

SECTION: 10
DATE: April 22, 2021

**BOARD OF REGENTS**  
EASTERN MICHIGAN UNIVERSITY

**REPORT**

**2020-2021 SYMPOSIUM UNDERGRADUATE RESEARCH FELLOWSHIP  
RECIPIENTS**

**ACTION REQUESTED**

It is recommended that the Board of Regents accept and place on file the Report on the 2020-2021 Symposium Undergraduate Research Fellowship recipients.

**STAFF SUMMARY**

The Symposium Undergraduate Research Fellowship (SURF) is intended to encourage partnerships between undergraduate students and Eastern Michigan University faculty and to facilitate student participation in the annual Undergraduate Symposium. Selected student fellows are matched with faculty mentors in the student's chosen field of study. SURFs engage in a research or creative scholarly project that is of mutual interest between the student and faculty mentor. Students are provided with a \$1,000 stipend; faculty are provided up to \$1,000 to support the project. SURF positions are awarded for one year with the possibility of renewal. As a culmination of the year's work, SURFs present at the EMU Undergraduate Symposium.

**FISCAL IMPLICATIONS**

None. The cost of awards is fully supported by private donations to expendable funds associated with the Undergraduate Symposium.

**ADMINISTRATIVE RECOMMENDATION**

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



March 31, 2021

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

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**Date**



# Symposium Undergraduate Research Fellowship (SURF) Awards 2020-2021 Research Fellows



Through donor support, the SURF program provides an opportunity for outstanding new and current students to extend their educational experience and academic passion beyond the classroom.

Fundraising efforts for the fellows began enthusiastically in the fall of 2006. Supporters of the Undergraduate Symposium were excited to learn of an opportunity to support student research at a more engaged level. Since the program's inception, donors have supported 220 unique students. We have donors who have contributed since the beginning, those who chose to support through their estates, and even new donors who are alumni of the program.

Selected student fellows are immediately matched with a faculty mentor in the student's chosen field of study. SURFs are engaged in a research project that is of mutual interest between the student and faculty.

Students are provided with a \$1,000 stipend; faculty are provided up to \$1,000 to support the project. SURF positions are awarded for one year with the possibility of renewal.

As a culmination of the year's work, SURFs present at the EMU Undergraduate Symposium.

***We congratulate the following students on  
their research awards!***



**Natalia Anderson**

**John Koolege, faculty mentor  
History and Philosophy  
Retirement Income Solutions, donor  
The Self-Serving Attributional Bias  
and Effective Teaching and  
Learning**

*"This project is focused on various biases in the teaching and learning environment that negatively impact it. Currently investigating how the Self-Serving Attributional Bias (SSAB) affects teachers' ability to 'close the loop'."*

Full Abstract: The self-serving attributional bias (SSAB) is a very common human bias. The SSAB, however, is at odds with being a good learner, since learning (often) requires learning from failure. It is also at odds with the teaching practice known as closing the loop, wherein teachers recognize issues in student learning and then adjust their approach to increase student learning. Patterns of thinking such as SSAB can negatively impact the teaching and learning environment, but we cannot rely on students and teachers to recognize and monitor this bias on their own. I suggest that institutional structures and measures that are intended to serve as a check on biased reasoning are a useful way to help reduce the negative impacts of the SSAB.



**Olivia Chandler**

**John Palladino, faculty mentor  
Special Education  
Tom Sidlik, donor  
Special Education Teaching During  
COVID-19**

*"I am in the process of designing a survey with my faculty mentor based on a combination of scales that measure teachers' perceptions of administrators' fairness, supervision, ethical behaviors, and empowerment. Unique to my project is that the newly formed scale will be administered to special education teachers currently instructing students with disabilities in virtual/online platforms. Our intent is to determine if and how their perceptions relate to their first-time experiences of teaching students with disabilities online."*

Full Abstract: The purpose of this quantitative survey project was to understand Michigan special education teachers' experiences with COVID-related online/virtual instruction and the relationship with their perceptions of organizational support from administrators. The survey design included measures of teacher efficacy and administrative ethical leadership.



**Gwentyth Deiter**

**Susan Booth, faculty  
mentor**

**Arts Management  
JP Morgan Chase, donor  
Accessibility in the Arts:  
An Applied Investigation**

*"Accessibility in the Arts focuses on creating an inclusive environment within performing art spaces. The goal is to further develop potential guidelines to assist future productions to increase their level of accessibility and to promote inclusivity."*

Full Abstract: This interactive exhibit presents accessible tools used in previous research to create an accessible model of another student's design exposition. The exhibit includes educational infographics, access tools, and feedback stations. The purpose of this exhibit is to inform and share the functions and effectiveness of accessibility in an academic environment. In summary, this exhibit aims to raise awareness for accessibility and inclusivity in the academic sector within the EMU community.



**William Glover**

**Ryan English, faculty  
mentor**

**Visual & Built Environments  
Dykema, donor  
Dynamic Storytelling with  
Animation**

*"We are creating an animated showcase of the advantages animation can have over digital/film in shaping story elements. The goal of this project is to further legitimize animation as a narrative device for all stories, rather than the adolescent focused narratives it has been tied to in Western Media."*

Full Abstract: Animation presents a seemingly boundless form of storytelling. Unlike other visual mediums, animation is not bound to physical limitations. Using animation, a story about relationships no longer needs to be between two people. It could be between two animals or two shapes. Through animation, character can be given to seemingly anything. From there, metaphors, bonds, or inner thoughts can be represented completely visually. Animation's advantages can be utilized to expand the ways in which stories are told. This project aims to legitimize animation as a narrative device for all stories, unlike the adolescent focused narratives it has been tied to in Western Media.



**Emma Krietemeyer**

**Christopher Elias, faculty  
mentor**

**Economics  
Dale and Gloria  
Heydlauff/ AEP, donor  
Modeling the Cost of  
Housing using Interest  
Rates: An Application of  
Time Series Analysis**

*"My project is creating models that put the price of housing, using the Freddie Mac index, in terms of the interest rate, sensitive to time. This gives us a sense of if and how the current interest rate impacts the value of housing. Multiple models were built and then evaluated for statistical and economic significance."*

Full Abstract: Time series analysis will be used to assess the relationship between recorded interest rates and the recorded cost of housing in the United States. This model will be used to interpolate and extrapolate results of manipulating one or both variables to make predictions. The Freddie Mac U.S. National house price index will be used. Mortgage rates and other forms of interest will all be considered. The model will be evaluated to various standards of econometric analysis. An open source software R will be utilized for computational aid.



**Peter Landor**

**Cara Shillington, faculty mentor**

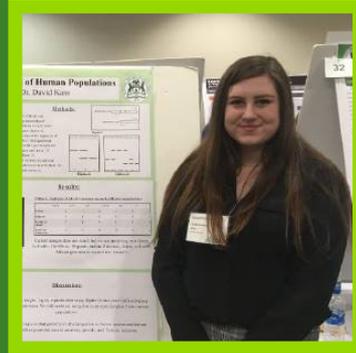
**Biology/Chemistry**

**William Fennel Endowment, donor**

**Life in the Fast Lane: Is the Pace of Life Syndrome Supported in Tarantulas?**

*"We will be looking at the growth rates and metabolic rates in two species of Tarantula: (Pterinochilus murinus) and (Heteroscodra maculata), with both species having very different life histories and paces of life."*

Full Abstract: Pace-of-life syndrome (POLS) proposes a correlation among life history, behavior, and physiology in animals. POLS predicts that fast-paced species have higher growth rates (GRs) and metabolic rates (MRs) than slow-paced species. Fast-paced species also have shorter lifespans. We investigated POLS in two tarantula species, comparing GRs and MRs while varying food availability. We hypothesized that the fast-paced species with high food availability have higher GRs and MRs than slow-paced species. We also predicted that fast-paced species would be more impacted by food limitation due to differences in energy allocation over shorter lifespans. Results are discussed in the context of the POLS.



**Madeleine Maki**

**David Kass, faculty mentor**

**Molecular Biology**

**William Fennel Endowment, donor**

**Advancements in Alu-Based DNA Markers for Studies of Human Populations**

*"Our research focus involves advancements in the utilization of Alu-based DNA markers for studies of human populations, using markers that are polymorphic for the presence or absence of an Alu element in specific genetic loci, which has been incorporated into the 1,000 Genomes Project."*

Full Abstract: Alu elements represent the most common short interspersed DNA elements (SINEs) in the human genome with over one million copies. Roughly 2,000 elements are not fixed in human genomes providing DNA markers shown to be highly useful in human population studies. Upon sequencing the Yc1NBC60 Alu-containing locus we have identified additional variations, subsequently developing a relatively simple assay to identify the variants among individuals from various ethnic groups. Thus far, we have found an allele common in American Caucasians, but rare among analyzed Asian and African DNA samples supporting the increased robustness of our methodology for further advancing studies of human populations.



**John Milkovich**

**Ronald Delph, faculty mentor  
History & Philosophy  
Bank of Ann Arbor, donor**

**History as Artistic Inspiration:  
Playwriting**

*"This project is a play based on the sack of Rome in 1527. Besides just being enjoyable to write, the play and my presentation are meant to show that history can be used by an artist for inspiration and as a source of material for any piece."*

Full Abstract: This presentation hopes to show how history can be used to inspire the artist. Focusing on playwriting, the presentation will consist of showing three scenes from my play Memento Mori and explaining what research went into creating these scenes and the entire play. The play deals with events and city life during the Protestant Reformation in Germany and ends with the terrible sack of Rome in 1527. It follows the lives of historical and fictional characters through the development of the Holy Roman Emperor's war with the papacy.



**Rhy'ss Taylor**

**You Li, faculty mentor  
Communication, Media & Theatre Arts  
Molly Luempert-Coy and DTE Energy  
Foundation, donor**

**Representation of Colorism in  
Hollywood**

*"My research will examine Hollywood's representation of people of color and its impact on adolescence in order to bring awareness to how people of color are represented and its impact on adolescence and how it impacts their perception of self-image and reality."*

Full Abstract: This research examines Hollywood's representation of people of color and its impact on adolescence. First, it uses critical discourse analysis to compare and contrast how white directors and non-white directors represent people of color in race-themed movies through the use of setting, dialogue, clothing, and other factors. Second, it interviews African American teenagers on their self-perception after viewing those movies. The results will shed light on the stereotypes and colorism used in those movies to portray people of color and how such representation may affect audiences' self-esteem.



**Erica Burks**

**Joan Cowdery, faculty mentor  
Health Promotion Human  
Performance**

**Ian Pendelton, donor**

**Youth and the Increase of Sexually  
Transmitted Diseases**

*"This review of the current State of Michigan and Detroit Public Schools sexual health curriculum will aim to determine if informational gaps in the content may be contributing to the rise of sexually transmitted diseases in youths who learn from the programs."*

Full Abstract: The organisms that cause sexually transmitted diseases (STDs) may pass from person to person in blood, semen, or vaginal and other bodily fluids. An estimated half of the 20 million new STD cases in the United States are from adolescents between the ages of 15-24. In Michigan, Detroit has been number one in both chlamydia and gonorrhea cases the last five years, with 11,142 chlamydia and 5,835 gonorrhea cases reported in that period. This presentation will focus on chlamydia and gonorrhea reporting from 2014-2019 and identify gaps in the State of Michigan and Detroit Public School's sexual health education that may contribute to the increase of STD cases in Detroit adolescents.



**Ahmad Zalt**

**Carla Damiano, faculty mentor  
World Languages**

**Tom and Mary Layher, donor**

**Censorship and Freedom of Speech  
in Former East Germany: An  
Interview with Gabrielle Eckart**

*"In light of the 30th anniversary of German unification on October 3rd 2020, my topic addresses attitudes and actions before and after the fall of the Berlin Wall as they were expressed in literature and film."*

Full Abstract: In 1990, East and West Germany reunited as one nation after over 40 years of political, social, and cultural division. Following reunification, portrayal of life in East Germany ranged from nostalgic longing to depictions of cruel censorship. Records presented by the Stasi Records following the Fall of the Berlin Wall make clear just how deeply the East German State Police penetrated the lives of East German citizens. Against this historical backdrop, I explore the intricacies of author censorship by interviewing a former East German author, Gabrielle Eckart, who left East Germany for the West in 1987.