Welcome,

On behalf of Graduate Education & Research, we would like to welcome you to the virtual 2021 Graduate Scholars Symposium. This event is a recognition of achievement, a showcase, and a learning experience. It’s a safe environment for friends and colleagues, students and faculty, to share their discoveries. Scholarship in its many forms is at the heart of the university. This symposium is special because of its diverse nature as it covers the entire breadth and depth of disciplines at the university. Therefore, this allows us to break out of our silos, see the kind of work being done across campus, and perhaps even open some doors for future interdisciplinary collaboration. While we look forward to the end of the pandemic and the return of in-person events, we hope that you find today's alternative venue a creative opportunity. We look forward to seeing you online.

Dr. Odin Jurkowski
Professor and Director, Graduate Education & Research
# Table of Contents

## Awards
- Faculty Scholar Awards - 4
- Reid Hemphill Scholarship - 8
- Lovinger Graduate Scholarship - 10
- Graduate Student Achievement Award - 11

## Symposium Presentations
- Faculty Presentations - 13
- Student 4-5 Minute Presentations - 14
- Student 12-15 Minute Presentations - 16

## 2021 3MT Event Results
- Student Presentations - 19
Jenny Molberg, originally from Dallas, Texas, is the author of three collections of poetry, Marvels of the Invisible (Winner of the Berkshire Prize, Tupelo Press, 2017), Refusal (LSU Press, 2020), and The Court of No Record (expected to be published in 2023.) She earned her BA in English and Art History from Louisiana State University, her MFA in Creative Writing from American University, and her Ph.D. in Creative Writing from the University of North Texas. The recipient of a 2019-2020 Creative Writing Fellowship from the National Endowment for the Arts, she has also received scholarships and fellowships from the Sewanee Writers Conference, Vermont Studio Center, and the Longleaf Writers Conference. Her work has recently appeared or is forthcoming in Ploughshares, Gulf Coast, Tupelo Quarterly, West Branch, Poetry Northwest, The Missouri Review, and other publications. She is Associate Professor of Creative Writing at the University of Central Missouri, where she directs Pleiades Press and co-edits Pleiades magazine. At UCM, she serves as faculty sponsor of Arcade literary magazine and chair of the creative writing program. She lives in Kansas City with her dog, Dolly Parton.
Dr. Jenny Molberg
Associate Professor of Creative Writing
School of English and Philosophy

Project Title: Refusal: Poems

Refusal, a collection of poems that was published by LSU Press in February 2020, confronts difficult topics such as domestic abuse and addiction, finding hope and resilience through female friendships and the creative process. Poems from this collection were submitted to the National Endowment for the Arts, and I earned a Fellowship in Creative Writing for 2019-2020 in the amount of $25,000—she was selected among 35 winners from nearly 1,700 applicants. During COVID, I have been giving reading from the books, acknowledging the lack of safe spaces for victims of domestic violence during stay-at-home orders on account of the pandemic, and I have donated proceeds from sales of the book to both local and national domestic violence advocacy centers. The poet David Keplinger writes of the book, "The brilliant index around which these poems spin is the image of the hospital for our previously undiagnosed wounds of the mind and spirit... Refusal establishes her as one of the leading poets of her generation." The book has been reviewed in such venues as Tupelo Quarterly and the Adroit Journal; I have an interview on the process of writing the book in The Harvard Crimson. Poems from the collection were published in such journals as The Missouri Review, Gulf Coast, Boulevard, and Ploughshares; a selection of epistolary poems was chosen as the winner of the Claire Keyes Poetry Award from Salem State University. In the Adroit Journal, one reviewer writes, “Here, within these pages, we rediscover women’s right to refuse. Refusal to be static or flat. Refusal to be objects waiting to be filled. Refusal to be the breath stolen from aching female bodies. Refusal to accept the cycle of abuse, to be nothing but bodies of forgiveness. Molberg sings us songs of hope and survival, which, oftentimes, equals a refusal.” I have been invited to several universities to speak virtually, including Pennsylvania State University, Illinois College, Indiana State University, and Saint Leo University to read and speak about the book.

LSU Press addresses the innovation and content of the book in their following catalog synopsis: “In Refusal, her searing new collection of poetry, Jenny Molberg draws on elements of the uncanny—invented hospitals, the Demogorgon of Dungeons & Dragons, an Ophelia character who refuses suicide—to investigate trauma, addiction, and forces of oppression. Exposing the effects of widespread toxic misogyny, this confrontational volume examines societal, cultural, and personal gaslighting in situations of domestic abuse. As Molberg writes in “Loving Ophelia Is,” “love and hate simultaneously is the trick of abuse / and the trick of abuse is a vexation of the mind.” A sequence of epistolary poems looks to friendship as a safe haven from violent romantic relationships, while another series on a mother’s struggle with addiction captures the complicated nature of a parent-child relationship affected by alcoholism. Refusal seeks to break silences and to interrogate a cultural misogyny that weighs heavily on a woman’s position in the world.”
2021 Faculty Scholar Category Winners

-Pedagogy Category-
Dr. Michael Makara
Associate Professor
Political Science & International Studies

Project Title:
More than a Vacation? Assessing the Impact of a Short-Term Study Abroad Program to the Middle East

-Creative Works Category-
Julie Rae Mollenkamp
Professor
Theater & Dance

Project Title:
Another Woman's Baby
2021 Faculty Scholar Category Winners

-Discovery Category-

Dr. Zhiguo Zhou
Assistant Professor
Computer Science, Cybersecurity, & Software Engineering

Project Title:
Multifaceted Radiomics for Treatment Outcome Prediction in Cancer Radio Therapy

-Application Category-

Dr. Miaozong Wu
Associate Professor
Safety Sciences

Project Title:
OSHA- Funded Projects on Electrical Safety to Protect Workers from Injuries
Rebecca Grisham currently resides in Gainesville, MO. She earned a Bachelors in 9-12 Grade History Education from Missouri State University, a Masters in K-12 Administration from William Woods University, and a Specialist in Educational Leadership - K-12 Administration from Missouri State University. Rebecca and her husband Keith have one son together, Kenny, who is 22. She is wrapping up her 20th year of teaching. For the first 4 years of her career she taught 9-12 grade English and for the last 16 years has been a school librarian.

**Project Title:**

*Examining the Incubation Model of Teaching in the School Library*

The purpose of this study was to examine the impact that the Incubation Model of Teaching, a creative teaching method, had on research project topics chosen by 4th through 6th grade gifted students when the model was implemented in the school library. In school library research there has been little study regarding the impact of the Incubation Model of Teaching, or other creative teaching strategies, on library instruction. This action research study used the reversal design which allowed for a replication phase. The intervention was a period of incubation, or break from the topic generation task. Data were collected through field notes, student journal prompts, semi-structured teacher interview, and rubric. Major findings during the study revealed that implementing the Incubation Model of Teaching in the school library impacted topic selection among gifted students by providing students with a process for developing topics and helping the gifted students select research topics they were interested in learning about.
Reid Hemphill College Level Winners

Harmon College of Business & Professional Studies

Meredith Burns
Speech-Language Pathology, MS

College of Education

Rebecca Grisham
Human Services, Learning Resources, EdS

College of Health, Science, & Technology

Nicolas Philipp
Kinesiology, MS

College of Arts, Humanities, & Social Sciences

Kay Skidmore
Teaching English as a Second Language, MA
Lovinger Graduate Scholarship

2021

Warren C. & Dorothy B. Lovinger
Graduate Student Scholarship Winners:

Lynn Aswegan
Nursing, MS

Madison Smith
Teaching, MA

Tori Theiss
Nursing, MS
Graduate Student Achievement Award

Fall 2020- Spring 2021

Allene Cardwell: Physical Education, MS
Praveena Kumari Chikoti: Computer Information Systems & Information Technology, MS
Jessica Gregory: Library Science & Information Services, MS
Manisha Kamishetty: Big Data Analytics & Information Technology, MS
Barthlameo Kiplimo: Industrial Hygiene, MS
Wenye Liu: Big Data Analytics & Information Technology, MS
Sara Myers: Speech-Language Pathology, MS
Dennis Murphy: Aviation Safety, MS
Theodore Pashia: Health, Science, & Technology, MS
Shirisha Pedditi: Cybersecurity & Information Assurance, MS
Akshay Shinde: Industrial Management, MS
Rachel Smith: Health, Science, and Technology, MS
Richa Soni: Big Data Analytics & Information Technology, MS
Bethany Spitzmiller: Communication, MA
Bridget Talley: Speech-Language Pathology, MS
SYMPOSIUM PRESENTATIONS
Faculty Presentation

Dr. Tsvetan Popov
Assistant Professor
Safety Sciences

Project Title:
Comparison of Direct-Reading Instruments and Integrated Sampling for Monitoring of Airborne Total Particulates

Faculty Co-Author: Eric Hallerud
Student Co-Author: Andrew Burt

Abstract:

• In the recent years direct-reading instruments have become readily available in the field of industrial and environmental monitoring of airborne hazards.
• Despite their limited use in regulatory compliance, such instruments provide valuable information for short term exposure limits in real time monitoring.
• This study focuses on comparison between integrated sampling of total and respirable particulates using NIOSH-approved method and direct-reading measurements with aerosol monitors. Dusty environment with different concentrations of particulates were simulated in a control chamber.
• The results of this project will provide valuable information if direct-reading instruments can collect reliable data comparable to integrated sampling.

*Click on the presentation titles to view each presentation*

Category Winner
Category Runner-Up

UNIVERSITY OF CENTRAL MISSOURI
GRADUATE STUDIES
Student 4-5 Minute Category

Andrew Basse
Industrial Hygiene, MS
Presentation Title:
Quantitative Fit Testing of Disposable Respirators
Faculty Advisor:
Dr. Tsvetan Popov

Michael Engel
Biology, MS
Presentation Title:
Microhabitat Use of Ringed Crayfish (Faxonius neglectus) and Ozark Crayfish (Faxonius ozarkae) in Bull Creek of Southwest Missouri
Faculty Advisors:
Dr. Daniel A. Marschalek & Robert J. DiStefano

Naveen Gupta Koppuravuri
Industrial Management, MS
Presentation Title:
Applied Project Management: A Proposal for a New Quick Delivery System
Faculty Advisor:
Dr. Jeff Ulmer
Sai Srujith Kota
Technology, MS
**Presentation Title:**
*Role of Artificial Intelligence in Future Technology*
**Faculty Advisor:**
Will Ford

Sathya Narayana Karthik Binnuri
Industrial Management, MS
**Presentation Title:**
*Maintaining the Right Inventory Levels in the Industry*
**Faculty Advisor:**
Dr. Suhansa Rodchua & Will Ford

Heather Silvey
Teaching, MAT
**Presentation Title:**
*Body Type Idealization on Instagram and its Effects on Self-Esteem and Body-Image*
**Faculty Advisor:**
Dr. Christopher Josey
Student 4-5 Minute Category

Allegra Wolff
Music, MA
Presentation Title:
She's with the Band: Exploring Gender Divisions in Military Bands
Faculty Advisor:
Dr. Julia Baumanis

Student 12-15 Minute Category

Laura Harris 🏆
Music, MA
Presentation Title:
Songwriting in Vocal Music
Faculty Advisor:
Dr. Isaac Bickmore

Nicolas Philipp
Kinesiology, MS
Presentation Title:
The Role of Interlimb Asymmetry in Sport Performance
Faculty Advisor:
Dr. Derek Crawford
Ravi Kiran Ayinampudi
CIS and Information Technology, MS
Presentation Title:
ROVE
Faculty Advisor:
Dr. Sam Ramanujan & Dr. Silvana Faja
Student Co-Authors:
Uday Naredranath Pudota, Sai Nikhil Yadav
Madaraboyina, and Jyothi Swaroop Pitta

Sanket Pople
Industrial Management, MS
Presentation Title:
The Effect of Temperature on Fused Deposition Modeling (FDM) Technique
Faculty Advisor:
Dr. Roya Azimzadeh

Allan Sharrock
Industrial Management, MS
Presentation Title:
Closing the Skills Gap in Missouri
Faculty Advisor:
Dr. Suhansa Rodchua
2021 3MT EVENT RESULTS
2021 3MT Event Results

The 3MT™ is a competition that develops academic, presentation, and research communication skills and supports the development of students' capacities to effectively explain their research to a non-specialist audience. Students have three minutes to present a compelling presentation on their research topic and its significance using only one PowerPoint slide. This event was held on 02/09/21.

Overall Winner

Marisa Mayo
Communications, MA
College of Arts, Humanities, and Social Sciences
Project Title:
The Use of Religious Rhetoric in Politics: A College Students' Perspective

Runner-Up

Andrew Basse
Industrial Hygiene, MS
College of Health, Science, and Technology
Project Title:
Quantitative Fit Testing of Disposable Respirators
SPECIAL THANKS
Special Thanks

JCKL Research Librarians

McNair Scholars Program Staff

University Research Council

Graduate Council &

All of our students, faculty, and staff who participated in this year's event!