# Highly Integrative Basic
# And Responsive (HIBAR) Research

# Request for Application

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| **Release Date:** | **June 27, 2018** |
| **Prospectus Due:** | **November 01, 2018** |
| **Down-Selection Announcement:** | **December 15, 2018** |
| **Full Applications Due:** | **July 01, 2019** |
| **Selection Announcement:** | **September 01, 2019** |

# Contents

# 1.0 *Developing Highly Integrative Basic and Responsive (HIBAR) Research Programs at OSU*

Research is integral to the Land-Grant mission of Oklahoma State University (OSU). The institution's reputation, both nationally and statewide, is driven by the public's knowledge of and appreciation for the excellence and impact of OSU's research. Therefore, investments to grow the research enterprise at OSU have the highest payoff when they can leverage the expertise and efforts of OSU's talented researchers to address important societal problems. To promote and stimulate this type of growth, OSU plans to select thematic research areas that can impact pressing societal needs/problems using interactive teams of researchers across a spectrum of disciplines and levels of emphasis. This is consistent with the Association of Public and Land-Grant Universities (APLU) recent call for researchers to unite and 'engage theory with practice for transformative solutions' in what they have termed HIBAR (**H**ighly **I**ntegrated **B**asic **A**nd **R**esponsive) Research. In part, HIBAR Research efforts are intended to counter the myth that basic research (descriptive of much research conducted at universities) is always and necessarily associated with "the absence of a concern with practical application." [1]

By consciously promoting interactivity among researchers across the spectrum from basic to application-oriented, the HIBAR approach to research can not only improve research outcomes, but also increase the overall benefit to society.

HIBAR Research programs combine academic engagement with real-world problem solving through all of the following aspects of motivation, approach, partnership, and time-frame. HIBAR Research:

- *Embraces* the attainment of new knowledge coupled with the solution of important problems;
- *Combines* academic research methods with practical design thinking aimed at application;
- *Engages* the efforts of academic and real-world leading experts; and
- *Seeks* time-to-use that is more rapid than academic research norms (<15 years) yet more ambitious and less immediate than in direct application R&D (>3 years). [2]

Example programs that fall within the HIBAR Research framework can be found at https://research.okstate.edu/hibar/what-is-hibar-research.html.

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[1] Nathan Rosenberg and Richard R. Nelson, "American Universities and technical advance in industry," *Research Policy* 23 (1994): 332.

[2] "Highly Integrative Basic And Responsive (HIBAR) Research: Engaging Theory with Practice for Transformative Solutions," Association of Public & Land-Grant Universities, accessed March 15, 2018. http://www.aplu.org/projects-and-initiatives/research-science-and-technology/hibar/index.html.

## *2.0*    *Program Description*

OSU is initiating a HIBAR Research program to further enhance the quality and impact of research at OSU. The multi-phased process outlined in this Request for Application (RFA) is designed to give full voice to OSU's faculty researchers in proposing what teams of OSU researchers and outside partners are most poised to adopt a HIBAR Research approach, and what important societal problems they will solve.

The program will involve selecting and then resourcing the teams that most directly apply the four key concepts of the HIBAR approach (described in section 1.0), and that are judged to have the greatest potential for leveraging external resources to impact societal problems. This will be a multi-phase application process, open to collaborative teams led by OSU faculty.

To maximize the utility of OSU researchers' time and energies, the first step phase is essentially an idea competition, requiring only a brief, non-technical prospectus to serve as the basis for down-selection. Teams showing the most promise as HIBAR Research candidates will be given a small planning grant ($15,000) to work with internal and external partners to further build out their respective teams and ideas, and then submit a full application (the second phase).

Based upon the full applications submitted in the second phase, it is anticipated that two teams will be selected as OSU's initial HIBAR Research programs.

The third phase of the selection process will involve the selected team leaders, relevant deans and vice presidents, and OSU leadership negotiating the specific structures and budgets appropriate to the selected areas. These phases are described in greater detail below.

Further competitions may be held in later years to identify additional HIBAR Research emphases, once the initial programs are underway.

# Phase I

## *3.0*    *Prospectus – Idea Challenge*

### 3.1    Prospectus Content

The prospectus phase is an idea challenge to determine those thematic areas that appear most promising and the teams that have the potential to expand under the HIBAR concept. The structure of the prospectus must adhere strictly to the description outlined here. The entire prospectus may be no more than 5 pages, have 1 inch margins, no smaller than 11-point font, and should not contain references or citations.

*Cover page:*
- Title of project
- Name, title, and affiliation of faculty leads (at least 2, no more than 4)
- List of collaborators, both internal and external

*Idea/Theme Description*:

Describe the proposed HIBAR theme and what expertise areas (various disciplines at OSU as well as non-OSU academic collaborators, industry partners, municipalities, local and state government agencies, non-governmental organizations, etc.) will collaborate to address the identified societal need. Include a description of the extent to which the team leads have been in discussion with individuals representing these various expertise areas not represented by the team leads. This section is limited to 2 pages.

*Utilization of Funds - $15,000*

**S**ubmit a written statement (2 pages maximum) summarizing how the team anticipates the $15,000 will be used to build the full team (internal as well as external collaborators) in support of a full application (described below) during the six (6) month phase leading up to the full application deadline. Do not include a numerical, categorized budget as this funding is a planning grant; a summary statement is sufficient.

## 3.2     Submission Information

The prospectus must be submitted as a single .pdf file to [vprprograms@okstate.edu](mailto:vprprograms@okstate.edu) by 5:00 p.m., Thursday, November 01, 2018.

As stated above, the entire prospectus may be no more than 5 pages, have 1 inch margins, no smaller than 11 point font, and should not contain references.

**Late submissions will not** be accepted and any prospectus not following the page, margin, or font size limits will not be considered.

## 3.3     Selection Information

We anticipate up to five (5) teams to be selected from the prospectus challenge and announced on December 14, 2018. Selected teams will receive $15,000 to assemble a full HIBAR team and will have until **5:00 p.m., July 01, 2019** to submit the full application.

# Phase II

## *4.0 Full Application*

### 4.1 Full Application Content

The full application should be a comprehensive plan describing the HIBAR Research program proposed. The application can be no longer than 15 single-spaced pages, with 1 inch margins, no smaller than 11 point font and should include the following sections: Program Description, Expertise Gap Analysis, External Funding Plan, and any figures and tables. Other required components of the application that **do not** count towards the 15-page limit are: literature cited, letters of commitment from external partners, lead biographical sketches, and internal team member biographical sketches (all described below).

*Program Description*: The program description should provide a broad overview of the proposed HIBAR Research theme and clearly explain why this research will have societal impact. Clearly define the societal problem being addressed, what others are doing to try to solve the problem, what solutions have shown efficacy, where the gaps are in current attempts to address the problem and how the proposed approach is going to address current limitations in addressing the problem. The description should start broadly and narrow down into 1-, 3-, 5-, and 10-year program plans and benchmarks. The Program Description should clearly and concisely describe the first three (3) research projects that the team (as currently comprised) could conduct to initiate the HIBAR Research program (for the sake of scaling the proposed projects, assume hypothetical direct budgets of approximately $100,000 per project). Include description of the partners involved in these initial projects and their defined roles as known at the time of application. Describe the general goals and types of research (rather than specific projects) to be conducted for subsequent years as well as potential partners or collaborators that would be brought into the program at later stages. Throughout the Program Description, consideration should be given to the broader impact of the HIBAR Research program being proposed: include descriptions of how relevant undergraduate and graduate research programs will be impacted, communication and public outreach plans, other impacts the program would have on OSU research university-wide, and (of course) the direct impact the research would have on the identified societal problem.

*Expertise Gap Analysis*: An Expertise Gap Analysis should be conducted by the HIBAR Research Team, describing the strengths of the composed team and identifying expertise gaps needed for this team to be fully successful in addressing the proposed HIBAR Research theme. The Expertise Gap Analysis should be no more than 2 pages.

*External Funding Plan*: Describe, in no more than one 1 page, how the team will leverage the HIBAR Research program to secure external funding. Specify what agencies or industry partners would be focused on, along with specific funding programs to where the team would submit applications.

*Literature Cited:* Include references cited in the format utilized by your field. ***Note****: This section does not count against the page limit.*

*External Letters of support/commitment*: Include letters of support or commitment from <u>external</u> partners (any non-OSU faculty, industry partners, NGOs, municipalities, etc. who are part of the team). If the external partner is included because of specific research expertise, the letter should include a paragraph explaining that expertise. ***Note****: This section does not count against the page limit.*

*Biographical sketches*: Each of the team leads must complete and submit a [Team Lead Biographical Sketch form](#). Each internal partner (non-lead) must complete an [Internal Team Member Biographical Sketch form](#), briefly describing their skills and qualifications relevant to the HIBAR theme. ***Note****: This section does not count against the page limit.*

## 4.2    Submission Information

Due to the multi-disciplinary nature of the HIBAR Research program, you are required to internally route the full application across all colleges participating in the implementation of the application, but not through the University Research Services office.

Full applications should be submitted as a single .pdf file to [vprprograms@okstate.edu](mailto:vprprograms@okstate.edu) by 5:00 p.m., Monday, July 01, 2019.

The full application should be no more than 15, single spaced pages with 1" margins and no smaller than 11 point font. This page limit includes **ALL** elements listed above, except for literature cited, external letters of support/commitment, and biographical sketches (they do not count toward the total page limit).

## 4.3    Selection Information

It is anticipated that two HIBAR Research areas will be selected in the competition. The period of performance will be indefinite, but evaluated on an annual basis based upon milestones identified in phase 3. A full review will be conducted after 5 years.

## 5.0    *Application Evaluation and Selection Process*

### 5.1    **Evaluation Criteria**

| Category | Considerations | Weight |
|---|---|---|
| a) Likelihood of future external funding | • What is the likelihood of developing a program that will likely be funded by external sources after initial program development? | **40%** |
| b) Motivation, perspective and approach to applied, solution-focused, societally responsive research | • Is a major problem being addressed and is there a realistic plan to help solve it?<br>• Is there an iterative, stakeholder-based, use-inspired questioning process?<br>• Is established practice-oriented talent able to allocate *significant* time and energy to this?<br>• Are there opportunities to involve and mentor junior applied researchers? | **15%** |
| c) Motivation, perspective and approach to basic research | • Will success of the program require new kinds of deep understanding?<br>• Are appropriate scholarly research methods being brought to bear on the problem?<br>• Is established basic research talent able to allocate *significant* time and energy to this?<br>• Are there opportunities to involve and mentor students? | **15%** |
| d) Integration of basic research into responsive/applied research | • Are the motivations and approaches for both basic and responsive research integrated in ways that are balanced and synergistic?<br>• Are these perspectives brought together in ways that are beneficial?<br>• Is the overall plan to generate usable, realistic and achievable solutions? | **15%** |
| e) Program management structure | • Does the team have clear leadership and well-defined internal and external partnerships?<br>• Does the partnership include all obvious partners needed, or a plan to add partners, to carry out the project description?<br>• Is there a clear program timeline and end goal?<br>• Is dissemination planned via strategic partners, patents, and/or policy initiatives?<br>• Is there clear diversity of the team across discipline, tenure rank, and ideas? | **15%** |

## 5.2    Review and Selection Process

Each application will be evaluated by a team of reviewers. Emphasis will be placed on the most complete, comprehensive application with measurable, achievable and impactful outcomes. Applications must receive at least a "Very Good" to be considered for selection, and must be judged to have a high likelihood of leveraging substantial external funding.

| Rating | Definition |
|---|---|
| Excellent (90-100%) | A comprehensive and thorough application of exceptional merit with one or more significant strengths. No deficiency or significant weakness exists. |
| Very Good (80-89%) | An application having no deficiency and which demonstrates overall competence. One or more significant strengths have been found, and strengths outbalance any weaknesses that exist. |
| Good (70-79%) | Not selectable. |
| Fair (60-69%) | Not selectable. |
| Poor (59% or below) | Not selectable. |

# Phase III

## 6.0    *Selection and Resource Allocation*

OSU intends to invest $1.5 to $2 million per year in HIBAR Research programs over a multi-year period. Once selected, the HIBAR Research team leads will meet with an administrative oversight committee to determine what type of administrative structure and budgetary framework is needed to successfully implement each program. The administrative oversight committee for each selected team will be comprised of the VPR, the Provost, the Senior Vice President of Administration and Finance, the relevant deans, and other relevant persons as determined by the parties listed above. The oversight committee, in conjunction with the team leads, will determine the resources to be allocated to the HIBAR Research area, and the benchmarks that will serve as the basis for annual and ongoing evaluation of progress and success.

## 6.1    Selection Notices

Contingent upon available funding and application(s) submitted, it is anticipated that two HIBAR Research teams will be selected. Leads of the selected and not-selected teams will be notified via email on or about September 01, 2019.

## 6.2    Potentially Allowable Resource Categories

- Project funds (pilot projects, etc.)
- Administrative (leadership, as well as support staff)
- Equipment
- Operational costs
- Technical personnel
- Space

## 6.3    Post-Selection Reporting

- Annual reports should be submitted each year no later than August 31 to vprprograms@okstate.edu. These reports should not exceed five pages and should include a summary of technical and partnership progress made throughout that year.
- Financial reports, summarizing expenditures from agreed upon budget categories, should be submitted annually to vprprograms@okstate.edu.
- Within 12 months of the completion of funding, a final report summarizing the technical achievements, social impacts and future of the research program should be submitted to vprprograms@okstate.edu.

## *7.0    Frequently Asked Questions*

During the open call for applications phase, please check https://research.okstate.edu/hibar/faqs.html for a list of frequently asked questions, or click here to email Dr. Amy Dronberger, Manager of Research Operations.