

Call for Proposals: JMHC Breakthrough Research Award

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Proposal Preparation and Submission Guidelines

Application Deadline: July 15th, 2023 (due by 5 p.m. Eastern Standard Time).

Proposal Components: As part of a complete application, we require the following proposal components, found in the proposal template:

1. Research Project Description (1-2 pages)
2. Plan for Undergraduate Research Involvement (1-2 pages)
3. Budget and Justification (1-2 pages)
4. Abbreviated CV of PI (Principal Investigator) and Co-PIs (2 page per CV)
5. Endorsement from their Department Head or direct supervisor (1 page)

Submission Guidelines: Please follow the following guidelines to submit your application. All applications must be submitted through the [Qualtrics Form](#) found here.

1. Please use the proposal template provided to fill out the required details for the application.
2. All five components of the proposal should be combined into a single PDF document.
3. Please name the file by beginning the file name using last name and first initial such as SmithJ_JMHCResearchAward_2023.
4. After filling out the required information in the Qualtrics Form, you will upload your single pdf file as the last step before entering Submit.

Questions: Please email Dr. Priyanka Brunese (pshah@purdue.edu), Director of Research Development, John Martinson Honors College at Purdue University.

Funding

About the JMHC Annual Research Award: The JMHC Research Award is an annual award that supports faculty who take up the challenge of conducting high-impact research with undergraduate collaboration at all stages of investigation/creation. We seek proposals for projects that promise significant results and that also bridge the divide between Purdue University's research and teaching missions.

About JMHC: JMHC at Purdue University champions the cultivation of knowledge and skills by bringing together highly motivated undergraduate students from all areas of study into a residential community of scholars. In the JMHC, students are immersed in an educational environment that compares, contrasts, and integrates multiple perspectives from a wide range of disciplines. For more details about JMHC and our values, please review [Appendix 1](#).

Award Budget and Anticipated Number of Awards: The total funding available for the present cycle is \$150,000. We anticipate up to three awards depending on the quality of the proposals. Awards will range from \$50,000 - \$75,000.

Award Project Period: Fall 2023 - Fall 2024

Award Restrictions: The award is a one-time investment to conduct research, scholarship, or creative inquiry with JMHC undergraduate students. Funds can be used for faculty support (AY or Summer Salary); undergraduate student hourly funding for research project; graduate research assistant support; data collection activities or archival research; community engagement activities, e.g., stakeholder engagement workshops; research dissemination activities, e.g., conferences; supplies & equipment** (e.g., software, data collection equipment, etc.); travel for research or to conferences. For administrative/ consulting support, we will budget a 3%-5% overhead for all awards.

Eligibility

Eligible Applicants: Any Purdue West Lafayette faculty member, from any discipline is eligible to apply as a Principal Investigator (PI). There are no restrictions on who may serve as co-PIs, Senior Personnel or Consultant. An individual may appear as PI, co-PI, senior personnel, or consultant on only one proposal submitted in response to this solicitation. Research staff interested in pursuing this award are welcome to inquire about potential eligibility. All applicants must obtain a signature endorsement from their Department Head or direct supervisor.

NOTE: We encourage faculty to pursue innovative and interdisciplinary approaches for this research, and to include co-PIs or other collaborators. We would be happy to help you make connections, especially with our JMHC Faculty.

Project Parameters:

1. Projects should identify and align with one of the two primary themes identified in this call: **Climate & Environment Crisis** and **Social Injustice**. In addition, we highly value innovative and transdisciplinary projects that demonstrate links between the primary theme selected with at least one other theme provided in Figure 1 below. For more details, review [Appendix 2](#).

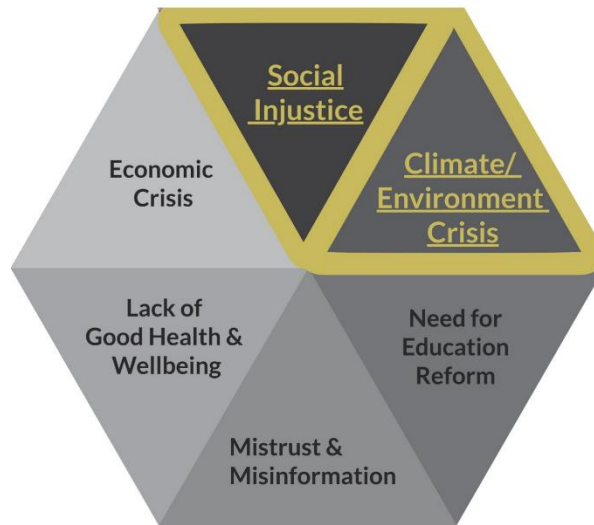


Figure 1: Research Themes

2. Projects must be conducted with JMHC students as part of the research team. For further details and guidelines on plans to engage JMHC students, review [Appendix 3](#).
3. Eligible projects should clearly demonstrate the value of the work to specific users/stakeholders. We seek projects with high potential for applied/engaged outcomes.

Award Timeline

Call for Proposals: May 15, 2023

Proposal Submission Deadline: July 15, 2023

Notification of Awards: September 2023

Co-creation and Orientation: October – December 2023

Award Project Period: Fall 2023 – Fall 2024



Figure 2: Award Timeline

Review Criteria and Procedures

Selection Criteria: We have identified three main merit criteria to review all applications. We recommend using the template provided and reviewing [Appendix 4](#) for guidelines on writing successful applications.

- **Research Quality:** We seek research, scholarly, or creative projects that are original, or potentially transformative, and that identify and involve relevant stakeholders (those that might use or benefit from the research conducted). Successful proposals will articulate clear connections between the primary and secondary themes in Figure 1, and research plans for carrying out the proposed activities that are well-reasoned, well-organized, and based on a sound rationale.
- **JMHC Student Experience:** We seek applications that demonstrate how JMHC students will engage with research, scholarly, or creative activities throughout the project's lifecycle. Proposals should include PI's plan to mentor and develop research skills of undergraduate students and incorporate a measurement for student success.
- **Research Translation and Impact:** Successful proposals will outline studies that can be adopted or utilized by stakeholders in practice or policy. Broader impacts may be accomplished through the project itself, through the activities that are directly related to the project, or through activities that are supported by, but are complementary to, the project.

Review and Selection Process:

The review committee includes staff and faculty from across Purdue University who have expertise in the research areas and with undergraduate research. The reviewers will be asked to review applications based on their expertise and a rubric developed from the evaluation criteria described above. At least one award will be made to a PI from JMHC. Please review [Appendix 5](#) for procedures if you receive this award.

APPENDIX 1: About JMHC

JMHC’s Four Pillars: The four pillars, our primary tenets, come together to help us accomplish our mission: interdisciplinary academics, undergraduate research, community and global experiences, and leadership development.

Undergraduate Research Definition: We use [Purdue’s Office of Undergraduate Research](#) (OUR) as our guide while defining undergraduate research. Purdue OUR quotes the Council of Undergraduate Research and define undergraduate research as: *A mentored investigation or creative inquiry conducted by undergraduates that seeks to make a scholarly or artistic contribution to knowledge.* The JMHC includes professional students who have not received their first degree in our definition of undergraduate.

JMHC Scholarly Learning Outcomes: To graduate with a Purdue honors diploma, JMHC students are required to complete a ‘scholarly project’. The learning outcomes of the scholarly project add up to education in “research thinking”: the ability to critically think about an issue, problem, or situation and to find effective ways to address that issue, respond to that problem, or change the situation for the better. After completion of the scholarly project, students should be able to:

- Identify a question, the answer to which makes a contribution to an existing body of knowledge or creative practice.
- Critically read, analyze, and synthesize information from scholarly literature and/or traditions of creative practice.
- Demonstrate knowledge of disciplinary and/or interdisciplinary skills, methods, and abilities appropriate for their research/creative question.
- Evaluate and interpret their findings
- Recognize and respond to ethical responsibilities of their research/creative projects
- Effectively communicate their findings in both oral and/or written formats

APPENDIX 2: Research Themes

For the 2023 – 2024 Award period, PIs (Principal Investigator) should choose one of the two primary themes: **Climate & Environmental Crisis or Social Injustice.** The JMHC welcomes proposals from all disciplines.

As shown in Figure 1, these two themes emerged as the top two issues that JMHC students, faculty and staff were interested in addressing, in response to a short, open-ended survey conducted in March 2023. Significant secondary themes include lack of health and wellbeing; mistrust and misinformation; need for education reform and the economic crisis as shown in this [infographic](#). We categorized them as secondary themes. Our students, faculty and staff are especially interested in understanding and researching these issues through the intersectional lens of race, gender, sexual orientation, immigration status and disability.

Theme 1: Climate & Environmental Crisis

Proposals addressing theme 1 should examine ways to address the climate and environmental crisis, and proposals that connect a primary theme to at least one of the other issues identified in Figure 1 are encouraged. The study should identify a specific focus related to this issue from the following sub-topics of interest. The descriptions provided here are based on those used by the [research communities within Purdue University’s Institute for Sustainable Future](#).

1. **Biodiversity/Conservation:** To preserve all living things through biodiversity, we need to meet the needs of modern civilization while also protecting plant, animal, and microbe diversity. Key topics include Biodiversity in a global context; Biodiversity and climate change; Big data & environmental sensing; Promoting population stability, Health, and growth.
2. **Climate Disruptions/ Global Warming:** Some key topics include Heat stress and weather impacts; Climate change and biodiversity; Climate and public health; Climate smart agriculture; Climate action and environmental justice.
3. **Combatting Pollution/ Clean Energy:** Understand the human and environmental consequences of environmental contaminants and stressors such as: Toxicology via various chemical, air and soil contaminants; Public health; The fate and transport of chemical contaminants; Development of novel remediation technologies; Communication of scientific risks.
4. **Sustainable practices:** Identify equitable and effective solutions for addressing global environmental change on several overlapping areas including Decision making and governance; Human behavior, Values and cultural norms; Critical infrastructure systems; Complex social-ecological systems and dynamics; Participatory research designs.

Theme 2: Social Injustice

Proposals addressing theme 2 should examine ways to reduce social injustice in conjunction with at least one other issue identified in Figure 1. We are especially interested in research to reduce inequality, inequity and injustice along the dimensions of race, ethnicity, gender, disability, economic standing, language, or immigrant origin status. Some sub-topics that were identified in our survey results included:

	Racial	LGBTQ+	Women	Immigrant	Disabled
Injustice	Discrimination				
	Violence				
Inequity	Economic Inequity				
	Education Inequity				
	Healthcare Inequity				
	Technological Inequity				
Inequality	Human Rights & Inequality				

Table 1: Social Justice Issues Identified for Research Theme 2

Our survey results found that each of these categories listed in Table 1 could be further expanded. Injustice was related to racism, sexism, discrimination towards marginalized populations even in technological advancements such as AI, as well as issues such as gun violence and war. Inequity was defined across different areas including health inequity for transgender individuals, black, Indigenous

and people of color (BIPOC) individuals, economic inequity, and educational inequity for girls. Lastly, inequality issues identified in the survey findings highlighted lack or limited human rights for marginalized populations such as LGBTQ, women, immigrants, disabled, and BIPOC.

APPENDIX 3: Engaging Undergraduate Students in This Research Project

Undergraduate Level: The research team must include JMHC undergraduate students. Successful proposals will support at least 5-10 undergraduate students as part of their core research project team. PIs are encouraged (not required) to consider other ways in which their research can engage larger number of students. If you plan to include fourth-year students, please consider their graduation timelines and plan their work expectations and funding accordingly.

Recruiting JMHC Students: If selected for this Award, the PI will work closely with JMHC advising staff and Dr. Liu, JMHC’s Scholar in Residence for Undergraduate Research to identify and recruit JMHC students to be part of the research team. PIs are welcome to recommend JMHC students whom they are interested in recruiting but should follow the processes established by Dr. Liu. Students recruited for awarded projects will be asked to sign research learning contracts that lay out research and professional expectations.

Pathways to Include Undergraduate Students in the Research Project: For the proposal we expect PIs to explain how they plan to include JMHC students in their research activities. Table 2 presents three approaches and lists some characteristics and considerations for each approach. PIs may propose hybrid or other approaches to including students in the research process, but we encourage consultation with Dr. Brunese in advance of the deadline. The Research Unit at JMHC will assist selected PIs on operationalizing their preferred approach during the co-creation workshop.

Financial Incentive	Course/ Credit Incentive
Will fund 5-10 undergraduates through hourly wages (JMHC recommended hourly wage is \$15/hour)	Potential to engage a larger number of undergraduate students
Temporary research role/ work study model	Independent study or course-based research study
Cannot award course credit for research activities	Cannot provide wages for research activities; will need to set up the course up each semester
Student Research Learning Contracts should identify start-finish dates	Each semester’s course will need to identify research objectives for students
Housing costs to be considered for summer	Might need to recruit new students every semester
Wages provide incentive for continued student participation	Might need to consider tuition costs for summer semester

Research Expectations for Undergraduate Students: Students should be included in the disciplinary practices of research development and research ethics training in each funded project. We expect that PIs develop a mentoring plan that might be akin to a plan of study that identifies how students will be

mentored throughout the investigation, and how students will develop and obtain the scholarly outcomes. Note: all JMHC students complete basic CITI training in their first year. In addition, PIs should consider JMHC's Belonging, Equity and Inclusion mission to develop mentoring plans for students.

APPENDIX 4: Guidelines to Write Successful Proposals

1. Identify a specific focus related to the research track. For those pursuing Climate & Environment Crisis, choose from the following: (1) Biodiversity/Conservation (2) Climate Disruptions/ Global Warming (3) Combatting Pollution/ Clean Energy (4) Sustainable practices. For those pursuing Social Injustice, identify a specific inequality, inequity or injustice and the marginalized population you aim to understand.
2. Connect the central focus with one other issue identified in Figure 1 (climate & environmental crisis, social justice, health and well-being, economic crisis, mistrust and misinformation, education reform) and describe the innovative and interdisciplinary nature of the study.
3. Using extant literature, highlight the gaps, challenges, and the need for this research study.
4. Describe the nature of the study. We welcome descriptive studies (addressing why and how); studies that include interventions in local or global communities, or studies that include measurement or evaluation.
5. Make a convincing case of how this research study will allow JMHC students to experience the entire research lifecycle. For some disciplines that might include understanding the research problem, designing the research study or critical intervention, collecting, and analyzing empirical data or information, and producing outcomes that connect with practice or policy.
6. Identify relevant stakeholders (other academics, practitioners, corporations, non-profits, community-members, local policymakers, etc.) who might be interested in this research and could serve as partners in the research design or might benefit from your research findings.
7. Identify innovative ways of disseminating and translating your research findings to help build, test, or increase understanding of a program, policy, or practice to impact the specific aspect of the Climate & Environment Crisis or Social Injustice that you have identified. Resource: [Guiding Questions to Plan for Research Translation](#)

APPENDIX 5: If You Receive This Award

Notification of Award: The Associate Dean for Research and the Director of Research Development will inform all applicants of the decisions in Fall 2023. We plan to have a public announcement in Fall 2023, where we will invite the awardees to briefly present their proposal to JMHC students, faculty, and staff.

Cost share: This award does not require any matching funds or cost share. However, if other departments at Purdue want to match funds to support a larger scope, we can discuss how that can be operationalized.

Co-creation Workshop: With the goal of setting projects for success, we will be conducting a co-creation workshop. This workshop will allow for the PI/Co-PIs to collaborate with different staff and faculty members of JMHC such as the business office, student advisors, and JMHC’s research unit staff to ensure that the award expectations and processes are effectively operationalized. Topics include reporting, budget/expenses, recruitment of JMHC students, IRB (Institutional Review Board), data management, course/independent study registration (if that pathway is selected), JMHC’s BEI values, and mentoring undergraduate students.

Orientation: The JMHC research unit will work with PIs to co-facilitate an orientation for JMHC students on the project team. During orientation, students will get a chance to sign contracts that will explain expectations, funding (if students are being funded), research workplan, mentoring, communication expectations, etc.

Reporting Requirements: PI will be responsible for providing regular updates to the Director of Research Development on research progress and any concerns. PI will be responsible for a semester-end report that includes both budget updates and research updates. The final research output will be a short research report and public presentation of the research and a discussion of undergraduate research experience. All publications generated from the funded research such as a research report/ white paper/ journal publication/ conference presentation should include an acknowledgement statement for JMHC Annual Research Award (this will be provided). The Director of Research Development will review the research report and presentation, and a description of the project and its results will be published on JMHC’s website.

Evaluation Requirements: As part of our scholarship of teaching and learning the JMHC will evaluate this award program and its impact on students and faculty. All members of the research team including faculty PI, graduate students and undergraduate students will be assessed using survey and/or interviews. PIs are encouraged but not required to collaborate with JMHC faculty and staff on more refined assessments related to the project’s outcomes.

No Cost Extension: PIs should aim to follow the project timeline. If funds are not spent by 12/31/2024, funds will be returned to the Honors College. In certain cases, funding extension may be possible.

JMHC Breakthrough Research Award: Proposal Template

[PROJECT TITLE]

[PRINCIPAL INVESTIGATOR NAME, TITLE, DEPARTMENT]

[DATE]

[This template aims to provide some guidance to help articulate your proposal effectively. We recommend that you keep your proposal clear and concise. Please review the Call for Proposals before you fill out this template. You must fill out the Qualtrics Form to submit your application and upload the proposal template. There are 5 sections in this template:

- *Section 1: Research Project Summar (1-2 pages)*
- *Section 2: Plan for Undergraduate Research Involvement (1-2 pages)*
- *Section 3: Budget Justification (1 page)*
- *Section 4: Endorsement from their Department Head or direct supervisor (1 page)*
- *Section 5: Abbreviated CV of PI and Co-PIs (2 page per CV)*

For more information, visit JMHC Website -> Undergraduate Research -> JMHC Breakthrough Research Award. If you have any questions, email Dr. Priyanka Brunese at pshah@purdue.edu.]

**Please delete this text in your final proposal document.*

*** Please save as PDF and name the file by beginning the file name using last name and first initial such as SmithJ_JMHCResearchAward_2023.*

SECTION 1: RESEARCH PROJECT SUMMARY (1-2 PAGES)

1. Research Objectives

a. **What is the purpose/ goals/ objectives of your research project? What are your specific research questions if you have identified them at this point?**

b. **What is the larger research area/topic/context?**

SECTION 2: PLAN FOR UNDERGRADUATE RESEARCH INVOLVEMENT (1-2 pages)

- 1. Number of JMHC undergraduate students you plan to include on your research team:**
- 2. Do you prefer JMHC undergraduate students from a particular major for your research project?**
- 3. Do you prefer JMHC undergraduate students from a particular year (e.g., first-year students) for your research project?**
- 4. Please describe how you will engage undergraduate students from JMHC in the research process. (For example, what activities or lesson plans will you be conducting to include undergraduate students in the research design, implementation and writing process?)**
- 5. How will you incorporate JMHC's Belonging, Equity, and Inclusion values in your research and mentoring?**
- 6. How will the students obtain scholarly learning outcomes? How will you measure them?**

SECTION 3: BUDGET JUSTIFICATION (1 page)

Provide the budget in the budget spreadsheet template provided on the award webpage to list major expenses. In narrative form, explain the expenses here.

Personnel Costs: *Please describe salary expenses for the PI/Co-PI, undergraduate students, graduate students (if any) and any other collaborators/consultants that might be involved. For example, faculty should explain the number of months during the academic year and summer that will be supported through these funds, and whether they plan on a course buy-out. Similarly, explain the number of months/terms that graduate students and undergraduate students will be paid.*

Supply Cost: *Please describe if you anticipate expenses related to different supplies. As mentioned in the call, these funds cannot be used to make one-time, large equipment purchases.*

Travel Costs: *Please describe any costs associated with planned travel for this project.*

Other Costs: *Please describe if you anticipate costs related to conducting workshops, compensating participants for data collection, publication costs, etc.*

SECTION 4: ENDORSEMENT FROM THEIR DEPARTMENT HEAD OR DIRECT SUPERVISOR

A statement of support from the PI's department head or dean (as appropriate); a brief email is sufficient.

SECTION 5: CURRICULUM VITAE (CV)

Abbreviated CV of PI and Co-PIs (2 page per CV)