

23RD ANNUAL

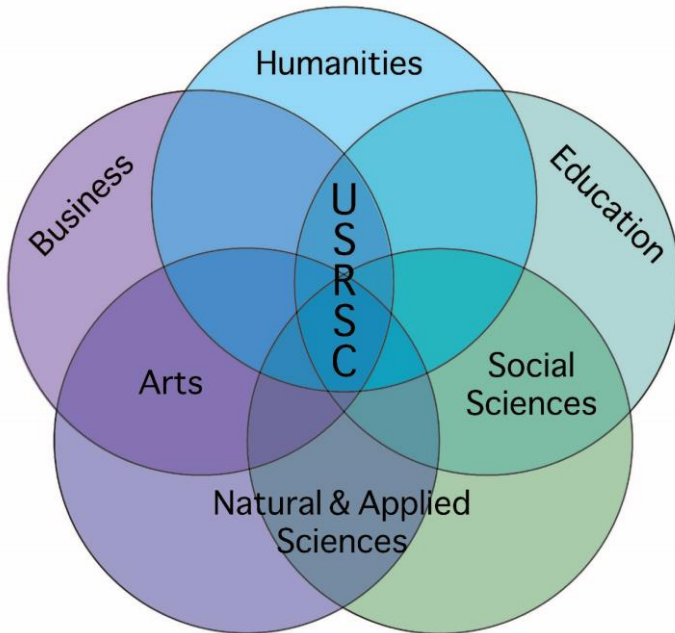


LOYOLA UNIVERSITY MARYLAND

— 1852 —

UNDERGRADUATE STUDENT RESEARCH &
SCHOLARSHIP COLLOQUIUM

APRIL 21, 2023



ACADEMIC EXCELLENCE

∞ WEEKEND ∞

UNDERGRADUATE STUDENT RESEARCH & SCHOLARSHIP COLLOQUIUM

Once a year Loyola University Maryland hosts a campus-wide forum highlighting undergraduate student research and scholarship. The goal of the colloquium is to encourage scholastic endeavors that focus on either the generation of new knowledge or creative integration of existing scholarship.

Today's presentations will be evaluated based on the following criteria:

- A. *Clear Goals: Does the student-scholar state the basic purpose(s) of his or her work?*
Considerations: Defining objectives that are specific, realistic, and achievable.
Identifying important questions in the field.
Stating the objectives in a manner appropriate for a lay audience.
 - B. *Adequate Preparation: Does the student-scholar show an understanding of existing scholarship and/or scholarly processes in the field?*
Considerations: Referencing relevant approaches, scholarship, and/or creative work in the field.
Gathering evidence relevant to stated goals.
Bringing the necessary skills to his or her work.
 - C. *Appropriate Methods: Does the student-scholar use methods appropriate to the goals?*
Considerations: Selecting appropriate methods.
Applying effectively the methods selected.
Modifying procedures or methods in response to changing circumstances?
 - D. *Meaningful Results: Does the student-scholar achieve his or her goals?*
Considerations: Conclusions are well-supported and convincingly argued.
Contributes meaningfully to the field of study.
Opens additional areas for further exploration.
The student-artist's work is aesthetically and expressively effective.
 - E. *Effective Presentation: Does the student-scholar use a suitable style and effective organization to present his or her work?*
Considerations: Clear oral or written presentation of the work.
Effective organization of the presentation
Visual appeal of the presentation.
 - F. *Reflective Critique: Does the student-scholar critically evaluate his or her own work?*
Considerations: Demonstrates an understanding of the strengths and weakness of the work.
Is able to respond thoughtfully to questions about the work.
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SCHEDULE OF EVENTS

3:00-4:00 PM

ORAL PRESENTATIONS

Sellinger Hall 107	–	Humanities Session
Sellinger Hall 201	–	Natural & Applied Sciences Session
Sellinger Hall 221	–	Social Sciences Session 1
Sellinger Hall 223	–	Social Sciences Session 2
Sellinger Hall 203	–	Social Sciences Session 3

3:00-3:30 PM • MCGUIRE HALL EAST

POSTER JUDGING (PRESENTERS AND JUDGES ONLY)

3:30-5:30 PM • MCGUIRE HALL EAST

POSTER PRESENTATIONS AND RECEPTION (OPEN TO PUBLIC)

POSTER JUDGING CONTINUES

5:30-6:00 PM • MCGUIRE HALL WEST

KEYNOTE AND AWARDS PRESENTATION

Welcome: Theresa Geiman, Ph.D. Associate Professor of Biology, Loyola University Maryland

President's Remarks: Terrence Sawyer, J.D., President, Loyola University Maryland

Keynote Introduction: Lynne Elkes, M.B.A., Teaching Assistant Professor of Economics, Director for Sellinger Scholars, Loyola University Maryland

Keynote speaker: John Burger, Ph.D., Professor of Economics, Loyola University Maryland

Presentation of Awards



Detailed schedule begins on page 4



ORAL PRESENTATIONS

HUMANITIES SESSION

SELLINGER HALL, ROOM 107

MODERATOR: DR. YOLOPATTLI HERNANDEZ-TORRES (MODERN LANGUAGES)

Time: 3:00 pm

Pipounoukhe's Winds: The Effects of Winter and the Environment Upon the Peoples of New France

Michael Berger

Faculty Mentor: Dr. Matthew Mulcahy (History)

Time: 3:15 pm

Portrayal of Race, Gender, and Class in The Chi

Camille Harris

Faculty Mentor: Dr. Mas Biswas (Communications)

Time: 3:30 pm

Faux Empathy in The Writing Center: Mental Health and Learning Disabilities

Taylor Moyer, Smarlyn Ovalles

Faculty Mentor: Dr. Craig Medvecky (Writing)

Time: 3:45 pm

Understanding Violence: A Comparative Study

Ryan Corrigan

Faculty Mentor: Dr. Michael Franz (Political Science)

NATURAL & APPLIED SCIENCES

SELLINGER HALL, ROOM 201

MODERATOR: DR. THERESA GEIMAN (BIOLOGY)

Time: 3:00 pm

Nanoparticles: Novel Mechanisms for Cellular Uptake and Expulsion

Patrick McGinnis

Faculty Mentor: Dr. Christopher Thompson (Biology)

Time: 3:15 pm

Exploring Cost Functions of Free space Material Characterization Using Genetic Algorithms

Chelsie Ihuoma

Faculty Mentor: Dr. Reanita Fenner (Engineering)

Time: 3:30 pm

Short Chain Fatty Acid Receptors and Serotonin Colocalization in Rodent Colonic Tissue

Mia Aglieco

Faculty Mentor: Dr. Derek Kendig (Biology)

SOCIAL SCIENCES SESSION 1

SELLINGER HALL, ROOM 221

MODERATOR: DR. RACHEL GROVER (PSYCHOLOGY)

Time: 3:00 pm

Examining College Adjustment Through Sibling Relationships

Holden Ayd, Randi Little

Faculty Mentor: Dr. Rachel Grover (Psychology)

Time: 3:15 pm

Sibling Relationship Quality Among Emerging Adults: How Self-Esteem, Self-Efficacy, Number of Siblings, and Age Differences Play a Role

Holly Cochran, Julia Case

Faculty Mentor: Dr. Rachel Grover (Psychology)

Time: 3:30 pm

Online Dating

Journie Orozco, Caleb Wallace, Matthew Morris

Faculty Mentor: Dr. Rachel Grover (Psychology)

Time: 3:45 pm

The Relationship Between Sexual Attraction and Friendship Quality & Satisfaction in Cross-Sex Friendships

Caroline Arpin, Sarah Abril

Faculty Mentor: Dr. Rachel Grover (Psychology)

SOCIAL SCIENCES SESSION 2

SELLINGER HALL, ROOM 223

MODERATOR: DR. DIANA BETZ (PSYCHOLOGY)

Time: 3:00 pm

The Association Between Romantic Relationship Involvement and Length, Emotional Intelligence, and Conflict Negotiation Skills in College Students

Keiana Ragabi, Devin DeMelis

Faculty Mentor: Dr. Rachel Grover (Psychology)

Time: 3:15 pm

ADHD, Friendship Quality, and Homophily in Emerging Adults

Lara Ayala, Chris Hyland

Faculty Mentor: Dr. Rachel Grover (Psychology)

Time: 3:30 pm

Assessing Foster Care Staff Perceptions About Sleep: A Qualitative Analysis

Peter Hope

Faculty Mentor: Dr. Amy Wolfson (Psychology)

Time: 3:45 pm

Sleep Problems and Externalizing Behaviors for Youth in Juvenile Justice Facilities

Ryann McGee, Lily Bistline, Sammie Spargo

Faculty Mentor: Dr. Amy Wolfson (Psychology)

SOCIAL SCIENCES SESSION 3

SELLINGER HALL, ROOM 203

MODERATOR: DR. MICHIKO IWASAKI (PSYCHOLOGY)

Time: 3:00 pm

Media Content Analysis: I Love New York & Dismissal of Black Romance

Sabreenah Borgard

Faculty Mentor: Dr. Mas Biswas (Communications)

Time: 3:15 pm

Kosovo: The Heart of Two Nationalities

Annabella Ritter-Pleitez

Faculty Mentor: Dr. Mary Kate Schneider (Political Science, Global Studies)

Time: 3:30 pm

Emerging Democracies and Single-Party Dominance: What Can Montenegro Learn From Mexico's Democratization?

James Quirk

Faculty Mentor: Dr. Mary Kate Schneider (Political Science, Global Studies)

Time: 3:45 pm

Reframing Recidivism: The Necessary Tools for a Prison System Promoting Growth

Jason Buller, Grace Shartle, Vanessa Stolstajner, Maggie Broomfield

Faculty Mentor: Lynne Elkes, M.B.A. (Economics)

POSTER SESSION

EDUCATION

McGUIRE HALL, STARTING AT 3:30PM

Increasing Student Self-Efficacy Through Digital Literacy Learning Through English Language Arts

Sloane Silverman, Catherine Sattely, Maggie McGovern, Ashlyn Forgash, Elizabeth Adelhelm

Faculty Mentor: Stacy Williams (Education)

Digital Literacy in the Social Studies Curriculum

Megan Cronin, Victoria DiMatteo

Faculty Mentor: Melissa Mullieri, M.A. (Education)

Digital Safety

Allie Kiernan, Regan Sweeney, and Hannah Belanger

Faculty Mentor: Melissa Mullieri, M.A. (Education)

Digital Literacy at an Elementary and Middle School in Maryland

Casey Chin, Alexys Mendez, Luis Saavedra

Faculty Mentor: Melissa Mullieri, M.A. (Education) and Stacy Williams (Education)

Incorporating Digital Literacy into K-5 Science Classrooms

Maggie Burkhard, Riley Deprospero, Emily Dyer, Elaina Neri, Trinity Riggle, Mary Grace Wilson

Faculty Mentor: Melissa Mullieri, M.A. (Education) and Stacy Williams (Education)

FINE ARTS

McGUIRE HALL, STARTING AT 3:30PM

Art Behind the Diagnosis

Brooke Scotti

Faculty Mentor: Billy Friebele, M.F.A. (Studio Arts)

Acknowledge Me! Using Public Art as a Tool for Community Engagement

Randi Little

Faculty Mentor: Billy Friebele, M.F.A. (Studio Arts)

Doing Without Thought

Evan Casas

Faculty Mentor: Dr. Christopher Lonagan (Studio Arts)

SOCIAL SCIENCES

MCGUIRE HALL, STARTING AT 3:30PM

Youth Sleep-Wake Experience in Juvenile Justice Facilities: A Descriptive Analysis

Ryan Busby, Sammie Spargo, Lily Bistline, Ryan McGee

Faculty Mentor: Dr. Amy Wolfson (Psychology) and Dr. Marinna Carlucci (Psychology)

The Relationship Between Sexism, Perceived Threats, and Defensiveness and Sexual Assault

Sara Donovan

Faculty Mentor: Dr. Diana Betz (Psychology)

Foster Care Sleep Policies Among U.S. States

Keiana Ragabi

Faculty Mentor: Dr. Amy Wolfson (Psychology)

A Systematic Review of the Psychometrics of the Five Most Used Ageism Scales

Molly Quigley

Faculty Mentor: Dr. Michiko Iwasaki (Psychology)

Examining Differences in and Predictors of Students' Educational Expectations and Aspirations

Victoria Louis, Rodrigo Jimenez

Faculty Mentor: Perrin Robinson, M.S. (Psychology) and Dr. Patrick LoPresto (Psychology)

NATURAL & APPLIED SCIENCES

MCGUIRE HALL, STARTING AT 3:30PM

Investigation of Spacing Effects on Savonius Turbines in an Array

John Inman

Faculty Mentor: Dr. Robert Bailey (Engineering)

Potential Probiotic Ability of Kombucha to Lower Cholesterol

Mael Ndalamba

Faculty Mentor: Dr. Theresa Nguyen (Chemistry & Biochemistry)

Roles of AUF1 Protein Domains in RNA Binding and Structural Remodeling

Patrick McGinnis

Faculty Mentor: Dr. Christopher Thompson (Biology)

Impact of Planting Temperature on Flowering Bulbs

Francisco Loayza-Tovar, Anna Kelley, Juli Lopez

Faculty Mentor: Dr. Maren Blohm (Biology)

Analysis of Cancer Associated miRNA Sequences Expressed in Breast Cancer Cell Lines and FFPE Tissue Specimens

Devin DeMelis

Faculty Mentor: Dr. Michael Tangrea (Biology)

Let's Get Away with Murder: Fighting Against the Perfect Murder Phenomenon

Jomaly Ruiz Sierra

Faculty Mentor: Dr. David Rivers (Biology)

Isotopic Composition of Rainfall in the Pacific

Ashley Dwyer

Faculty Mentor: Dr. Randall Jones (Physics)

Examining Common Weed Species' Morphological and Physiological Response to Nutrients Provided by Decomposing Carrion in Various Soil Types

Marty MacStudy, Grace Wayson

Faculty Mentor: Dr. Maren Blohm (Biology)

Evaluating Migration Patterns of Breast Cancer Cells Towards Growth Factors

Olivia Giovannone, Morgan Motsay, John Nguyen, Brian Schattle, Ethan Sampson

Faculty Mentor: Dr. Armina Kazi (Biology)

Impact of Protein Consumption on Egg Development in Calliphora vicina

Grace Potter, Mallaidh Duffy,

Faculty Mentor: Dr. David Rivers (Biology)

Investigating Cell Migration in Human Cancer Cell Lines Using a Wound Healing Assay

Mariam Zaridze

Faculty Mentor: Dr. Theresa Geiman (Biology)

Pilot Study of a Morris Water Maze Comparing the Performance of Male and Female Rats

Sarah Hunt, Bradley Stinnette

Faculty Mentor: Dr. Craig Myrum (Biology)

Arthropod Diversity Across Space: The Effects of Anthropogenic Impact on Loyola's Endemic Wildlife

Anthony O'Toole

Faculty Mentor: Dr. Bernadette Roche (Biology)

Acai and Reactive Oxygen Species

Rylee King

Faculty Mentor: Dr. Christopher Thompson (Biology)

The Effects of Altering the HELLS Gene in Melanoma

Vaughn Waldron

Faculty Mentor: Dr. Theresa Geiman (Biology)

Neurobiological Effects of Antiepileptic Drugs in Rats with Age-Related Memory Deficits

Diba Ramezan

Faculty Mentor: Dr. Craig Myrum (Biology)

Investigating the Tolerance of Arabidopsis lyrata spp.lyrata to Zinc

Jack Dotzler, Sarah Hunt, Victoria Loughran

Faculty Mentor: Dr. Maren Blohm (Biology)

Optimization of Insulin Secretion in Pichia Pastoris

Matthew Morris, Elaina Mufareh, Grace Millis, Abby Potticary, Izzy Sedwick

Faculty Mentor: Dr. Lisa Scheifele (Biology)

Progressive Mobility

Marianne Grace Villaflor

Faculty Mentor: Dr. Christopher Thompson (Biology)

Varying Differentiation Methods in P191A1 Mouse Stem Cells

Diego Mendoza

Faculty Mentor: Dr. Theresa Geiman (Biology)

THANKS TO OUR REVIEWERS, JUDGES, AND MODERATORS

HUMANITIES, EDUCATION, AND FINE ARTS

Dr. Ramone Espejo-Saavedra (Modern Languages), Dr. Daniel Castillo (Modern Languages), Dr. Arthur Sutherland (Theology), Dr. Matt Beverlin (Political Science), Dr. Mas Biswas (Communications), Dr. Anna Gomez-Perez (Modern Languages), Stacy Williams, M.A.T (Education), Dr. Loretta Holmberg-Masden (Education), Dr. Margarita Gomez (Education), Daniel Pinha M.F.A (Visual and Performing Arts), Dr. Dominic Micer (Writing), Dr. Yolopattli Hernandez-Torres (Modern Languages)

NATURAL & APPLIED SCIENCES

Dr. Yanko Kranov (Engineering), Dr. Jason Carbaugh (Biology), Dr. Henrique Rocha (Computer Science), Dr. Hoang Bui (Computer Science), Dr. Bernadette Roche (Biology), Dr. David Hoe (Engineering), Dr. Warren Johnson (Biology), Dr. Theresa Geiman (Biology)

SOCIAL SCIENCES AND BUSINESS

Dr. Carsten Vala (Political Science), Dr. Jason Prenoveau (Psychology), Dr. Rachel Grover (Psychology), Dr. Carolyn Berry (Psychology), Dr. Rachel Chase (Psychology), Dr. Stacy Chavez (Accounting), Dr. Marianna Carlucci (Psychology), Dr. Jeff Barnett (Psychology), Dr. Diana Betz (Psychology), Lynne Elkes, M.B.A. (Economics), Dr. Andy Futterman (Psychology), Dr. Michiko Iwasaki (Psychology), Dr. John Michel (Management)

SPECIAL THANKS

THE USRSC COMMITTEE WOULD ALSO LIKE TO THANK:

Joanna Alexander, Office of Academic Affairs; Salvatore Lenzo, Director of Information Systems, Sellinger School of Business; Event Services; Dr. Cheryl Moore-Thomas, Provost and Vice President for Academic Affairs; Dr. Lisa Oberbroeckling, Associate Professor of Mathematics and Associate Vice President for Undergraduate Academic Affairs; Terrence Sawyer, J.D., President Loyola University Maryland

UNDERGRADUATE STUDENT RESEARCH AND SCHOLARSHIP COLLOQUIUM COMMITTEE 2022-23:

Dr. Theresa Geiman, Chair (Biology), Dr. Yolopattli Hernandez-Torres (Modern Languages), Dr. David Hoe (Engineering), Dr. Michiko Iwasaki (Psychology), Dr. John Michel (Management)

STATEMENT OF STUDENT-SCHOLARSHIP

Student-scholarship is an intellectual undertaking which creates something that did not exist before, is substantive to the discipline, and is communicated to others. Expressions of student-scholarship generate one or more of the following: knowledge about ourselves and our universe, new insights, and new technologies and applications of knowledge that can benefit humankind. The aim of student-scholarship can be discovery, artistic creativity, integration, or application.

Forms of Scholarship

	Discovery	Artistic Creativity	Integration	Application
<i>Nature of Scholarship</i>	Generates new knowledge through systematic investigation or comprehensive analysis.	Interprets the human spirit; creates and communicates new insights; fosters self-reflection and critical thinking.	Synthesizes and communicates new or different understandings of knowledge or technology and its relevance.	Develops and communicates new technologies, materials or uses; fosters inquiry and invention; develops and refines new methods.
<i>Types of Activities</i>	Data analysis, historical documentation, etc.	Creative synthesis and interpretation.	Integration of new knowledge with existing knowledge; makes connections across disciplines.	Application of existing knowledge towards problem-solving.
<i>Criteria for validating scholarship</i>	Originality, scope, and significance of new knowledge; applicability and benefits to society.	Originality, impact, and duration of public value; scope and persistence of influence and public appreciation.	Usefulness and originality of new or different understandings, applications, and insights.	Breadth, value, and persistence of use and impact.