## Research Project Call for Applications

## Cardiopulmonary Vascular Biology COBRE

Research Project Leader Award Program Funding Opportunity

**SCOPE:**

We are inviting applications for a Research Project Leader at the CardioPulmonary Vascular Biology Center of Biomedical Research Excellence (CPVB COBRE). The vision of the CPVB COBRE is to advance the understanding of vascular diseases affecting the pulmonary and cardiovascular systems. CPVB COBRE has a multidisciplinary group of outstanding investigators who are using cutting edge tools to understand the pathobiology of vascular diseases.

Research Project Leader will gain access to the COBRE interdisciplinary cores which provide infrastructure, consultation, and additional support services to ensure the successful career development of the funded investigator. The three Cores include Administrative, Cell Isolation/Organ Function, and Respiration Core.

**ELIGIBILITY:**

A Research Project Leader must hold a faculty appointment (or equivalent at research institutes) at a Rhode Island research institution, and eligible for employment at Ocean State Research Institute for the effort proposed on the application at the time of the award and can be either:

> A *junior investigator* who does not have and has not previously been a PI on an external, independent, peer-reviewed research project grant (R01) or Program Project Grant (PPG) or PPG subproject, or equivalent award from either a Federal or non-Federal source, or
>
> An *established investigator* who is making a significant change to their career goals by initiating new line(s) of research that is significantly different from their current investigative program. Established investigator is defined as an investigator who has current or prior external, independent, peer-reviewed research project grant (R01) or Program Project Grant (PPG) from either a Federal or equivalent award from a non-Federal source. The established investigator must demonstrate a record of research productivity that contributes to the CPVB COBRE strength and competitiveness. Senior, funded investigators who are not making a significant career change are not eligible.

*Junior Investigators* must have a mentor(s). Mentor(s) should be designated who are faculty (Associate Professor level or above) at an affiliated health care system or a degree-granting institution in Rhode Island. Mentor(s) should be researchers in the field related to the proposed project and have experience and demonstrated success as research supervisors.

Research must fit the COBRE theme of investigating research related to cardiovascular and pulmonary diseases.

The Research Project Leader cannot hold funding from a COBRE project or another IDeA mechanism of support at the same time as CPVB COBRE funding.

**FUNDS AVAILABLE:**

Funding is available for one Research Project Leader to support from December 1, 2021- May 31, 2022 at $125,000 direct costs. and June 1, 2022 - May 31, 2023 funding support of up to $184,000 direct costs.

**DURATION:**

The project period is 18 months.

**CONTACT INFORMATION FOR MORE INFORMATION:**
Address inquiries regarding the CPVB COBRE Program to Susan McNamara, Program Administrator, at susan_mcnamara@brown.edu

**PROPOSAL SUBMISSION INSTRUCTIONS:**
Proposals are due through UFunds no later than **midnight October 11, 2021**. A Brown University ID is required to access UFunds. Non-Brown faculty should email cpvbcobre@gmail.com by October 1, 2021 to request a Brown University ID to use for this application. CPVB COBRE will not consider applications that are incomplete. Complete applications must include the following sections:

**Proposal Content**
**Face Page**: (PHS 398 Form Page 1)
The Face Page should include Contact PI name, academic title, institution, address, title of project, and the name of the institutional grant management official.

**Project Summary, NIH Page 2**: (PHS 398 Form Page 2)
The Project Summary should be a succinct and accurate description of the proposed work. State the application's broad, long-term objectives and specific aims. Concisely describe the research design and methods for achieving the stated goals. The summary should be informative to other persons working in the same or related fields and, insofar as possible, understandable to a scientifically or technically literate reader. Avoid describing past accomplishments and the use of first person.

Additionally, the following sections of the Project Summary form should be completed:

- *Relevance:* Describe the relevance of this research to public health. Be succinct (using no more than two or three sentences) and use plain language that can be understood by a general, lay audience.
- *Project/Performance Site Primary Location:* Include the information pertinent to the PI's home institution.
- *Additional Project/Performance Site Location:* Include the information pertaining to any additional performance sites. If more than two performance sites will be used, list additional sites on the PHS 398 Project/Performance Site Format Page.
- *Senior Key Personnel:* Include the PI and mentor(s) for the project. Anyone listed in Senior Key Personnel must include a biosketch in the application.

**Budget**: (PHS 398 Form Page 4)
The anticipated budget period is 12/1/2021 to 5/31/2023. See FUNDS AVAILABLE:

The project PI's effort on the project must be through Ocean State Research Institute and therefore the PI will need to be employed by Ocean State Research Institute.

Junior Investigators must devote *6 person months annually for the duration of the project.* Established Investigators must devote 3-6 person months annually. Investigators providing effort without salary support are considered cost shared and must obtain a letter from an authorized organizational official (e.g., Director of Sponsored Projects Office) approving the cost share. Please reference the Letters of Support section below.

The below guidelines should be used to complete the PHS 398 budget form for each institution involved:

- *Personnel:* Indicate the investigator's name on the "PD/PI" line, number of calendar months dedicated to the proposed research, institutional base salary, requested salary, and associated fringe benefits. Investigators not receiving salary support should still be listed in the budget with effort indicated.
- *Equipment:* Equipment purchases are *not allowed* for this award.

- *Supplies:* Allowable supply costs include computer software necessary for the project, laboratory supplies and services, animal and per diem housing expenses, publication costs, and participant stipends. General office supplies are *not allowed* for this award.
- *Travel:* Up to $2,000 can be budgeted for travel related to research performance or dissemination of results.
- *Inpatient Care Costs:* Indicate costs related to proposed research, if any.
- *Outpatient Care Costs:* Indicate costs related to proposed research, if any.
- *Other Expenses:* List any other costs itemized by category, if any.
- *Consortium/Contractual Costs:* Include consortium or contractual costs required to accomplish the proposed research, if any.

**Budget Justification:** (PHS 398 Continuation Format Page)
Provide detailed justifications for all items requested in the budget(s).

**Biographical Sketch (5-page maximum):** (Biographical Sketch Format Page, Instructions and Sample)
A NIH-formatted biosketch is required for each investigator and mentor. If you do not have an eRA Commons user name, you must obtain one to include in the bio sketch. Bio sketches should not exceed 5 pages.

The personal statement in the biosketch should briefly describe why your experience and qualifications make you particularly well-suited for a Research Project Leader award. In the Research Funding section, include other grant support and explain the relationship of each grant to the proposed project, including any scientific or budgetary overlap. Please adhere to the NIH guidelines for your biographical sketch.

**Resources:** (PHS 398 Resources Format page)
Describe space, equipment, and other facilities available for the applicants to accomplish this research project. The Resources Format page must be completed for each Performance Site listed on PHS 398 Form Page 2.

**Checklist:** (PHS 398 Checklist Form Page)
Complete **Section 3 only**, "Facilities and Administrative Costs" using the home institution's F&A rate.

**Research Plan (6-page maximum)**: (PHS 398 Continuation Format Page)
The format of the Research Plan should follow the outline below exactly. Begin each section of the Research Plan with a section header (e.g., Specific Aims, Significance, etc.).

- *Specific aims:* Describe the goals and objectives of the research project (up to ½ page).
- *Significance* Include overall significance of the project, including relevance to goals of the CPVB COBRE, and plans for use of data from project for subsequent independent funding. (up to ½ page).
- *Innovation:* Describe both the conceptual and technical innovation of the proposed project (up to 1/2 page).
- *Approach:* Describe the experimental design and methods, including an appropriate analysis plan. Present preliminary data if available (up to 4 pages).
    - Up to ½ page of the 4-page approach should focus on detailing the statistical analysis plan for the proposed project.
- *Timeline:* Include approximate completion dates for the defined specific aims up to ½ page.

**References**
Provide a bibliography of any references cited in the Research Plan. Not included in 6-page limit.

**Future Funding Plans (500-word maximum, submitted in UFunds)**

Describe plans to submit applications for future funding. This response should not be uploaded but submitted via the appropriate UFunds query field.

The below table summarizes required proposal content outlined in this section:

| Section | Description | Limits |
|---|---|---|
| **Face Page** | Provide the requested administrative information. | n/a |
| **Project Summary** | Complete the Project Summary, Relevance, Project/Performance Site Primary Location, and Senior Key Personnel. | n/a |
| **Budget** | Complete Page 4 of the NIH 398 form for each institution requesting support. | n/a |
| **Budget Justification** | Provide clear, succinct justification for each requested budget item for each institution requesting support. | n/a |
| **Biographical Sketches** | Include for all proposed key personnel, including mentors. | 5 pages (each) |
| **Resources** | Detail space, equipment, and other resources available for research. | n/a |
| **Checklist** | Complete Section 3 of PHS 398 Resources Format page. | n/a |
| **Research Plan** | | 6 pages |
| Specific Aims | Project specific aims. | ½ page |
| Significance & Innovation | Include overall significance of the project, including relevance to goals of the CPVB COBRE, and plans for use of data from the project for subsequent independent funding. (up to ½ page). | ½ page |
| Innovation | Outline both conceptual and technical innovation. | ½ page |
| Approach | Preliminary data* and research plan, including expected results, alternative approaches, and analysis plan. Include discussion of scientific rigor and biological variables. (Note: up to ½ page should focus on detailing the statistical analysis plan for the proposed project.) | 4 pages |
| Timeline | Indicate dates for completion of Specific Aims, manuscript submission, and extramural grant applications submission. | ½ page |
| **References** | Provide citations for any references used in the Research Plan. | n/a |
| **Future Funding Plans** | Describe plans to submit application for future funding. | 500 words |

*Preliminary data are encouraged, but not required.

**Regulatory Information**

If Human Subjects, Vertebrate Animals, or Biosafety/Safety Agents are used in the proposed research, be sure to address these sections as described below. Be sure to indicate the IRB and IACUC approvals or status as applicable to your proposed research. Human Subjects education certification must be up-to-date and available upon request for Key Personnel.
If you answered "Yes" to the question "Are Human Subjects Involved?" on the R&R Other Project Information form, then complete the PHS Human Subjects and Clinical Trials Information Form. Per PHS Form 398. Provide IRB and/or IACUC approval(s). Provide Human Subjects education certification and Target/Planned Enrollment Table (if applicable). Applicants should complete the Study Record Form as outlined by the G.500 – PHS Human Subjects and Clinical Trials Information instructions.

**Vertebrate Animals Section**

If vertebrate animals are involved, address each point below. Provide a concise, complete description of the animals and proposed procedures. While additional details may be included in the Research Plan, the responses to the four required points must be cohesive and include enough detail.

If all or part of the proposed research involving vertebrate animals will take place at alternate sites (such as project/performance or collaborating site(s)), identify those sites and describe the activities at those locations.

Although no specific page limitation applies to this section, be succinct. Failure to address the following four points will result in the application being designated as incomplete and will be grounds for NIGMS to defer approval of the application. The three points are as follows:

1. Description of Procedures: Provide a concise description of the proposed procedures to be used that involve vertebrate animals in the work outlined in the "Research Plan" attachment. Identify the species, strains, ages, sex, and total numbers of animals by species, to be used in the proposed work. If dogs or cats are proposed, provide the source of the animals.
2. Justifications: Provide justification that the species are appropriate for the proposed research. Explain why the research goals cannot be accomplished using an alternative model (e.g. computational, human, invertebrate, in vitro).
3. Minimization of Pain and Distress: Describe the interventions including analgesia, anesthesia, sedation, palliative care and humane endpoints that will be used to minimize discomfort, distress, pain, and injury.

Do not use the vertebrate animal section to circumvent the page limits of the Research Plan.

**Biosafety/Select Agents**

Refer to Section 5.5.11 PHS 398 Instructions. Indicate Institutional Safety Committee approvals.

**LETTERS OF SUPPORT**

1. Department Chair(s): Letter(s) from the Department Chair(s) and/or supervisor(s) documenting the availability of protected time for research must be included. If a Brown University PI is not receiving salary support, the letter must explicitly approve cost share.
2. Mentor(s): Letter(s) from the mentor(s) agreeing to advise on the conduct of the proposed research and describing plans for mentoring the research project leader must be included with the application.

**APPLICATION FORMAT**

Applications should follow an abbreviated NIH format with minor modifications. This application requires the use of the most recent version of the PHS 398 Forms.

**Font:** Arial, Helvetica, Palatino Linotype or Georgia typeface and a font size of 11 points or larger must be used. A Symbol font may be used to insert Greek letters or special characters; the font size requirement still applies. A smaller font size may be used for figures, graphs, diagrams, charts, tables, figure legends, and footnotes, but this type must follow the font typeface requirement and be readily legible.

**Margins**: Margins should be ½ inch.

**REVIEW PROCESS AND SELECTION CRITERIA**

Reviews of Applications will be conducted by the Cardiopulmonary Vascular Biology (CPVB) review Committee. Reviewers of the full applications will include current mentors and others who have content area or methods expertise relevant to the individual proposals. All reviewers will be highly qualified faculty from Brown University and/or affiliated hospitals. Final selections will be made by a CPVB leadership with approval of the CPVB External Advisory Committee.

*Applications will be reviewed using the following criteria:*

1. Alignment with the CPVB COBRE mission.
2. Significance.
3. Investigator.
4. Innovation.
5. Approach.
6. Mentor and Mentoring Plan.

7. Environment.
8. Use of the CPVB COBRE core facilities
9. Likelihood that the project will lead to external funding.

*Additional Review Criteria:*
1. Reasonable and justified budget that is appropriate for the proposed research.
2. Protections for Human Subjects, Inclusion, Vertebrate Animals, & Biohazards

Funding is dependent upon final review and approval by the CPVB COBRE External Advisory Committee and by NIGMS. **Since NIGMS requires IACUC and IRB approval PRIOR to funding, applicants are strongly urged to have obtained or commenced the regulatory approval process at the time of submission of the application.**

**DATES AND DEADLINES**

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|---|---|
| October 11, 2021: | Full Proposal due |
| November 15, 2021: | Awards announced (anticipated) |
| December 1, 2021: | Funding begins (anticipated) |

**QUESTIONS**

Address inquiries regarding the CPVB COBRE Program to cpvbcobre@gmail.com