



The OFFICE of UNDERGRADUATE
RESEARCH *presents the 3rd annual*

2022

**Undergraduate
Research
Conference**

MARCH 25 2022



MISSISSIPPI UNIVERSITY
for **WOMEN**



WELCOME

Welcome to the 3rd campus-wide Undergraduate Research Conference. As we continue to assess, reflect, and evolve, we have taken the things you like about a virtual conference, and turned this year's experience into a hybrid one. In addition to the coveted in-person interaction, we've expanded presentation categories to be virtual or asynchronous. My hope is to keep providing more widely accessible options to all MUW students to pursue intellectual curiosity, using all the tools in our toolbelt. To all our presenters: you are examples of resilience, persistence, and dogged curiosity, and I applaud you!

While this year has dealt us several challenges, there are so many people I am grateful for. I would like to thank the members of the Undergraduate Research Advisory Committee for steering the decisions in planning this year's conference and for shaping exciting initiatives in the next semester. I would also like to thank Fant Memorial Library staff and faculty, particularly Dean Amanda Clay Powers and Kelsey Damms, who have invested time and labor into everything from thinking through what a hybrid conference looks like to creating the fantastic tote bags at the registration table. Thank



The mission of The W's Office of Undergraduate Research is to promote and celebrate undergraduate research, empower students to engage in original intellectual or creative work across the curriculum, and collaborate with faculty, staff, and community partners to create and sustain research opportunities.

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Email: our@muw.edu
Phone: (662) 329-7334
Web: muw.edu/our



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you also to Dr. Scott Tollison, whose financial support provides the awards for research excellence of our student presenters, and to President Nora Miller for her commitment to student involvement in research. Thanks to the faculty volunteers who have agreed to dedicate their Friday afternoons to engaging their students in scholarly conversations, and to the student volunteers who have contributed their free time for the sake of supporting their peers. Finally, and most importantly, thank you to the students who are sharing the fruits of their labor with us here today – in spite of the challenges of the past 2 years. They are the reason we do what we do! I look forward to your presentations, to engaging with you in multiple modalities, and to learn from your past, current, and future pursuits.

Hillary A. H. Richardson

Coordinator of Undergraduate Research and
Information Literacy



Undergraduate Research Conference March 25, 2022

All events will be in Fant Library's Tiered Classroom and live-streamed via Zoom from the AthenaCommons conference page

March 25	REGISTRATION	
9:00 - 10:30 am	Volunteers and participants may check in and retrieve conference materials	Library Lobby
	OPENING REMARKS	
10:30 am	Hillary Richardson - Welcome and Notes	Tiered Classroom
	T. K. Lee - Importance of Participating in Undergraduate Research	
	STUDENT PRESENTATIONS	
All day	POSTERS	Athena Commons
	Mikayla Reed - Convenience or reckless spending? How mobile payment apps can help college students manage their money	
11:00 am	HUMANITIES PANEL I - MUW STORIES	
	Bayleigh Dawkins - Attempted Name Change of MUW after Coeducation	
	Faith Langford - Writing Toward Social Consciousness: Expressions of Sexuality and Gender in Mississippi University for Women's Undergraduate Fine Arts Publication	
12:00 pm	BREAK	
1:00 pm	SOCIAL SCIENCES PANEL	Tiered Classroom
	Benjamin Little - Impact of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) on Family Functions	



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1:30 pm	STEM PANEL	Tiered Classroom
	Zithlaly Amezquita - Endogenous CFTR Expression in Human Epithelial Cell Lines	
2:00 pm	HUMANITIES PANEL II - MISSISSIPPI STORIES	Tiered Classroom/ AthenaCommons
	Margarete (Maggie) Ellis - "Sole and Separate": The Progression of Married Women's Property Rights in the State of Mississippi	
	Emerald Potter - Curating the Past: Telling the Story of Women at the Columbus Air Force Base	
	Max Hartleroad - "We Got The...": Jackson, Mississippi and the Punk Rock Scene, 1976-1986	
3:30 - 4:00 pm	CLOSING REMARKS AND AWARDS ANNOUNCEMENT	Tiered Classroom
	Hillary Richardson - Introductions	
	Dr. Scott Tollison - Closing remarks	
	President Nora Miller - Award Announcements	
	Best Oral Presentation	
	Best Poster	
	Best Long-term Research	
	Best Short-term Research	
	Best Overall Presentation	



UNDERGRADUATE RESEARCH CONFERENCE

GET INVOLVED IN UNDERGRADUATE RESEARCH

HANDS-ON EXPERIENCE

Find conferences, internships, publications, and campus research opportunities in your major! These opportunities can offer experiences (and sometimes pay) that will give you hands-on research experience.

Visit muw.edu/our/opportunities for more.

SUMMER SCHOLARS

Get course credit and a scholarship for tuition, room, and board to do faculty-mentored research over the summer. Applications are reviewed throughout the spring semester.

Visit muw.edu/our/summer for information on the program and application deadlines.

FUNDING

The OUR lists on-campus programs that offer funding for student research. Apply for a \$500 award toward a project, conduct research through Federal Work-Study, or apply for a summer fellowship

Visit muw.edu/our/funding for details.



STUDENT ABSTRACTS

Zithlaly Amezquita

Endogenous CFTR Expression in Human Epithelial Cell Lines

CFTR (Cystic Fibrosis Transmembrane-conductance Regulator) is a plasma membrane protein that functions as a chloride ion channel on many epithelial cells. There are over 1000 mutations that affect the function of this protein; however, the most common mutation is DF508. CFTR mutations target many secretory organs like pancreas and lungs causing the genetic disease cystic fibrosis (CF), common among Caucasians of northern European origin. Detection of endogenous CFTR expression is possible by a difficult and costly immunoprecipitation method but not by the most used western blotting method. Therefore, the goal of this project was to detect the endogenous CFTR expression in pancreatic cell lines CFPAC (expressing DF508-CFTR) and Capan-1 (expressing wildtype-CFTR) by the western blotting. With the help of a newly developed western blotting method [Heda et al, BioTechniques, 68(6), 319-325, 2020] and modern sensitive detection tools, I am able to detect the endogenous expression of DF508 and wild-type CFTR. Endogenous CFTR detection by this improved western blotting method, however, required a large amount of protein samples. Specificity of the CFTR expression was confirmed by the peptide inhibition experiment. This new detection method may serve as a diagnostic tool for the detection of CFTR in CF specimen.

Bayleigh Dawkins

Attempted Name Changes of MUW after Coeducation

In 1982, the Mississippi University for Women made the transition to coeducation, which was a controversial decision, and was quickly followed by the issue of should the name of the university be changed in order to accommodate the changing gender standards and norms throughout society. MUW is one of only two public universities that has opened its doors to men without changing its name. This research looks at the attempted name changes through the lens of archival documents within the Beulah Culbertson Archives as well as comparing these events to fellow women-only universities' path to coeducation and name changes. The research looks at the motivations for the proposed name changes as well as the reactions of university officials, students, and alumni. This study reveals that establishing trust between university officials, students, and alumni will be critically important if a name change is desired, and proponents would be wise to focus careful attention to the preservation of the university's women-focused history and mission.



Margarete (Maggie) Ellis

"Sole and Separate": The Progression of Married Women's Property Rights in the State of Mississippi

While Not known for progressive politics, Mississippi was a leader in Married Women's Property Rights, passing the first law of the same title in 1839. Mississippi Women were then able to retain their own property after marriage. Prior to this law, the United States utilized a common law system that relegated women to a state of Coverture, which rendered women civilly dead. While there is debate about the extent to which this law should be understood to be a Women's Rights initiative, it set the stage for an interesting series of events in Columbus. Laura Young Whitfield, an heir-at-law of a wealthy plantation owner, sought to sue her husband over her right to own and control her sole and separate property, the house now known as Baskerville Manor, after he sold it without her permission to cover the debt he incurred over the first decade of their marriage. Laura's story details one way that the Married Women's Property Rights Act was utilized by Mississippi Women in an attempt to retain their wealth in a system which upon birth gave them an inherent disadvantage.

Max Hartleroad

"We Got The...": Jackson, Mississippi and the Punk Rock Scene, 1976-1986

Punk was a southern phenomenon. Scholars do not write about it—punk scholars overlook the South; southern scholars do not research punk. Jackson, Mississippi housed a vibrant punk scene between 1976-1986. Jackson's scene followed trends of British and American punk movements, and was inspired by it. While earlier punk bands garnered major label attention, the southern scene developed later and circumvented the major label model by releasing their own works. Evaluating four bands on the Jackson scene—Ed Nasty and the Dopeds, The Germans, The Windbreakers and Men with No I.Q.s—provide insight into how punk manifested in small towns and mid-sized cities of the South. Analyzing this artistic scene as well as their creative output provides information on how southern artists reacted to larger artistic movements such as punk culture as well as political and social trends of America during the 1980s. Looking at more conservative areas like Mississippi we can see how this translated on the local level. Infrastructure, such as record stores, venues, even small labels, and community proved integral to making punk music happen in Mississippi. Jackson punk artists shared a connection to punk's artistic expression, energy, ethics, as well as it's love of destruction.



Faith Langford

Writing Toward Social Consciousness: Expressions of Sexuality and Gender in Mississippi University for Women's Undergraduate Fine Arts Publication

Undergraduate literary publications not only reflect the environment of the campuses on which they are published but also reveal the authors' visions of the world in which they live. By examining submissions to Mississippi University for Women's fine arts publication, *Dilettanti*, from 1954 to 1989, this research explores the ways broader social changes and local developments influence expressions of sexuality and gender. Yet, since the publication is specific to a women's college in Mississippi, students' concerns reflect campus life as the university navigated desegregation, changes in campus regulations, and coeducation. Through the decades covered, such changes as the rise of the women's movement, the emergence of the birth control pill, and the resurgence of conservatism in national politics are referenced in submissions and reveal some of the students' reactions to movements occurring nationwide. Focusing on themes of conventional gender roles, alternate sexualities, reproductive control, and the use of feminist rhetoric in submissions, this analysis highlights the shifting attitudes toward sexuality and gender as well as the attitudes that stay the same over this 35-year period. While the topics discussed change over the years, student submitters view themselves as connected to larger societal and cultural forces between the 1950s and 1980s.

Benjamin Little

Impact of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) on Family Functions

Family policy broadly encompasses everything the government does to promote individual and family well-being through policies that seek to improve the quality of life for individuals and their families. The Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 (P.L. 104-193) requires work in exchange for time-limited assistance and a performance bonus to reward states for moving welfare recipients into jobs. The bill includes a provision known as Section 115 that imposes a lifetime ban on federal food and cash assistance for people with drug felony convictions. Those with a previous drug felony conviction receive a lifetime ban on SNAP and TANF regardless of whether they have completed their time in prison or not. As such, the purpose of this brief is to educate and inform on the impact of this section on the well-being of individuals and families through Hill's (1949) ABC-X model and Boss' (2002) model of family stress.



Emerald Potter

Curating the Past: Telling the Story of Women at the Columbus Air Force Base

This research project is the curation of an online digital exhibit about women who broke gender barriers as pilots at the Columbus Air Force Base in Mississippi. There are many different elements of this project including archival research, historical analysis, as well as expanding on the importance and meaning of public history and the digital humanities. Through the research done at the Columbus Air Force Base Archives it was evident that many of the women that came through the base shared common themes in their experiences in the air force. Many of the women contributed to this narrative at the Columbus Air Force Base, but the women of focus in this project were Mary Livingston, Cyndy Hubbard, and Kelly Flinn because of the connecting truths that they display in their lives as women making strides on the Columbus Air Force Base. The purpose of this project is to tell their stories in a way that allows viewers to see the similarities and significance of their struggles as they were challenging the gender barriers that were an issue throughout the military. The narrative of the digital exhibit is the outward half of the project, but the research and practices that went in to creating the exhibit is also an important part of this project. In order to be able to highlight all their stories and not take away from their importance, the stories are displayed in an online digital exhibit that is simple yet appealing, easy to navigate, and full of essential historical information. The tools and elements of Omeka.net allowed for the implementation of the best practices when creating the digital exhibit concerning its purpose and significance within the historical field and digital humanities, design methods, and overall accessibility.

Mikayla Reed

Convenience or reckless spending? How mobile payment apps can help college students manage their money

Mobile payment service (MPS) apps are often used because they are convenient and easy to use. However, some people may not understand how MPS use could impact day-to-day finances or long-term financial well-being. This study seeks to explore the use of MPS apps among college students. It is hypothesized that MPS app use is related to factors such as ease of use, convenience, and financial behaviors, such as monitoring spending or paying bills on time. In the fall of 2021, 122 college students from the Southeastern United States responded to an online Qualtrics questionnaire related to preferences among MPS apps, frequency of their use, and spending and bill-paying financial behaviors in the last 6 months. Responses were coded and analyzed by using IBM SPSS v 28. Correlations revealed frequent MPS use was not associated with financial skills, usefulness, convenience, awareness, or actual financial behaviors. However, financial skills were positively related to factors such as MPS usefulness ($r = .62, p \leq .001$) and convenience ($r = .58, p \leq .001$), and awareness of financial behaviors ($r = .55, p \leq .001$). Findings suggest that MPS apps can be a tool to promote financial management behaviors such as controlling spending and paying bills on time.



Special Thanks

Undergraduate Research Advisory
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Questions or comments?

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