Application
Interested applicants are required to apply through the UFunds online portal no later than Monday, March 16, 2020 at 5pm ET. The Application must include the following:

1. Contact and academic information as requested via the UFunds application page.
2. Structured one-page overview of research aims, significance, and approach.
3. References.
4. NIH-formatted bio-sketch for each investigator and mentor.
5. Letter from Department Chair(s) stating postdoctoral fellow or resident physician applicants will have a faculty appointment by June 1, 2020, if applicable (not required for current faculty).

A Brown University ID is required to access UFunds. Non-Brown faculty should email Susan.McNamara@va.gov by February 18, 2020 to request a Brown University ID to use for this application.

Pilot Project award announcements are anticipated to be communicated by email to applicants Mid May 2020.

Overview
The CardioPulmonary Vascular Biology (CPVB) COBRE has the goal of increasing the quantity and quality of cardiovascular and pulmonary research in Rhode Island. One means of attaining this goal is identification and nurturing of talented young investigators. Therefore, the CPVB COBRE announces the availability of two $50,000 pilot projects for research related to cardiovascular and pulmonary diseases. The goal of these pilot projects is to enable investigators to develop preliminary data that can be used to support successful applications for independent research funding in vascular biology. In addition, pilot project investigators are expected to participate in COBRE meetings and activities and in career development activities to enhance skills for academic and research success.

Funding Available
The 2020 Pilot Projects Program will fund two $50,000 projects for one-year research grants. Indirect costs will not be provided to the applicants’ home institutions.

Performance Period
The anticipated performance period is 6/1/2020 to 5/31/2021.
Available Services for Applicants

All applicants are strongly encouraged to schedule a consultation with Cell Isolation and Organ Function Core to enhance their responsiveness to this RFA. Applicants are encouraged to review available services on the CPVB CORE lab-request-form for any inquiries. Please contact elizabeth_harrington@brown.edu or julie_braza@brown.edu or amy_princiotto@brown.edu.

AWARDEE AND MENTOR RESPONSIBILITIES

Investigators and mentor(s) will be expected to meet on a regular, pre-specified basis to review progress in the goals of the application. A mentorship plan must be established and submitted with the mentor(s) letter of support at the time of application. Junior faculty are expected to have at least one mentor. The mentorship plan should address:

- A communications strategy that fosters consistent and intensive interactions to ensure completion of the project and any relevant training.
- The nature and frequency of the interaction between the mentor(s) and investigators for the duration of the award.
- How the training plan supports the proposed research.

Awardee Responsibilities

Investigators selected for a Pilot Project award will be required to:

1. Obtain IRB and or IACUC approval, as applicable, before funding can be awarded, no later than April 1, 2020. Applicants are strongly encouraged to have these processes underway at the time of application.
2. Present a seminar describing the project and results at a CPVB COBRE bi-weekly session as well as, if invited, at the CardioPulmonary Vascular Biology External Advisory Committee Meeting.
3. Present a poster at the RI NIH IDeA Symposium, if invited.
4. Attend all required program-related seminars and conferences (to be specified).
5. Complete annual progress report.
6. Acknowledge sponsorship from CardioPulmonary Vascular Biology supported by the IDeA-COBRE grant (P20GM103652) in all research publications during the performance period. Future publications related to this research must also COVB COBRE acknowledgement.
7. Report all presentations, publications, and extramural funding that arise from this award to CPVB COBRE administrator.

Mentor Responsibilities

Mentors will be required to provide the awarded investigators with research guidance toward an independent research career through a planned series of meetings and activities as well as frequent discussions and guidance as needed.

APPLICATION INSTRUCTIONS

Proposal Submission Instructions

Proposals are due through UFunds no later than Monday, March 16, 2020 at 5pm ET. 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 contact 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 Contact 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 6/1/2020 to 5/31/2021. The budget must total no more than $50,000. Indirect costs will not be provided to the applicants’ home institution.

PI salary is allowed but will be reviewed carefully considering the scope of PI roles. 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 is 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.

Salary support for mentors is not allowed.

**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 biosketch. Biosketches 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 Pilot Project 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 pilot 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 and above outlined awardee responsibilities (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:

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face Page</td>
<td>Provide the requested administrative information.</td>
<td>n/a</td>
</tr>
<tr>
<td>Project Summary</td>
<td>Complete the Project Summary, Relevance, Project/Performance Site Primary Location, and Senior Key Personnel.</td>
<td>n/a</td>
</tr>
<tr>
<td>Budget</td>
<td>Complete Page 4 of the NIH 398 form for each institution requesting support.</td>
<td>n/a</td>
</tr>
<tr>
<td>Budget Justification</td>
<td>Provide clear, succinct justification for each requested budget item for each institution requesting support.</td>
<td>n/a</td>
</tr>
<tr>
<td>Biographical Sketches</td>
<td>Include for all proposed key personnel, including mentors.</td>
<td>5 pages (each)</td>
</tr>
<tr>
<td>Resources</td>
<td>Detail space, equipment, and other resources available for research.</td>
<td>n/a</td>
</tr>
<tr>
<td>Checklist</td>
<td>Complete Section 3 of PHS 398 Resources Format page.</td>
<td>n/a</td>
</tr>
<tr>
<td>Research Plan</td>
<td>Project specific aims.</td>
<td>6 pages</td>
</tr>
<tr>
<td>Specific Aims</td>
<td>Include overall significance of the project, including relevance to goals of the CPVB COBRE, and plans for use of data from pilot project for subsequent independent funding. (up to ½ page).</td>
<td>½ page</td>
</tr>
<tr>
<td>Significance &amp; Innovation</td>
<td>Outline both conceptual and technical innovation.</td>
<td>½ page</td>
</tr>
</tbody>
</table>
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.)

Timeline

Indicate dates for completion of Specific Aims, manuscript submission, and extramural grant applications submission.

References

Provide citations for any references used in the Research Plan.

Future Funding Plans

Describe plans to submit application for future funding.

*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) for each investigator 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 junior investigator(s) 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 Preliminary Applications will be conducted by the Cardiopulmonary Vascular Biology (CPVB) Pilot Projects 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, Rhode Island Hospital, and/or affiliated hospitals and universities. 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. Responsiveness to the RFA.
2. Scientific impact and soundness of the experimental design, including plans for data analysis.
3. Technical and conceptual innovation.
4. Training and expertise of the PI's and their ability to perform the proposed research.
5. Scientific and mentoring expertise of the mentor(s).
6. Project environment, including facilities and adequacy of the patient population, if applicable.
7. Reasonable and justified budget that is appropriate for the proposed research.
8. Use of the CPVB COBRE Cell Isolation/Organ Function Lab
9. Likelihood that the project will lead to external funding.

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(es) at the time of submission of the application. IRB and IACUC approvals must be obtained by May 1, 2020 or applicants risk loss of funding.

DATES AND DEADLINES

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 16, 2020:</td>
<td>Full Proposal due</td>
</tr>
<tr>
<td>Late May 2020:</td>
<td>Pilot Awards announced (anticipated)</td>
</tr>
<tr>
<td>June 1, 2020:</td>
<td>Pilot funding begins (anticipated)</td>
</tr>
</tbody>
</table>

QUESTIONS

Address inquiries regarding the CPVB COBRE Pilot Projects Program to Susan McNamara, Program Administrator, at Susan.McNamara@va.gov or 401-273-7100 ext.2679