

JSU Student Research Symposium Spring 2024

From its 1995 inception in the College of Arts and Sciences, the Symposium has served to highlight the creative activities of JSU students. Beginning in 2017, the Symposium was extended to include the entire university. It is the intent of the Symposium to provide a forum to publicly display and acknowledge the best work of our students.

The faculty members who have provided guidance and mentoring to the student presenters are to be commended for their dedication. By spending many hours both inside and outside the classroom introducing students to research activity, these professors are investing in the future.

These student participants, by choosing to go beyond the requirements and limits of the classroom, have demonstrated an understanding of the importance of expanding and adding value to their educational experience. We are proud of their initiative and accomplishments.

Thank you for attending the Symposium and supporting our faculty and students in this endeavor.

Dr. David Thornton, Symposium Director

Cover design by Madison Spencer

The Jacksonville State University, Colleges of Arts and Humanities, Business and Industry, Education and Professional Studies, Health Professions and Wellness, Science and Mathematics and Social and Behavioral Sciences will also be holding an awards ceremony for the 2024 Symposium. We invite you to join us for this ceremony, which will take place in the Merrill Hall Atrium at 4:00 p.m. on Thursday, February 15, 2024.

Symposium Contributors:

David Thornton, Symposium Director
Jan Case, Symposium Scheduling
Sarah Donley, Judging Rubric and Tally
Shannon Robertson, Proceedings
Cynthia Connor, General Publicity
Staci Stone, JSU Faculty & Administration Publicity
Chad Anderson, Student Cover Design
Christian Dunn, Student Cover Design
Allison Boswell, Social Media
Chris Newsome, Online Submission
Angie Finley, Online Submission
Kate Hamby, Online Submission
Tracy Casey, Program and Refreshments
Allison Newton, Judge Scheduling
Jason Cleveland, YouTube Videos
Arup Ghosh, YouTube Videos
Allison Boswell, Online Archive
Bethany Latham, Online Archive

Symposium Judges:

Paula Barnett-Ellis, Professor, Library
Kathryn Catlin, Assistant Professor of Anthropology
Sean Chenoweth, Associate Professor of Geography
Chris Clark, Assistant Professor of Kinesiology
Eric Gamess, Associate Professor of Computer Science
Karlie Johnson, Associate Professor, Library
Allison McElroy, Professor, Art and Design
Allison Newton, Assistant Professor of Public Administration
Laura Pitts, Associate Professor, Library
Mark Sculichetti, Associate Professor of Geography
Monica Trifas, Associate Professor of Computer Science
Falyynn Turley, Assistant Professor of Finance, Economics and Accounting
Hanrong Wang, Professor, Library
Cassie Ward, Instructor, Management and Marketing
Kim Westbrook, Associate Professor, Library

Cover Design Participants:

Stefan Clark	Sam Musgrove
Nicolas Guimaraes Vieira	Madelline Reed
Lanae Henegar	Madison Spencer (2024 cover design winner)
Edie Liu	Sydney Wetzel
Ansley Lyons	Nathan Young
Dante Montgomery	<i>Faculty Mentors: Chad Anderson and Christian Dunn</i>

Tuesday, February 13, 2024
11th Floor of Library

Morning Session (8:15 – 11:30) Room 1103 A & B

8:15-8:25 Zoe Chuang (UG)

Paper (Susan Dean – Mentor)

The Portal to Self-Actualization: Coraline and The Hobbit as Adaptations of the Monomyth

8:30-8:40 Anna Grace Silvey (UG)

Paper (Mark Sciuchetti and Wendy Freeland- Mentors)

The Geographical and Historical Influence on the Hymn How Great Thou Art

8:45-8:55 Brendyn Knight (UG)

Paper (Majid Koozehchian and Gina Mabrey- Mentors)

The Comprehensive Impact of Beta-Alanine on Sports Performance and Muscle Dynamics

9:00-9:10 Emma Jones (UG)

Paper (Majid Koozehchian and Gina Mabrey – Mentors)

The Impact of Arginine Supplementation on Energy Metabolism in Sports

9:15-9:25 Taylor Clough (G)

Paper (Majid Koozehchian and Gina Mabrey- Mentors)

"Endurance Athletes' Nutrition and Supplementation: A Holistic Review of Macronutrients, Hydration, and Performance-Enhancing Substances."

9:30-9:40 Yunis Korku (UG)

Paper (Gaus Alam – Mentor)

Predicting Airbnb Listing Prices in Seattle (January 2016): A Multiple Regression Analysis

9:45-9:55 Evie Vaughn (UG)

Paper (Kathryn Catlin – Mentor)

JSU meets the Vikings: Unearthing archeology of an Icelandic dwelling

10:00-10:10 Jalen Scott (UG)

Poster (Lori Tolley-Jordan – Mentor)

The State of the Science: Wetland degradation worldwide and its effect on Herpetofauna biodiversity.

10:15-10:25 Brittany White and Trinity Elston (G)

Poster (Ashley Turner – Mentor)

Exploring the pathogenicity of a type 2 diabetes mellitus associated INSR missense variant of uncertain significance through daf-2 in the C. elegans model

10:30-10:40 **Allie Field (G)**

Paper (Sean Chenoweth and Ross Martin – Mentors)

Calhoun County Flooding and Insurance Maps

10:45-10:55 **Richard Sheffield, Rachel Powell, Haley Helms, Harley Fields,**

Katherine Robles and Kayleigh Forehand (UG)

Poster (Heidi Dempsey – Mentor)

The relationship between moral disengagement, schadenfreude, and the dark tetrad.

11:00-11:10 **Bethany Christie and Donna Perez (G)**

Poster (Makenzie Bayles – Mentor)

An Evaluation of the Teach-Back Method for Training Functional Analysis Methodology

11:15-11:25 **Donna Perez (G)**

Paper (C. Renee Renda – Mentor)

A rat plays cornhole: Is it magic or science?

11:30-1:00 BREAK

Afternoon Session (1:00–4:30) Room 1103 A & B

1:00-1:10 **Julianna Mostillo (UG)**

Paper (Heidi Dempsey – Mentor)

Sex Differences in Sub-categories of Narcissism, Extraversion, Conscientiousness, and Psychopathy

1:15-1:25 **Harley Fields, Haley Helms, Katherine Robles, Kayleigh Forehand,**

Richard Sheffield and Rachel Powell (UG)

Poster (Heidi Dempsey – Mentor)

The Relationship Between Age, Emerging Adulthood, Empathy, Moral Reasoning, and Dark Traits

1:30-1:40 **Hayden Richardson (UG)**

Paper (Paul Beezley – Mentor)

Memes: A Social and Cultural History

1:45-1:55 **Daniel Rich (UG)**

Paper (Christopher Douglas – Mentor)

Contextualizing of an Elegy Misinterpreted: A New Historicist Take on "The Bride Comes to Yellow Sky"

2:00-2:10 **Callie Stewart (UG)**

Paper (Teresa Reed – Mentor)

Too Passionate: The Destructive Nature of Overpowering Emotion

2:15-2:25 **Laney O'Neal (G)**

Paper (Jamie Runnels – Mentor)

Tiny Things BFA Show

2:30-2:40 **Caroline Lively** (UG)

Paper (Majid Koozehchian and Gina Mabrey – Mentors)

Optimizing Athletic Recovery: The Role of Nutrition and Supplements in Combatting Exercise-Induced Muscle Damage

2:45-2:55 **Steven Williams** (G)

Paper (Majid Koozehchian and Gina Mabrey – Mentors)

Unveiling Curcumin's Role in Enhancing Athletic Performance and Recovery

3:00-3:10 **Nidhi Chauhan** (UG)

Paper (Gaus Alam – Mentor)

A Data-Driven Approach to 10-Year coronary heart disease (CHD) Risk Assessment

3:15-3:25 **Corey Dunn** (UG)

Paper (Arup Ghosh – Mentor)

Building Better Pathways to Internet Access for Disable and Elderly Individuals

3:30-3:40 **Tajuddin Mwijage** (G)

Paper (Arup Ghosh)

Empowering Adolescent Online Safety: Examining the Current Landscape and Anticipating Future Technological Advances

3:45-3:55 **Ricarra Davis** (G)

Paper (Mark Sciuchetti – Mentor)

A Proposal for Cost-Effective Mental Health Facilities in the United States

4:00-4:10 **Nick Williams** (UG)

Paper (Celestino Valentin – Mentor)

OVR Society (Business Plan)

4:15-4:25 **Qian Gao** (G)

Paper (Julie Staples and Keith Lowe)

Development of a Risk-Scoring System to Predict Car Insurance Fraud

Wednesday, February 14, 2024

11th Floor of Library

Morning Session (8:00 – 1:00) Room 1103 A & B

8:00-8:10 **Victoria Moses, Gabrielle Davis and Sara Morris** (UG)

Poster (Ashley Turner – Mentor)

Molecular genetic analysis of congenital stationary night blindness associated TRPM1 genetic variants of uncertain significance in humans and horses utilizing Caenorhabditis elegans

8:15-8:25 **Shelby Wolfram** (G)

Paper (James Rayburn – Mentor)

The developmental effects of the time and duration of exposure on Xenopus laevis embryos by sodium selenate

8:30-8:40 Haley Helms, Harley Fields, Kayleigh Forehand, Katherine Robles, Rachel Powell and Richard Sheffield (UG)

Poster (Heidi Dempsey – Mentor)

The Link Between Psychopathy and Empathy

8:45-8:55 Rachel Powell, Richard Sheffield, Harley Fields, Haley Helms, Kayleigh Forehand and Katherine Robles (UG)

Poster (Heidi Dempsey – Mentor)

The Connection Between Schadenfreude, Dark Traits, and Counterproductive Workplace Behaviors

9:00-9:10 Kayleigh Forehand, Katherine Robles, Rachel Powell, Richard Sheffield Harley Fields and Haley Helms (UG)

Poster (Heidi Dempsey – Mentor)

Does Endorsement of Sex Roles Differentially Predict Sex Guilt, Indirect Aggression, Sadism, and Narcissism?

9:15-9:25 Katherine Robles, Kayleigh Forehand, Richard Sheffield, Rachel Powell, Haley Helms and Harley Fields (UG)

Poster (Heidi Dempsey – Mentor)

Psychopathy, Machiavellianism, Aggression, and Moral Taboos

9:30-9:40 Olivia Harp (UG)

Paper (Paul Beezley – Mentor)

The Evolution of Hip-Hop and its Impact on Popular Culture

9:45-9:55 Caroline Ducato (UG)

Poster (Allen Gilbert and Gregor Kay – Mentors)

An Examination of Implementing a Hard Salary Cap for NILs in Collegiate Sports.

10:00-10:10 Kylee Williams (UG)

Paper (Majid Koozehchian and Gina Mabrey – Mentors)

Mastering Nutrition in Ultramarathon Training and Racing

10:15-10:25 Joshua Woodard (G)

Paper (Majid Koozehchian and Gina Mabrey – Mentors)

Strategic Protein Intake and Timing in Exercise Performance

10:30-10:40 Cassidy McDaniel (G)

Paper (Majid Koozehchian and Gina Mabrey – Mentors)

Enhancing Muscle Function and Endurance in Aging: Nutritional Strategies and Exercise Interventions

10:45-10:55 Cody Hopkins (G)

Paper (David Kean, Chris Clark and Jennifer Burgett – Mentors)

Is the Lever Sign an Effective Diagnostic Tool for Acute Anterior Cruciate Ligament Tears: A Critically Appraised Topic

11:00-11:10 Cole Hamilton (G)

Paper (Chris Clark, Jennifer Burgett and David Kean – Mentors)

Competitive Anxiety and Injury Risk for Collegiate Athletes: A Critically Appraised Topic

11:15-11:25 Courtney Hood (G)

Paper (Jennifer Burgett, Chris Clark and David Kean – Mentors)

Are Concussed Collegiate Athletes More Susceptible to Depression: A Critically Appraised Topic

11:30-11:40 Victoria Tillman (G)

Paper (Jennifer Burgett, David Kean and Chris Clark – Mentors)

Physical Activity in Epileptic Patients: A Critically Appraised Topic

11:45-11:55 Samara Kilgore (G)

Paper (Chris Clark, Jennifer Burgett and David Kean – Mentors)

Does the Fear of Re-Injury in Athletes After an ACL Reconstruction Negatively Affect Their Return to Sport Process: A Critically Appraised Topic

12:00-12:10 Sean Rape (G)

Paper (Chris Clark, Jennifer Burgett and David Kean – Mentors)

Cuboid Syndrome: Manipulation Techniques and Optimal Patient Outcomes: A Critically Appraised Topic

12:15-12:25 Rian Stephens (G)

Paper (David Kean, Jennifer Burgett and Chris Clark – Mentors)

Does the Lateral Extra-Articular Tenodesis Reduce Post-Surgical Rotational Instability with Anterior Cruciate Ligament Tears: A Critically Appraised Topic

12:30-12:40 Chase Smith (G)

Paper (David Kean, Jennifer Burgett and Chris Clark – Mentors)

What Are the Preventative Care and Rehabilitation Techniques for Stress Fractures in Collegiate Athletes: A Critically Appraised Topic

12:45-12:55 Nicholas Harvey (UG)

Paper (Kathryn Catlin – Mentor)

Everyone Who Believes: Faith and Change With the Protestants of Jacksonville State University

Afternoon Session (1:00–3:40) Room 1103 A & B

1:00-1:10 Caroline Carter (UG)

Paper (Majid Koozehchian and Gina Mabrey – Mentors)

Ginseng in Sports Nutrition: Mitigating Muscle Damage and Enhancing Athletic Performance

1:15-1:25 Jakob Skipper (UG)

Paper (Monica Trifas and Arup Ghosh – Mentors)

Got Any Plans? How AI Represents Plans Using Hierarchical Task Networks

1:30-1:40 Ethan St. John (UG)

Paper (Gaus Alam – Mentor)

Predictive Analysis of Health Risk Indicators Using Machine Learning Models and Classification

1:45-1:55 **Graham Hester (G)**

Paper (Eric Gamess – Mentor)

An Empirical Evaluation of the Constrained Application Protocol in Several Raspberry Pi Models

2:00-2:10 **Malek Omri and Tion Wright (G)**

Paper (Monica Trifas and Sadik Arin – Mentors)

From Genes to Algorithms: A Synergistic Approach to Forensic Investigations.

2:15-2:25 **Maya Seesholtz (UG)**

Poster (Lori Tolley-Jordan – Mentor)

Global water quality and the effects on freshwater fish

2:30-2:40 **BREAK**

2:45-2:55 **Allie Field (G)**

Poster (Ross Martin – Mentor)

Hydrology and Flooding Issues on The Pinhoti and Chinnabee Silent Trail

3:00-3:10 **Jeren Tolegova, Brendan Moore, Vanshika Patel, Evonne Huang and Ritu Patel (UG)**

Paper (Amy Simon – Mentor)

Navigating New Horizons: A Strategic Analysis of Walmart's Prospective Entry into the Southeast Asian Market, with a Spotlight on Indonesia

3:15-3:25 **Madison McCoy and Stephen Smith (G)**

Paper (Julie Staples and Keith Lowe – Mentors)

College Athlete Revenue Sharing and NIL: Financial Considerations and Implications

3:30-3:40 **Ari Savage (G)**

Paper (Raina Kostova – Mentor)

Paul Celan and the Processes of Survival in Post-Shoah Jewish Writing

Thursday, February 15, 2024

11th Floor of Library

Morning Session (8:30 – 11:30) Room 1103 A & B

8:30-8:40 **Madison Cagle (UG)**

Paper (Chad Anderson – Mentor)

Nurture vs. Nature Quilted Posters

8:45-8:55 **Bethany Dean-Stoots (UG)**

Paper (Tanya Sasser – Mentor)

Electric Echoes: Red Leopard, Black Wolf

9:00-9:10 **Charles Harrell (UG)**

Paper (Ronald Koss – Mentor)

The Unification of Maghrebi Nationalism Under the Mission Civilisatrice, Analyzed in Contrast to Features of the Moroccan Independence Movement

9:15-9:25 **Skylar Roy** (UG)

Paper (Majib Koozehchian and Gina Mabrey – Mentors)

Ashwagandha in Sports: Investigating Its Impact on Physical Performance and Athletic Enhancement

9:30-9:40 **Shelby Cain and Maddison Martin** (UG)

Paper (Cynthia Conner – Mentor)

Communication is Key

9:45-9:55 **Kendall McCay, Josh Riddle and Hunter Issac Wert** (UG)

Paper (Gaus Alam – Mentor)

Building a Restaurant Ordering System: From Design to Deployment

10:00-10:10 **Aseel Mustafa** (UG)

Paper (Monica Trifas – Mentor)

Emotion in Human-Computer Interaction

10:15-10:25 **Christian Strachan** (UG)

Poster (Lori Tolley-Jordan – Mentor)

A review of freshwater quantity and quality challenges and effects on the conservation and regulatory needs in Small Island Developing States (SIDS)

10:30-10:40 **Kathleen Madden** (UG)

Poster (Lori Tolley-Jordan – Mentor)

Global Scale Effects of Pollution and Parasitism on Freshwater Fish Health: A Review.

10:45-10:55 **John Graffeo** (G)

Poster (Ross Martin – Mentor)

Remote Sensing of Forest Structure Characteristics to Inform Prescriptive Vegetation Maintenance on the Pinhoti National Recreation Trail

11:00-11:10 **Emmanuel Aklie and Prabish Khadka Chhetri** (G)

Paper (Joe Morgan and Mark Sciuchetti – Mentors)

The Ghanaian War Against Malaria: A Geospatial Approach to Malaria and Healthcare Access in Ghana

11:15-11:25 **Tarika Herman** (UG)

Paper (Ashley Turner – Mentor)

Examination of MY06 Missense Variants of Uncertain Significance Associated with Autosomal Recessive Non-Syndromic Hearing Loss Utilizing C. elegans

Awards Ceremony
February 15, 2024
4:00 p.m. Merrill Hall Atrium

Awards for Best Discipline Group

Arts and Humanities (Undergraduate)

Business and Industry (Graduate)

Health Professions and Wellness (Undergraduate and Graduate)

Science and Mathematics (Undergraduate and Graduate)

Social and Behavioral Sciences (Undergraduate)

Awards for Best in Category

Best Paper/PowerPoint Presentation (Undergraduate)

Best Poster (Undergraduate)

Best Paper/Powerpoint Presentation (Graduate)

Best Poster (Graduate)

Best Cover Design

Houston Cole Library Award for Research Excellence

Award for Best of Showcase