



# FLORIDA UNDERGRADUATE RESEARCH CONFERENCE

Office of Undergraduate Research  
Student Learning and Academic Success

**FURC 2022**  
February 18-19  
@UCF in Orlando

**Schedule: 18 February 2022**

**Check-in Opens**

*5:00 - 5:30pm Friday, 18 February 2022*

Location: Student Union, Pegasus Ballroom

Presentation type: Pre-function

**Reception & Graduate School Fair**

*5:30 - 6:45pm Friday, 18 February 2022*

Location: Student Union, Pegasus Ballroom

Presentation type: Graduate Fair

**Florida Undergraduate Research Association**

*6:45 - 6:55pm Friday, 18 February 2022*

Location: Student Union, Pegasus Ballroom

Speaker(s): Latika Young & Colleagues

**UCF Welcome**

*6:55 - 7:05pm Friday, 18 February 2022*

Location: Student Union, Pegasus Ballroom

Speaker(s): Alexander Cartwright, Dr. Theodorea Berry

**Keynote Introduction & FURC Reminders**

*7:05 - 7:10pm Friday, 18 February 2022*

Location: Student Union, Pegasus Ballroom

Speaker(s): Dr. Kimberly Schneider

**Keynote: Applying Research to Solve Big Challenges: A STEAM Approach for Electromyographic Bionic Limbs**

*7:10 - 8:00pm Friday, 18 February 2022*

Location: Student Union, Pegasus Ballroom

Presentation type: Keynote Address

Speaker(s): Dr. Albert Manero, Shea McLinden

Interdisciplinary research holds promise to unlock solutions for our world's largest challenges. At Limbitless Solutions, a UCF non-profit, a STEAM focused approach for prosthetics has led to beautiful and functional electromyographic bionic limbs currently being evaluated in clinical trial research. Access to prosthetics can be challenging due to cost and health care limitations, requiring innovation. Using advanced manufacturing techniques and involving patients in the design of highly artistic cosmetic sleeves, these methods can transform conversations around stigma and the role of prosthetics. Limbitless Solutions was developed by student researchers at UCF and has grown into a full facility that works with dozens of undergraduate student researchers and interns yearly.

**Schedule: 19 February 2022**

**General & Poster Check-in**

8:00 - 9:00am Saturday, 19 February 2022

Location: Pegasus Ballroom Dressing Room

For those who did not check-in during Friday evening's reception, proceed to the registration desk in the Pegasus Ballroom atrium to receive your event materials. For presenters, navigate to the **Event Information** tab of the program and click on **Poster Check-In** for more information.

**Graduate School Fair**

8:00 - 9:00am Saturday, 19 February 2022

Location: Student Union, Pegasus & Key West Ballrooms

**Presentation type: Graduate Fair**

Graduate fair tabling begins at 8:00 a.m. and will run throughout the day during and in-between poster sessions. For a full list of the day's exhibitors and the location of their individual tables, please navigate to the **Event Information** tab of the event program.

**Poster Session I.A.**

9:00 - 10:15am Saturday, 19 February 2022

Location: Student Union, Pegasus Ballroom

Presentation type: Poster Presentations

**Student poster presentations for submissions #1-112.**

**\*12 Remote Stress Reduction Interventions for College Students: Mindfulness versus Adult Coloring**

Pamela Font, Hannah Decosta, Brooke Haney, Alexandra Herrmann, Alexander Rolle, Rachel Packard, Megan Waddell

**\*13 *Enterococcus faecalis* and *Staphylococcus aureus* Quantities During High and Low Precipitation in Tampa Bay**

Ella Hampson, Tala Bleau, Zoe Golden

**14 Expression of Aquaporins in Gastric Cancer and Promotion of Cancer Cell Stemness**

Saurav Kiri

**\*15 Red Tide in Tampa Bay: Fish Kills and Ammonium Enrichment Correlations**  
Emily Friden

**\*16 PCR Genetic Analysis of *Vibrio sp.* in Tampa Bay.**  
Margaret Baker

**17 Missense Mutation in CSNK1D, CSNK1E, ARNTL, and Clock Genetics and the Variations Amongst Them**  
Tyler Hockett

**\*18 Grooming Behaviors of Semi-Terrestrial Crabs**  
Maggie Dakin

**19 The Role of Exercise in Managing Stress and Supporting Sobriety Among Emerging Adults Recovering from Substance Use Disorder**

Joshua Schamach

**20 Sequence Selectivity in the Binding of Melatonin to PhiX174RF DNA**

Camila Garcia

**21 The Use of Hyperbaric Oxygen Therapy to Treat Necrosis and Open Wound due to Ionizing Radiation**

Rabeea Summer Rehman

**\*24 Comparative Abortion Rights: 1945-2020**

Amelia Gaudio

**25 Hello, I'm Fat: An Autoethnographical Analysis of the Fat Experience in *Shrill***

Mac Clark

**26 Representation of Women in College General Chemistry Textbooks**

Catalina Lopez-Castilla, Morgan Brackett, Barbara Chiu

**\*27 Elemental Abundances of Open Clusters**

Sean Knapp

**\*28 Characterization of the SARS-CoV-2 ORF7b Accessory Protein**

Olivia Lightfuss, Lilja Olafsdottir

**\*29 Identification of Antimicrobial Proteins in Unicellular and Multicellular Eukaryotic Genomes**

Cameron Polselli

**30 Implementing Novel Multimedia in an Online Introductory Geology Classroom**

Barbara Chiu

**31 Analysis of Step Therapy Reform for Floridians with Autoimmune Conditions**

John Kirkley

**32 The Effects of pH on Spine Regrowth Rates of the Atlantic Stingray (*Dasyatis sabina*)**

Sarah Paulsen

**33 Predictive Modeling of Drop Impact Force on a Concave Substrate Using Machine Learning**

Jacob Buckelew

**34 Pediatric Stroke: The SLP Perspective on an Underrepresented Population**

Elizabeth Pozen

**35 Facilitated Release of Doxorubicin from Biodegradable Mesoporous Silica Nanoparticles (MSN)**

Melissa Venedicto

**\*36 Form and Function of Hammerhead Shark Fin Morphology: Habitat and Maturity**

Sam Johnson, Alex Butler

**38 The Effects of Pendimethalin on Disease Transferability Probability of *Aedes aegypti***

Hailee Quintero, Rachel Weaver

**39 IoT-Enabled Smart Mobility Devices for Aging and Rehabilitation**

Laura Figueroa

**40 Analyzing the Trend of BIPOC Historical Figure Representation in Chemistry Textbooks**

Morgan Brackett, Catalina Lopez-Castilla, Barbara Chiu

**41 The Relationship Between Recreational Parks and Residential Property Value in Spring Hill and the Greater DeLand Area**

Troy Surloff

**42 Ambient Assisted Living Framework for Multimodal Sensing and Classification for Generalized Anxiety Disorder**

Geela Margo Ramos

**43 Swimming Kinematics of the Mexican Tetra**

Rodrigo Rios

**45 Promotion of Initial Plant Growth with Rhizobacterial Inoculation**

Kristen Browning

**46 An Analysis of the Effects of Various Essential Oils on the Growth of *Staphylococcus aureus***

Rick Snow

**47 Optimization of Multi Two-Level Batch Testing**

Richard McCoy, Aryeh Silver, Sophia Keane

**48 Glycemic and Extra Glycemic Benefits of Continuous Glucose Monitoring During Pregnancy and in the Postpartum Period**

Robyn Louis

**49 “The Jewish Danger”: An Exploration of Medieval Antisemitism in *Der Stürmer’s Children’s Books***

Shannon Scott

**50 Arts in Medicine: Systematic Review of the Effects of Therapeutic Dance on Children with Autism Spectrum Disorder**

Tiffany Gandhikumar, Neeva Sethi, Megan Cushing

**51 Predictive Sampling Method for Spread Models in Networks**

Caijun Qin

**52 Effects of Streptomycin Treatments on Huanglongbing Disease of Citrus**

Ma. Andrea Gatmaitan

**53 Loss of Progranulin Results in Increased Pan-Cathepsin Activity**

Abigail Anderson

**54 Oxytocin Attenuates Alcohol Consumption in a Rat Model of Oxycodone+Alcohol Polysubstance Use**

Isabel Leon

**55 A Collaborative Approach to Numerology in Base 22**

Michelle Rincones-Rodriguez

**56 Containment, Care, & Corpses: West African Mortuary Practices Amid the Ebola Epidemic**

Hannah Merritt

**57 Spectrophotometric Investigation of Bromelain Protease for Pancreatic Insufficiency**

Brittany Lowe

**59 Student Perspectives on Campus Green Spaces and Community Gardens**  
Jay Streaman

**60 University COVID-19 Mitigation Strategies: The Case of Florida**  
Kate Johnson, Julia Finver

**61 Development of a Novel 3-Axis Hall Effect Load Cell**  
Ryoma Molnar

**62 The Effect of Temperature on Growth of AMF-inoculated Soybeans from Seedling to Budding Stages**  
Annabella Lyndon

**63 Modulating Intramuscular Fat Infiltration by Small Molecules**  
Lylybell Zhou

**65 The Antibacterial Effect of Clove (*Syzygium aromaticum*), Garlic (*Allium sativum*), and the Combination of Both**  
Sarah Clemons

**66 Potential Harm of Digital vs Physical Monopolies**  
Jacob Labkovski

**68 Money Matters in K-12 Education**  
Elianny Garcia

**69 Culture of Fear**  
Alisha Motiwala

**70 Home Entertainment or Movie Theaters?**  
Christiaan Lecky

**71 Online Shopping Trends Since the Onset of the Covid-19 Pandemic**  
Erin Spiropoulos

**72 Americans Views on Reliance of Foreign Goods**  
Christian Fronteddu

**73 Opinions on Emerging Transportation Technologies**  
Priyanka Perumalraja

**74 The Prevalence of Meaningless Employment**  
Camilo Quintero

**77 The Influence of Society on Elementary Students' Speech Style**  
Zoe Schambeau, Alaysha Greene, Van-Jay Haughton, Juila Law

**78 Exploring GenZ's Attitudes About Mental Illness: Are They More Accepting?**  
Katelyn Yarbrough

**79 The Rise and Fall of Puerto Rico: How Politico-Legal Failures Led to an Experiment's Demise.**  
Sebastián Delgado Suárez

**80 Sea Snacks from DNA Tracks: DNA Metabarcoding to Characterize Green Sea Turtle Diet**  
Christine Sarkis

**82 The Florida Undergraduate Research Journal**  
Emmaline Blikstad

**83 Anatomy of the Levator Veli Palatini Muscle in 22q11.2 Deletion Syndrome**  
Martha Garcia

**84 Exploring the Role of Technology on Learning and Memory in College Students**

Angelica McCalla

**85 An Analysis of the Constitutionality of the "Combating Violence, Disorder and Looting and Law Enforcement Protection Act of Florida"**

Paul Brown

**87 Back to the Drawing Board Again: The Relationship between Studio Art Anxiety and the Drawing Effect**

Madison Meares

**88 Isolation of The Seagrass Pathogen Labyrinthula and Possible Antagonists**

Salomon Jean

**89 Differential Scanning Calorimetry of Electro-Optic Polymer-Chromophore Composite Films**

Meryl Wiratmo

**90 Is There a Correlation Between Hypermobility of the Spine and Chronic Back Pain in Young Adults?**

Mackenzie Brady

**91 The Ras Signaling Pathway Controls Microtubule Organization in Drosophila Adipocytes**

Samantha Masessa

**92 Exploring First Year College Student Adjustment During the Pandemic**

Roksan Aydelman

**93 The Association Between Specific Aspects of Social Media Use and Depressive Symptoms in College Students**

Donald Spurlock

**94 In the Nick of Time: Understanding the Eviction of an Assembly Chaperone Hsm3 From 26S Proteasomes**

Kaylyn Myers

**95 The Role of the Prefrontal Cortex and Stress in Huntington Disease-mediated Aggression**

Kadambari Vyas, Ursula Shaw

**96 Sensor-Based Biodigester Regulating Systems to Improve Biogas Production from Food Waste**

Brendan Zwiefel

**97 Proinflammatory Cytokines TNF- $\alpha$  and IL-6 as Biomarkers for Epithelial Ovarian Cancer: A Systematic Review and Meta-analysis**

Rachel Kemp

**98 A Novel Microbe-Resistant Clay Dressing for Healing Burn Wounds**

Kasey Rigby

**99 Sulindac & Carbamathione as Potential Therapeutic Interventions for Alzheimer's Disease**

Daniel Gerguis, Michael Amin, Anthony Dawod

**100 Smokey Hollow: Urban Renewal and the Historic Displacement of a Black Community in Tallahassee**

Emma Barrett

**101 COVID-19 and Physical Activity in University of Florida Students: A Survey Study**

Noah Towbin

**102 The Tubular Striatum and the Effects of Cocaine on Reward Behavior in Mice**

Jamie Wilson

**\*103 A Comparative Analysis Between Technical and Non-Technical Cybersecurity Articles Using Text Analysis**

Anthony Amendolare

**104 Using Virtual Reality Technologies to Overcome Online Learning Barriers in Nurse Training Programs**

Silvian Ene

**105 Uniform Electrospray Coating of Carbon Nanotubes**

Sahil Ghate, Giulia Stewart

**106 Impact of Employment on Maternal and Infant Outcomes**

Elena Villamagna

**107 Impacts of Home Cage Tunnels on the Behavior of Mice with Cranial Implants**

Marissa Castronovo

**108 Operationalizing CRLI For Service-Learning Programs**

Maya Topiwala

**109 Stormwater Contributions to Microplastic Pollution in the Indian River Lagoon**

Sidney Busch

**110 How Do Undergraduate Students Interpret and Communicate an Understanding of Visual Representations of Data?**

Matilynn Lam

**111 Autoantibody Screening: A Pathway to Type 1 Diabetes Prevention**

Chelsea Salmon

**112 Hydroponically Growing a Holistic Superfood Diet for Mars Exploration**

Marianna Pezzella, Ruben Rosa Polonia

---

**Poster Session I.B**

*9:00 - 10:15am Saturday, 19 February 2022*

Location: Student Union, Key West Ballroom

Presentation type: Poster Presentations

Student poster presentations for submissions #113-163.

---

**113 Do Trait Anxiety and Depression Moderate the Effect of Social Media Use on State Anxiety and Sadness?**

Mira Spode

**\*114 Health Care Professionals' Perceptions on Interpreter-Mediated Care**

Alexandra Ortiz, Sarah Manno, Olivia Keller, Karoline Gajewski



**115 The Impact of Maternal Pre-Pregnancy Body Mass Index on Resilience to Perinatal Stress**  
Nisha Chachad

**116 Passive Scrolling versus Active Use: Instagram and Self-esteem**  
Noah Bailey, Kate Rose, Siomel Savio Huerta, Amelia Murphy, Rebecca Greenberg, Alexis Ortiz Gonzalez, Nicole Afra

**117 Inhibiting the CMG Helicase as an Innovative Therapeutic Against Osteosarcoma**  
William Pledger

**118 Time Spent on Twitter and General Anxiety: A Survey of Daytona State College Students**  
Ashley Baccus, Hosanna Folmsbee, Austin Paulley, Carlton Cooper, Fardat Raji, Sebiha Torun, Zachary Spooner

**119 Hope does not Mediate the Relationship between Loneliness Intensity and Duration**  
Promise Stephens, Kathren Pavlov, Erika Lopez

**121 A Snapshot of Turfgrass Microbiomes: Characterization of Endophytic Fungal and Bacterial Communities in Leaves, Roots, and Soil Across Different Turfgrass Species**  
Jacqueline Valiente

**122 The Evolution of the Identifiable Analysis of the COVID-19 Virus**  
Vivek Sreejithkumar

**123 Antiziganism and the Rise in Electoral Success of Extreme Right-Wing Parties in Central and Eastern Europe**  
Mohamedameen Osman

**124 “Self-Forgetful Service”: Lou Henry Hoover’s Great Depression Relief Efforts, 1929-1933**  
Presleigh-Anne Johnson

**125 Examining the Factors that Limit the Participation of Eligible Mothers in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)**  
Cara Addeeb

**126 Preserving Potential Entry is Not the Holy Grail in Vertical Merger Enforcement**  
Brianna Alderman

**127 Fabrication of IoT Sensors: A Wearable UV Radiation Detection Device**  
Celine Ramirez

**129 Characterization of Lung Cancer Mechanosensation**  
Dhenu Patel

**130 The Environmental, Genetic, and Demographic Factors of Linguistic Diversity**  
Ryan Aponte, Robin Fintz

**131 Sugar: A Pathway to Power in Cuba**  
Hunter Makin

**132 Effects of Socioeconomic Factors on the Death Rates of Black Women and White Women Diagnosed with Triple-Negative Breast Cancer in DeKalb and Fulton County, Georgia**  
Laurent Sanchez Rodriguez, Sofia A. Assent

**133 Self-Reported Narcissistic Tendencies and Social Media: A Study of Daytona State College Instagram vs. Non-Instagram Users**

Jasmin Martinez-Reyes, Talon Spooner, Cole Ray, Samantha Dewey, Flora Kane, Joshua Lingo, Amelia Jenkins

**134 Personality Correlates of Social Media Use**

Jeffrey Cohen

**135 Do Social and Emotional Self-Efficacy Impact GPA and Retention?**

Taylor Vickers, Kat Brown, Tara Nichols

**136 COVID Couples: The Impact of the Novel Coronavirus Pandemic on Intimate Relationships**

Victor Blocker

**137 Psychedelic Medicine and the Attenuation of Depressive Symptoms**

Andrew Laino

**138 A Cell Based Approach for Improved Phage Therapy Against Pseudomonas Aeruginosa**

Michael Bucher

**139 NGLY1 Deficiency Affects Glycosaminoglycan Biosynthesis and Wnt Signaling Pathway in Mice**

Amy Batten

**140 The Sound of Identity: Audios and Hashtags as Nexuses of Practice on TikTok**

Lindsey Wright

**141 Body Positive Accounts on Instagram and Their Effect on Daytona State College Students' Self Esteem**

Courtney Cormier, Elijah Grisanti-Wake, Jaynisi Guzman-Davila, Phillip Riedel, Amanda Rodriguez, Hailey Tummino, Brian Vargas

**142 A Novel Ultrasound-Mediated Nanobubble-Based Gene Delivery System for Osteoporosis Treatment**

Angela Shar

**143 The Culture of Recovery: An Efficacy Study on Applied Theatre Intervention in Recovery and Healthcare**

Kelviyana Walker

**144 Superimposing Celiac Gut Microbiome Metabolites on Healthy Caco-2 Cells to Observe Inflammatory Effects**

Alexis Cox, Ella Missey, Florence Mumbi

**\*145 Do Face Masks Affect Our Ability to Perceive Speech in Normal or Noisy Conditions?**

Alexandra Rodriguez

**146 Disparities in the Death Rates of African American Women and White Women Diagnosed with Triple-Negative Breast Cancer in Dekalb and Fulton County, Georgia**

Sofia Assent, Laurent Sanchez Rodriguez

**147 The Speaking Voice of the NACADA Journal 2010-2020**

Kristina Schoenthaler, Serina Schoenlank

**149 Does Noise Control Moderate the Effect of Music on Aerobic Exercise Experience**

Elizabeth Perez, Anamaria Astudillo, Nicole Nunez, Logan Burrows, Courtney Afram-Gyening

**150 Qualitative Comparison of the Effects of Covid-19 on Student Basic Needs**

Salvatore Levi

**151 Paternal Ages and Genetic Diseases and Congenital Anomalies**

Neda Hamood

**152 “Stay Home, Save Lives”: A Study on COVID-19 and Intimate Partner Violence**

Grace Messina

**153 Analysis of the Tokay Gecko (*Gekko gekko*) in Florida**

Lilia Fernandez, Justin Bryan, Tyler Sanford

**154 Molecular Cloning of the Red Tide Dinoflagellate *Karenia Brevis* RNA Spliced Leader Sequence for RNA Structural and Dynamic Studies**

LesleyMarie Rivera

**155 Arithmetic and Analytic Properties of Sequences that Follow Bertrand's Postulate**

Mona Aschenbrenner, Carlye Denequolo, Olivia Hrymoc

**156 Symmetry as a Theoretical Tool in Physics**

Kevin Rivera-Lopez

**\*157 Gamification in First-Year Experience Seminar Course**

Madison Smith, Jillian Eaves, Marissa Newsome

**158 Inaccurate Portrayal and Objectification of Women in the Media from 1990s to the 2000s**

Nadirah Royer

**159 COVID-19: Positivity, Human Resilience, and the Ability to Flourish Under Extraordinary Stress**

Destiny Cole, Emily Koch

**160 Detection of Novel Graspetide BGCs**

Alivia Ishee

**161 Human Cell Viability and Mobility in Hydrogel 3D Bioprinted Constructs**

Alesia Lokshina

**162 A Phenomenological Analysis of the Lived Experience of Social Euphoria**

Stone Fritz

**163 Investigating the Stress-Counteracting Effects of Exercise in Female Mice**

Charmi Desai, Maria Ortega, Samantha Vilarino

## **WORKSHOP SESSION I**

### **Cultural Competency & Diversity in Medicine**

*10:15 - 11:00am Saturday, 19 February 2022*

Location: Student Union, Sand Key

Presentation type: Workshop Session I

Speaker(s): Innocent Akujuobi

The Cultural Competency & Diversity in Medicine workshop will be hosted by Dr. Innocent Akujuobi, Director of Health Equity Education for the UCF College of Medicine and Emergency Physician at Orlando Health. Workshop participants will:

- Obtain a basic understanding of common health equity terms.
- Gain an understanding of the Social Determinants of Health.
- Explore the impact of institutional culture on health equity.
- Learn strategies for addressing personal bias.

### **Applying Your Undergraduate Research Towards Prestigious Awards**

*10:15 - 11:00am Saturday, 19 February 2022*

Location: Student Union, Garden Key

Presentation type: Workshop Session I

Speaker(s): Morgan Bauer

This workshop introduces students to several national and international scholarships that are specifically tailored to students who are involved with research. These scholarships that look for undergraduate research history can help fund an undergraduate or graduate degree, as well as secure a future career. Some of these scholarships can award students upwards of \$120,000. We will dive into different scholarships based on a range of disciplines and examine the requirements of these awards such as a personal statement, short answers, as well as letters of recommendation. In addition, we will look at different strategies and share tips on how to approach these components to make your application as competitive as possible to secure these awards.

### **Avoiding the Dark Side: Cases in Research Ethics**

*10:15 - 11:00am Saturday, 19 February 2022*

Location: Burnett Honors College, Room 130-131

Presentation type: Workshop Session I

Speaker(s): Lauren Melanson, Jennie Soberon

Although research ethics are often discussed in black-and-white terms such as what is “right” and what is “wrong,” sometimes it is hard to judge the light side from the dark side. Join us for an interactive presentation where the force guides you along the perilous path over to the light side of Research Ethics. We will briefly discuss the historical background of unethical research

and the need for ethical research guidelines. Then you can ask yourself, “What would I do?” as we examine cases of unethical research practices across a variety of disciplines, including modern cases of unethical research in areas such as social media. Other topics of discussion will include ethical research methods, authorship, and the use of human and animal subjects.

### **Your Path to Graduate School & Career Success Starts Today**

*10:15 - 11:00am Saturday, 19 February 2022*

**Location:** Student Union, Cedar Key

**Presentation type:** Workshop Session I

**Speaker(s):** Betsy Crawford

As an undergraduate student involved in research, you are already a strong candidate for competitive graduate school programs. Learn how earning a graduate degree can support career success and the steps to take now to boost your application. The workshop includes an overview of resources available to create an outstanding application and a preparation timeline that will keep you ahead of the game.

### **Converting Undergraduate-Level Research into Graduate-Level Opportunities in Engineering and Computer Science**

*10:15 - 11:00am Saturday, 19 February 2022*

**Location:** Classroom Building 1, Room 120

**Presentation type:** Workshop Session I

**Speaker(s):** Ali Gordon

Congratulations on reaching the stage at which your research findings are presentable. What are the next steps? What other opportunities are available to you? Have you ever wondered how some undergraduate students are able to leverage their success in research to access graduate-level opportunities? With regards to engineering and computer science graduate programs, the answers reside with graduate faculty and the graduate program directors who represent them. While they are looking for the very best and brightest undergraduate students to populate graduate programs, they are also searching for specific attributes based on the needs of the program. This engaging presentation details how undergraduate research students can curate their activities leading up to graduation and their interactions with graduate program points of contact for maximum impact. This seminar also overviews the distinctive types of graduate-level opportunities available to undergraduate students.

### **Exploring Careers in Healthcare**

*10:15 - 11:00am Saturday, 19 February 2022*

**Location:** Student Union, Cape Florida AB

**Presentation type:** Workshop Session I

**Speaker(s):** Kyle Riding

This interactive session aims to provide attendees with a sense of the amazing opportunities that exist in the medical and health professions. While well-known professions such as physicians, nurses, and pharmacists are critically important, there are countless other professions that undergraduates may be unaware of but could better align with their ambitions.

### **Getting Great Letters of Recommendation**

*10:15 - 11:00am Saturday, 19 February 2022*

Location: Classroom Building 1, Room 104

Presentation type: Workshop Session I

Speaker(s): Natalia Toro

In order to be a strong candidate for graduate or professional school, you will need several strong faculty recommendation letters. This workshop will help you plan for the future, learn how to develop and maintain strong relationships with faculty, and give you tips on how to request letters, so you have the best opportunity to get great letters of recommendation.

### **Navigating the Application Process for Biomedical Sciences Ph.D. Programs**

*10:15 - 11:00am Saturday, 19 February 2022*

Location: Student Union, Egmont Key

Presentation type: Workshop Session I

Speaker(s): Robert Stephens

Interested in applying to grad school, but don't know where to start? This workshop will take you through the application process for Biomedical Sciences Ph.D. programs. Tips on how to prepare your personal and research statements, academic history, and letters of recommendation will be discussed. We will also address how to discuss any potential blemishes you may have in your application.

### **5 Reasons Why Undergrads Should Participate in Summer Research Experiences**

*10:15 - 11:00am Saturday, 19 February 2022*

Location: Student Union, Cape Florida CD

Presentation type: Workshop Session I

Speaker(s): John Lowery

We'll discuss five basic questions about summer research experiences for undergraduates (What? Where? When? Why? How?), especially focusing on the latter two questions. Specifically, we'll cover five reasons why you should participate in summer research and tips for applying to any program. I'll close with a brief description of our own Summer Research Opportunities Program, which is sponsored and run by the Notre Dame Graduate School.

### **Graduate Education and Funding**

*10:15 - 11:00am Saturday, 19 February 2022*

Location: Classroom Building 1, Room 121

Presentation type: Workshop Session I  
Speaker(s): Erin Rice

Join the University of Florida Graduate School to learn about the many opportunities in graduate education. Additionally, during this session, we will also discuss funding opportunities to support you during your graduate education.

---

## **Poster Session II.A**

*11:30am - 12:30pm Saturday, 19 February 2022*

Location: Student Union, Pegasus Ballroom

Presentation type: Poster Presentations

**Student poster presentations for submissions #164-262.**

---

**164 African American College Students,  
Streaming Media and News Consumption**  
Loron Robles

**165 Exploring Generational Differences  
in Emotional Response to the Pandemic**  
Michelle Aros

**167 Measuring User Experiences of  
Interactions Between Digital and Physical  
Objects Through Augmented Reality and  
Internet of Things Devices**  
Nikolas Yonkers

**170 Social Network Analysis Across  
Bilinguals Lifespan**  
Reinaldo Cabrera Perez

**171 The Web of Lies: The Spread of  
Hyperpartisan News and Extreme  
Polarization**  
Hunter Click

**172 Investigating Oral Fluids Using  
Pyrosequencing-Based DNA Methylation  
Markers**  
Lia Vaquero, Amani Wanna

**\*173 Losing Grip Feature Length  
Documentary Film**

Steven Nye

**174 Causes and Consequences of Nest-site  
Fidelity in Female Lance-tailed Manakins**  
Jenevieve Norton

**175 The Demographic, Behavioral, and  
Clinical Factors Associated with the  
Quality of Life of Cancer Survivors**  
Odette Chirinos

**176 Use of Fluorescence Enhancement to  
Study Human Serum Albumin-Bilirubin  
Binding and Drug Induced Bilirubin  
Displacement**  
Ashley Sargent, Justice Albury

**177 Hurricane Mitigation and  
Preparedness for Northeastern Coastal  
Urban Areas**  
Jordann Jenkins

**178 #CoulsonLives**  
Matthew Hudson

**179 Overview of Corrosion-Fatigue  
Behavior in the Ti-6Al-4V Alloy**  
Andy Kapperman

**\*180 Pleasing the Male Audience: Erasing Female Agency in Works Inspired by Richardson's *Pamela***

Megan Darling

**181 Geography Matters: The Impact of Healthcare Access on Maternal Breastfeeding Confidence**

Hailey Ballard

**182 Exploring Barriers to Malaria Eradication in Colonial Tanzania**

Yveline Saint Louis

183 Investigating the Effect of Calcium Ions on Bacteriophage Activity Against

*Xanthomonas euvesicatoria*

Ian Fernandez, Peter Foerster

**184 Expression of the Immediate Early Genes *Arc* and *Narp* during Cognitive Multitasking is Attenuated in Aged Rats**

Ryan Fishman

**\*185 He's a Witch! - Foster's Magical Emasculation of the Libertine in *The Coquette***

Mark-Elliot Finley

**186 Molecular Dynamics Analysis of ET Interactions of BET Family Proteins with Peptides (BRG1, CHD4, JMJ6, LANA, NSD3, TP)**

Elizabeth Sebastian

**187 The Korean War: A Re-Examination**

David Blikstad

**188 Yoga for Aphasia: Investigating the Impact of a Virtual, Chair Yoga Program on People with Aphasia**

Seva Reilly, Allison Conrad, Andrea Mota

**189 The Speech Motor Learning Approach to Apraxia of Speech Treatment via Remote Delivery**

Katherine James, Seva Reilly, Sayyeda Velani, Jacqueline Baldwin

**190 Using Data Augmentation to Improve Transfer Learning for Extractive Question-Answering Tasks**

Colin MacRae

**191 Blueberry Leaf Spectroscopy: Next-Generation Tools for Florida Growers**

Faith Twinamaani

**192 Bad Times for Working Moms? Effect of Professor Gender and Personal Office Content on Perceptions of the Professor.**

John Wilkens, Allen Shorey

**193 How Aphasia Impacts Friendship: People with Aphasia's Perspectives on Friendship Maintenance and Development After Stroke**

Emad Khan, Seva Reilly, Allison Conrad, Andrea Mota, Sarah Soran

**194 Moms Matter: Maternal Care in Green Lynx Spiders (*Peucetia viridans*)**

Yousi Espanol-Rincon

**195 Characterization of the Expression of Basigin and Monocarboxylate Transporters 1 and 4 in Aged Mouse Brains in Response to Acute and Chronic Inflammation**

Falont Laveus

**196 Florida State University Student Responses to the Ole Miss Riot of 1962**

Kieran Stenson



**197 Coping Strategies and Their Effects on Loneliness**

Erika Lopez-Ramos, Promise Stevens

**198 Bookbinding and the Double Transaction: A Case Study of the Shaw Collection**

Sofia Varela

**199 Design and Development of Medical Devices for Multifaceted Applications**

Madisyn Messmore

**200 An Analysis of Basigin Expression in Mouse Intestines Using Fecal Samples**

Timothy Harris, Jeffrey Perera

**201 Potassium Ion Channel Dysfunction Leading to Glutamate Stimulated Cortical Spreading Depression in Those with Chronic Migraine.**

Devin Clifton

**202 Internal and External Motivation to Engage in Collective Action**

Jaia Hendrickson

**203 Effects of Ivermectin on Neuro-Transcriptional Profiles in Zebrafish**

Alexander Bartkowiak

**204 Breaking the Silence: A Candid Conversation About Female Reproductive Health**

Emmanuelle Crider

**205 Uterine Fibroid Prevalence and Health Care Disparities by County | Florida, 2010-2019.**

Saarah Sherifi

**206 Unique Response of YAP in Human Lung Cancer Cell with Mechanical Signals**

Heyang Wang

**207 Computational Analysis of Interleukin-4 and its Potency as a Therapy for Autoimmune Diseases**

Tyrece Frater

**208 Conceptual Complexity and Terrorist Rhetoric: Examining Conceptual Complexity's Role in Political Violence**

Westley Hunter

**209 Video Games and Neuropsychological Tests: A Comparative Study**

Damamli Dorsey

**210 Ticks and Tortoises: Investigating Ectoparasite Loads on Gopher Tortoises at the GTM Research Reserve**

William Smith, Cassie Picard, Avery Cogley, Erin Buell

**211 Isolation and Characterization of a Dolastatin 10 Analogue from a Marine Cyanobacterium: A Clinically Relevant Anticancer Natural Product**

Varvara Folimonova

**213 All-optical Mechanobiology: Towards Understanding the Internal Mechanical States of Human Cancer Cells by Light**

Sydney Yu, Gabriela Faxas, Miguel Gutierrez Mateo

**214 Exploring Anthropogenic Noise Impacts on Frog Vocalization at Anastasia State Park and the GTM Research Reserve**

Emma Wilkinson, Dakota Chenoweth, Trisha McCaul

**215 Unveiling the Mysteries of Ancient Plagues in History**

Alyssa Schoettle

**216 Discrete Neural Circuits Drive ADHD Like Phenotypes in the *Drosophila melanogaster* Model of NF1**

Genesis Omana Suarez

**217 The Effects of Platelet-Rich Plasma on Traumatic Brain Injuries and Neurite Outgrowth**

Alyson Smyth

**219 Sabrina the Teenage Activist: Generation Z's Saudade and the Desire for Dystopian Narratives**

Amber Bixby

**220 The Effect of Imagined Support on Perceptions of Stress**

AJ Likosar, Kalie Leon, Liana Chamberlain

**221 Systematic Literature Review on the Application of Neuroprosthetics for Functional Restoration**

Valeria Rivas

**222 How Big Pharma Maintains an Iron Grip on American Consumers**

Vishaal Kunta

**223 Interactions between Neuroendocrine and Immune Function following Simulated Cosmic Radiation**

Marissa Burke

**224 Relationship Between Video Games and Recovery from Work: A Comparison of Different Genres and Leisure Activities**

Jessica Gass

**225 Would I Be Surprised if This Patient Died in the Next 12 Months?**

Mathew Mattamana

**227 Black Evolution of Comic Books**

Elijah Morris

**230 Active Space Garnering by Leaves of a Rosette Plant**

Camille Sicangco

**231 Emotional Exhaustion and Content Validity Concerns**

Emily Broker

**\*232 Potential Picasso Project: The Chemical Analysis of a Painting with Unknown Origins**

Clarissandra Braun

**233 Montaigne on Modern Education: Why Teaching Philosophy Promotes Better Lives**

Madison Cosby

**234 Recognizing American Sign Language with Artificial Intelligence**

David Umanzor

**235 U.S Foreign Policy, the Evangelical Far Right and the Spanish Speaking South American Evangelical Left from 1968-1974; Missions, Praxis, and Money**

Simon Velasco

**236 Assessing the Relationship Between Disturbed Sleeping Patterns and Trauma in Individuals that Screen Positive for Suicide in the Emergency Department**

Victoria Orr

**237 RNA Extraction to Improve Yield from Cartilage Pellet Culture**

Lauren Morris

**238 Targeting Ovarian Cancer Using Plant-Derived Bioactive Molecules: Thymol and Carvacrol**

Allison Cool, Amanda Calderon

**239 Using NMR to Measure Distances in Proteins with Paramagnetic Metal Complexes**

Jake Simmons, Mikayla Beers

**240 Calendula and its Effect on Radiation Dermatitis Prevention and Treatment among Cancer Patients: A Systematic Review and Meta-Analysis**

Huzaifa Peerzada, Marjona Normuminova

**241 Hermaphroditus: Reforming the Gender Binary**

Lucas Demanuel-Thue

**242 Predictive Modeling to Forecast Temperature Changes in a Smart Home**

Estefania Sanchez

**243 Implementing the NIST Statistical Test Suite for Physical Layer Key Distribution**

Jasper Rowe

**244 Analysis of Classroom Airflow Patterns**

Brianna Rodriguez, Andy Kapperman

**245 Manual Curation of *Diaphorina citri* Genes Associated with Female Reproduction**

Yasmin Ortiz, Alan Neiman, Michelle Espino, Ella Massimino

**246 A Student's Academic Self-Efficacy Predicts First Semester GPA**

Tara Nichols, Kaitlyn Brown, Taylor Vickers

**247 The Role of Job Insecurity on Guilt and Helping Behaviors During the COVID-19 Pandemic**

Giselle Chaviano, Sydney Mazur

**248 Adherence to Healthy Dietary Recommendations and Breast Cancer-Specific Outcomes in Breast Cancer Survivors: Meta Analysis**

Eric Han

**249 Trauma and Aggressive Fantasies as Predictors of Criminal Involvement in an Internet Sample**

Abigail Kothera, Samantha Wells

**250 Maternal Understanding of the Feeding Plans for Infants with Congenital Heart Disease**

Savanna Ullmann, Lauren Cervantes, Alissandre Eugene

**251 Political Ideology, Personality, and Reactivity to Visual Stimuli - a Functional Near-Infrared Spectroscopy (fNIRS) Study**

Bailey Rawlinson, Edward Spiezio, Alex Gonzales

**252 The Search for Thermosensitive Proteins in Burmese Python Pit Organs**

Melissa Iglesias

**253 The Effect of Artificial Light at Night on Copepod Abundance and Their Depth**

Saige-Lyn Gidzinski

**254 Investigating Technology Use for Academic Learning**

Emily Schraer, Angelica McCalla

**255 Literature Review on Cognitive Differences in Older Adults with Autistic Spectrum Disorder**

Maria Rivera

**256 The Implicit Enemy: Countering Unconscious Racial Bias in the Courts**

Elizabeth Sykes, Lillian Deaton

**257 "Why Aren't You Listening to Me?!: Community and Individual Roles in Students' Epistemic Agency in Science**

Katarina Gomez

**258 Crisis Pregnancy Centers, Misinformation, and the Future of Abortion Care**

Isabel Adamus

**260 Wage Comparisons and Job Attitudes**

Nathaly Rayo, Angela Le

**261 Establishing Different Experimental Models *In Vitro* to Recapture Pancreatic Cancer Cell Biology**

Aaron Davidson

**262 Investigating the Relationship between Gender Identity and Chemistry Identity**

Ingrid Lopez, Viviana Montalti

---

**Poster Session II.B**

*11:30am - 12:30pm Saturday, 19 February 2022*

Location: Student Union, Key West Ballroom

Presentation type: Poster Presentations

Student poster presentations for submissions #263-316.

---

**263 Physiological Implications for Implicit Threat Evaluations of the Police**

Rachel Strickland

**\*265 A Carbazole Derivative as a Photocatalyst in the C–H Arylation of *N*-Methylpyrrole**

Natalie Reece

**266 Factors Associated with Positive or Negative Perceptions of Physical Therapy Care in Those with Low Back Pain**

Jada Strowbridge

**267 "Un Libro, Un Sueño": Latin American Adaptations and Interpretations of Dante's Francesca**

Harrison Betz

**268 Lightweight Ceramic Engine**

Ahmed Syed

**269 Schema to Assess the Ethics of Algorithms**

Joseph Cofer

**270 Are There Convergent Structural Brain Alterations Associated with Autism Spectrum Disorders (ASD), and if so, Where Do They Occur?**

Paula Koppel

**271 RAN Scores: Predictors of Reading Fluency and Comprehension**

Jamie Averitt

**272 Addressing Testicular Cancer Through a Health Equity Lens**

Sydney Martinez, Alexie Alcantara, Carl Russell

**273 A Cross-Sectional Analysis of Testicular Cancer Symptom Recognition and Stage of Diagnosis**

Rama Abu Zanet, Sydney Martinez

**274 Mindfulness Interventions for Cancer Patients: What are the Implications for Testicular Cancer Survivors?**

Rama Abu Zanet, Peter Sagorski

**275 Increasing Professional Diversity through the RD Mentorship Program**

Jenna Countryman, Jordan Nichols

**276 Evolving Christian Womanhood & Social Change in Mt. Meru, Tanzania**

Sophie Winer

**277 Computational Determination of Clarinet Transition Times**

Ye Wong

**279 Compounding Harm: Climate Justice, Hurricane Harvey, and Urban Planning in Houston**

Sarah Royer

**280 Weathering the Storm: How Graphical Visualizations Affect Tropical System Forecast Perceptions**

Robert Szot, Chandler Pruet

**281 An Optimization Study of Turbulent Jet Ignition Systems for a Dual Fueled Compressed Methane – Diesel System**

Dylan Jones

**282 Assessment of Volumetric and Linear Velopharyngeal Measures in Children with 22q11.2 Deletion Syndrome**

Caroline Sorial

**283 A Spatiotemporal Analysis of Fibropapillomatosis Presence in Green Sea Turtles (*Chelonia mydas*) at Crystal River, Florida**

Aidan Perez

**284 Cranial Base Abnormalities in Children with 22q11.2 Deletion Syndrome**

Kissimmee Crum

**285 Obesity and Weight Gain in Testicular Cancer Survivors: A Narrative Review**

Morgan Welch, Karina Castro, Andre Guirguis

**287 Incidence and Risk Factors of Gastrostomy Tube Placement in Infants Following Surgery for Congenital Heart Disease**

Kaitlyn Jade Ong

**288 Investigation of Solids and Liquids Repellency in Omniphobic Coatings**

Andrea Molina Moreno, Rhondra Giscombe

**289 Predicting Short-term Traffic Volume at Intersections Using Large-Scale Automated Signal Performance Measures (ATSPM) Data**

Gabriela Ford

**290 Predictive Modeling of Drop Impact Force on a Concave Substrate Using Machine Learning**

Jacob Buckelew

**291 Poisoned and Alone: Life Experiences of a Fluoroquinolone User after Mitochondrial Damage.**

Luciana Jones, Kathren Pavlov

**292 Reducing Racial Bias: The Effect of Implicit Bias Remedies on Jurors**

Kendall Smith

**293 Systematic Literature Review of Substance Abuse in Older Adults**

Angie Camarena

**294 The Effects of Soil pH on the Growth of Florida Indian Plantain (*Arnoglossum floridanum*) and Mycorrhizal Fungi in a Restored Sandhill Ecosystem**

Kylie Giovinco

**295 The Effects of Sober Homes on Property Value in Palm Beach County**

Mae Baltz

**296 Honeybee Foraging: Seasonality and Different Time Intervals Determine the Amount and Diversity of Pollen**

Alexander Gregory

**297 Are Immigrants in The U.S. More Likely to Experience Impostor Phenomenon and Anxiety?**

Ana Sardinha, Dominique Berrette, Kelly Johnson, Robin Moscovitch

**298 Examining the Effects of Synthetic Dye Yellow No. 5 (Tartrazine) Exposure on Mouse Neuro2A Neurons *in Vitro***

Jenna Farnum

**299 Bilingual Digital Editing as a Learning Tool**

Melinda Peacock

**300 Exploring the Proposed Voting bills in Florida, South Carolina, Missouri, Tennessee, and New Mexico Following the 2020 Election**

Aubrey Mys

**301 Amplification and Overexpression of the NRF1 Proto-Oncogene in Ovarian Carcinomas**

Ana Ruas

**302 On the Role of Destabilization of Anabaena PCC 7120 Transducer via Ser-Thr Kinase, STK 3169 Mediated Phosphorylation**

Tyrell Merrick, Aakriti Gautam

**303 "Synthesis of Novel Ferrocene Complexes as Potential Guests for Cucurbits"**

Jenny Blanc

**304 Can Sonar be Used to Find Submerged Ceramics? An Experimental Test of the HALD Method**

Benjamin Erstling

**306 How the Humanities Study Death: Interviews on Death and Scholarship**

Sarah Whiting, Emilie Garnier

**307 Mental Health Disorders and Satisfaction of Life among Individuals with Chronic and Mental Health Conditions.**

Kathren Pavlov, Luciana Jones, Promise Stephens

**308 A Systematic Literature Review of Gene Therapy for Alzheimer's Disease**

Micol Proserpio

**310 Asymmetric Role of the Vagus Nerve in Regulating Feeding Behavior**

Isadora Braga

**311 A Greener Synthesis of Cyopropyl Acetylene, A Crucial Intermediate for the HIV Antiretroviral Efavirenz**

Emily Hutchinson, Elizabeth Sanchez Bautista, Zully Beck, Brandon Montes, Jessica Echevarria, Michael Siekman

**312 NieR Autonomy: Free-Will and Determinism as Experienced in Videogames**

Jakeb Greig

**313 Isolation of Four *Sinorhizobium meliloti* Phages from Florida Soil**

John Fitzgerald

**314 The Effects of Dragline Ditch Marshes on Zooplankton Densities**

Lauren Albury

**315 The effect of Ginkgo biloba extract on amyloid- $\beta$  induced osmotic behavior in Alzheimer's Disease model in *Caenorhabditis elegans***

Angel Ibrahim

**316 The Bitch Trope in Fictional Media: What it is and How it Shapes our View of Black Women**

Amber Courtney

---

**Lunch**

12:45 - 2:15pm Saturday, 19 February 2022

Location: Burnett Honors College

*Meal Distribution:*

Boxed lunches will be available for pick-up at tables located outside of the Burnett Honors College. Please present the **blue or white ticket** that is in your Name Badge pouch to FURC Staff to pick up your boxed lunch.

*Seating:*

Outdoor seating is available across our campus. For enhanced physical distancing, we encourage attendees to enjoy their lunches outdoors. In the event of rain, seating will be available inside the Burnett Honors College.

## **WORKSHOP SESSION II**

### **Becoming a Competitive Graduate School Applicant**

*2:15 - 3:00pm Saturday, 19 February 2022*

Location: Burnett Honors College, Room 130-131

Presentation type: Workshop Session II

Speaker(s): Michael Aldarondo-Jeffries

The process of strengthening your graduate school application starts early in your undergraduate career. This workshop will provide participants with an overview of the pieces of a competitive graduate school applicant. Strategies will be discussed to assist in creating a competitive application. Students will walk away with an idea of a timeline and suggestions for avenues to explore while pursuing their undergraduate degrees.

### **Can I Use That Image? How to Legally Use Images, Graphics, and other Copyrighted Materials**

*2:15 - 3:00pm Saturday, 19 February 2022*

Location: Student Union, Cedar Key

Presentation type: Workshop Session II

Speaker(s): Sarah A. Norris

Can you use any image you find online in your presentation? Do you need to get permission to use a chart or graphic for your research? These are just a few of the questions that we will explore in this session focused on the ethical and legal use of copyrighted images, graphics, and other visual materials. Attendees will learn about copyright basics with a specific focus on visual works and how to be good stewards of copyrighted content created by others.

### **Understanding You: How Does Your Identity Influence Your Research Perspective?**

*2:15 - 3:00pm Saturday, 19 February 2022*

Location: Classroom Building 1, Room 104

Presentation type: Workshop Session II

Speaker(s): Ronnie Mack, Wesley Lewis

The most powerful tool within the research process is the human element. As a researcher, you interpret the data and present it to the greater community, but how does identity shape your research perspective and maintain objectivity. Additionally, how does your personal identity influence your research or professional identity? Utilizing a social science perspective, we will help you explore the different elements of your identity and how they may influence your research identity. Furthermore, we will provide techniques to implement within your research process to maintain objectivity and show your identity.

### **How to Become a Competitive Applicant to Health Professional School**

*2:15 - 3:00pm Saturday, 19 February 2022*



Location: Classroom Building 1, Room 121

Presentation type: Workshop Session II

Speaker(s): Suzanne Chaar

Learn more about how to be a competitive applicant for health professional schools, including academic expectations, improve your extracurricular activities, applications timeline, and more!

**Undergraduate Research Publication: Fresh Routes to Join the International Conversation**

*2:15 - 3:00pm Saturday, 19 February 2022*

Location: Student Union, Sand Key

Presentation type: Workshop Session II

Speaker(s): Tyler Fisher

There is a vast gap between in-house publication and international, peer-reviewed publication of undergraduate research. With the goal of guiding our students to becoming active participants in the national and international conversations in their field, this workshop explores how faculty mentors can most effectively help students navigate that gap -- to perceive a wide array of publication opportunities and to assess the relative value of those opportunities. Specifically, drawing collaboratively on first-hand examples, we will rethink conventional approaches to book reviews, translations, and co-authorship. This workshop focuses on the humanities and social sciences but offers principles that are also applicable in the natural sciences.

**What to Expect in Graduate School: Grad Students Spill the Beans**

*2:15 - 3:00pm Saturday, 19 February 2022*

Location: Student Union, Cape Florida CD

Presentation type: Workshop Session II

Speaker(s): Panel of Current Graduate Students

Have you ever wondered what it's like to be a graduate student? What classes are like, what the day-to-day routine consists of, what the expectations are, and how you can prepare now to be successful in grad school? If so- this session is for you! A panel of current UCF graduate students from various disciplines will discuss their experiences and answer your questions.

**Advancing Undergraduate Research: Takeaways from the Florida Undergraduate Research Leadership Summit & Vision for the Future**

*2:15 - 3:00pm Saturday, 19 February 2022*

Location: Student Union, Egmont Key

Presentation type: Workshop Session II

Speaker(s): Sarah Murphy, Pravalika Manda, Camille Sicangco

The annual Florida Undergraduate Research Leadership Summit (FURLS) began in 2019 and has been hosted at the University of Florida since then. Modeled after the Florida Statewide Symposium, this conference brings student leaders together to discuss how to foster a culture of

undergraduate research on campus and inspire students to pursue research. Here we report on the main takeaways of FURLS 2022 and discuss visions for the future. Eight universities from across the state planned the conference and presented their ideas for undergraduate research leadership. Common themes that emerged included the importance of promoting participation in research among diverse students and the role of peer mentorship in helping to sustain research involvement. In the future, we hope to expand the conference regionally and potentially host FURLS at other universities. FURLS remains a unique opportunity for student leaders in undergraduate research from across the state to collaborate and share ideas.

### **Engaging the Community with Science and Health Information that will Save Lives: The Pandemic Win Initiative**

*2:15 - 3:00pm Saturday, 19 February 2022*

Location: Classroom Building 1, Room 120

Presentation type: Workshop Session II

Speaker(s): Danyell Wilson-Howard

The goal of this workshop will be to demonstrate how research can be the basis for community outreach programs by discussing how students are engaging our local community members and saving lives by increasing science and health literacy on COVID-19. The students and faculty at Bethune Cookman University have established the Pandemic Win Initiative, a movement that translates science and health COVID-19 information to the community and online via social media platforms. Through this initiative, students have increased COVID-19 testing, vaccinations, and education by unifying the community to fight this disease. The hope is that students on other Florida campuses can use the Pandemic Win Initiative model for any community-based research initiative.

### **Applying Your Undergraduate Research Towards Prestigious Awards**

*2:15 - 3:00pm Saturday, 19 February 2022*

Location: Student Union, Garden Key

Presentation type: Workshop Session II

Speaker(s): Morgan Bauer

This workshop introduces students to several national and international scholarships that are specifically tailored to students who are involved with research. These scholarships that look for undergraduate research history can help fund an undergraduate or graduate degree, as well as secure a future career. Some of these scholarships can award students upwards of \$120,000. We will dive into different scholarships based on a range of disciplines and examine the requirements of these awards such as a personal statement, short answers, as well as letters of recommendation. In addition, we will look at different strategies and share tips on how to approach these components to make your application as competitive as possible to secure these awards.

## **Getting Great Letters of Recommendation**

2:15 - 3:00pm Saturday, 19 February 2022

Location: Student Union, Cape Florida AB

Presentation type: Workshop Session II

Speaker(s): Melodie Eichbauer

To be a strong candidate for graduate or professional school, you will need several strong faculty recommendation letters. This workshop will help you plan, learn how to develop and maintain strong relationships with faculty, and give you tips on how to request letters, so you have the best opportunity to get great letters of recommendation.

---

## **Poster Session III.A**

3:15 - 4:15pm Saturday, 19 February 2022

Location: Student Union, Pegasus Ballroom

Presentation type: Poster Presentations

**Student poster presentations for submissions #317-420.**

---

### **317 Turning Down Higher Wages? A Lab-in-field Experiment on Tax Code Notches and Labor Market Decisions**

Julia Correll

### **318 Establishing a Drug Delivery System for Cyclic Lipopeptide-4 Using a Biodegradable Chitosan-Silver Hydrogel**

Satviki Singh

### **319 Stress, Coping, and Disease Awareness Association with Metabolic Disease Risk: A Longitudinal Cohort Study.**

Chelsea Anestal

### **320 Habitual Dietary Patterns in a Well-Trained, Female Hiker During a Pacific Crest Trail Thru-Hike: A Case Study**

Aydan Jordan

### **321 The Acoustic Properties of Rhotics in Costa Rican Spanish**

Sergio Salazar Rodó

### **322 Antiretroviral Drugs Induce Cardiotoxicity Through Dysregulation of Mitochondrial Function**

Raj Patel, Avni Mukker

### **323 Elucidating Hippo Pathway Perturbations by the Merkel Cell Polyomavirus Small Tumor Antigen in the Development of Merkel Cell Carcinoma**

Hannah Collins, Faith Whaley, Kaira Thevenin, Hannah Strassel, Mariah Siebert, Hailey Fitzek, Michelle Hoosain, Shae Henson, Ashley Mongiovi

### **324 Utilizing Glycolysis in *Streptococcus pyogenes* to Model Gastrointestinal Stromal Tumors (GISTs) in Response to Endogenous Stimulus-powered Nanoreactors (Year 6)**

Om Patel

### **325 Syntheses of a Biochemically Important Aldehyde, 3,4-Dihydroxyphenyl-acetaldehyde (DOPAL),**

**a Toxic Dopamine Metabolite in vivo:  
Implications for Parkinson's Disease  
Pathogenesis**

Makenzie Johnson, Kacey Mewborn

**327 Genome Curation of 27 Putative  
Circadian Rhythm Associated Genes in  
*Diaphorina citri***

Lucas de Oliveira, Crissy Massimino

**328 Death by Music: A Psychological  
Approach to Franz Schubert's 'Death and  
the Maiden'**

Thomas Danzi

**329 Filling the Gap: Evaluation of a Novel  
Gap Year Internship Implemented at a  
Free Clinic**

Parth Chandan

**330 Discovery of Antiplasmodial  
Compounds from Fungal Extracts**

Raphaella Paes, Natalia Mojica Santos

**332 Harmful Effects of Nicotine  
Addiction**

Hilda Infante

**334 Exploration of Merkel Cell  
Polyomavirus Small Tumor Antigen  
Nuclear Localization in Transformation  
and Tumorigenesis**

Kaira Thevenin

**335 Evidence that Intellectual Humility  
can be Heightened via a Self-Affirmation  
Induction**

Lily Marie, Jasmine Perez, Ivy Guedes de  
Menezes, Carolyn Judd, Stephan Beltran

**336 Change in Weight and BMI After  
Switching to BIC/F/TAF vs. a DTG-Based  
Regimen**

Brandon Cohen, Daniela Castro, Parth  
Chandan

**337 Effects of Laser Marking on the  
Fatigue Behavior of 316L Stainless Steel  
in a Corrosive Environment**

Fernando Bedoya

**339 Improving Contact Tracing Efforts  
with Self-Led Interviews**

Gabriela Lay

**340 Targeting EGFR-Mutant Non-Small  
Cell Lung Cancer Cells with a CARM1  
Inhibitor**

Anastasia Gregory

**341 Amazon Prime Student | Marketing  
Strategy Case Study**

Valeria Tineo, Marcus Walker, Ariana  
Bukovac, Juan Nunez, Bailey Warren,  
Samantha Rodriguez, Elizabeth Mulvaney,  
Cindy Crichlow, Natalie Sugg, Molly Trejo

**342 The Experiences of Mixed-Race  
Students on College Campuses and their  
Impact on the Self-Identification Process:  
An Interview-Based Case from the  
University of Florida**

Ava Gomez

**343 Early detection of Epithelial to  
Mesenchymal Transition in Colorectal  
Cancer**

Alejandro Torres, Carley Moeshing, Angela  
Huang

**344 Tissue Oxygenation Changes During Progression of Chronic Kidney Disease in Mice Using Near-Infrared Scanner**  
Haniyeh Alirezaei

**345 Optimization of a Fluorescence-Based Assay to Monitor ALOX15 Enzymatic Activity**  
Harshitha Uppada

**346 An Evaluation of a Greener Synthesis of the (E) and (Z) Isomers of Stilbene for its Inhibition and Potency Tendencies Against Ovarian Cancer Cell Lines**  
Alanya Nardone

**347 Break the No Lunch Break Habit**  
Mayleen Gonzalez

**348 A Novel Bioinformatics Method to Compare lncRNAs Dysregulated by KSHV to Cancer-Associated lncRNAs**  
Kavitha Vudatha

**349 Complete Genome Sequence of a Mu-Like *Sinorhizobium meliloti* Phage Isolated from Soil**  
Macy Nielander, Crissy Massimino, John Fitzgerald, Mya Maybank, Tiare Seibenick, Hannah Blossom

**350 Validation, Revision and Characterization of Phototransduction Pathway Genes in *Diaphorini citri* Genome 3.0**  
Michelle Espino, Yasmin Ortiz, Lucas De Oliveira, Alan Neiman, Crissy Massimino

**351 Analysis of the Effect of a Methionine Restriction Compound on Lifespan in *Drosophila***  
Natali Barakat, Angela Perez Villalobos

**352 Self-expanding Polymeric Hemostatic Foam for Trauma and Wound Care**  
Lilian Hoang, Alysha Irwin, Kayla Blum

**353 Can a Spring Be Considered an Ecosystem?**  
Laura Jones

**354 The Therapeutic Potential of Cannabidiol**  
Camilla May, Claudia Silver, Nicholas Maykut

**355 The Importance of Seasonal Habitat in Springs**  
Noah Peterson

**356 Effect of a Mindful Eating Mobile App on Stress and Mindful Eating in College Students**  
Caroline Oteri

**357 Positive Impacts of Anki on Student Performance and Confidence Levels in an Undergraduate Histology Course**  
Stephania Sanchez-Tarre, Carey Sanchez

**\*358 A Potential Picasso: A Stylistic Analysis of a Thrift Store Purchase**  
Emily Turbeville

**\*359 The Planarians Claim to Fame**  
Luc Harrison, Gretchen Hilt, Marry Bolton

**360 Effects of Alcohol Exposure on FMRP expression in Mature Mouse Brains**  
Nathan Labora

**361 Willingness to Work**  
Andrew Vogel

**363 Utilizing Electromyographic Video Games Controllers to Improve Outcomes for Prosthesis Users**

Shea McLinden, Calvin MacDonald, Devon Lynn, Katherine Tran

**364 Mitochondrial Dynamics are Disrupted in CVB3 Acute Myocarditis**

Isha Chekuri

**365 Dialectical Naturalism: The Philosophy of Nature developed by Murray Bookchin**

Hunter Clark

**366 Impact of Audit Committee Characteristics on Accuracy of Auditor Going Concern Opinion**

Joshua Finkelstein

**367 Evergreen Plantation and the African Diaspora**

Abbigail Sproul

**368 The Complex Between Art, History, and Power: Contemporary East African Interpretations of Dante's *Divine Comedy***

Sephora Affa

**369 Therapeutic Potential of Chronic Administration of Cannabidiol for Treatment of Anxiety**

Ezabelle Franck

**370 The Effect of Language Context on Decision Making**

Armaan Kalkat

**371 Social Media Information Seeking Behaviors and Trust in Medical Providers**

Renee Jones, Luciana Jones, Kathren Pavlov

**372 Computational Investigation of NSP14 and Nucleocapsid as Potential Antiviral Drug Targets for SARS-CoV-2 and its Variants**

Amanda Pena

**373 News Media Representations of Race Disparities in Breastfeeding Research**

Sanya Bansal

**374 The Force Is Strong with... Mechanosensitive Proteins in the Mandibles of Spaceflight Specimens**

Ashlee Brentlinger, William Staeb

**375 A Plasma Membrane Fusion Protein from *Ashbya gossypii* is Partially Functional in Yeast Fusion**

Katherine Doss

**376 Overcoming *cis*-platinum Resistance in Double-Mutant Non-Small Cell Lung Cancers**

Shankari Somasekar

**377 Relationship between Vaping Devices and Carcinogens**

Georgett Hammal

**379 Pendimethalin: How a Common Weed Killer May Cause Diseases to Flourish**

Sophia Hutton, Taylor Foster, Ian Quintero

**380 All Optical Electrophysiology for Cancer Cells and Neurons**

Gabriela Faxas, Sydney Yu

**381 Exploring the Neural Correlates of Self-Monitoring with fNIRS**

Hannah Thomas, Karli Friedman

**382 The Role of the *Drosophila* Attractin Homolog in Insulin Signaling**

Nicholas Pizzo, Brianne Jacquet-Cribe, Wayne Robinson

**383 Evaluating the Role of the Circadian Clock in Thyroid Cancer Cell (MDA-T41) Metabolism and p53 Expression**

Angela Huang

**384 Biological Synthesis of Novel Diketopiperazine Anticancer Natural Products**

Samantha Tambrini

**385 Let's Get These Druggable Pockets**

Kayla Mohan, Camila Garzon, Eileen Medina

**386 Exploring the Emotional Meaning of a Famous Japanese Woodblock Print**

sara pelgar

**387 Voices of Havana: Life in Havana, Florida in the Early to Mid-Twentieth Century**

Shane O'Connor

**388 The Impact of CSF and CHI3L1 Expression on Glioblastoma Malignancy**

Victoria Orindas Corcino

**389 Studying the Effects of Listening to a Personalized Playlist on Vitals, Pain, Anxiety, and Mood of Child with Sickle Cell Anemia.**

Grace Pope

**390 Synthesis of Peptidomimetics as Potential Anticancer Agents and Biomedical Applications**

Zoie Wells

**391 Predicting the Future of Mental Health: How Will *in Utero* COVID-19 Infection Influence Psychiatric Illness in Future Generations?**

Mia Johnson

**394 Effects of Race on CSR**

Brittany Pendarvis

**395 Vocal Health and Awareness and Occupational Voice Users: Social Media as a Health Literacy Tool**

Madison Yoder, Jennifer White, Sarah Blakenship, Jenna Kasten, Nicole Garcia

**397 Congestive Heart Failure in Dogs**

Kyara Chambers, Tori Morris, Joshua Regino

**399 *A Lost Return*: Examining Significance of Archival Records for Institutional Memory and Acquisition Practices in the Mid-Republican Capalbio Hoard Correspondences**

Grace Robbins

**400 Omni-usability Soft Robotic Exoskeleton**

Bryan Gonzalez, Sergio Carli, Ryan Ebrahimi, Bryson Prince, Zachery Nadeau

**401 Structure-Guided Engineering of AceCas9 to Relax the PAM Requirement**

Mackenzie Barakat

**402 Toward the Greener Synthesis of Oil-based Polymers.**

Isabel Augustine

**403 Covid-19 and College Adjustment**

Vanessa Tomasik, William Bryant

**404 College Student Housing Preferences: A Case Study of University Students in Tallahassee, Florida**  
Yolanda St. Fleur

**405 The Effectiveness of Organizational Health Literacy Interventions: A Systematic Review**  
Priyanka Perisetla, Persis Desai, Ofelia Alvarez

**406 Investigating Exercise's Role on Muscle Physiology in Older Adults with Knee Osteoarthritis**  
Bryce Murillo

**407 Impacts of Nitrate on Oyster Larvae Survival, Growth, and Microbiome**  
Cyrille Teforlack

**408 Long-term Effects of Simulated Spaceflight Exposure to the Coronary Artery**  
Daniel Zuniga, Hanna Neustadter, Joseph Liberato

**409 Trajectories and Predictors of Health-Related Quality of Life in Older Breast Cancer Survivors**  
Sushantti Rupesh, Jason Argall, Joshua Goldberg

**410 The Potential Role of microRNA as Biomarkers in Canine Congestive Heart Failure.**  
Carol Mitchell

**411 Analyzing Pre-health Students' Views on Health Humanities and an Applied**

**Virtual Experience During the COVID-19 Pandemic.**  
Stefany Marjani

**412 Identifying Potential Sarin Targets Using Open-Source Web Servers**  
Modeline Jean Pierre

**414 Poetic Representations of COVID-19 Narratives**  
Isha Harshe

**415 Dietary Sugar Increases Risk for Cardiovascular Disease**  
Devam Patel

**418 Lipid Characterization from the *Desmid cosmarium* for Biofuel and Industrial Applications**  
Abigail Jernigan

**419 An Ultrastructural Analysis of the Relationship between Synapses and Mitochondria Across Neuron Types in *C. elegans***  
Maria Restifo

**420 Between Waifu and Besto Friendo: Parasocial Relationships and *Cowboy Bebop*, *Attack on Titan*, and *Death Note* Fans**  
Brianey Torres

**331 FMRP regulation on protein synthesis with a focus in synaptic proteins same abstract.**  
Roneesha Peltier



### **Poster Session III.B**

3:15 - 4:15pm Saturday, 19 February 2022

Location: Student Union, Key West Ballroom

Presentation type: Poster Presentations

**Student poster presentations for submissions #421-477:**

**421 A Stand-Alone Smartphone-based Optical Device to Measure Tissue Oxygenation in Diabetic Foot Ulcers**  
Alexander Trinidad

**422 Identifying Observable Changes in Grant-Seeking Habits of Florida Museums Due to the COVID-19 Pandemic Closures**  
Cassandra Garner

**423 Biological Management of Invasive Plant Species**  
Zachary Durastanti

**424 Rethinking Brazil: Assessing Equity in Sao Paulo's Criminal Justice Sector**  
Laura Vega

**425 A Novel *Sinorhizobium meliloti* Jumbo Phage: Isolation and Genome Sequencing**  
Crissy Massimino, John Fitzgerald, Macy Nielander, Mya Maybank, Hannah Blossom

**426 Long-Term Effects of Simulated Spaceflight Exposure Assessed by Doppler Ultrasonography**  
Rachelys Jorrin, Deanna Vasserman

**428 Growth and Cellular Characteristics of the *Desmid cosmarium* Under High Potassium Nitrate Conditions**  
Fabiana Vieir

**429 Modeling Adversarial Channels for Quantum Communication**  
Ashley Hart

**431 The Impact of Sickle Cell Disease on Gingival Bleeding and Oral Health of Adults**  
Natalie Roa

**432 Lewis-Acid Enhanced Face Selection in the Reduction of Adamantanones**  
Isaiah Nelsen, Kyle Manuel

**433 Factors Influencing Students towards Choosing a New Course**  
Sruthy Emmanuel, Gabrielle Gorwitz

**434 *Galagoides* of the Lomami National Park in the Democratic Republic of the Congo and Tanoé-Ehy Forest in the Ivory Coast**  
Eugenia Jean

**435 Ca<sup>2+</sup> Wave Characteristics in 2D- & 3D-Cultured Cancer Cells and Their Mechanisms**  
Zeyuan Jin

**436 On the Epistemological Application of the Mathematical Concepts of Completeness, Consistency, and Decidability to Systems of Natural Law**  
Abdul-Malik Zekri

**437 Examining Ammonium Adsorption Potential onto Chabazite through Isotherm Experimentation**

Tione Grant

**438 Applied Theatre for ADHD Collective**

Amanda Gerulski

**\*439 First Generation and Minority Students First-Year Experience**

Jianna Stucchi

**440 Synthesis of Melanin Nanoparticles for Radiation-blocking Thin Films**

Giulia Stewart, Aria Jafari, Amelia Hartnett, Sahil Ghate

**441 Apparent Activity in Ae. Aegypti Mosquito and Its Correlation with Age as a Result of Mating Partner Necessity**

Tyler Sanford

**442 The Strength of Siblings: Challenges and Factors that Promote Resilience in Pediatric Sibling Bereavement**

Lindsay Wilson

**443 Molecular Differences between the Cancers of Right and Left Colon**

Aidan Fontana

**444 Feeding preferences of Dwarf Seahorses, *Hippocampus zosterae*, on Benthic and Pelagic Copepods**

Cameron Eskew

**445 Identifying the Impact of Lack of Complacency and Confidence on Vaccination hesitancy**

Brianna Thomas, Kymbriana Newsome, George Butts, Byronique Bastian, Olamide Adeniran

**447 Health Disparities: An Epidemiological Evaluation into the Discrepancies of Socioeconomically Marginalized Communities.**

Waheed Khalili

**448 Nature and Ancient Chinese Landscape Painting**

Elizabeth Walker

**449 Perceptions of Mothers and Biracial Children**

Alexis Lachance

**450 Settling Behaviors of Stormwater Microplastics**

Jenna Brooks

**452 Potato Seed Systems in Ethiopia: Network Analysis to Evaluate Disease Management Strategies**

Vasilios Kosmakos, Jiahe Yau, Richard McCoy

**454 Psychological and Physiological Crisis of COVID-19**

Kymbriana Newsome, Brianna Thomas, George Butts

**455 Revealing Narrative Through Musical Characterization in Brahms's *Von ewiger Liebe***

Jennifer Lamont

**456 Comparative Models of Juvenile Justice: The United States and Kenya**

Anna Blanchard

**457 Altered Arginine Metabolism Correlates with SCLC Transformation in EGFR-TKI Treated NSCLC**

Robert Burns

**458 Correlation Between High Body Temperature and COVID-19 Cases**

Michelle Martinez, Daniel Zuniga

**460 Engagement on Political Posts on Reddit**

Ethan Cronk, Jairo Garciga

**461 Perceived Encouragement to Ask About Suicidal Thoughts Based on Work Role**

Fatima Hussain

**462 Political Climate on College Campuses: A Comparative Analysis of Recent Findings**

Eli Mckown-Dawson

**463 The Influence of Social Media within College Students in Relations to Social Anxiety and Social Stress as a Byproduct of Covid-19**

Djaina-shae Dervil

**464 A Study of the Consequences of Image-Based Sexual Abuse Victimization among BIPOC Youth Survivors**

Guissella Cruz

**467 Exploring the Effects of COVID-19 on Central Florida Nonprofits: Assessment of financial consequences and capacity building strategies during a public health crisis**

Tiffany Chinwuba

**468 The Role of Media Bias in the Public Perception of the Israeli-Palestinian Conflict**

Alexandra McBride

**469 Can You Have the Holy Spirit Without Haze?**

Diego Salinas

**471 Analysis of Heavy Metals in Lake Water in a Florida Community by ICP-MS**

Darby Dehn

**472 Our Fate in Fashion**

Daniella Rudolph

**474 Nonlinear Atomic Force Microscopy for Galactic Supernova Neutrino Detection**

Erika Bolano Duque

**475 A Scoping Literature Review of Disparities Related to Cancer and Their Different Incidences on Urban Versus Rural Populations**

Charles Drucker

**476 MicroRNA Expression in Murine Spontaneous Non-Small Cell Lung Cancer and Human Cell Lines Post-treatment of PRIMA-1**

Melanie Perez

**477 An Overview of Sports and Aviation**

Alexis Laszlo, Payce Hooker