JOHN MARTINSON HONORS COLLEGE

RESEARCH BREAKTHROUGH AWARD

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JMHC Research Award Team



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About JMHC Research Breakthrough Award

This is an annual award (up to 75K) that supports faculty to **conduct high-impact research with a team of JMHC undergraduate students**. We seek proposals for projects that promise impactful results and that also bridge the divide between Purdue University's research and teaching missions, by mentoring JMHC students in immersive research experiences across all phases of a research project.

This award provides funding support for year-long, cutting-edge projects with a team of 8-10 JMHC students; encourages **experimentation with innovative research practices for real world impact**; and can be used as a steppingstone in the **development of larger research grant applications**.

We encourage faculty to pursue **innovative and interdisciplinary** approaches for this research, and to include co-PIs or other collaborators. Successful proposals will demonstrate how their research project will offer transformative research experiences and foster student-centered collaborations that have the potential to advance knowledge and real-world outcomes.

Project Parameters:

- We value innovative and interdisciplinary projects that identify and align with the Health and Well-being thematic area.
- Projects must be conducted with 8-10 JMHC students as part of the research team.
- Eligible projects should clearly demonstrate the value of the work to specific users/stakeholders. We seek projects with high potential for applied/engaged outcomes.

About JMHC Research Breakthrough Award

Eligibility: Any Purdue **West Lafayette or Indianapolis** faculty member, from any discipline is eligible to apply as a Principal Investigator (PI). This includes tenure-track, non-tenure-track/clinical/research faculty. 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.

Why should you apply?

- Up to 75K to fund your high-quality research / scholarship / creative inquiry.
- Prepare for larger research grants.
- Expand the scope of your research or pilot new ideas.
- Collaborate with and mentor highly motivated JMHC students, from interdisciplinary contexts, in meaningful, hands-on experiences.
- Experiment with innovative and interdisciplinary research methods and outcomes.

About JMHC Research Breakthrough Award

Award Summary: Apply for a maximum of \$75,000; 1-year research project; Health and Well-being

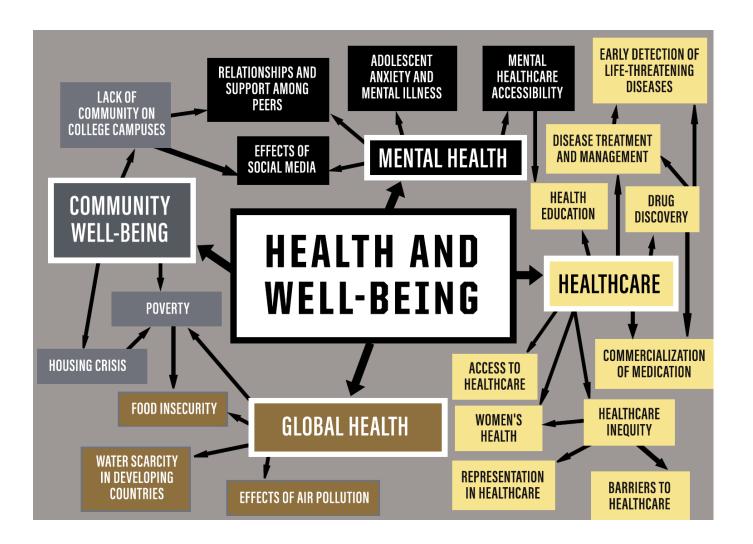
Award Restrictions: The award is a one-time investment to conduct research, scholarship, or creative inquiry with 8-10 JMHC undergraduate students, who have NOT proposed their scholarly project. Funds can be used for

- faculty support (AY or Summer Salary);
- undergraduate student hourly funding for research project;
- hourly graduate research assistant support (cannot fund graduate assistantships);
- 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% administrative overhead for all awards.

Research Theme: Health and Well-being

This is not a comprehensive list, but can be used to illustrate the breadth, depth and interconnected nature of these issues. We welcome proposals related to, but not restricted to, research topics that range from physical and mental health, healthcare for all individuals, healing and revitalization of local and global communities, relationship between technology and healthcare, contemporary challenges in healthcare etc.





JMHC Undergraduate Student Engagement

NOTE: You do not need to identify or recruit specific JMHC students during application submission. If you are awarded, there will be a matching process at the end of the Fall semester.

The Scholarly Project Learning Outcomes

The John Martinson Honors College (JMHC) aims to equip our students with research skills that prepare them to be world ready. These are the learning outcomes you should achieve through your research experiences.

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

Purdue Office of Undergraduate Research and CUR define undergraduate research as:

 A mentored investigation or creative inquiry conducted by undergraduates that seeks to make a scholarly or artistic contribution to knowledge.

JMHC Undergraduate Student Engagement

Potential student pathways

Financial Incentive	Course/ Credit Incentive		
Will fund 8-10 undergraduates through hourly wages (JMHC recommended hourly wage is \$15.00/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		
Hybrid approaches are welcome			

Review Criteria

Research Impact

- 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 to the research theme of Health & Well-being
- Research plans for carrying out the proposed activities that are well-reasoned, well-organized, and based on a sound rationale.
- Successful proposals will also outline how the research 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 the award, but are complementary to, the project.

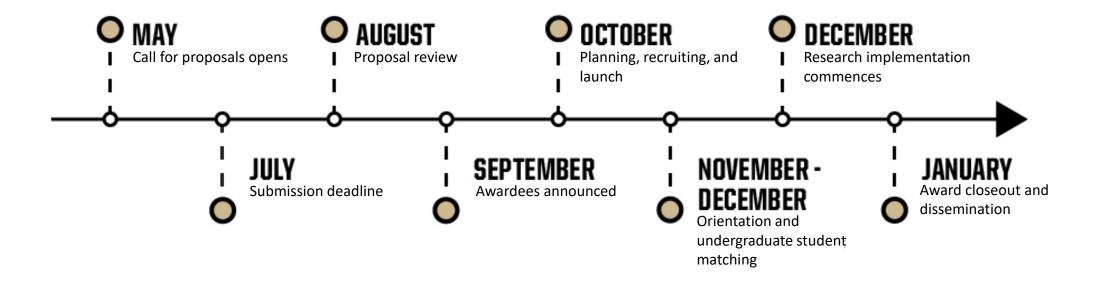
Immersive Research Experience for JMHC Students

- We seek applications that demonstrate immersive undergraduate research experience for JMHC students.
- We encourage proposals to articulate unique research opportunities for students as they engage with research, scholarly, or creative activities throughout the project's lifecycle.
- Deep and meaningful integration into stages of the research process is critical and will be prioritized during the review process.
- Proposals should include PI's plan or process to mentor and develop research skills of undergraduate students and incorporate an assessment plan for measuring student success.

Review Rubric

Category			Total Points
Research Quality			30 pts
	Clearly articulates research objectives	10	
	Articulates rigorous research methods	5	
	Demonstrates unique/innovative/interdisciplinary approaches	5	
	Feasible research timeline and milestones for one year	10	
Research Impact			40 pts
	Clearly articulates the significance of the research project in the context of Health and Well-being	15	
	Clearly identifies users/ relevant stakeholders that might benefit from this research	5	
	Project afterlife - Plans for expanding research and/or implementing research outcomes	5	
	Potential scholarly contributions and dissemination by PI(s) and undergraduate researchers	15	
Student Involvement in Research			30 pts
	Clearly demonstrates meaningful engagement of undergraduate students in the research activities	10	
	Demonstrates rigorous, student-centered, and inclusive mentoring of all JMHC undergraduate researchers involved in the project	10	
	Clearly articulates how JMHC's scholarly outcomes would be obtained and evaluated	10	
TOTAL		1	100 pts

Timeline



Call for Proposals: May 15, 2025

Proposal Submission Deadline: July 15, 2025

Notification of Awards: September 2025

Orientation and student recruitment: October – December 2025

Award Project Period: December 2025 – December 2026

Application Process

Step 1: Read through the Call for Proposals found on our website

Step 2: Fill out the Proposal Template and Budget Template found on our <u>website</u>

Step 3: Save your proposal template (LastnameFirstnameInitial_JMHCResearchAward_2025) and budget template(LastnameFirstnameInitial_JMHCResearchAward_Budget2025)

Step 4: Submission through the Qualtrics Form

- Proposal Template
- Budget Template
- Abbreviated CV for PI and Co-PIs
- Endorsement from Department Head or Dean

Proposal Template (Please keep the writing anonymous)

RESEARCH PROJECT SUMMARY (Limit to 4 Pages)

RESEARCH OBJECTIVES Please use the following questions to help articulate your response succinctly.

- O What is the purpose / goals / objectives of your research project?
- What are your specific research questions if you have identified them at this point?
- o How does your research project contribute to the theme of health and well-being?
- O What is the problem/gap currently, and what is the need for this project?
- What has been done so far to address this problem? What are the limitations of current approaches?

RESEARCH METHODS Please use the following questions to help articulate your response succinctly.

- O What is your research design/methodology?
- Describe the rigor of your research methods.
- How is your approach unique? (e.g., interdisciplinary, partnerships with private/public/community, special methods, specific datasets, etc.)

TIMELINE

What is the project timeline and key milestones in the award timeframe?

OUTCOMES AND BROADER IMPACT Please use the following questions to help articulate your response succinctly.

- O What is the significance of your project as it relates to health and well-being?
- Who does your research project matter to/who will benefit from this research? What/who do you aim to influence with your research?
- What is the potential scholarly or artistic contribution of this inquiry/investigation? Please identify specific scholarly publications and/or conference presentations that could be generated from this research.
- How will/can your research influence the larger context with your research? (Translate your research). Please identify specific research translation outputs such as stakeholder workshops, training documents, or curriculum that could be generated from this research.

UNDERGRADUATE RESEARCH INVOLVEMENT (Limit to 2 pages)

NUMBER OF JMHC UNDERGRADUATE STUDENTS YOU INTEND TO RECRUIT (The funding requires 8-10 students who have NOT proposed their Scholarly Project.)

IMMERSIVE UNDERGRADUATE RESEARCH EXPERIENCE

Please describe how you will develop an immersive research experience for JMHC students through Spring 2025, Summer 2025, and Fall 2026. What will be the plan for their research dissemination?

 For example, what research activities will JMHC undergraduate students be conducting? How might they be involved in the research design, implementation and writing process?

STUDENT INCENTIVES

Please briefly describe if students will be funded by hourly pay, would receive course credit, or any other type of hybrid structures.

MENTORING

How will you incorporate high impact, rigorous, evidence-based mentoring practices that support all students to thrive? Please provide your research mentoring plan/process for you, Co-PIs, postdocs, and/or graduate students working with JMHC students.

STUDENT OUTCOMES

What skills or knowledge will students obtain by participating in this project? How will the students obtain scholarly learning outcomes? How will you measure them?

Review Process

All applications will be reviewed after July 15th

NOTE: We will adjust the review process depending on the number of applications and available reviewers.

**If you don't plan on submitting a proposal, you are welcome to apply to be a reviewer. Reviewers will consist of faculty and staff from across campus, across disciplines and departments (conflict of interest will be checked)

Reviewers will be compensated

A blind review process will be used to select the top proposals

Finalists will be announced September 2025

Past Awardees

2025 RESEARCH BREAKTHROUGH AWARD RECIPIENTS

- Dr. Hu (Purdue Polytechnic Institute)
- Dr. Johnson-Sheehan, Dr. Rickert (College of Liberal Arts)
- Dr. Nieforth (College of Veterinary Medicine)
- Dr. Roseguini, Dr. Gavin, Dr. Fernandes, Dr. Hirai (Health and Kinesiology), Dr. Song (Statistics)
- Dr. Vlachos, Dr. Bilionis, Dr. Ardekani, Dr. Wagner, Dr. Matosevic, Dr. Ristroph, Dr. Ladisch, Dr. Scheebeli, Dr. Meyers, Dr. da Cunha (College of Science), Dr. Li (College of Pharmacy)
- Dr. Wilson (College of Health and Human Sciences), Julius Keller, Debra Henneberry, Sudip Vhaduri (Aviation Technology)

2024 RESEARCH BREAKTHROUGH AWARD RECIPIENTS

- Dr. DeMaria (College of Health & Human Sciences) and Dr. Seigfried-Spellar (Purdue Polytechnic Institute)
- Dr. Jarriel (John Martinson Honors College)
- Dr. Wilhelm, Dr. Enders and Dr. Iyer-Pascuzzi (College of Agriculture)

2024 BREAKTHROUGH SEED AWARD RECIPIENTS

- Dr. Bellisario (John Martinson Honors College)
- Dr. Diaz (College of Engineering)
- Dr. Williams (Purdue Polytechnic Institute)
- Dr. Fortin (College of Veterinary Medicine)

FREQUENTLY ASKED QUESTIONS

FAQs

Research Project Questions/Concerns

Q: I am interested in developing a new program and materials and would like to have undergraduate students be part of that. Will that be a good fit to apply for this award?

A: We want to make sure that there is a research/scholarship component to the project you are considering, by which we mean there are research outcomes/findings. We would pose the following questions/ thoughts for you to consider as you think more about this:

- 1. What type of publication would be generated through this work?
- 2. Will the program be evidence-based? How can the students involved use 'evidence'?
- 3. Are you planning on evaluating the effectiveness of the program and envision JMHC students to conduct this research, and generate research findings?
- 4. How does this work contribute to the theme? What kind of findings do you anticipate?

Q: Does the call prefer research projects that branch off from existing projects (more likely to generate lots of results) or developing new research directions (higher risk and higher impact)?

A: We welcome both types of research projects. If you are using an existing project, it needs to align with the research parameters listed in the call. If you are developing a new research direction, you need to demonstrate the need for this research, potential gaps in the literature and realistic milestones and results you aim to obtain. The findings/results from the award could be used to pursue larger grants in the future.

Timeline Questions/Concerns

Q: Can you clarify if the project period is inclusive of both Fall 25 and Fall 26 semesters, or if the project period is 12 months?

A: We will announce the awardees in September 2025. We expect that student recruitment will occur in the latter 8 weeks of the Fall semester. Research can start any time after that. The award period will end in December 2026.

Q: With many of the student poster sessions occurring in Spring semesters, is it okay to propose conference travel that occurs after a 12m award period?

A: We will have a conversation with the PI and make a note of conferences and poster sessions such as OUR's Spring Research Fair that will occur after the project period, and plan/budget for them accordingly.

FAQs

Eligibility Questions/Concerns

Q: How many proposals can each PI submit?

A: An individual may appear as PI, co-PI, senior personnel, or consultant on only one proposal submitted in response to this solicitation.

Q: Are Full Professors Eligible?

A: Yes, any Purdue West Lafayette faculty member (tenured, tenure-track, clinical, lecturer), from any discipline is eligible to apply as a Principal Investigator (PI). This does not include visiting faculty. Visiting Faculty should work within their college or with other West Lafayette or Indianapolis faculty to apply.

Q: Can a Staff member be a Co-PI for the grant?

A: Yes, you can be a Co-PI with a Purdue West Lafayette or Indianapolis faculty member (tenured, tenure-track, clinical, lecturer)

Q: Is it okay to have faculty members from different departments as Co-PIs? How many members can serve as the Co-PI for the grant?

A: Yes, we encourage you to collaborate with faculty across departments. There is no restriction on how many Co-PIs can serve on the proposal. We would, however, want to see in the proposal what expertise/role each Co-PI will bring to the research project, and who will be responsible for the final report. We would also consider whether each Co-PI would mentor students, and how the coordination would occur. Lastly, from a budget perspective, you would need to be mindful of how the funds would be distributed.

Q: I could benefit from having a Co-PI. Please let me know how I can connect with potential Co-PIs.

A: Please reach out to Dr. Anwer (manwer@purdue.edu).

Q: Can there be Co-PI's (or collaborators?) from outside of Purdue?

A: Yes, we welcome and encourage external collaborators, specifically different stakeholders related to your research project. Co-creating research with stakeholders will have a higher potential for your research to be utilized and have higher social impact.



Student Involvement Questions/Concerns continued

Q: Is there a requirement for us to have the students present the work? What is the ideal outcome for the honors college?

A: We will require a research report and a public presentation from the PI as the main outcome. As for the students, we would like this project to allow them to obtain their scholarly project requirements. We would encourage students to participate in OUR's Spring or Fall Undergraduate Research Fair, publish in JPUR, or engage in some public dissemination activity. We would work with PI to identify appropriate outcomes and evaluation for students.

Q: Is there a mechanism to recruit students from JMHC independent of this award?

A: We do have a robust matching system in place in the college--we work both to connect students who already have an interest in the topic to faculty research and to cultivate that interest among students who may not have thought about a particular topic before. Please email Dr. Megha Anwer (summer) and Dr. Chaonan Liu (academic year) for this request.

Q: Can you talk more about the course option?

A: We were thinking the course option would be similar to the Purdue CURE program's interdisciplinary research course options that can be offered through your department as a regular course or independent study with an "H" section for the Honors students. We don't necessarily need a course on the specific research theme. We are hoping that the course will align with your research needs and teach students how to conduct the research.

Q: If I would like only students in my area of research. Will you make that possible?

A: We will work with you on understanding your needs and assist you in finding the right students. However, we cannot guarantee whether you will find the exact match and number. Thus, we encourage you to give students from different backgrounds a chance to experience your research as well.

FAQs

Student Involvement Questions/Concerns

Q: Will UG student interest in the projects play a role in selection?

A: We do have a robust matching system in place in the college--we work both to connect students who already have an interest in the topic to faculty research and to cultivate that interest among students who may not have thought about a particular topic before. We will work with award winners to identify the right students for the project. When conducting the matching process, we want to create a win-win situation for both the PI and the students. We also want to expose our students to different research experiences, so we will work with PIs to publicize their research projects to generate interest among our students.

Q: What if we already have students in mind that we want to work with?

A: You do not need to have the students recruited for the proposal application phase. If you are selected for the award, we will work with you to help connect you with JMHC students and think of the best strategy to include students you have identified as part of your research team. We have a robust recruiting/matching system.

Q: Can the students be both JMHC undergraduate and non-JMHC undergraduate students?

A: The award has been designed for incorporating JMHC undergraduate students.

Q: Can you have a mixture of students doing financial incentives and some that are enrolled in courses? (Students have different roles)

A: We welcome hybrid, thought-through approaches and pathways for engaging JMHC students.

FAQs

Budget/Funding Questions/Concerns

Q: Are we only allowed to fund honors students? Can we fund other undergraduates in our lab who are not JMHC students?

A: This award made possible by the John Martinson gift has been designed to provide JMHC students opportunities to participate in research projects funded by this award.

Q: In your vision, what would the majority of the funds go to support? Student and/or faculty summer salary? Equipment, consumables, or sample analysis costs? Are there specific things we *can't* use the money for?

A: We have not put many restrictions on what the award funds can be used for, however, we require reasonable budget justifications. We want you to avoid using the funds for one-time large capital expenses. Funds can be used for faculty support (AY or Summer Salary); course buy-out if approved by the department, undergraduate student hourly funding for research project; hourly graduate student 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. *ALL GRADUATE STUDENT SUPPORT WOULD BE FOR HOURLY PAY ONLY.

Research Theme Questions/Concerns

Q: What will next year's research theme be?

A: We have not made that decision yet. We plan to conduct an annual survey for our students, faculty, and staff to do a pulse check on the issues that are important to them which will guide us in our programming.

For further questions, contact Dr. Megha Anwer (manwer@purdue.edu)

Thank you to JMHC Research and World Readiness Unit members, especially Dr. Chaonan Liu – Sarah Vaughn.