

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

Roksana 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- α 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 Pruett

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- β 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 Ca²⁺ Wave Characteristics in 2D- & 3D-Cultured Cancer Cells and Their Mechanisms

Zeyuan Jin

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