



INDIANA UNIVERSITY

OFFICE OF THE VICE PROVOST FOR RESEARCH

Bloomington

Emerging Areas of Research Funding Program (EAR)

Second Round Request for Proposals

Abstract Deadline: June 30, 2017

Proposal Deadline: October 13, 2017

Questions regarding the EAR should be directed to:

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EAR Coordinator:	Alicia Adelman	earprogram@indiana.edu	855-0126
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This document and associated documents are available on OVPR's website: ovpr.indiana.edu/ear

SYNOPSIS

The *Indiana University Bloomington Strategic Plan* calls for the campus to invest significant resources to support research and creative activity. These investments, which are a key part of a collection of strategic initiatives at IU, include the *Emerging Areas of Research Funding Program* (EAR) at IU Bloomington. **Note: Throughout this document, research is defined as research, creative activity, or scholarship, or any combination of these.**

The *Emerging Areas of Research Funding Program* seeks to support key areas of research or creative strength on the IU Bloomington campus that can be novel or established, but in need of support that would establish or increase the stature of the area at IU Bloomington and beyond. The EAR Program is separate, unique, and distinct from the Grand Challenges Program. Faculty are encouraged to submit to the EAR Program regardless of their involvement in a Grand Challenge team. Moreover, teams not selected for Grand Challenge funding are welcome to adapt their proposal appropriately to compete in an EAR competition.

The EAR funding program will support investigators who are prepared to undertake a significant and complex investigation involving fresh approaches to research or creative activities. While multidisciplinary research is not essential, the EAR program does emphasize collaboration and a team approach. The area that is emerging should capitalize on existing strengths on campus and/or fill an existing gap in personnel that is critical to enhancing the volume, quality, impact and reputation of research at IU Bloomington, and will lead to federal, corporate, or private funding.

Campus support for the development, expansion, and enhancement of research by faculty at Indiana University Bloomington is targeted to leverage and attract major national funding from agencies such as NSF, NEH, NIH, NEA, DOE, DOD and/or similar federal, state or private entities. In particular, competitive EAR proposals must address likely sources of external funding, as appropriate to the disciplinary area that can sustain the initiative and/or the potential for commercialization.

In 2016, one EAR proposal was selected to receive funding, and the campus anticipates funding up to five additional EAR initiatives over the next four years. Typically, EAR will be an annual competition with a goal of funding up to two initiatives per round. For each four-year EAR award, the campus anticipates investing approximately \$3 million in cash and also financing between 1-3 faculty lines, i.e., base salary lines, per initiative.

Goals: IU Bloomington's investments in the Emerging Areas of Research Funding Program are intended to significantly enhance the volume, quality, impact, and reputation of research and creative activities at IU Bloomington, and serve six goals for the proposed area:

Goals of the EAR Program:

- Provide critical, strategic investments to advance emerging areas of research based on IU Bloomington's strengths.

- Improve the ability of IU Bloomington faculty to compete successfully for ambitious and diverse external research support, appropriate to the field, and potentially create intellectual property with commercialization possibilities in relevant disciplines and areas.
- Facilitate strong collaborations that enable faculty to pool intellectual input and leverage resources to maximize the pursuit of emerging research that facilitates or promotes campus objectives.
- Identify an area of research or creative activity where the campus can become more competitive with the addition of key faculty who may fill an existing gap.
- Promote faculty to serve as world leaders among peers in a specific area and/or be recognized for identifying and executing a novel approach to disciplinary or interdisciplinary research.
- Increase the overall impact of research and creative activity on the campus, e.g., fundamental discoveries, technology development and transfer, community-facing performances and exhibits.
- Aligns reasonably with strategic plans of the relevant school(s)/College.

IMPLEMENTATION TIMELINE

Monday, April 10, 2017:	Distribution of full EAR Request for Proposals
Monday, April 17, 2017:	Town Hall Meeting, State Room East, IMU; 12 noon – 1:30 pm
Friday, June 30, 2017:	Required abstract due (500 word maximum), including title of proposal, lead investigator/s contact information, and a paragraph describing the emerging area of research or creative activity that will be proposed. The receipt of abstracts will be used to gauge the number and topics of full proposals under development. Access ovpr.indiana.edu/ear to download the required template (box at left)
Friday, September 1:	Required list of three (3) external reviewers due to OVPR at earprogram@indiana.edu
Friday, October 13, 2017:	Proposals due by 5 p.m. (EST)
January 2018:	Final decision announced
2nd semester AY17-18:	Second-round EAR implementation begins

GUIDELINES

ELIGIBILITY

Eligible as PIs and co-PIs (IU Bloomington)

- All tenured and tenure-eligible faculty (including center directors)

Proposals including participation by women and members of underrepresented groups as PIs and team members are especially encouraged.

There is no limit to the number of proposals in which faculty and other eligible team members, as defined below, may participate. This includes faculty who are participating on a proposal for the Grand Challenges Program.

Eligible as team members but not as PIs or co-PIs (IU Bloomington)

- Medical Sciences faculty
- Clinical faculty
- Faculty appointments not eligible for tenure
- Emeritus faculty
- Visiting and adjunct faculty members
- Research and Staff scientists/scholars
- Post-doctoral research associates
- Graduate students, as supervised by faculty team members

ADDITIONAL ELIGIBILITY INFORMATION

Proposals focused primarily on the development of curricular programs for students are NOT eligible for EAR support.

FUNDING DURATION

Each EAR initiative will be funded for four consecutive years.

PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

Pre-Proposal Preparation and Resources <http://ovpr.indiana.edu/ear1/proposal-resources/>

Proposal Abstract – Download required form ovpr.indiana.edu/ear (box at left).

The required proposal abstract of a maximum of 500 words is due by June 30, 2017, and should be emailed to earprogram@indiana.edu.

The receipt of abstracts will be used to gauge the number and topics of full proposals under development.

Full Proposal - ONLINE APPLICATION

For the final proposal, applications must be submitted electronically using the online application. **A link to the online application will be sent to all faculty on June 30, and will be provided on the OVPR website.** A PI must log in to complete and submit the application. IU authentication is required.

APPLICATION COMPONENTS (PDFs are required)

Include the required section headers as outlined below, or use the sample template to construct the proposal's narrative. Use standard fonts such as Arial, Times, Calibri, or Computer Modern, with a font size no less than 11 point; minimum one-half inch margins; and page numbers in the footer.

Each proposal must include the following components. No other attachments are necessary or permitted.

1. Proposal Cover Sheet: Generated by the online application system and completed by the PI.
2. Personnel (2 page maximum): Upload PDF attachment to the application. List:
 - The PI/Co-PIs and other project leaders for the proposed EAR initiative, and a brief statement on the expertise and value each will bring to the initiative.
 - The other team members who have agreed to participate, including area of expertise, and percent effort to be contributed to the initiative.
3. Biosketches (3 page maximum or standard NIH/NSF biosketch): Upload PDF attachment to the application.

Provide biosketches for the PI/Co-PIs and project leaders in NIH, NSF, or similar format. Biosketches are not counted in the cumulative word/page limit for the proposal, and must include a summary of current and past external funding.

4. Research Plan (15-page maximum): A required *Research Plan* outline has been created for your convenience and will be accessible at the online application site. Upload PDF attachment to the application.

*Proposals should be written so that a reviewer from any discipline can understand and evaluate it. For this reason, it is recommended that you not use detailed content from proposals submitted or intended for external agencies with the exception of basic introductory narrative. **All sections must be included and labeled as they are outlined below:***

A. Introduction: Describe the area of research, and explicitly explain why this research is emerging. Include the current state of knowledge and expertise relevant to the proposed work, and explain how IU Bloomington will be unique in its pursuit of this area and would rank *compared with other institutions involved in similar research*. State the overall objective of the emerging research and state why, with additional resources, this proposed area can become novel or world-class.

B. Specific Aims: Define the broad long-term objectives and the goals of specific projects under the emerging area of research proposed, e.g., to test a hypothesis, create a novel design, stage a performance or exhibit never considered before, solve a specific problem, challenge an existing paradigm, address a critical barrier to progress in the field, or develop new technology. Describe the specific aims that will contribute to achieving the long-term objectives and goals.

C. Design and Methods: Describe the research design, conceptual or clinical framework, and procedures that will be used to accomplish the specific aims of the projects. Describe any new methodology and its advantage over existing methodologies. Describe any novel concepts, approaches, tools, or technologies that will be used. Describe the approach to be used for data analyses and interpretation.

D. Timetable: Provide a proposed sequence of events and timetable for the four years of research of the overall initiative, as well as related projects.

E. Significance and Impact: For each project within the EAR initiative, clearly state the importance and relevance of the proposed work within the represented fields and the larger world of ideas. Discuss any novel ideas or contributions that each project offers.

F. Team Leadership and Collaboration: Describe the team’s collaboration management plan, i.e., approach to leadership and integrating each team member into the proposed emerging area of research. For example, how will team members contribute their expertise to address the research questions being investigated? How will information be shared, and how will the team interact to share progress and plan future goals?

G. Future Funding/Sustainability: Provide a detailed explanation of how this area of research or creative activity could be sustained long-term, including the potential for, and likely sources of, external funding, appropriate to the discipline or field. Indicate potential for commercialization, if applicable. This section should address not only traditional sources of funding such as NSF and NIH, but other government agencies, corporate and private funders such as foundations, companies, and private philanthropic support. When applicable, include specific funding announcements and a timetable for submissions.

H. New positions proposed: Justify why each new position is needed and its relation to current positions and how these positions serve the common interest of the schools/College. Think of this as a “gap analysis” explaining what IU Bloomington has and what is needed for the proposed EAR initiative to succeed.

I. IU and External Collaborative Arrangements: Briefly describe the collaborations you propose and provide evidence that the collaborators will be engaged in the initiative. (See “Letters of Support” section.)

J. Metrics and Deliverables: Include the metrics and deliverables for assessment, describing how progress and impact will be measured, as well as how enhancement of the reputation of IU Bloomington by the proposed initiative will be assessed.

5. Budget: A required budget template has been created for your convenience and will be accessible at the online application site. Upload PDF attachment to the application.

Provide an initial 4-year **notional** budget, which should include all projected expenditures. Acceptable expenses are determined by the nature of the initiative and relevant projects, and the justification. Group/s selected to receive funding will be expected to provide a full budget on an annual basis.

- **Total EAR budgets should not exceed \$3 million in cash and must include half the *estimated* cost of start-ups for the new faculty hires, as well as all other expenses. It is expected that not all new hires will be at a senior level.**
- See **Budgetary Information** below for allowable expenses.

6. Budget Justification (5-page maximum): A required template has been created for your convenience and will be accessible at the online application site. Upload PDF attachment to the application.

The budget justification must provide a rationale for **all salaries (excluding salaries for new faculty), materials, equipment, and travel funds requested**, as well as any item whose purpose or cost computation is not self-evident.

Proposals requesting support for postdoctoral research associates or graduate students must outline a plan in the justification for how they will be appointed that is consistent with the anticipated start date, duration, and timeline for the EAR initiative.

For each proposed new faculty line, explain how the candidate will be a key contributor who will make the campus more competitive in attracting external funding and/or provide evidence that shows how his/her activity will enhance the reputation of IU Bloomington.

7. Letters of Support (2-page limit per letter): Upload attachment to the application in one inclusive PDF document; alternatively, may be emailed or faxed.

Applicants should allow ample time to discuss with their chairs and deans the strength of their proposed initiative and how it either aligns with the unit’s strategic priorities or is a new strategic direction that merits support. The number of required letters depends on the number of academic programs/units involved. Required letters include:

- One letter from the chair of **each** academic program/unit that is impacted by the initiative through involvement of the PI or co-PIs. If the chair is a co-PI, a letter must be provided by the associate chair or equivalent.
- **Due by September 1:** List of three experts in the field (outside of Indiana University) who are capable of assessing the significance of the initiative and the likelihood of its success. OVPR will solicit one letter from the list of experts provided and up to two additional letters from external reviewers not included on the list.
- Concomitant letters that reflect IU and external collaborative arrangements.
- OVPR will solicit letters from the dean(s).

Emailed or faxed letters must be received **by 5:00 p.m. on October 13**. *Include the names of those providing support letters in the “Comments to the Administrator(s)” section at the end of the application.* Email and fax contact information:

Alicia Adelman	earprogram@indiana.edu
Office of the Vice Provost for Research	812.855.0126 phone
Carmichael Center, Suite 202	812.855.6396 fax

BUDGETARY INFORMATION

EAR funds must be expended on the IU Bloomington campus. The base salaries of new faculty hires are not to be included in the \$3M cash budget. Of the \$3M cash budget:

Allowable Costs

- If selected, summer salary for 10-month faculty appointee as discussed with unit dean and chair
- If selected, course release funds as discussed with unit dean and chair

- Estimated start-up costs for new faculty (see details outlined under the heading “Budget”)
- Equipment purchases
- Travel to conferences and meetings with collaborators and partners unique to the proposal. Maximum \$20,000/year (not including field work)
- Fees associated with using IU Bloomington facilities. Non-IU Bloomington facilities may be utilized **only** if no comparable facilities exist at IU Bloomington.
- Development of seminars, colloquia, and engagement programs
- Sub-contracts and consultants are allowed with appropriate justification. For IU faculty or staff consultants, hourly compensation is limited to their direct rate (exclusive of fringe benefits). If the consultants are from outside IU, justification for their hourly rates must be provided.
- Postdocs/research scientists and graduate students are allowed with appropriate justification.
- A service contract for 1 year is allowed for equipment purchased as part of the EAR initiative.

Costs Not Allowed

- Full-year salary for any faculty academic appointee (including sabbatical leave)
- Service contracts for existing equipment beyond 1 year
- Collaborators are allowed from other IU campuses or institutions, but they **may not** receive any support from EAR funds. This includes summer salary, student or undergraduate salaries, and materials and supplies. Initiatives that include support for non-IU Bloomington participants will require appropriate cost sharing, since EAR funds may only be used to support IU Bloomington participants.
- Development of curricular programs for students.

Human Subjects/Animals/Biosafety: Funds will not be released until any required IRB/IACUC/IBC approvals have been received.

No-Cost Extension: A “no-cost extension” allowing funds to be carried over beyond year 4 requires a request with justification from the PI and a progress report. Extensions are limited to an additional 12 months unless there are exceptional circumstances. Requests must be approved by OVPR prior to the expiration of the EAR award.

REVIEW PROCESS

First round of reviews

- Discipline-specific review panels
 1. Two review panels will be established as follows:
 - a. One review panel with up to 8 tenured faculty will represent the physical and natural sciences. The Associate Vice Provost for the Sciences will chair the review panel.
 - b. One review panel with up to 8 tenured faculty will represent the social sciences, humanities, and the arts. The Associate Vice Provost for the Arts and Humanities will chair the review panel.

2. One primary and one secondary reviewer will be assigned to each proposal. Their responsibilities will include developing a written review to be shared with the review panel prior to a meeting where the primary reviewer will present the proposal to panel members for discussion.
3. All proposals will be evaluated by all members of the review panel. Written comments are not required by those not assigned as a primary or secondary reviewer. The evaluation of each proposal will be based explicitly on the review criteria outlined as follows:
 - Represents a complex, established or novel, and significant investigation (which may be either discipline-specific or multidisciplinary).
 - Strategically addresses an area of existing strength at IU Bloomington for which a novel approach requiring the addition of resources will make the area world-class among peers or recognized for identifying and executing a novel approach.
 - Represents a strong team-based approach to research and/or creative activity, and evaluates the scholarly strength of the team.
 - Identifies an area where the campus can become more competitive with the addition of key faculty.
 - Serves the broader goals of the schools/College with the addition of key faculty.
 - Describes the feasibility of the proposed research or creative activity and the impact of the research or creative activity.
 - Outlines well-defined, achievable goals that can be measured quantitatively and qualitatively.
 - Strategically leverages IU Bloomington's existing resources and potentially garnered resources outside of the IU community.
 - Has potential to attract the external competitive, philanthropic, corporate, and/or government funding, as appropriate to the discipline or field that can sustain the area of research or creative activity. (Proposals in disciplines where commercialization possibility and external funding prospects are not directly relevant or feasible will not be judged on those factors.)
4. Each review panel will meet to discuss each proposal and will determine a rank order used to eliminate approximately one-half of the proposals from advancing to the second round review panel.

Second round of reviews:

- **Multidisciplinary review panel**
 1. The second-round review panel will consist of 12 members, four of whom will be drawn from the two review panels in the first round of reviews and who will serve as consultants for responding to questions and providing clarification on proposals as needed.
 2. One primary and one secondary reviewer will be assigned to each proposal. Their responsibilities will include developing a written review to be shared with the review

panel prior to a meeting where they will present the proposal for discussion with panel members.

3. All proposals will be evaluated by all members of the review panel. Each reviewer receives an equal number of proposals to write a written review.
4. The scores applied to each proposal will be based explicitly on the program goals outlined on pages 2-3 of the Emerging Areas of Research RFP and on recommendations and input from discipline-specific first-round review panels.

Top selected proposals:

1. The 12-member review panel will receive all materials before the initial meeting. In that meeting they will choose approximately five proposals to be presented to them by the PI and a few close collaborators. Each presentation will be scheduled for 1 hour: 30 minutes for presentation, 20-30 minutes for a question and answer session.
2. Once all chosen proposals have presented, the 12-member review panel will meet one more time to discuss the top proposal(s) to recommend.
3. Finalist proposals will be reviewed by the respective academic dean of the originating school or center as indicated by letter(s) of support from Dean(s) (to be solicited by OVPR).
4. The Vice Provost for Research will serve as an ex-officio chair of the review panel to address any questions throughout the process.

Reviews of all proposals will be provided to the Provost and to the Vice Provost for Research, who will make the final funding decision together. Following award decisions, OVPR will meet with each team (at their request) to review their proposal's strengths and weaknesses.

Depending on the review panel's assessment and score of a proposal, some proposals not selected for an award may be revised and resubmitted in the future, or considered for other types of institutional funding competitions. Proposals that have a strategic relationship to a Grand Challenge Initiative already identified for funding could potentially be evaluated and funded under a future Grand Challenge Initiative.

POST AWARD REQUIREMENTS

REPORTING:

1. Successful applicants are required to notify OVPR upon submission or funding of external proposals derived from the funding received through the EAR program. Applicants should provide the IU proposal number.
2. Successful applicants will be required to submit an annual progress report by January 1 of every year following the start of funding. This report must include a new budget for the upcoming fiscal year (July 1-June 30). Requested data for the progress report will include:
 - Percentage of initiative completed
 - Progress towards metrics and deliverables stated in the proposal

- Resulting hires
 - Resulting publications, performances, conferences, exhibits—titles, dates, venues, bibliographic info, new research methodologies
 - Impact of EAR award on applying for external funding—titles, agencies, date submitted (past and future), amounts requested, status, awarded amount
 - Recognition—awards, honors, prizes, reviews
 - Budget report outlining funds utilization and details on any expenditure(s) outside of the approved budget
 - New fiscal year budget (July 1 – June 30)
3. Successful applicants will be required to submit a full report no later than six months after the end of the award. Requested data will include:
- Summary of results during the course of the initiative and how they addressed the initial EAR goals.
 - Success towards metrics and deliverables stated in the proposal
 - Hiring goals and implementation
 - Budget report outlining funds utilization and details on any expenditure(s) outside of the approved budget.
 - Resulting publications, performances, conferences, exhibits—titles, dates, venues, bibliographic info, new research methodologies
 - Progress in applying for external funding - titles, agencies, date submitted (past and future), amounts requested, status, awarded amount
 - Recognition: awards, honors, prizes, reviews
 - Additional follow-up information may be requested outside of the progress report, to determine the ongoing efficacy of the EAR.
4. Awardees will be required to present the outcomes of the EAR initiative at a special symposium planned by OVPR and held no more than one year after the end of the award.

IP POLICY:

All awards are subject to Indiana University's intellectual property guidelines. For policy details, see: <http://iurtc.iu.edu/policies/intellectual-property.shtml>

ACKNOWLEDGEMENT:

EAR awards must be acknowledged in any resulting publications, including press releases, using the following suggested language:

“This initiative was funded (or partially funded) by IU Bloomington’s Office of the Provost, the Office of the Vice Provost for Research and [supporting academic unit/s] through the Emerging Areas of Research Funding Program.” If a press release, append “<http://provost.indiana.edu/> <http://ovpr.indiana.edu/>” to the acknowledgement.

An electronic copy of such publications should be submitted to earprogram@indiana.edu.