

**BOARD OF REGENTS**  
EASTERN MICHIGAN UNIVERSITY

**RECOMMENDATION**

**WINTER 2019 AND SUMMER 2019 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 2019 and Summer 2019 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 \$2,000 fellowship in support of their research efforts. This award will be in the form of a credit to the student's university account. The collaborating faculty member may receive \$500 to be used for lab/studio supplies or equipment, professional travel, or other professional expenses.

**WINTER 2019:** The Provost and Executive Vice President of Academic and Student Affairs has awarded a total of \$18,000 to nine (9) undergraduate students and \$3,975 to eight (8) Eastern Michigan University faculty for Winter 2019 and research and creative projects under the Undergraduate Research Stimulus Program.


**SUMMER 2019:** The Provost and Executive Vice President of Academic and Student Affairs has awarded a total of \$32,000 to sixteen (16) undergraduate students and \$5,150 to eleven (11) Eastern Michigan University faculty for 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.

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

5/22/19  
\_\_\_\_\_  
**Date**

Eastern Michigan University  
Division of Academic and Student Affairs

WINTER 2019 UNDERGRADUATE RESEARCH STIMULUS PROGRAM  
AWARDS

1. Andrew Bower (majoring in Chemistry). "How Effective Are Chemical Pretreatments for Radiocarbon Dating Rock Art Binding Media? Applications to Western Sahara Pictographs." Faculty mentor: Ruth Ann Armitage (Department of Chemistry).
2. Kelly Brown (majoring in Hydrogeology). "Source Tracking of Chemical and Microbiological Contaminants in Millers Creek." Faculty mentor: Christopher Gellasch (Department of Geography and Geology).
3. Brittney Colvard (majoring in Biology). "Investigating the Coaggregation of Potential Probiotics Isolated from Fermented Foods." Faculty mentor: Daniel Clemans (Department of Biology).
4. Noelle Ditchfield (majoring in Hotel and Restaurant Management). "Analyzing Brain Activity of Children with Autism Spectrum Disorder Via Electroencephalography While Performing Motor Tasks" Faculty mentor: Jin Bo (Department of Psychology).
5. Thomas Gillis (majoring in General Biochemistry). "Understanding Histone Binding Properties of a Mutant UHRF2 Protein via Epigenetics." Faculty mentor: Brittany Albaugh (Department of Chemistry).
6. Sloane Kennedy (majoring in Professional Geology). "Is There a Link between Volcanic Eruptions and Trackless Zircons in Northern Australia?" Faculty mentor: Eric Portenga (Department of Geography and Geology).
7. Carolyn Lammers (majoring in Clinical Laboratory Sciences). "Homeopathic Solutions on Nasal Carriage." Faculty mentor: Lynne Shetron-Rama (School of Health Sciences).
8. Jacquelyn Roberts (majoring in Professional Biochemistry). "Bridging the Gap in an Elusive Protein Pathway Essential for Cellular Health." Faculty mentor: Steven Backues (Department of Chemistry).
9. Michelle Souza (majoring in Biology). "Invasive European Buckthorn Effects on Microbial Community Composition in Vernal Pools." Faculty mentor: Kristin Judd (Department of Biology).

Eastern Michigan University  
Division of Academic and Student Affairs

SUMMER 2019 UNDERGRADUATE RESEARCH STIMULUS PROGRAM  
AWARDS

1. Jordan Draper (majoring in Secondary Education Mathematics). "Teachers' Designed Tasks to Develop Students' Statistical Thinking and Data Analysis Skills with CODAP." Faculty mentor: Stephanie Casey (Department of Mathematics and Statistics).
2. Kaitlin Dwyer (majoring in Psychology). "Parental Self-Efficacy, Mental Health, and Parental Sensitivity in Parents of Toddlers." Faculty mentor: Jamie Lawler (Department of Psychology).
3. Matthew Floyd (majoring in Physics Research and Mathematics). "Temporal and Spatial Evolution of Solar Storms' Effects on Earth's Magnetosphere." Faculty mentor: Roxanne Katus (Department of Mathematics and Statistics).
4. Savannah Gariepy (majoring in Biology). "What are the Mechanisms Behind Big Bluestem (*Andropogon gerardii*) Grass Dominance in Prairie Restorations?" Faculty mentor: Emily Grman (Department of Biology).
5. Mukiri Gilruth (majoring in Biochemistry). "Further Understanding a Complex and Elusive Protein (Atg 14) Pathway which Plays a Vital Role in Recycling at the Cellular Level." Faculty mentor: Steven Backues (Department of Chemistry).
6. Kenneth Glynn (majoring in Environmental Science and Society). "Did the Flint Water Crisis Harm Wild Birds? Impacts of Metal Contamination on the Behavior and Body Condition of American Robin (*Turdus migratorius*) Nestlings." Faculty mentor: Jamie Cornelius (Department of Biology).
7. Leah Higgins (majoring in Interdisciplinary Environmental Science and Society). "Moral Justifications for Urban Reconciliation Ecology." Faculty mentor: Jill Dieterle (Department of History and Philosophy).
8. Gabrielle Mace (majoring in Anthropology). "Unearthing the Past: Skeletal Excavations of the Ancient Population of *Antiochia ad Cragum*" Faculty mentor: Megan Moore (Department of Sociology, Anthropology, and Criminology).
9. Aubrey Martin (majoring in Biology). "Unmasking the Mystery of DNA Damage Repair" Faculty mentor: Anne Casper (Department of Biology).
10. Shane Prevo (majoring in Mechanical Engineering). "Characterization of Renewable Fuel Behaviors Using Novel Highly Adjustable Burner: Design, Construction, and Initial Investigation." Faculty mentor: Andrew Mansfield (School of Engineering Technology).

11. Sarah Schmidt (majoring in Chemistry). "Synthesis of Pharmaceutically Relevant Salts as PAI-1 Inhibitors." Faculty mentor: Cory Emal (Department of Chemistry).
12. Bria Spalding (majoring in Biology). "Behavioral Effects of Damming on Painted Turtles (*Chrysemys picta*)." Faculty mentor: Katherine Greenwald (Department of Biology).
13. Elizabeth Tedeschi (majoring in Dietetics) "Assess the Relationship between Mediterranean Diet Adherence, Serum F2-isoprostane Levels, and Functional Status in Older Adults." Faculty mentor: Heather Hutchins-Wiese (School of Health Sciences).
14. Hope Vaughn (majoring in Biochemistry) "A Microwave-assisted Reaction to Form Pharmaceutical Building Blocks." Faculty mentor: Harriet Lindsay (Department of Chemistry).
15. Avinash Vivekanandan (majoring in Political Science and Philosophy) "Assessing the Effects of Foreign Intervention Through an Analysis of Russian Intervention in the 2016 U.S. Presidential Elections." Faculty mentor: Judith Kullberg (Department of Political Science).
16. Caleb Willette (majoring in Environmental Biology) "How Road Salts Affect Fungal Decomposition." Faculty mentor: Kristin Judd (Department of Biology).