, whether or not related to the proposed project. Each publication identified must include the names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, and year of publication. If the document is available electronically, the Website address also should be identified.

For unpublished manuscripts, list only those submitted or accepted for publication (along with most likely date of publication). Patents, copyrights and software systems developed may be substituted for publications. Additional lists of publications, invited lectures, etc., must not be included. Only the list of 10 will be used in the review of the proposal.

Synergistic Activities

A list of up to five examples that demonstrate the broader impact of the individual's professional and scholarly activities that focuses on the integration and transfer of knowledge as well as its creation. Examples could include, among others: innovations in teaching and training (e.g., development of curricular materials and pedagogical methods); contributions to the science of learning; development and/or refinement of research tools; computation methodologies, and algorithms for problem-solving; development of databases to support research and education; broadening the participation of groups underrepresented in science, mathematics, engineering and technology; and service to the scientific and engineering community outside of the individual's immediate organization.

Collaborators & Other Affiliations

The following information is used to help identify potential conflicts or bias in the selection of reviewers.

Collaborators and Co-Editors. A list of all persons in alphabetical order (including their current organizational affiliations) who are currently, or who have been collaborators or co-authors with the individual on a project, book, article, report, abstract or paper during the 48 months preceding the submission of this proposal. Also include those individuals who are currently or have been co-editors of a

journal, compendium, or conference proceedings during the 24 months preceding the submission of the proposal. If there are no collaborators or co-editors to report, this should be so indicated.

Graduate and Postdoctoral Advisors. A list of the names of the individual's own graduate advisor(s) and principal postdoctoral sponsor(s), and their current organizational affiliations.

Thesis Advisor and Postgraduate-Scholar Sponsor. A list of all persons (including their organizational affiliations), with whom the individual has had an association as thesis advisor, or with whom the individual has had an association within the last five years as a postgraduate-scholar sponsor. The total number of graduate students advised and postdoctoral scholars sponsored also must be identified.

Other Personnel

For the personnel categories listed below, the proposal also may include information on exceptional qualifications that merit consideration in the evaluation of the proposal.

(a) Postdoctoral associates

(b) Other professionals

(c) Students (research assistants)

(iii) Equipment Proposals

For equipment proposals, the following must be provided for each auxiliary user:

(a) Short biographical sketch; and

(b) List of up to five publications most closely related to the proposed acquisition.