

**BOARD OF REGENTS**  
EASTERN MICHIGAN UNIVERSITY

**RECOMMENDATION**

**WINTER 2022 & SUMMER 2022 UNDERGRADUATE RESEARCH STIMULUS  
PROGRAM AWARDS**

**ACTION REQUESTED**

It is recommended that the Board of Regents accept and place on file the Report on the Winter 2022 and Summer 2022 Undergraduate Research Stimulus Program Awards.

**STAFF SUMMARY**

The Undergraduate Research Stimulus Program is intended to facilitate research partnerships between undergraduate students and Eastern Michigan University faculty. Student awardees will receive a \$2,200 fellowship in support of their research efforts, which will be paid in bi-weekly installments throughout the award period. This award will be in the form of a credit to the student's university account. The collaborating faculty member may receive \$600 to be used for lab/studio supplies or equipment, professional travel, or other professional expenses.

WINTER 2022: The Provost and Executive Vice President of Academic and Student Affairs has awarded a total of \$22,000 to eleven (11) undergraduate students (10 awards) and \$4,800 to eight (8) Eastern Michigan University faculty for Winter 2022 and research and creative projects under the Undergraduate Research Stimulus Program.

SUMMER 2022: The Provost and Executive Vice President of Academic and Student Affairs has awarded a total of \$30,800 to fourteen (14) undergraduate students and \$7,075 to twelve (12) Eastern Michigan University faculty for Summer 2022 and research and creative projects under the Undergraduate Research Stimulus Program.

**FISCAL IMPLICATIONS**

The cost of Undergraduate Research Stimulus Program awards will be funded from the Provost's indirect cost recovery.

**ADMINISTRATIVE RECOMMENDATION**

The proposed Board action has been reviewed and is recommended for Board approval.



May 25, 2022

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**University Executive Officer**  
**Rhonda Longworth, Ph.D.**

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**Date**

Eastern Michigan University  
Division of Academic and Student Affairs

**WINTER 2022 UNDERGRADUATE RESEARCH STIMULUS PROGRAM  
AWARDS**

1. **Sophie Campbell** (majoring in Biochemistry - General). "Determining Function of Autophagy Proteins: Testing Effect of ATG10 Mutants on Autophagy." Faculty mentor: Steven Backues (Department of Chemistry).
2. **Brandon Ferro** (majoring in Environmental Science: Atmosphere & Climate). "Recurrence of Heat Waves as a Part of Prolonged Hot Periods" Faculty mentor: Thomas Kovacs (Department of Geography and Geology).
3. **Karlee Foster** (majoring in Professional Geology - Hydrogeology). "Millers Creek Research Project: Source, Fate, and Transport of Chloride and Iron." Faculty mentor: Christopher Gellasch (Department of Geography and Geology).
4. **Haleigh Griewahn** (majoring in Chemistry). "Detection of DNA Damage Induced by Benzo(a)pyrene Coated Microplastics Using Capillary Electrophoresis." Faculty mentor: Jeff Guthrie (Department of Chemistry).
5. **Quinn Higgins** (majoring in Psychology). "COVID-19 and its Effects on the Ypsilanti Community." Faculty mentor: Natalie Dove (Department of Psychology).
6. **Erin Main** (majoring in Simulation, Animation, and Gaming). "Storytelling: The Creation of Animation." Faculty mentor: Megan Simon (School of Art and Design).
7. **Luke Mangas** (majoring in Chemistry). "Computational Investigation of a Rhodium Catalyzed Amidation Reaction." Faculty mentor: Maria Milletti (Department of Chemistry).
8. **Mark Melcher** (majoring in Physics). "Implementing Open Source Python Library For Particle Tracking With The Application Of Phase Transition Studies." Faculty mentor: Surabhi Jaiswal (Department of Physics and Astronomy).
9. **Zachary Tobias** (majoring in Philosophy; Political Science). "Food Agency." Faculty mentor: Jill Dieterle (Department of History and Philosophy).
10. **Chevonne Wheeler & Tiana Fox** (majoring in Exercise Science). "Systematic Review of Physical Activity and Mental Health Among College Students." Faculty mentor: Catherine Gammon (School of Health Promotion and Human Performance).

Eastern Michigan University  
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**SUMMER 2022 UNDERGRADUATE RESEARCH STIMULUS PROGRAM  
AWARDS**

1. **Bradley Allendorfer** (majoring in Environmental Science). “Natal Dispersal and Activity of Tarantula Spiderlings (*Aphonopelma hentzi*).” Faculty mentor: Cara Shillington (Department of Biology).
2. **Emiee Breitner** (majoring in Language, Literature and Writing for Teachers). “Shakespeare/Yoga: Cognitive Stretches and Limber Reading Practices” Faculty mentor: Melissa Jones (Department of English Language and Literature).
3. **Erin Crnkovich** (majoring in Graphic Design). “Engaging Audiences Through Creative Promotional Design: King Kong At Ninety.” Faculty mentor: Tom Suchan (School of Art and Design).
4. **Yashoda Krishna Das** (majoring in Neuroscience Interdisciplinary). “Investigating the Role of Type II Taste Bud Cells in Salt Taste Transduction.” Faculty mentor: Joseph Breza (Department of Psychology).
5. **Rosalyn Friend** (majoring in Physics Research). “Quantifying the role of solar flares on atmospheric escape at Mars.” Faculty mentor: David Pawlowski (Department of Physics and Astronomy).
6. **Sara Jamal Ahmad Herzallah** (majoring in Electrical and Computer Engineering). “Network Traffic Statistical Metrics Dataset for Future Cybersecurity and Machine Learning Applications.” Faculty mentor: Omar Darwish (School of Information Security and Applied Computing).
7. **Brendon Kaniecki** (majoring in Physics Research). “A Low-Cost Method for Digitizing Data in the Modern Physics Laboratory.” Faculty mentor: Jonathan Skuza (Department of Physics and Astronomy).
8. **Konrad Lautenschlager** (majoring in Neuroscience). “Mutation of Autophagic Protein and its Imaging by TEM.” Faculty mentor: Steven Backues (Department of Chemistry).
9. **Bryan Maro** (majoring in Information Assurance and Cyber Defense). “Internet of Drones Embedded Hardware Security and Trust.” Faculty mentor: Fathi Amsaad (School of Information Security and Applied Computing).
10. **Imani Peterkin** (majoring in Biochemistry). “The Validation of Plasma-Chemical Oxidation for Radiocarbon Dating Archaeological Materials.” Faculty mentor: Ruth Ann Armitage (Department of Chemistry).
11. **Sarah Raby** (majoring in Sociology). “The Humanitarian Crisis of the Israeli Occupation in the West Bank and Gaza.” Faculty mentor: Grigoris Argeros (Department of Sociology Anthropology and Criminology).

12. **Ravel Ray** (majoring in Neuroscience Interdisciplinary). “Examining a mechanism by which nicotine modulates the levels of Brain-Derived Neurotrophic Factor (BDNF) in Lung Cancer Cells.” Faculty mentor: Hedeel Evans (Department of Chemistry).
13. **Sydney Timmer** (majoring in K-12 Music Education - Vocal). “The Effect of Tonal Context on Children's Singing Accuracy.” Faculty mentor: Heather Shouldice (School of Music and Dance).
14. **Edgar Vasquez** (majoring in Philosophy). “Evaluating Attitudes Toward the Vaccinated and Unvaccinated” Faculty mentor: Stephen Jefferson (Department of Psychology).