

PRESENTED BY THE DIVISION OF STUDENT LEARNING AND ACADEMIC SUCCESS
AND THE COLLEGE OF GRADUATE STUDIES

STUDENT RESEARCH WEEK

CELEBRATING RESEARCH
AND CREATIVITY ACROSS THE
CURRICULUM



**CANCELED BECAUSE
OF CORONAVIRUS**

KICK-OFF EVENT

**SHOWCASE OF UNDERGRADUATE RESEARCH
EXCELLENCE**

GRADUATE RESEARCH FORUM

WELCOME TO STUDENT RESEARCH WEEK

Each year, the University of Central Florida celebrates the research and creative scholarship of undergraduate and graduate students across all disciplines at a variety of events throughout Student Research Week.

These events provide hundreds of students the opportunity to present their work through posters or oral presentations and receive valuable feedback. Novice students can also find ideas for their own projects working alongside UCF faculty. The best projects in each category are also recognized with scholarship awards.

Join us and explore how our students' research and creative scholarship enrich their learning experience, our university community, and make a difference in the world.

To learn more, please visit **researchweek.ucf.edu**.

The Division of Student Learning and Academic Success, the College of Graduate Studies, and the Office of Undergraduate Research.

UNIVERSITY OF CENTRAL FLORIDA | ORLANDO, FLORIDA

STUDENT RESEARCH WEEK

SCHEDULE OF EVENTS

To see a full list of Student Research Week events, please visit researchweek.ucf.edu

Monday, March 30

Student Research Week Kick-Off Event

(Student Union: Cape Florida Ballroom) 10 - 11:30 a.m.

Tuesday, March 31

Graduate Research Forum – Poster Presentations

(Student Union: Pegasus Ballroom) 11 a.m. - 2 p.m.

Wednesday, April 1

Graduate Research Forum – Oral Presentations

(Student Union: Cape Florida Ballroom) 10 a.m. - 3 p.m.

Thursday, April 2

Showcase of Undergraduate Research Excellence

(Student Union: Pegasus Ballroom and Cape Florida Ballroom) 9:30 a.m. - 5 p.m.

STUDENT RESEARCH WEEK PLANNING TEAM

Nathalia Bauer
Tyler Campbell
Wendy Cartier
Melissa Gillis
Zenaida Kotala
Carreen Krapf

Aubrey Kuperman
Tara Levine
Kelli Marini
Jennifer Parham
Elitza Rodriguez
Simone Rousseau

Kimberly Schneider
Ryan Seilhamer
Barbara Smith
Andres Torres

SPECIAL THANKS

The College of Graduate Studies, the Division of Student Learning and Academic Success, and the Office of Undergraduate Research thank the student presenters for sharing their scholarly work and demonstrating the outstanding research conducted at UCF. The events of Student Research Week would not be possible without the support of the entire UCF community.

ORDER OF EVENTS

Monday, March 30

Student Research Week Kick-Off Event

Student Union: Cape Florida Ballroom

10 – 11:30 a.m.

Tuesday, March 31

Graduate Research Forum – Poster Presentations

Student Union: Pegasus Ballroom

Poster Judging: 11 a.m. – 1 p.m.

Open Viewing: 11 a.m. – 2 p.m.

Awards Ceremony: 2 p.m.

Wednesday, April 1

Graduate Research Forum – Oral Presentations

Student Union: Cape Florida Ballroom

Session I: 10 – 11 a.m.

Session II: 11:10 a.m. – 12:10 p.m.

Session III: 12:20 – 1:20 p.m.

Session IV: 1:30 – 2:30 p.m.

Awards Ceremony: 2:30 p.m.

Thursday, April 2

Showcase of Undergraduate Research Excellence

Student Union: Pegasus Ballroom

Research Intensive Course Presentations: 9:30 – 11 a.m.

Independent Project Presentations:

Poster Session I: 9:30 – 11 a.m.

Poster Session II: 12 – 1:30 p.m.

Poster Session III: 2:30 – 4 p.m.

Award Ceremony: 4:30 – 5 p.m. (Cape Florida Ballroom)

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STUDENT RESEARCH WEEK KICK-OFF EVENT

Monday, March 30, 2020 | 10 - 11:30 a.m.

Student Union Cape Florida Ballroom

WELCOME AND AWARDS

Dr. Elizabeth Klonoff

Vice President for Research and Dean of the College of Graduate Studies

Dr. Theodorea Regina Berry

Vice Provost for the Division of Student Learning and Academic Success and Dean of the College of Undergraduate Studies

KEYNOTE SPEAKER

Dr. Joshua Colwell

Planetary Scientist and Pegasus Professor of Physics

POSTDOCTORAL SCHOLAR POSTER PRESENTATIONS

RECEPTION

KEYNOTE SPEAKER: DR. JOSHUA COLWELL



Dr. Joshua Colwell is a Planetary Scientist and Pegasus Professor of Physics at the University of Central Florida. He came to UCF in 2006 from the Laboratory for Atmospheric and Space Physics at the University of Colorado where he earned his Ph.D. in Astrophysical, Planetary and Atmospheric Sciences. Since 2011, he has held the positions of Associate Chair of the Department of Physics, Assistant Director of the Florida Space Institute, and Director of the Center for Microgravity Research.

His research interests are in the origin and evolution of the solar system with a particular emphasis on planet formation, asteroids, planetary rings, comets, and interplanetary dust. As a Co-Investigator on the international Cassini mission to Saturn that orbited the ringed planet from 2004 – 2017, he designed and analyzed observations of Saturn's rings. He studies the structure and dynamics of Saturn's rings with data from Cassini. He has led experiments that have flown on the Space Shuttle, the International Space Station, suborbital rockets, parabolic airplane flights, and is the Principal Investigator of a CubeSat that will launch in 2020.

STUDENT RESEARCH WEEK KICK-OFF EVENT

UNDERGRADUATE RESEARCH AWARDS

Distinguished Undergraduate Research Award

Carly Grimison

Mentor: Dr. John Starbuck

Stefani Hammond

Mentor: Dr. John Starbuck

Sarah Swiersz

Mentor: Dr. Peter Jacques

Leah Rittenburg

Mentor: Dr. Anna Savage

Adil Riahi

Mentor: Dr. Shawn Putnam

Eleni Triantafyllopoulo

Mentor: Dr. Anna Savage

Emyli Peralta

Mentor: Dr. Robert Borgon

Megan Rizer

Mentor: Dr. Alicia Hawthorne

Simran Pawar

Mentor: Dr. Amelia Lyons

Katherine Viehl

Mentor: Dr. Michelle Gaither

Bianca Pizzaro

Mentor: Dr. Frenando Rivera

Matthew Caldwell

Mentor: Dr. Claudia Andl

STUDENT RESEARCH WEEK KICK-OFF EVENT

Undergraduate Research Faculty Mentor of the Year

Dr. Chase Mason

Biology

Nominated by Mari Irving

Champion of Undergraduate Research Faculty Award

Dr. Michael Rovito

Health Sciences

Dr. Valerie Sims

Psychology

Award for Excellence in Undergraduate Research Publishing

Katherine Harris

Mentor: Dr. Linda Walters

POSTER PRESENTATIONS

11 A.M. - 2 P.M.

EDUCATION

Focusing on the Progression of Mathematical Topics in K-12 Teacher Education Content Courses

Shahabeddin Abbaspour
Tazehkand
Education PhD - Mathematics Education

Universal Design for Learning in Kindergarten Mathematics Curriculum: A Novel Approach

Kiera Anderson
Education PhD - Exceptional Education

Examining the Pedagogical Underpinnings of Medical Education Commercial-off-the-Shelf (MedEd-COTS) Resources

Ziana Bagot
Education PhD - Instructional Design and Technology

Community Hunger Outreach

Caitlin Browder
Early Childhood Development and Education MS

Preparing Educators to Support Social-Emotional Learning for Students with Cognitive Disabilities

Sacha Cartagena
Education PhD - Exceptional Education

Research Trends in Mathematics Education Doctoral Dissertations at University of Central Florida

Siddhi Desai
Education PhD - Mathematics Education

Developing an Enhanced Teacher Preparation Model: Lessons and Learnings in Supporting Pre-Service Teachers in High Needs Schools

Christine DeStefano
Education PhD - Methodology, Measurement and Analysis

A Case Study of the Impact of the DPLC Model of Professional Learning on Collective Teacher Efficacy and Organizational Trust in a Middle School

Maria Gaspar
Educational Leadership EdD

A Literature Review on The Effects of Metacognitive Strategies Used During Mathematics Instruction for Students with Learning Disabilities in Mathematics

Molly Greer
Education PhD - Exceptional Education

Examining Graduate Student Use and Perspectives of Web Resources and Tools for Academic Support

Kelly Grieneisen Tillotson
Curriculum and Instruction EdD

Innovation in Case-Based Learning Through Integration of Commercial-Off-The-Shelf Software Developed for Medical Education (MedEd-COTS)

Luke Horger
Instructional Design and Technology MA

Exploring Preservice Elementary Teachers' Integration of Socioscientific Issues in Their 5E Science Written Lesson Plan

Lisa Le
Education PhD - Science Education

An Examination of the Quality and Development of Educational Plans for Gifted Students

David Maddock
Educational Leadership EdD - Executive

Exploring the Development of Preservice Teachers' Science Teaching Identity

Regina McCurdy
Education PhD - Science Education

Predicting the Instructional Practices of Introductory Physics Faculty

Claudine McLaren Turner
Education PhD - Higher Education

The Position of an Instructional Literacy Coach: A Case Study of the Perceptions of High School Administrators, Classroom Teachers, and Coaches in One Florida School District

Rachel Miracolo
Educational Leadership EdD - Executive

Using the UDL Framework to Support Teachers of Culturally Diverse Learners

Keri Lynn Nass
Education PhD - Exceptional Education

Literature Review: Examining Medical Providers' Levels of Confidence in Making a Diagnosis of Autism Spectrum Disorder (ASD)

Chelsea Pierce
Education PhD - Exceptional Education
PhD Trk

Academic Outcomes of Students Born Late-Preterm in Kindergarten and First Grade

Annette Romualdo
Education PhD - Exceptional Education

The Impact of Perceived Contextual Factors on Departmental Climate for Teaching Quality Improvement in STEM Across Institutional Types and Faculty's Institutional Roles in Higher Education

Eman Saqr
Education PhD - Instructional Design and Technology

Investigating the Impact of Pre-Service Teachers' Attitudes Toward Inclusion and Metacognitive Processes When Identifying Classroom Accommodations in a Simulated Teaching Environment

Lynn Scott
Education PhD - Exceptional Education

Considerations When Working with BDSM Practitioners: Dispelling the Myths

Ana Songer
Counselor Education MA - Clinical Mental Health Counseling

Effects of Post-Exercise Recovery Drinks on Metabolic Demand During High-Intensity Intervals

Tristan Starling-Smith
Education PhD - Exercise Physiology PhD Trk

An Analysis of Teacher Decision-Making in Grading 10th Grade Student Writing in English Language Arts

Guy Swenson
Educational Leadership EdD - Executive

Using UDL to Enhance Science Instruction for Students with Executive Function Deficits

Rohana Swihart
Education PhD - Exceptional Education

An Analysis of 1:1 Digital Implementation and English Learner Enrollment and Performance on Advanced Placement English Examinations in a Large Urban School District

Mary Vetter
Educational Leadership EdD - Executive

Cycles of Inheritance: The Efficacy of Hand-Off Procedures for Student Run Conferences

John Wilhelm
Medicine

ENGINEERING, COMPUTER SCIENCE, AND MODELING AND SIMULATION

Proportional Power Sharing Control of Distributed Generators in Microgrids

Farzad Aalipour
Mechanical Engineering PhD

An Experimental Investigation of Single Micro Impinging Jet with Super-Critical Carbon Dioxide as Working Fluid

Stephen Adeoye
Mechanical Engineering PhD

Multi-Agent Collaborative Problem Solving Based on the Theory of Mind

Toktam Amanzadeh Oghaz
Computer Science PhD

Computational Modeling of Droplet Breakup in Hypersonic Flow

Caroline Anderson
Aerospace Engineering PhD

Considering Cognition: The Case for Integrating 4E Cognition into the VV&A Process

Nicholas Armendariz
Modeling and Simulation PhD

A Social Ecological Approach to Empowering Foster Youth to be Safer Online

Karla Badillo-Urquiola
Modeling & Simulation-ENGR PhD

Scalable Community Detection in the Heterogeneous Stochastic Block Model

Andre Beckus
Electrical Engineering PhD

A Localized Radial-Basis Function Meshless Approach to Modeling Multi-Scale Non-Newtonian Hemodynamics

Kyle Beggs
Mechanical Engineering PhD

Evaluating the Disinfection By-Product Formation Potential of a Highly Colored Volcanic Surface Water Supply

Paula Campesino
Environmental Engineering MSEnvE

Assisting Lower Body Movements Using Upper Limb Muscles During Prolonged Walking

Renoa Choudhury
Mechanical Engineering PhD

Hotspot Size Effect on Jet Impingement Cooling Performance

Tanvir Ahmed Chowdhury
Mechanical Engineering PhD

Additive Manufacturing to Create Antimicrobial Nitric Oxide Releasing Surfaces

Manjyot Kaur Chug
Materials Science & Engineering PhD

How Different Nucleotide States Affect Actin Filament Mechanics

Bryan Demosthene
Nanotechnology MS

Multiscale Investigation of Chemically Stabilized Bilgewater Emulsions Under Various Environmental Conditions

Daniela Diaz Hernandez
Environmental Engineering MS

Examining the Effects of Zinc Oxide Nanoparticles on a Silk Patch

Yifei Fu
Materials Science & Engineering PhD

Variable Resistance Suit

William Hardy
Mechanical Engineering MSME

Advanced Agile Additive (AAA) Manufacturing of Mg Alloy WE43 Microlattice Structures

Holden Hyer
Materials Science & Engineering PhD

Intelligent, Interactive and Intuitive Autonomous Robotic Cart (I3ARC)

Bhuvanesh Jeevarathinam
Data Analytics MS

Use-of-Force Simulator for Law Enforcement Handgun Qualification

Julie Kent
Modeling and Simulation PhD

Design and Characterization of HiPER-STAR Facility

Cory Kinney
Aerospace Engineering PhD

Using Dual-Layer Electroencephalography (EEG) to Improve the Fidelity of EEG Source Signals

Jinfeng Li
Mechanical Engineering PhD

CFD Based Assessment of Undulating Propulsion

George Loubimov
Aerospace Engineering MSAE - Thermofluid Aerodynamic Systems Design and Engineering

Work Function Extraction of BCN Thin Films From BCN/n-Si Heterojunction Devices

Shraddha Nehate
Electrical Engineering PhD

The Potential of Wave Energy Conversion to Mitigate Erosion in Coastal Regions of the United States

Cigdem Ozkan
Civil Engineering PhD

A Low-Cost Thermal Mapping Technique for Electronics Cooling Using Quantum Dots

Khan Mohammad Rabbi
Mechanical Engineering PhD

Utilizing Human-Centered Machine Learning to Develop and Improve Adolescent Risk Detection Systems

Afsaneh Razi
Computer Science PhD

Just in Time Readiness Assessment Framework For Surge Event Response

Chaithanya Renduchintala
Modeling and Simulation PhD

Oil Separation from Emulsified Oily Wastewater via Forward Osmosis (FO) Using an Aquaporin-Based PES Membrane

AnnMarie Ricchino
Environmental Engineering MS - Environmental Engineering Sciences

Interactive User Experiences with Visual Art-Based Feedback for Improving Balance Control

Lietzel Richardson
Mechanical Engineering PhD

Battery Degradation Modeling and Its Impact on Battery Health Management

Junchuan Shi
Mechanical Engineering PhD

The Effect of Microstructure and Annealing on the Protrusion of Through-Glass Via

Vishnu Shukla
Materials Science & Engineering PhD

Shock Tube Investigation of Aerothermodynamics Relevant to Hypersonic Vehicles

Clayton Sigler
Aerospace Engineering MSAE - Thermofluid Aerodynamic Systems Design and Engineering

Exploiting Dynamic Magnetic Fields for New Magnetorheological Fluid Damping Capability

Christian Vazquez
Aerospace Engineering PhD

Data-Driven Predictive Modeling of Tensile Behavior of Parts Fabricated by Cooperative 3D Printing

Ziyang Zhang
Mechanical Engineering PhD

FINE ARTS AND HUMANITIES

Why Women Writers are Taken Less Seriously than Men: A Feminist Viewpoint

Dolores Batten
Texts and Technology PhD

If Found

Hannah Huffman
Emerging Media MFA - Animation and Visual Effects

Portal Problem!

Ira Klages
Emerging Media MFA - Animation and Visual Effects

Hungry like a Wolf: Cyberstalking in the 21st Century

Alexandra Minnick
Gender Studies Certificate

Somerville College Novelists: Visualizing Author Networks in Early 20th Century Oxford

Abigail Moreshead
Texts and Technology PhD

Representations of Multiracial Student Identity in Their Literacy Practices Across Curricula

Anjelica Rechsteiner
English MA, Rhetoric and Composition

From Harbin, With Love: Exploring Life in a Twentieth-Century Borderland through Postcards

Rachael Rothstein-Safra
History MA

Effectiveness of Digital Interactive Experiment in Learning Outcome

Matin Salemirad
Emerging Media MFA

The Miss-Adventures of Molly & Sage

Nathaniel Shrage
Emerging Media MFA - Animation and Visual Effects

"He Calls it Reason": Considering the Theodicy of Faust: Part One in Terms of the Social Construction of Religion

Amanda Skutinsky
English MA - Literary, Cultural, and Textual Studies

Connecting with the Youths: Using the IDEA Model to Analyze Youth Minister Pedagogy

Lakelyn Taylor
Communication MA

Ophelia's Swan Song: A Minor Discourse of Femininity in Hamlet

Sara Thames
English MA - Literary, Cultural, and Textual Studies

The Swan - A Virtual Reality Film

Damian Thorn-Hauswirth
Emerging Media MFA - Animation and Visual Effects

Florida's Vanishing Heritage: Mapping Climate Change at Florida Cultural Heritage Sites

Levi Watson
History MA - Public History

Crossed

Dillon Williams
Emerging Media MFA - Animation and Visual Effects

HEALTH SCIENCES

Is Echo Intensity Associated with Age or Muscle Strength

Akash Bali
Physical Therapy DPT

The Synthesis and Characterization of Antimicrobial Copper/n-acetylcysteine Coated Iron Oxide Nanomaterial

Danya Belnour
Biotechnology MS

The Effects of Metformin and Probiotics in Slowing the Progression of Huntington's Disease

Taylor Blum
Nanotechnology MS

Parkinsonian Rats Show Spraying of CD68, an M2 Microglial Marker, After Aerobic Exercise

Alexandra Bunea
Anatomical Sciences Certificate

Gender Role Significance in Burnout and Retention Rates

Shannon Carmody
Master of Athletic Training

Investigating the Effects of Nanoparticles in Optogenetic-Based Deep Brain Stimulation

Kimberly Caudell
Nanotechnology MS

A Longitudinal Comparison of Concussion & Musculoskeletal Injury Incidence in Recreationally Competitive College Sports - A Retrospective Study

Chandler Collins
Physical Therapy DPT

Investigating the Acceptability and Feasibility of an Innovative Intergenerational Physical Activity Program

Kayla Combs
Physical Therapy DPT

Targeting Polyamine Metabolism in Human Pancreatic Cancers

Aiste Dobrovolskaite
Biomedical Sciences PhD

Functional Characterization of miR-299-3p that Target Androgen Receptor in Prostate Cancer

Kavya Ganapathy
Biomedical Sciences PhD

Skeletal Muscle Echo Intensity: Indicative of Voluntary or Involuntary Strength?

Ryan Girts
Education PhD - Exercise Physiology PhD Trk

The Effectiveness of the Core Muscle Activation on Increase Performance and Endurance in Individuals with Low Back Pain

Aracelis Guzman
Master of Athletic Training

Changes in Motor Unit Recruitment Thresholds as a Compensatory Strategy During Neuromuscular Fatigue

Kylie Harmon
Education PhD - Exercise Physiology PhD
Trk

Strain-Level Analysis of the IBD-Associated Fecal Microbiome

Sayf Al-Deen Hassounah
Biomedical Sciences PhD

Isometric Mid-Thigh Pull and Power-Force-Velocity Profiles During Jumping and Sprinting in Resistance-Trained Men and Women

Chad Herring
Education PhD - Exercise Physiology PhD
Trk

First Impressions of the Bedside Nurse: A Pilot Study

Sharon Imes
Nursing PhD

Asymptomatic Nephrolithiasis in Children: How Often Should Patients Receive Follow-up Ultrasound Imaging?

John Jayman
Medicine

A Retrospective Analysis of Group-Based Boxing Exercise On Measures of Physical Mobility In Parkinsonian Subjects

Kyle Joslyn
Physical Therapy DPT

Millennial Generation Nurses: A State of the Science Review of Current Strategies for Reducing Turnover

Angela Keith
Nursing PhD

Efficacy of Traditional Physical Therapy vs Otago-Based Exercise in Fall Prevention for ALF-Residing Older Adults

Sky Knott
Physical Therapy DPT

Form Does Not Equal Function: Fast Gait Speed in Older Adults is Best Predicted by Functional Performance

Daniel Komforti
Physical Therapy DPT

Impact of an Intergenerational Physical Activity Program on Children 6 to 12 Years Old

Kelly LaMaster
Physical Therapy DPT

Effectiveness of Novel Therapeutics Targeting Polyamine Biosynthesis and Transport in Pancreatic Tumor Progression and Anti-Tumor Immune Modulation

Sai Preethi Nakkina
Biomedical Sciences PhD

Role of Selenium Nanoparticles in Preventing Ferroptotic-Induced Neuronal Cell Death After Stroke

Ernesto Navarro Garcia
Nanotechnology MS

Validity and Reliability of NIH Toolbox® Compared to the Biodex Balance System SD M-CTSIB

Alexander Peller
Physical Therapy DPT

Early Screening and the Recognition of Scapular Dyskinesis

Julia Phillips
Master of Athletic Training

Association of Student Interprofessional Practice Experience with Interprofessional Attitudes

Bridget Presnell
Physical Therapy DPT

Investigating the Effects of Trigeminal Neuralgia on Oral Health and Potential Treatment Options

Idean Rezaei
Graduate Non Degree Seeking

Role of Klotho Beta in Colorectal Cancer Tumorigenesis

Michael Rohr
Biomedical Sciences PhD - MD/PhD

Is How We Group Data Important? Statistical Differences in Analyzing Independent Variables for Categorizing Fall Groups

Andrea Sarto
Physical Therapy DPT

Investigating the Role of Membrane Nanotubes in Preserving Neuronal Density in Strokes

Stephen Scheller
Nanotechnology MS

The Effects of Pain Neuroscience Education (PNE) on Pain Tolerance in a Healthy Population

Jeffrey Schmidt
Physical Therapy DPT

The Immediate Effects of Mobilization with Movement Versus Passive Stretch on Hip Range of Motion

Daniel Torres
Physical Therapy DPT

Correlation in Achieving Work-Life Balance and Satisfactory: Perspectives of Athletic Training

Emily Tran
Master of Athletic Training

18 Years of Service: A Study of Patient Care, Comfort, and Safety at the Saint Thomas Aquinas Free Medical Clinic

Rachel Truong
Medicine

The Effects of Lumbopelvic Hip Strength on a Golfer's Swing Performance

Brittney Webb
Master of Athletic Training

LIFE SCIENCES

Using CRISPR/Cas9 to Control Genes in Parkinson's Disease: Epigenetic Writers

Levi Adams
Biomedical Sciences PhD

Excess Cholesterol in a High Fat Diet Enhances Severity of NAFLD and Promotes Insulin Resistance

Jordan Beardsley
Biomedical Sciences PhD

E-cigarette Vape Exposure Potentially Increases Epithelial Inflammatory Response, DNA Damage and S. Aureus Oral Colonization

Alma Catala-Valentin
Biomedical Sciences PhD

Microplastic Cycling: Are Eastern Oysters, Crassostrea virginica, Capable of Excreting Microplastics?

Casey Craig
Biology MS

Doxorubicin-Induced Muscle Toxicity: A Novel Mechanism Involving Inflammation-Mediated Pyroptosis in Soleus Muscle

Fatima Bianca Dessouki
Biotechnology MS

Dietary Peroxidized Lipids Could Alter Gene Expression Profile in Intestinal Epithelial Cells

Nisreen Faizo
Biomedical Sciences PhD

Activin A and Macrophage-Induced Inflammation Contributes to the Pathogenesis of Barrett's Esophagus

Cheyenne Fedder
Biomedical Sciences PhD

Consuming a Carbohydrate-Protein Beverage Between Bouts of Exhaustive Intermittent Exercise Enhances Performance

Erica Goldstein
Education PhD - Exercise Physiology PhD
Trk

Single Cell Forensic Genomics: DNA Profiling of Micromanipulated Single Spermatozoa

Haley Hardin
Biotechnology MS

Patient Attitudes, Experiences Toward Health Care and the Frequency of Office Visits Among Medicare Beneficiaries with Type 2 Diabetes

Qing He
Big Data Analytics PhD

Gelsolin-Mediated Actin Filament Severing in Crowded Environments

James Heidings
Biotechnology MS

Deconvolution of Forensic DNA Mixtures by Probabilistic Genotyping and Micromanipulation with Enhanced DNA Typing of Single Cells

Kaitlin Huffman
Chemistry PhD

A Nested PCR Strategy for Recovering Highly Discriminatory Y-STR DNA Profiles from Trace Male DNA Samples

Anna Kimball
Forensic Science MS

Physiological Response to Varying Salinity Levels by Coastal and Inland Juvenile American Alligators (Alligator mississippiensis)

John Konvalina
Conservation Biology PhD

A Comparison of Sleep and Physical Activity Patterns Between Typically Developing Adolescents and Adolescents with Developmental Disorders

Nicholas Leahy
Education PhD - Exercise Physiology PhD
Trk

Bacteria Consortia Networks of The Healthy Human Gut Microbiome

Mark Loftus
Biomedical Sciences PhD

Development of an OWL2 Sensor to Detect Single Nucleotide Polymorphisms in Folded Analyte

Brittany Mueller-Mabry
Chemistry PhD

The Effects of a 10-Week Judo Program on Cortisol and Stress in Children with Autism Spectrum Disorder

Justine Renziehausen
Education PhD - Exercise Physiology PhD
Trk

MATHEMATICS, OPTICS, AND PHYSICAL SCIENCES

Segmental Aggregation and Structural Propensities of Amyloid Beta Peptide

Faisal Abedin
Physics PhD

Florida Prison Education Project - Physics and Everyday Thinking

Dave Austin
Physics PhD

Multi-Frequency Atomic Force Microscopy for Functional Nanoscale Analysis of Heterogeneous Systems

Chance Barrett
Electrical Engineering PhD

Sub-Two Cycle Pulse Generation from Enhanced Rotational Nonlinearity in Molecular Gas-filled Hollow-Core Fiber

John Beetar
Physics PhD

Exoplanetary Atmospheric Retrieval via Bayesian Machine Learning

Michael Himes
Physics PhD - Planetary Sciences PhD

High Throughput Exfoliation of Large Area Atomically Thin Two-Dimensional Semiconductors Through Sacrificial Copper, Nickel, or Aluminum Layer

Ammon Johnston
Physics PhD

Fourier Analysis of Simulated Plasma Induced Electrostatic Discharge Events for Spacecraft Materials

Eric Markowitz
Physics MS

Clustering in Sparse Popularity Adjusted Stochastic Block Model

Majid Noroozi
Mathematics PhD

Study of Doping of Sodium Azide on MoS₂-FET and its Effects on Biosensors

Gregory Shinaberry
Physics PhD

Experimental Observation of a Topological Phase Transition in Magnetic EuB₆

Christopher Sims
Physics PhD

Exploring the Photochemical Properties of Defect-Laden Hexagonal Boron Nitride

Fernand Torres-Davila
Physics PhD

The Effects of Airborne Organic Particles on Cloud Microphysics

Brett Young
Chemistry PhD

Jahn-Teller Effect in Three-Body Recombination of Hydrogen Atoms

Chi Hong Yuen
Physics PhD

SOCIAL SCIENCES, BUSINESS, AND HOSPITALITY MANAGEMENT

Trends in Unpaid Family Caregiving: A Study of Shifting Household Composition in Florida

Aliya Anjarwalla
Public Affairs PhD - Health Services Management and Research

Understanding Red Tide Through Lenses of Hospitality Employees

Frida Bahja
Hospitality Management PhD

Stakeholder Engagement for Sustainability: Partnerships for U.N. Sustainable Development Goals (SDGs) Implementation

Sean Beaudet
Public Administration MPA

"Waiting on Dorian": A Content Analysis of Memes Related to Hurricane Dorian Posted on Social Media Platforms

Laura Boutemen
Strategic Communication PhD

Bringing Home To Work: The Effects of Eldercare Demands on Work Related Strain

Hillary Chandler
Industrial and Organizational Psychology MS

Be a Champion at Home and at Work: Examining the Moderating Effects of Segmentation and Sleep on Eldercare Demands and Time Theft

Kinjal Chheda
Industrial and Organizational Psychology MS

Analysis of Larger Sized Housing Redevelopment within College Park

Heather Croney
Urban & Regional Planning MS

Newspaper Stories About Hurricanes

Rebecca Dupont
Communication MA

Exploring the Impact of 360 Enabled Imagery in Meeting Planner Site Selection Inspection

Jeremy Fairley
Hospitality Management PhD

Preliminary Investigations for Documenting Human Skeletal Remains in Obstructed Wooded Environments

Morgan Ferrell
Anthropology MA

Entering New Lands: Exploring International Students' Perception of Therapy and Mental Health Before and After Arriving to the United States

Hanifah Griffith
Applied Sociology MA

The Journey to Berlin: Identifying Migrant Routes

Jane Holmstrom
Integrative Anthro Science PhD

Generations Gap in Value Perception and Intention to Use Online Reviews in Travel Decision Making

Linh Le
Hospitality Management PhD

Reading the Mind Through the Lonely Eye: Social Cognition and Loneliness

Fernando Montalvo
Psychology PhD - Applied Experimental and Human Factors Psychology

Cognitive Challenge: How Students' Mental Models and Implicit Theories Impact Cognitive Load and Learning

Ecem Olcum
Psychology PhD - Applied Experimental and Human Factors Psychology

Chronicling Colonial Armies: An Analysis of American Newspaper Coverage of the Tirailleurs Sénégalais During World War I

Matthew Patsis
History MA

"But Were They Asking For It?": An Analysis of the Public's Empathy and Perception Towards Differentiating Levels of Victimization

Ciara Peebles
Applied Sociology MA

Covert Language: How Common Law Coverture Created the Legal Tradition of Disbelieving Women in the Face of the #MeToo Movement

Jax Rogero
Gender Studies Certificate

Gastrointestinal Health Mediates the Impact of Self-Reported Depression and Anxiety Symptoms on Health-Related Quality of Life in the Emerging Adult Population

Emily Ross
Psychology PhD - Clinical Psychology

Communicating the #Vape Crisis with Hashtags

Marissa Salas
Texts and Technology PhD

My Choice or Their Life

Aaron Scott
Communication MA

A Patriotic Adventure? Exploring Individual Motives for Conflict Participation in Ukraine: 2014-2018

Miroslav Shapovalov
Security Studies PhD

"I have faith in you young people": Measuring Racial Tolerance in Millennials Through the Color Blind Racism Lens

Andrea Smith
Applied Sociology MA

Police Officers' Perceptions of the New Frontier: Smart CCTV

Matthew Stephenson
Criminal Justice PhD

Hispanic Serving Institutions: Exploring the Depth of a Designation

Ashley Stone
Sociology PhD

Meeting in The Middle: The Role of Cultural Diversity in Spaceflight Exploration

Krisztina Szabo
Industrial and Organizational Psychology MS

Intimate Partner Homicide and Access to Services at the County Level

Kayla Toohy
Sociology PhD

A Quantitative Analysis of Casual Dining Sales Trends by Day of Week

Jonathan Van Dyke
Hospitality & Tourism Management MS

Reaching Young Voters: Do Young Voters use Social Media more than TV News?

Craig Wilding
Political Science MA

ORAL PRESENTATIONS

SESSION I: 10 – 11 A.M.

Leader-Follower Controls in Systems with Two Controllers

Raaed AlAzzawi
Electrical Engineering PhD

Future Storm Surge Scenarios from Pseudo-Global Warming Hurricane Simulations

Jeane Camelo
Civil Engineering PhD

Using Self-Paced Treadmills: Controller Sensitivities can Increase Gait Variability

Cesar Castano
Mechanical Engineering PhD

A Real-World Biomechanics Measurement and Analysis Suit

Surendar Devasundaram
Electrical Engineering MSEE

Observation of Topological Surface State in a Superconducting Material

Gyanendra Dhakal
Physics PhD

Cable-Driven Upper Body Exosuit (CUBE): A Bilateral Myoelectric Control

Rodrigo Duran
Mechanical Engineering MSME - Mechanical Systems

Simple Polypeptides as Templates for Tunable, Biomimetic Nanoparticle Synthesis

Allen Eyler
Materials Science & Engineering PhD

Near-Zero Temperature Coefficient of Resistivity (nz-TCR) of ALD TixSiyNz Films

Corbin Feit
Materials Science & Engineering PhD

Size-Dependent Activity for N2 Electroreduction on Metal Nanocatalysts

Lin Hu
Materials Science & Engineering PhD

High-Pressure Laminar Burning Velocity Measurements of Ethanol/Air Mixtures

Gihun Kim
Mechanical Engineering PhD

Additive Manufacturing of Copper-Based Alloy

Binghao Lu
Materials Science & Engineering PhD

Data-Driven Compound Flooding Analysis in Sabine Lake, Texas

Victor Malagon Santos
Civil Engineering PhD

Macromolecular Crowding Modulates the Organization and Mechanics of Actin Bundles Crosslinked by Regulatory Proteins

Jinho Park
Materials Science & Engineering PhD

Tracking the Ultrafast Photoinduced Reaction Dynamics of CD3I on CeO2 Thin Films

Md Afjal Khan Pathan
Physics PhD

Low Cost, Calibration-Free Ionophore-Based Ion-Selective Electrodes for Determination of Na, K and Heavy Metals

Mohammad Rostampour Kakroudi
Chemistry PhD

SLIM-ADC: Spin-Based Logic-In-Memory Analog to Digital Converter Leveraging SHE-Enabled Domain Wall Motion Devices

Soheil Salehi Mobarakeh
Computer Engineering PhD

DeepMalaria: Artificial Intelligence for Drug Discovery

Milad Salem
Computer Engineering PhD

“Tug-of-War” of a DNA in the Three-Dimensional Double Nano-Pore System

Swarnadeep Seth
Physics PhD

Molecular Encapsulation Selectivity of Polyelectrolyte Complex Micelles

Sachit Shah
Materials Science & Engineering PhD

Brain Dynamics and Movement Responses to Perturbations are not Coupled

Seyed Yahya Shirazi
Mechanical Engineering PhD

Sequence Patterning of Peptides with Increased Hydrophobic Content for Drug Delivery

Sara Tabandeh
Materials Science & Engineering PhD

Two-Level Multi-Objective Optimal Transactive Control for Commercial Buildings' Day-Ahead HVAC Scheduling

Guanyu Tian
Electrical Engineering PhD

A Numerical Method Study of Momentum Losses From Rough Surfaces

Jose Urcia
Aerospace Engineering MSAE - Thermofluid Aerodynamic Systems Design and Engineering

Evaluation of Chitosan-Hyaluronic Acid Scaffold Processing Parameters to Produce an Enhanced Breast Cancer Tumor Microenvironment

Zi Wang
Materials Science & Engineering PhD

Effect of Growth Conditions on the Electrical Properties of Large Area CVD Grown MoS2 Thin Films

Sajeevi Withanage
Physics PhD

3D Porous Chitosan-Chondroitin Sulfate Scaffolds Promote Epithelial to Mesenchymal Transition in Prostate Cancer Cells

Kailei Xu
Materials Science & Engineering PhD

ORAL PRESENTATIONS

SESSION II: 11:10 A.M. – 12:10 P.M.

A Fabrication Quality Assessment of a MEMS Based Piezoelectric Microphone for Aircrafts Noise Evaluation

Omar Ahmed
Materials Science & Engineering PhD

Direct Measurement of Nano-Sized Li Dendrite Growth Stress by In-Situ TEM

Megan Aubin
Materials Science & Engineering PhD

Investigation of a Novel Sample Type for Elemental Contaminant Quantification in Avian Predators

Jennifer Bouchenet
Biology MS

Treatment Wetland Organic Matter Reduction via Periodic Water Level Draw-Down

Paul Boudreau
Biology MS

Impact of Oyster Reef Restoration on Bird Populations in Mosquito Lagoon

Jessica Copertino
Biology MS

Adhesion and Dissipation in FeO Nanoparticles Collision

Baochi Doan
Materials Science & Engineering PhD

Impact of High Water Season on Living Shoreline Success and Methodology

Rebecca Fillyaw
Biology MS

Modelling Tree Growth Rates of Florida Forests to Determine Carbon Capture and Residence Time

Alicia Formanack
Biology MS

Characterization and Implications of the DosR Regulon in Mycobacterium abscessus During Stress Response

Breven Gaines
Biomedical Sciences PhD

Clinically Immersive Experiences Among Health Professional Students and Interprofessional Attitudes: Are We Staying Afloat, In Stagnant Waters, or Drowning in Immersion?

Emiangeliz Gonzalez Luna
Physical Therapy DPT

Rule Space Clustering

Charles Harrison
Big Data Analytics PhD

Soil Biogeochemistry and Microbial Activity Along the Marsh-to-Mangrove Transition

Sarah Harttung
Conservation Biology PhD

TNF- α Inhibitors Through Notch-1 Signaling Modulate Immune Defense and Exacerbate Bacterial Infection in Autoimmune Disease

Esra'a Keewan
Biomedical Sciences PhD

Predicting the Effects of Disturbance Related Fish Kills on Fish Communities Along Florida's Coast

Dakota Lewis
Biology MS

Assessing the Response of Mangrove Snapper (*Lutjanus griseus*) Trophic Dynamics to Oyster Reef Restoration in the Indian River Lagoon

Jennifer Loch
Conservation Biology PhD

Exploring Student Reflection After Virtual Simulation

Valorie MacKenna
Nursing PhD

Quantifying the Effects on Fish and Mobile Decapod Communities Following Habitat Restoration in a Dynamic Coastal Estuary

Richard Mahoney
Biology MS

The Use of Cerium Oxide Nanoparticles as an Antibacterial Agent in Orthopedic Implants

Kari Martyniak
Biomedical Sciences PhD

Osmolarity Affects Sodium Transport Across Mouse Lingual Tissue

Angela Mohrman
Biomedical Sciences PhD

Change Detection of Hydrologically Restored Subtropical Freshwater Wetlands Using Remote Sensing

Sarah Parker
Biology MS

A Mystery Solved: Why Smoke Extract Worsens Symptoms in Smokers with Crohn's Disease and not Ulcerative Colitis? Gut MAP!

Dania Qasrawi
Biomedical Sciences PhD

A Database for 20th Century Global Storm Surges

Michael Getachew Tadesse
Civil Engineering PhD

Genetic Underpinnings of Host Manipulation by Ophiocordyceps as Revealed by Comparative Transcriptomics

Ian Will
Integrative Consvr Biology PhD

Early Prediction to Identify At-Risk Student with High Level of Precision

Jianbin Zhu
Big Data Analytics PhD

ORAL PRESENTATIONS

SESSION III: 12:20 – 1:20 P.M.

Dual Language Teachers' Beliefs and Practices Regarding Effective Second Language Instruction: A Qualitative Study

Deddy Amrand
Education PhD - Teaching English to Speakers of Other Languages

Steady Hand at the Wheel: How Perceived Movement Influences Consumer Responses to Service Failures

Lam An
Business Administration PhD - Marketing

Testing the Factor Structure of the College Success Factors Index 2.0

Suat Babayigit
Education PhD - Methodology, Measurement and Analysis

Strength-Based Influences on the Efficacy of Rest-Redistribution During Barbell Squats

Ariel Boffey
Education PhD - Exercise Physiology PhD Trk

The Elite Meroitic Experience on Sai Island, Sudan: Using Stable Isotope Analysis to Identify Patterns Related to Sex and Age for the Interpretation of Social Identity

Alexandria Brock
Integrative Anthro Science PhD

A Multilevel Study of Body Mass Index Effect on Children's Mathematics Performance: The Analysis of ECLS-K 2011

Yuting Chen
Education PhD - Methodology, Measurement and Analysis

Autonomic Nervous System Response and Behavior During Exercise and Short-Term Recovery Following Energy Drink Consumption

Nicolas Clark
Education PhD - Exercise Physiology PhD Trk

Are Eye-Gaze Behaviors Related to Scientific-Reasoning Actions? Quantifying 21st Century Skills Using Eye Tracking During Game-Based Learning

Elizabeth Cloude
Instructional Design and Technology MA

Changes to Muscle Strength and Function Following Repeated Bouts of Eccentric Exercise on Dominant and Non-Dominant Elbow Flexors

Nicholas Coker
Education PhD - Exercise Physiology PhD Trk

Determinants of Burnout in Certified Athletic Trainers

Peter Dawry
Master of Athletic Training

The Influence of Autonomy on Learners' Affective States During Reading within a Narrative-Centered Game-Based Learning Environment

Daryn Dever
Instructional Design and Technology MA

Addressing Patient-Provider Communication Needs in Rural Settings: Acknowledging the Growth and Diversity Within the Latino Population

Cristina Figueroa
Graduate Non Degree Seeking - Grd Stdt seeking Pre Reqs

Narrowing English Learner (EL) Achievement Gaps: A Multilevel Analysis of an EL-Infused Teacher Preparation Model

Nirmal Ghimire
Education PhD - Teaching English to Speakers of Other Languages

The LEFT, Standing Long Jump, and Single Leg Hop as Predictors of Lower Extremity Injury in Collegiate Athletics: A Critically Appraised Topic

Jessica Harris
Master of Athletic Training

Watch and Learn: Examining Bilingual Children's Language Acquisition Through Television

Patricia Jaramillo
Early Childhood Devel&Educ MS

The Parent Trap: How Oversharenting Impacts Observer Perceptions of Parents

Sona Klucarova
Business Administration PhD - Marketing

Dynamic Customer Churn Prediction in Banking Industry

Hoiyin Leung
SAS Data Mining Certificate

Assessing Dependence Between Drivers of Compound Flooding Around the Contiguous United States Coastline

Ahmed Nasr
Civil Engineering PhD

Life Partners' Perceptions of Affective, Behavioral and Cognitive Reactions Experienced by their Partner Who Stutters

Randy Panzarino
Communication Sciences and Disorders MA

Effects of Neurophysiological Pain Education in Patients with Kinesiophobia Linked to Chronic Low Back Pain: A Critically Appraised Topic

Mollie Przybocki
Master of Athletic Training

The Sinkhole "Problem" in Central Florida: Geotechnical Investigation Tools to Discern Between Sinkhole Vulnerability or Gullibility

Ryan Shamet
Civil Engineering PhD

Engineer Surface Redox-Acid Pair Sites for Efficient Removal of NO_x

Ge Song
Environmental Engineering PhD

Large-Scale Algal Cultivation Strategies for Carbon Capture

Ruth Spierling
Environmental Engineering PhD

Aging Moderates the Impact of Disclosure Forms on Financial Decision Making

Xiaoqing Wan
Psychology PhD

Modeling Metacomprehension Monitoring Accuracy with Eye Gaze on Informational Content in a Multimedia Learning Environment

Megan Wiedbusch
Instructional Design and Technology MA

ORAL PRESENTATIONS

SESSION IV: 1:30 – 2:30 P.M.

The French Far-Right and Immigration

Alexander Aders
Political Science MA

Enhancing Students' Behaviors in the City of Taif, Saudi Arabia Using the Modified Positive Behavior Intervention and Support (Modified PBIS)

Sami Algethami
Education PhD - Exceptional Education

Held in the Grip of the Local and Federal Governments: Why Puerto Rico Has Faced an Inappropriate and Uncoordinated Emergency Response to Hurricane Maria

Sara Belligoni
Security Studies PhD

Spectral Silence: Communicative Failings and Repressed Trauma in The Turn of the Screw

Jonathan Burnette
English MA - Literary, Cultural, and Textual Studies

Barriers of Health Access in Pine Hills Area, Orlando, Florida and Policies Addressing Them

Xian Cao
Public Affairs PhD - Health Services Management and Research

Why Do Teachers Stay? A Reverse Look Into the Teacher Shortage

Timara Davis
Education PhD - Exceptional Education

The Influence of Tourism on Real Estate Prices in the Great Orlando Area

Marcos de Medeiros
Hospitality & Tourism Management MS

Discrimination Against Muslims, Religious Networks and Terrorist Attacks in Western Europe: The Cases of United Kingdom, France, Germany and Italy

Davide Dell'Isola
Security Studies PhD

Hidden in Plain Sight: Assessing the Spatial Distribution of Illicit Massage Businesses in the State of Florida

Madelyn Diaz
Sociology PhD

A Phenomenological Inquiry of Mass Shooting Survivors' Experiences of Loss and Growth

Amanda DiLorenzo
Education PhD - Counselor Education

Instructional Communication as a Primary Function of Communities of Practice During Crises

America Edwards
Communication MA

Emerging Methodology in Tourism and Hospitality Research: Applying Moment-Based Methods for Measuring Visitor Experience

Maksim Godovykh
Hospitality Management PhD

Freud, Feminism, and Ghosts: Liminality Within Henry James's The Turn of the Screw

Kendall Hall
English MA - Literary, Cultural, and Textual Studies

Climate, Security and Survival of Women and Households in the Nigerian North-East

Jennifer Joel
Security Studies PhD

Postcolonial Hauntings: Ghosts as Historical Metaphors in Henry James's 'The Turn of the Screw'

John Lancaster
English MA - Literary, Cultural, and Textual Studies

Adult, International Students' Shared Speaking and Listening Experiences with the Utilization of Pecha Kucha Presentations in a US EAP Program

Van Thi Hong Le
Education PhD

F2F or Online? A Pilot Study of Preservice Teachers' Learning Preferences and Outcomes

Courtney Lopas
Education PhD - Reading Education

E-Government and Its Implications for Accessibility, Transparency, and Government Performance

Jeannetta Maxena
Public Administration MPA

Project Florida Real-Time: Closing the Real-Time Transit Info App Gap with the General Transit Feed Specification (GTFS) Real-Time Extension

David Moran
Texts and Technology PhD

Zephaniah Kingsley v. Thomas Jefferson: The Legal and Social Case of Kinship and Legitimacy in Interracial Families

Samuel Ortiz
History MA

Predicting the Persistence of Traditional and Nontraditional Undergraduate University Students Using the Psychosociocultural Model

Lauren Remenick Maroon
Education PhD - Higher Education

Casting Youth Performers: An Educational Take on a Professional Practice

Scott Savage
Theatre MFA - Theatre for Young Audiences MFA

Pregnant Killers: A Five-State Analysis of Pregnancy-Associated Intimate Partner Homicides

Sonya Spence
Applied Sociology MA - Domestic Violence

Territorial Salience: A Better Predictor for Territorial War and Peace

Karthikeyan Thiagarajan
Security Studies PhD

Participating in 12-step Support Groups While Using Medication for Opioid Use Disorder (MOUD): Individuals' Experiences With Stigma

Rachel Totaram
Public Affairs PhD - Health Services Management and Research

RESEARCH INTENSIVE COURSE PRESENTATIONS

SESSION I: 9:30 – 11 A.M.

The Effects of Plant Based Diets on Symptoms of Stage 1 Dementia

Mae Abukhadrah, Mostafa Diab, Tillie Schumann, Sumeen Sajid, Meredith Saucedo, Nicole Parsels
Mentor: Dr. Michael J. Rovito (Health Sciences)

The Association Between Vitamin Deficiencies and Insomnia in American College Students

Genesis Brador, Jazmin Alvarez, Gisselle Halabi Molli, Juan Reyes, Emily Kukielka, Nidhi Patel
Mentor: Dr. Michael Rovito (Health Sciences)

Comparison of Water Quality Parameters between Lacustrine and Palustrine UCF Campus Wetlands

Melanie Buziak, Janet O'Leary, Ashley Boggs, Kira Allen, Steven Steiniger
Mentor: Dr. Lisa Chambers (Biology)

Effects of Marijuana Use through Peer Influence on Anxiety in College Freshmen

Katrina Claydon, Iyat Neimat, Anthony
Mentor: Dr. Michael J. Rovito (Health Sciences)

Burning Rubber while Torching Ecosystems: Microplastics Associated with Car Tires in our Waterways

Grace Clayton, Nathaniel Abernathy, Veronica Ospina, Chase Paquette, Matthew Myers
Mentor: Dr. Linda Walters (Biology)

Examination of Lichen Communities as a Proxy for Air Quality at University of Central Florida

Steven DeGarmo, Angela Ferebee, Taylor Nelson, Joseph Wilbur
Mentor: Dr. Lisa Chambers (Biology)

How'd You Get Here? Methods of Invasive Plant Species Introduction to the State of Florida

Mayerlin Fischbach, Mari Irving
Mentor: Dr. Chase Mason (Biology)

Crystallization of the Fusion Protein GST-EGFP

Nancy Flynn
Mentor: Dr. Robert Borgon, Nicole Verity (Biomedical Sciences)

Microplastics, It's What's for Lunch!

William Giles, Julia DeMayo, Miranda McClanahan, Abigail Traver, Nicole Rivera
Mentor: Dr. Linda Walters (Biology)

Tracking the Movement of Invasive Species Entering Florida via E-commerce

Jason Litwak, Lyndsey Chute, S. Elizabeth Auricchio, John Buzby, Aspen Oudshoorn
Mentor: Dr. Linda Walters (Biology)

Identifying Bacterial Contaminants in UCF Food Court Restaurants

Martina Radwanski, Sarah Welter
Mentor: Dr. Robert Borgon, Nicole Verity (Biomedical Sciences)

Comparing the Biodiversity of Birds in Emergent and Forested Wetlands

Shurooq Saryoul, Matthew Blow, Madison Schmidt, Taylor Toro, David Yannick
Mentor: Dr. Lisa Chambers (Biology)

Comparing the Influence of Vegetation Coverage and Water Depth on Organic Matter Accumulation in a Central Florida Basin Marsh

Jessica Scales, Karyssa Kemp, Trevor Sweeney, Steven Elsaid
Mentor: Dr. Lisa Chambers (Biology)

THE "DISNEY LOOK": How Disney Utilizes Cast Member Appearances to Maintain The Disney Brand

Katharine Smith
Mentor: Dr. Christian Ravela (Psychology)

Investigating the Abundance and Diversity of Microplastics between Stormwater Ponds and Lakes on the Campus of the University of Central Florida

Megan Witt, Lindsey Relue, Laurens Vermeulen, Tessa Brant
Mentor: Dr. Linda Walters (Biology)

INDEPENDENT PROJECT PRESENTATIONS

POSTER SESSION I: 9:30 – 11 A.M.

ARTS AND HUMANITIES

The Study of Free Will in the East and the West

Nicholas Colecio
Mentor: Dr. Louise Kane (English)

Allen Ginsberg's "Kaddish": A Definitive American Mid-Twentieth-Century Poem

Teddy Duncan
Mentor: Dr. William Fogarty (English)

Devotional Authorship and Literary Sponsorship: Analyzing Religious Devotional Literature as a Reaction to Societal Values and Issues

Nathanael Ettel
Mentor: Dr. Jeanine Viau (Philosophy)

A Transnational Look at the Modern Woman

Isabella Hardesty
Mentor: Dr. Louise Kane (English)

Macho Remixes: A Collection of Writings

Daniel Hernandez
Mentor: Dr. Cecilia Rodriguez Milanes (English)

Essential Prerequisites for the Professional Musician

Theodore Jackson
Mentor: Dr. Thad Anderson (Performing Arts)

Enhancement of Critical Foreign Language Curricula through Technology

Taylor Jenko
Mentor: Dr. Alla Kourova (Modern Languages and Literatures)

Mapping Flu Mortality in Florida, 1918-1919

Andrew Kishuni
Mentor: Dr. Connie Lester (History)

Motion Without Movement

Jamie Lachnicht
Mentor: Michael Cabrera (Visual Arts and Design)

Theatre for the Gods: the Overlap of Theatre and Ritual

Susan Liss
Mentor: Dr. Chloe Rae Edmonson (Theatre)

Connecting Capabilities Responsibly: A Report of a Student-Run Global Health Cooperation in Mare-Brignol, Haiti
Shreya Rao
Mentor: Dr. Luciana Garbayo (Philosophy)

ENGINEERING, OPTICS AND PHOTONICS, AND COMPUTER SCIENCE

Understanding the Challenges Case Managers Face Regarding Foster Teens' Online Safety

Denielle Abaquita
Mentor: Dr. Pamela Wisniewski (Computer Science)

Implementation of Compressive Sensing Using AMP for Probabilistic Inference Simulation

Adedoyin Adepegba
Mentor: Dr. Ronald DeMara (Electrical and Computer Engineering)

Sintering Behavior, Structural, And Catalytic Properties of Ytterbium Oxide (Yb₂O₃)

Alina Aftab
Mentor: Dr. Nina Orlovskaya (Mechanical and Aerospace Engineering), Dr. Richard Blair (Florida Space Institute)

A Novel Ca²⁺ Detection Sensor for Direct Monitoring of Membrane Fouling in Nanofiltration

Amaya Bajorek
Mentor: Dr. Woo Hyoung Lee (Civil, Environmental, and Construction Engineering), Dr. Karin Chumbimuni-Torres (Chemistry)

Ignition Delay Time Measurements of Highly Diluted Oxy-Methane Mixtures

Jessica Baker
Mentor: Dr. Subith Vasu (Mechanical and Aerospace Engineering)

Landing Kinematics of Ae. aegypti Mosquitoes

Jasmine Balsalorbe
Mentor: Dr. Andrew K. Dickerson (Mechanical and Aerospace Engineering)

A Better Way to Cool Your Phone: The Design

Jordon Bennett
Mentor: Dr. Shawn Putnam (Mechanical and Aerospace Engineering)

Exploration of Nozzle Circumferential Flow Attenuation in Rotating Detonation Engines

Zane Berry
Mentor: Dr. Kareem Ahmed (Mechanical and Aerospace Engineering)

The Hydrodynamic Length Scale of a Detonation Wave

Karena Boyd
Mentor: Dr. Kareem Ahmed (Mechanical and Aerospace Engineering)

Comparative Study on Clock Structures for Nanomagnetic Logic

Precious Grace Brazil
Mentor: Dr. Deliang Fan (Arizona State University)

Microbe-resistant Hybrid Membranes for Healing Burns, Wounds and Scars

Jodie Chen, Kasey Rigby
Mentor: Dr. Kausik Mukhopadhyay, Dr. Kaitlyn Crawford (Materials Science and Engineering)

Synthesis and Characterization of Water-Dispersible Super-Paramagnetic Iron Oxide

Nicole Clark
Mentor: Dr. Swadeshmukul Santra (Materials Science and Engineering)

Flame-Vortex Dynamics in a Model Ramjet Combustor

Chandler Crimmins
Mentor: Dr. Kareem Ahmed (Mechanical and Aerospace Engineering)

Effect of Platform Oscillations on the Flow Field of an Off-Shore Wind Turbine using Particle Image Velocimetry

Juan Escudero
Mentor: Dr. Samik Bhattacharya (Mechanical and Aerospace Engineering)

Using Machine Learning to Identify Access Patterns in Optimized Data Storage Implementations

Shaneal Findley
Mentor: Dr. Jun Wang (Electrical and Computer Engineering)

New Conditional Lower Bounds for Edit Distance on K Strings

Gary Hoppenworth
Mentor: Dr. Sharma Thankachan (Computer Science)

Developing a Stress Sensing Alumina Paint that can be Applied to Aircraft for Nondestructive Evaluation

Perla Latorre, Ryan Hoover
Mentor: Dr. Seetha Raghavan (Mechanical and Aerospace Engineering)

IoT-Enabled Smart Mobility Devices for Aging and Rehabilitation

Nafisa Mostofa
Mentor: Dr. Damla Turgut (Computer Science)

Evaluating Ecosystem Services of Intact Shorelines and Oyster Reefs in Indian River Lagoon: A Meta-Analysis of Hydrodynamics and Sediment Carbon Storage

OlaToyin Olasimbo, Jordyn Washington, Christopher Hagglund
Mentor: Dr. Kelly Kibler (Civil, Environmental, and Construction Engineering)

Numerical Simulation of a Nickel-Based Superalloy Under Creep-Fatigue, Thermomechanical Fatigue, and Creep-Thermomechanical Fatigue

Devin O'Neal
Mentor: Dr. Ali Gordon (Mechanical and Aerospace Engineering)

Rapid Orbital Motion Emulator (ROME)

Hunter Quebedeaux, Ryan Ketzner
Mentor: Dr. Tarek Elgohary (Mechanical and Aerospace Engineering)

The Effect of Cardiopulmonary Functions in Measuring Respiratory Sinus Arrhythmia and Heart Rate Variation by Utilizing Various Breathing Exercises

Ankur Ravikanth, Seren Ozoglu, Brinna Desai
Mentor: Dr. Hansen Mansy (Mechanical and Aerospace Engineering)

Florida Electricity Prediction Using Machine Learning

Lily Schleider
Mentor: Dr. Qipeng Phil Zheng (Industrial Engineering and Management Systems)

Thermal Performance of a Novel Flexible Cooling System

Tulio Tavares
Mentor: Dr. Shawn Putnam (Mechanical and Aerospace Engineering)

HEALTH SCIENCES

The Perception, Usage, and Knowledge of Moringa Oleifera in Mare-Brignol, Haiti after Increased Education and Access

Preethashree Anbukkarasu, Phillip Saad, Nichika Holdrum, Chinelo Germain, Leticia Emi Ebihara, Archi Patel
Mentor: Dr. Mary Schmidt-Owens (Biomedical Sciences)

Factors Associated with Diet Quality Scores Among Adult Cancer Survivors: Results from NHANES 2005-2016

Rachael Bernardo, Julia Velazquez
Mentor: Dr. Eunkyung Lee (Health Sciences)

Inter-Rater Reliability and Intra-Rater Reliability of Synchronous Ultrasound Imaging and Electromyography Measures of Lumbopelvic-Hip Muscle Complex

Courtney Caputo, Sarah Akbarpour
Mentor: Dr. L. Colby Mangum, Dr. Kristen Schellhase (Kinesiology and Physical Therapy)

The Effect of Interventions on Radiotherapy-induced Skin Toxicity in Breast Cancer Patients: A Systematic Review

Claudia Figueroa, Rose Gelin
Mentor: Dr. Eunkyung Lee (Health Sciences)

Hospital Footwear as a Vector for Organism Transmission

David Frederick
Mentor: Dr. Brian Peach (Health Sciences)

The Perception and Knowledge of E-Cigarette use among College Students

Kayla Garcia
Mentor: Dr. Katia Ferdowsi (Health Sciences)

Caring for Dying Infants: Health Care Provider Attitudes and Experiences with Neonatal Palliative Care

Marie Hamel
Mentor: Dr. Susanny Beltran (Social Work)

Grammatical Errors in Early Sentence Productions of 5-Year Olds Using Augmentative and Alternative Communication

Kasandra Hernandez
Mentor: Dr. Jennifer Kent-Walsh, Carolyn Buchanan (Communication Sciences and Disorders)

Understanding Medical Error in Surgical Stapler Use: A Philosophical and Scientific Analysis

Jacob Howard
Mentor: Dr. Luciana Garbayo (Philosophy)

The Effect of Estrogen on Diet Induced Obesity

Anna Jurlina
Mentor: Dr. Timothy Gilbertson (Biomedical Sciences)

The Relationship Between Community Health Worker Supply and the Rate of Preventable Hospitalizations of Rural Latinos with Diabetes

Danielle Mapp
Mentor: Dr. Judith Ortiz (Health Sciences)
Dr. Richard Hofler (Economics)

The Influence of Mental Imagery on Myofascial Restrictions

Juan Rodriguez
Mentor: Dr. William Hanney (Kinesiology and Physical Therapy)

Effect of Short-term Vitamin D Supplementation on Blood Pressure in Vitamin D-deficient Hypertensive African American Adults

Anika Saxena King
Mentor: Dr. Keith Brazendale (Health Sciences)

Tobacco Control Policies at Ten Largest Public Universities in Florida and UCF Students' Support for Smoke-Free Policy

Nour Tanbari
Mentor: Dr. Julia N. Soulakova (Biomedical Sciences)

LIFE SCIENCES

Identification of Wnt7a, Dkk2, Mlxip1, and Rtl1 Genes as a Target of Alcohol-Induced Gene Repression in the Embryonic Heart: Implications for Congenital Defects Due to Maternal Binge Drinking

Shani Abraham, Chad Lindo, Erika Lytle, Thuy Tien Nguyen
Mentor: Dr. Steven Ebert (Biomedical Sciences)

A Study of the Interaction Between Microplastics and Vibrio Parahaemolyticus in Coastal Aquatic Environments

Valentina Acosta Borreros, Stephanny Rodriguez Cordero
Mentor: Dr. Melanie J. Beazley (Chemistry)

Investigating the Relationship Between Hypothyroidism and Migraines and Potential Treatments

Alexandra Adair

Mentor: Dr. Camilla Ambivero (Biomedical Sciences)

Beer-o-Matics: A Bioinformatics Study of Biofilms and Microbes in Beer Lines

Laurie Agosto

Mentor: Dr. Sean Moore (Biomedical Sciences)

Identification of Druggable Targets and Efficacy for Treatment of Schwannomatosis

Abdulrahman Allaf

Mentor: Dr. Cristina Fernandez-Valle (Biomedical Sciences)

Beetle Babies: Investigating Effects of Polystyrene Consumption on Gut Microbiome Composition in Mealworms and Superworms

Victoria Allanson

Mentor: Dr. Anna Forsman (Biology)

What Factors Cause Congenital Heart Diseases in Fetuses During Pregnancy?

Ashante Antenor

Mentor: Dr. Raheleh Ahangari (Biomedical Sciences)

The Effects of Agrochemical 2,4-D on *Aedes aegypti* Life History Traits

Alexandra Aybar, Muhammad

Parupia

Mentor: Dr. Kenneth Fedorka (Biology)

Investigation of Planetary Formation through Granular Cohesion Experiments in Microgravity

Yeniz Azconovieta

Mentor: Dr. Joshua Colwell, Dr. Adrienne Dove (Physics)

Characterization of a Label-Free Florescent Assay for Point Mutation Discrimination based on Split Aptamers

Shannon Beaton

Mentor: Dr. Yulia Gerasimova (Chemistry)

Investigating the Effects of Green Light as an Alternative Treatment of Photophobia for Migraineurs

Jonathan Benjamin

Mentor: Dr. Camilla Ambivero (Biomedical Sciences)

In Situ Cultivation of Potential PAH Degrading Bacteria from Coastal Sediment

Kyle Benkel

Mentor: Dr. Melanie Beazley (Chemistry), Dr. Anna Forsman (Biology)

Sensing Symbiosis: Investigating a Link Between Magnetotactic Bacteria and Cartilaginous Fishes using Genomics

Elizabeth Boggs, Anthony Hevia

Mentor: Dr. Robert Fitak (Biology)

Isolation and Characterization of Embryonic Stem Cell-Derived Exosomes as a Cell-Free Therapy

Salma Bouchibti

Mentor: Dr. Dinender Singla (Biomedical Sciences)

Nanoparticle Impact on Oogenesis using the *Drosophila* Model

Kirsten Bouck

Mentor: Dr. Laurence von Kalm (Biology)

Understanding the Molecular Effects of Polyamine Blockade Therapy in PDAC

Jasmine Brown

Mentor: Dr. Deborah Altomare (Biomedical Sciences)

Effect of Multiple Sclerosis on Cognition and the Positive Influence of a Cognitive-Occupation Based Program

Grace Bundz

Mentor: Dr. Mohtashem Samsam (Biomedical Sciences)

Investigating the Effects of Docosahexaenoic acid and Leptin Receptor Upregulation in Pediatric Leukemia

Jacqueline Conyers

Mentor: Dr. Mohtashem Samsam (Biomedical Sciences)

The Role the Gut Microbiome Can Play in Amyotrophic Lateral Sclerosis

Kiera De Arellano

Mentor: Dr. Mohtashem Samsam (Biomedical Sciences)

Side effects of Cushing's Syndrome on Pregnancy in Pregnant Female and Fetal Development

Camelia Del Valle

Mentor: Dr. Raheleh Ahangari (Biomedical Sciences)

Computational Methods Used in Preliminary Drug Design: Predicting Peptide Interactions with RNA Motifs

Laurence Dugan

Mentor: Dr. Kersten Schroeder (Biomedical Sciences)

The Effects of Sleep Deprivation on Mental Health and Neurological Disorders

Gabriella Fernandez

Mentor: Dr. Raheleh Ahangari (Biomedical Sciences)

Cross-Talk between PAINT-1 and the Tumor Suppressor Cluster miRNA 17-92a in Prostate Cancer

Elizabeth Fernandez Paz, Ayman Khatib

Mentor: Dr. Ratna Chakrabarti (Biomedical Sciences)

Investigating the Need for Gender-Based Treatment Protocols for Concussion in the Emergency Department

Destiny Fillmer

Mentor: Dr. Mohtashem Samsam (Biomedical Sciences)

Capabilities of Metal Extraction Along Florida Roads by the Sunflower *Helianthus debilis*

Mayerlin Fischbach

Mentor: Dr. Eric Goolsby, Dr. Chase Mason (Biology)

Investigating the Use of Gold Nanoparticles in Muscle Regeneration

Marco Foreman, Connor Harmon

Mentor: Dr. Raheleh Ahangari (Biomedical Sciences)

How can it Live there? Ecological Niche Modeling of *Helianthus* using R

Maxwell Gebhart

Mentor: Dr. Chase Mason, Dr. Erik Goolsby (Biology)

Save the Bracts for Last

Kaley Haff

Mentor: Dr. Eric Goolsby (Biology)

The Role of 5-Alpha Reductase Inhibitors in the Chemoprevention of Prostatic Adenocarcinoma

Kevin Healey

Mentor: Dr. Mohtashem Samsam (Biomedical Sciences)

The Mechanism of Pyroptosis: An Inflammation-Mediated Cell Death

Bruno Kallas

Mentor: Dr. Dinender K. Singla (Biomedical Sciences)

Frabin, a RhoGEF, Promotes Pancreatic Cancer Progression

Ayman Khatib
Mentor: Dr. Ratna Chakrabarti
(Biomedical Sciences)

Psychedelic Medicine and the Attenuation of Depressive Symptoms

Andrew Laino
Mentor: Dr. Mohtashem Samsam
(Biomedical Sciences)

Constitutively Active Rheb-mCherry Cloning Strategy for Co-Transfection in Neuronal Neuro2a and F11 Cell Lines

Leticia Lenkiu, Alex Balfour, Linda Gavric, David Engel
Mentor: Dr. Alicia Hawthorne (Biomedical Sciences)

Overcoming Plants Blindness: Tropisms

Caroline Luce, Logan McCaskill
Mentor: Dr. Rani Vajravelu (Biology)

Stable Isotope Analysis of an Invasive Crab Species, *Charybdis hellerii*, in the Indian River Lagoon

Justin Meyer
Mentor: Dr. Geoffrey Cook (Biology)

Investigating the Potential Role of Dopaminergic Agonists in the Treatment of Uterine Fibroids

Mukonyo B, Valere L, Worley M
Barb ar Mukonyo, Lynn-Caelle Valere
Mentor: Melissa Worley (Biomedical Sciences)

The Effects of Agriculture Herbicide Pendimethalin on the Immune Function of *Aedes aegypti* and its Ability to Vector Diseases

Kassady Perkinson, Dania Rodriguez-Hernandez
Mentor: Dr. Kenneth Fedorka (Biology)

The Role of UBXN7 Scaffold Protein in the Regulation of HIF-1 α and NRF2 Transcription Factors

Diana Quiroga
Mentor: Dr. Antonis Zervos (Biomedical Sciences)

Otolith Size Relationships with Geographic Location and Fish Size of Atlantic Croaker, *Microprogonias undulatus*

Lindsey Relue
Mentor: Dr. Geoffrey Cook (Biology)

MUL1: A Mitochondrial Protein with Potential Therapeutic Function Against Parkinson's Disease

Kevin Reyes
Mentor: Dr. Antonis Zervos, Dr. Lucia Cilenti (Biomedical Sciences)

Is the Zombie Ant Phenomenon in Part a Product of a More Generalized Stress Response?

Zaynah Shahab, Renee Ouellette
Mentor: Dr. Charissa De Bekker (Biology)

Analyzing the Effect of 4R on Macrophages to assess its Efficacy as a Post-Ischemic Inflammatory Modulator

Sandeep Sreerama
Mentor: Dr. Kiminobu Sugaya (Biomedical Sciences)

In Vivo Characterization of miR-299-3p in Prostate Cancer Xenograft Animal Models

Stephen Staklinski
Mentor: Dr. Ratna Chakrabarti
(Biomedical Sciences)

Exploration of Nasal Microbiota Associated with Non-Carriage of *Staphylococcus aureus*

Meera Sundar, Ana Lopez
Mentor: Dr. Amy Cole, Dr. Alex Cole
(Biomedical Sciences)

Elucidating the Fate of the Cytolethal Distending Toxin "A" Subunit After Cell Binding.

Nalysha Torres Mangual
Mentor: Dr. Ken Teter (Biomedical Sciences)

Investigating the Potential Role of Neuroinflammation in Addictive Behaviors

Samantha Totty, Marissa Dyer, Nicole Hancock, Jillian Mezo
Mentor: Melissa Worley (Biomedical Sciences)

Smells like Family to Me! Population Structure Correlates of Corolla Terpenoid Variation

Juliana Wall
Mentor: Dr. Chase Mason (Biology)

Assessing Leaf Ecophysiology and Chemical Defense Traits as Drivers of Plant Growth Rate in Temperate Trees

Dannielle Waugh
Mentor: Dr. Chase Mason (Biology)

PHYSICAL SCIENCES AND MATHEMATICS

OWL 2 Sensor for the Analysis of Single Nucleotide Variations

Raniah Al Rabbat
Mentor: Dr. Dmitry Kolpashchikov
(Chemistry)

Electrochemical Biosensor Based on DNA for Detection of Pathogenic *E. coli*

Angelica Balcarcel
Mentor: Dr. Karin Chumbimuni-Torres
(Chemistry)

Analysis of Centaur-to-Jupiter Family Transition Comets using Publicly Available Observations from the Dark Energy Survey Archive

Rachel Belton
Mentor: Dr. Charles Schambeau (Florida Space Institute)

Electrochemical Sensor for Ibuprofen based on Molecularly Imprinted Polymer

Alexander Bennett, Andrew Murray
Mentor: Dr. Percy Calvo-Marzal, Dr. Marcos Foguel (Chemistry)

Recombinant Expression of a Proposed Hydrazinoacetic Acid Biosynthetic Pathway from *Streptomyces noursei*

Nicole Boyd
Mentor: Dr. Jonathan Caranto (Chemistry)

Determining the Role of Caspase-4 and Caspase-5 in Inflammasome Activation

Stephanie Schreiner
Mentor: Dr. Sunny Shin (University of Pennsylvania)

Micro-Raman Spectroscopy of Meteorites

Alexander Chioma
Mentor: Dr. Alfons Schulte, Dr. Christopher Bennett (Physics)

Representations of the Cuntz Algebras Arising from Random Walks

Nicholas Christoffersen
Mentor: Dr. Dorin Ervin Dutkay

The Effects of Sublimation from Icy Granular Materials

Christopher Cox
Mentor: Dr. Adrienne Dove (Physics)

Controlling Lead Leaching in Water Systems

Russell Cox, Zon Thwin
Mentor: Dr. Karin Chumbimuni-Torres (Chemistry), Dr. Woo Hyoun Lee (Civil, Environmental, and Construction Engineering)

A Jones Calculus Approach to High Order Harmonic Generation in Bulk Crystal

Erin Crites
Mentor: Dr. Michael Chini (Physics)

Design of Recyclable Multi-Metallic Nanoparticles for Catalysis

Marie Davy
Mentor: Dr. Titel Jurca (Chemistry)

A Model Experiment to Investigate the Possibility of Glyphosate Contamination in St. Kitts and Nevis

Winston Fu
Mentor: Dr. Michael Hampton, Dr. Melanie Beazley (Chemistry)

Femtosecond Soft X-Rays Photoinduced Reactions in H₂O Ice Layers Grown on Silica Surface

Aakash Gupta
Mentor: Dr. Mihai Vaida (Physics)

Spectral Effects of Parameters in Diffuse Reflectance IR and Visible Spectra of Regolith Simulants

Riley Havel
Mentor: Dr. Christopher Bennett (Physics)

Analyzing the History and Morphology of Tropical Storms to Better Understand the Paleostorm Record

Julia Holt
Mentor: Dr. Joseph Donoghue (Physics)

Searching for a Non-Destructive Digestion Procedure to Analyze Chemicals Adsorbed on Micro-Plastics

Margaret Jenkins
Mentor: Dr. Andres Campiglia (Chemistry)

Improving and Automating Measurements in the Cryogenic Lithic Ice Failure (CLIF) Experiment

Trisha Joseph
Mentor: Dr. Adrienne Dove (Physics)

An In-Silico Approach to Assist NASBA-Based Assays: A Primer Design Software

Rohit Karnati
Mentor: Dr. Yulia Gerasimova (Chemistry)

The Production of CreE Enzyme Responsible for the Oxidation of L-Aspartic Acid to Succinate and Nitrous Acid

Rahiim Lake
Mentor: Dr. Jonathan Caranto (Chemistry)

Exploring Galvanic Replacement as a Method to Engineer Peroxidase-Mimics Nanoparticles

Kuryn MaGloire
Mentor: Dr. Xiaohu Xia (Chemistry)

Engineering Active Site Residues to Alter Stereoselectivity in the Second Ketoreductase of the Amphotericin Polyketide Synthase

Maria Martinez
Mentor: Dr. Constance Bailey (University of Tennessee), Dr. Jonathan Caranto (Chemistry)

Counting Vector Partitions

David Melendez
Mentor: Dr. Pamela Harris (Williams College)

Optimization of Dapoxyl Aptamer for Label-Free Bioanalysis

Jack Mordeson
Mentor: Dr. Yulia Gerasimova (Chemistry)

Simulating Spacecraft Charging in Plasma Environments

John Peterson
Mentor: Dr. Adrienne Dove (Physics)

Seaweed as a Potential Carrier of Microplastics: A Pollution Study Originating in Saint Kitts and Nevis

Stephanie Rodriguez
Mentor: Dr. Michael Hampton, Dr. Melanie Beazley (Chemistry)

Predictive Buyer Behavior Model Using an SIR Framework

Zach Schwartz
Mentor: Dr. Zhisheng Shuai (Mathematics)

Multilayer Integration of DNA Logic Gates for Biomedical Application

Ashley Sewsankar
Mentor: Dr. Dmitry Kolpashchikov (Chemistry)

The Role of Mn(III) Oxides in the Oxidative Dissolution of TcO₂ Under Oxygen Restricted Conditions

Ilana Szlamkowicz
Mentor: Dr. Vasileios Anagnostopoulos (Chemistry)

Electrostatics and Riemann Surfaces

Spencer Tamagni
Mentor: Dr. Costas Efthimiou (Physics)

A Spare Part Protein that Reactivates the Glycyl Radical Enzyme Pyruvate Formate Lyase

Alan Trudeau
Mentor: Dr. Catherine L. Drennan, Dr. Jonathan Caranto (Chemistry)

Comparative Studies on the Sorption and Desorption of Polycyclic Aromatic Hydrocarbons on Microplastics

Unaisah Vorajee
Mentor: Dr. Andres Campiglia (Chemistry)

Determining the Infrared Fingerprint Corresponding To Cell Wall Degrading and Protein Inhibiting Treatments on E. Coli

Khadijah Wright
Mentor: Dr. Laurene Tetard (Physics)

SOCIAL SCIENCES

Effects of Demographics on Opportunistic Product Return Behaviors in E-Commerce

Nikhila Anand
Mentor: Dr. Carolyn Massiah (Marketing)

Archaeology of the Burns Site at the Cape Canaveral Air Force Station

Adriana Almonte, Krista Marie Walkley, Chloe Sherwood, Andrea Perry
Mentor: Dr. Neil Duncan (Anthropology)

Rumination and Anticipation: How Cognitions about Mistreatment Experiences Influence Work Engagement

Ignacio Azcarate
Mentor: Dr. Steve Jex (Psychology)

Unpacking the Social Media Paradox: Gender Differences in Motivations for Social Media Use

Nikki Anne Ballelos, Kendal Allen Johanna Rose Villadarez, Lesly Corona,
Mentor: Dr. James Szalma (Psychology)

Smoking Identities and Vaping

Jacqueline Beretsky
Mentor: Dr. Steven Berman, Dr. Shahram Ghiasinejad (Psychology)

The Back Experience: Exploring the Awareness of Morbidity and Mortality in the Black Community

Elmire Bien-Aime
Mentor: Dr. Amy Reckdenwald (Sociology)

Clicking in the Red: Color & Color Placement Effects on Purchase Intention of Loot Boxes in Video Games

Mackenzie Bland

Mentor: Dr. David Luna, Dr. Xin He (Marketing)

Recovery in Teachers: Barriers, Facilitators and the Relationship to Physical Stress Symptoms

Amber Blatchford

Mentor: Dr. Kristin Horan (Psychology), Dr. Crystal Maraj (Simulation and Technology)

A Psychological View of Environmental Politics

Jady Chen

Mentor: Dr. Sharon Woodill (Interdisciplinary Studies)

Investigation of Chemistry GTAs' Perception of Cold Calling and Error Framing after Rehearsal in a Mixed-Reality Teaching Simulator

Andrew Cheshire

Mentor: Dr. Erin Saitta (Chemistry)

The Experience of LEP Patients in Healthcare

Javier Cintron

Mentor: Dr. Joanna Mishtal (Anthropology)

Should I Start Packing? The Joint Impact of Leader-Member Exchange Quality and Differentiation on Job Insecurity and Turnover Intentions

Divya Doshi, Marc Astacio

Mentor: Dr. Mark Ehrhart (Psychology)

Anthropological and Legislative Approaches to Disaster: An Evolving Relationship

Margaret Fender

Mentor: Dr. Edward Gonzalez-Tennant (Anthropology)

Impact of PHQ-9 Symptoms on Activities of Daily Living

Tirzah Fernandes

Mentor: Dr. Kimberley Gryglewicz, Lisa Borntrager (Social Work)

Factors Contributing to Academic Performance of Spanish-English Bilingual College Students at UCF

Catherine Gathings Navarro,

Isabella McLaughlin

Mentor: Dr. Marisol Parra-Tatge (Psychology)

Social Factors and Their Effect on Diabetic Patients in Puerto Rico Post Hurricane Maria

Breishka Gomez

Mentor: Dr. Fernando Rivera (Sociology)

Academic Burnout Among College Students: The Role of Gender, Workload, and Social Support

Ashley Greindl

Mentor: Dr. Shahram Ghiasinejad, Dr. Steven Berman (Psychology)

Central Florida Farmers: Climate Change, Disaster Preparedness and Resilience

Maria Fernanda Grisales

Mentor: Dr. Fernando I. Rivera (Sociology)

Swiping and Satisfaction: The Connection Between Relationship Origin and Relationship Satisfaction

Tanner Hess

Mentor: Dr. Grace White (Psychology)

The Role of Grey Literature in the Successful Management of Cultural Heritage Resources on Federal Lands

Marilyn Hillton

Mentor: Dr. Edward Gonzalez-Tennant (Anthropology)

Bail: Reforming the Rules, Resisting the Status Quo in Misdemeanor Courts

Caroline King, Jodi Lewis, Krupali Patel, Camille Robinson, Nefertari Elshiekh

Mentor: Dr. Alisa Smith (Legal Studies)

Working Memory Capacity in Trauma-Exposed Versus Trauma Unexposed Individuals

Isabella McLaughlin, Michaela

Schaal

Mentor: Dr. Marisol Parra-Tatge (Psychology)

Help Provided by Religious Communities in Central Florida in Response to Hurricane Maria

Gabrielle Morales

Mentor: Dr. Fernando Rivera (Sociology)

No Parental Guidance: Investigating the Influence of Young Adult Perceptions of their Parents on Their Ability to Maintain Independent Living

Cassandra Ricketts

Mentor: Dr. Grace White (Psychology)

Geospatial Approaches to Managing Cultural Resources on Federal Lands

Charlotte Robinson, Simone Tripoli

Mentor: Dr. Edward González-Tennant (Anthropology)

INDEPENDENT PROJECT PRESENTATIONS

POSTER SESSION II: NOON – 1:30 P.M.

ARTS AND HUMANITIES

Judging JONAS: A Genre Analysis of a Restaurant Management Software

Jamie Cooney
Mentor: Melissa Pompos Mansfield (Writing and Rhetoric)

The Rise and Fall of Urartu: A Textual Geography of the Corpus dei Testi Urartei (CTU)

Jacob Finegan
Mentor: Dr. Tiffany Earley-Spadoni (History)

Fear, Ideal, and the Quest for Understanding: Russian Gentry Writers on Peasantry from the 19th- Early 20th Centuries

Mariana Kellis
Mentor: Dr. Vladimir Solonari (History)

Female Gender Presentation in Asian Literature

Catherine Le
Mentor: Dr. Louise Kane (English)

Project Victory: Exploring Graduate School Opportunities Through Cost-Effective Virtual Reality Tech

Isaiah Morales
Mentor: Dr. Liza Potts (Michigan State University), Dr. Mel Stanfill (Nicholson School of Communication and Media)

Borrowing Time: The Classical Tradition in the Poetic Theories of T. S. Eliot and Ezra Pound

Nicholas Odom
Mentor: Dr. Louise Kane, Dr. William Fogarty (English)

A “Herstory” of Coach Rachael Klunder: Exploring the Experience and Challenges of Women Leaders in Athletics

Haleigh Oglesby
Mentor: Dr. Anne Bubrski (Women’s and Gender Studies)

Manipulating Ball and Joint Armature to Mimic Humanoid Motion

Patricia Quintero
Mentor: Michael Cabrera (Visual Arts and Design)

An Assessment of the Impacts of EPA Superfund Sites on Central Florida Residents

Kurt Ramos
Mentor: Vanessa Calkins (Writing and Rhetoric)

Happiness and Social Media: The Truths, Myths, and Statistics

Seva Reilly, David Gomez-Fandino, Mark Dolmovich, Krista Guerne, Edwin Rivera Jorge
Mentor: Sybil St. Claire (Performing Arts)

Functional Fables and Fabulous Failures: Tradition, Definition, and Innovation

Abigail Reynolds
Mentor: Dr. Tyler Fisher (Modern Languages and Literatures)

2d-3d Zoetrope

Madison Stevens
Mentor: Michael Cabrera (Visual Arts and Design)

Anne Bradstreet: America’s First Poet & How She Applies To Americans Today

Theodore Summers
Mentor: Dr. Louise Kane (English)

Mangrove: A Soundscape Ecology Toolkit

Irene Tanner, Alexander Salazar, Ryoma Hashida, James Upchurch
Mentor: Dr. Jonathan Beever (Philosophy)

Taking Control of Your Happiness

Bradley Thornton, Jason Taché, Jesse Harris, Camila Murphy, Isabel Aviles,
Mentor: Sybil St. Claire (Performing Arts)

The Beat Generation: How Central Florida Inspired Author Jack Kerouac as Both Grew in Popularity

Courtney Verna-Brown
Mentor: Dr. Lori Walters (Simulation and Technology)

2D Visual Development and Storyboarding

Marielle White
Mentor: Michael Cabrera (Visual Arts and Design)

Light Placement Using Python Scripting in Maya

Sierra Williams
Mentor: Michael Cabrera (Visual Arts and Design)

COMMUNITY INNOVATION AND EDUCATION

Comparison of Chemistry Instructors’ Teaching Philosophies to the Hierarchy of Their Ideal Learning Space

Bethany Arcaya
Mentor: Dr. Julie Donnelly, Dr. Nicole Lapeyrouse (Chemistry)

Exploring the Potential of STEAM: Using Music as a Stimulus to Positively Impact Elementary Student Academic Performance in Mathematics

Nicholas Cassara
Mentor: Dr. Norine Blanch (Educational Leadership & Higher Education)

The Need for Active-Based Learning and Problem-Based Learning Techniques within the Undergraduate Science Classroom Setting

Erika Lytle, Zainab Baqri
Mentor: Dr. Kersten Schroeder (Biomedical Sciences)

English Education Policies and Their Effects on Children in Botswana

Olivia MacDonald
Mentor: Dr. Sharon Woodill (Interdisciplinary Studies)

An Analysis on the Length of Time in Training and the Retention of Knowledge in the QPR Suicide Prevention Program

Aartie Poonai
Mentor: Dr. Kimberley Gryglewicz (Social Work)

Are all Relationships the Same? A Comparison of Intimate Partner Victimization within Heterosexual and Same-Sex Couples

Nicole Rosenzvaig
Mentor: Dr. Erica R. Fissel (Criminal Justice)

Can Strain Theory be Used to Explain the Relationship between Recidivism and Secure Placement?

Alessia Shaw
Mentor: Dr. James Ray (Criminal Justice)

**Biochemistry and Teaching ESOL:
Active Learning Implementation
Across Disciplines**

Dylan Thibaut

Mentor: Irina McLaughlin (Teacher Education), Dr. Jonathan Caranto (Chemistry)

**ENGINEERING, OPTICS AND
PHOTONICS, AND COMPUTER
SCIENCE**

**A Web-Based Tool for
Investigating Teen Online Safety**

Kevin Abreu-Aguila, Enelson Castro

Mentor: Dr. Pamela Wisniewski (Computer Science)

**Comprehensive Study of Firing
Temperatures and Contact
Resistivity of Si Solar Cells**

Christian Avalos

Mentor: Dr. Kristopher Davis (Materials Science and Engineering)

**Enzyme-Mimetic Properties of
Carbon-Nanodot Templated
Hollow Ceria**

Balaashwin Babu

Mentor: Dr. Tamil Selvan Sakthivel, Dr. Sudipta Seal (Materials Science and Engineering)

A Blood Test for Brain Monitoring

Aliyah Baksh

Mentor: Dr. Debashis Chanda (Physics)

**Sine (Pi): Sensor Integrated Novel
Electric Portable Instrument**

Arnaldo Barreto, Brian Smith

Mentor: Dr. Joon-Hyuk Park (Mechanical and Aerospace Engineering)

**Transforming Configurable C Code
for Automated Bug-Finding and
Security Analysis**

Julian Braha

Mentor: Dr. Paul Gazzillo (Computer Science)

**Corticomuscular Coherence in
Alpha Band Differentiates Active
and Passive Stepping**

Samantha Brunson

Mentor: Dr. Helen Huang (Mechanical and Aerospace Engineering)

**A Spin-based Analog to Digital
Converter Interactive Simulation
Framework**

Gustavo Camero

Mentor: Dr. Ronald DeMara (Electrical and Computer Engineering)

Drop Sloshing Damping

Michael Cassette

Mentor: Dr. Andrew Dickerson (Mechanical and Aerospace Engineering)

**Conducting Responsible Research
with Teens and Parents About
Online Risks**

Sahana Chandra

Mentor: Dr. Pamela Wisniewski (Computer Science)

**Assessing Nutrient Removal
Performance of Vegetated Filter
Strips Using Water Quality
Parameters**

Andrew Corrado

Mentor: Dr. Kelly Kibler (Civil, Environmental, and Construction Engineering)

**Co-Designing "Teenovate:" An
Intergenerational Online Safety
Design Team**

Arianna Davis

Mentor: Dr. Pamela Wisniewski (Computer Science)

**Predictive Modeling of Droplet
Ejection from Dampened, Damped
Cantilever**

Ryan Deryk, Kevin Shitaho

Mentor: Dr. Andrew Dickerson (Mechanical and Aerospace Engineering)

**New Design for Shock Tube End
Wall to Simultaneously Measure
Pressure and Spectroscopic
Emissions During Combustion of
Fuels**

Daniel Dyson

Mentor: Dr. Subith Vasu (Mechanical and Aerospace Engineering)

**Noninvasive Quantification of
Muscle Health Using Dual EMG
and MMG**

Emily Flynt, Rehana Koilpillai,

Sujena Koilpillai, Nicholas Skiados,

Kristen Ling, Mary Isabelle Guerra

Mentor: Dr. Hansen Mansy (Mechanical and Aerospace Engineering)

**Parametric Study of Shock-Flame
Bubble Interactions with Varying
Equivalence Ratios**

Rachel Hytovick

Mentor: Dr. Kareem Ahmed (Mechanical and Aerospace Engineering)

**Developing Arduino Code to
Enhance Low-Level Sensing and
Control of Agricultural Robotics**

Jean Jerome

Mentor: Dr. Yunjun Xu (Mechanical and Aerospace Engineering)

**Improved Mutation for Evolved
Actor-Critic Based-Models in Deep
Reinforcement Learning**

Alec Kerrigan

Mentor: Dr. Annie Wu (Computer Science)

**A Sustainable New Process for
the Catalytic Removal of Toxic
Mercury from Flue Emission**

Zachary Loeb

Mentor: Dr. Anwar Sadmani (Civil, Environmental, and Construction Engineering)

**Postmortem Hydrogen Cyanide
Molarity Determination
through Thiocyanate Detection
Utilizing Silver Nanosensors via
Colorimetric Analysis**

Christiana Lovell

Mentor: Debashis Chanda, Dr. Pablo Manuel Cencillo Abad (Physics)

**Photo Induced Synaptic Behaviors
Emulated in Monolayer MoS2
Devices for Neuromorphic
Computing**

Madison Manley

Mentor: Dr. Tania Roy (Electrical and Computer Engineering)

**Quantifying Left Ventricular
Strains During Late Filling to
Understand Heart Failure**

Saar Peles, Sarah Villamil

Mentor: Dr. Luigi Perotti (Mechanical and Aerospace Engineering)

**Utility of Wrist Devices for
Monitoring Cardiac Health
Through Heart Rate Measurements
Pinak Raodeo, Oleksandra
Myronenko**

Mentor: Dr. Hansen Mansy (Mechanical and Aerospace Engineering)

**Vibration vs Audio Cues Improving
Reaction Time and Accuracy in
Decision Making**

John Sirera

Mentor: Dr. Sang-Eun Song (Mechanical and Aerospace Engineering)

**Sensor Integrated Novel Electric
Portable Instrument [S.I.N.E(P.I)]:
Trombone**

Brian Smith, Narjess Husainy,

Arnaldo Barreto

Mentor: Dr. Joon-Hyuk Park (Mechanical and Aerospace Engineering)

**Phosphor Thermometry for
Measurements in Extreme Turbine
Environments**

Christopher Williamson, Khanh Vo

Mentor: Dr. Seetha Raghavan (Mechanical and Aerospace Engineering)

HEALTH SCIENCES

Rural Disparities in Lung Cancer Mortality: An Ecologic Study in Florida

Batel Amouyal

Mentor: Dr. Cassie Lewis Odahowski, Dr. Kyle Riding (Health Sciences)

Factors Associated with Anosognosia in People with Comorbid Mental Health Conditions: An Integrative Literature Review

Tiffany Baula

Mentor: Dr. Leslee Damato-Kubiet, Dr. Angeline Bushy (Nursing)

How does Dehydration and Rapid Weight Loss Effect Cognition in Combat Sports Athletes During Competition

Sean Cavey

Mentor: Dr. Anna Valdes (Kinesiology and Physical Therapy)

Perceptions of Electronic Cigarette Usage and Vaping Among College Students

Safia Centner

Mentor: Dr. Suha Saleh (Health Sciences)

Evaluating the Nutritional Status of Peruvian Born Children

Chantelle Garcia

Mentor: Dr. Desiree A. Diaz, Dr. Heather Peralta (Nursing)

Drug Therapy in Individuals with Substance Use Disorder During Acute Care Hospitalization for Comorbid Health Conditions

Jessica Jonas

Mentor: Dr. Leslee D'Amato-Kubiet, Sandra Sturgeon (Nursing)

Factors Associated With Serum Phytoestrogen Levels Among Women With Breast Cancer

Jongeon Kim, Tran Pham

Mentor: Dr. Eunhyung Lee (Health Sciences)

Which Exercise is Better to Reduce Fatigue in Prostate Cancer: Aerobic or Resistance Training?

Jin Lee, Anay Patel

Mentor: Dr. Eunhyung Lee (Health Sciences)

Aerobic Exercise and Its Promising Therapeutic Effects on Parkinson's Disease Pathogenesis

Cullen Lemieux

Mentor: Dr. James Sonne, Dr. Jason Groshong (Health Sciences)

The Effect of Obesity on the Mortality Rate of Coronary Heart Disease in Florida

Claire Maher

Mentor: Dr. Eunhyung Lee (Health Sciences)

Exploring the Effect of Performing Testicular Self-Examination on Tumor Stage Diagnosis

Michael Maresca

Mentor: Dr. Michael Rovito (Health Sciences)

Health Literacy and Health Information Seeking Behaviors of Students at the University of Central Florida

Abigail McWhorter

Mentor: Dr. Suha Saleh (Health Sciences)

Association Between the WCRF/AICR Cancer Prevention Guidelines and Cancer Antigen Level Among U.S. Women: Analysis of 2001-2002 National Health and Nutrition Examination Survey

Omar Ragab, Vanessa Kady

Mentor: Dr. Eunhyung Lee (Health Sciences)

Millennial Attitudes Toward Telehealth: An Integrative Literature Review

Hannah Gwyneth Tabora

Mentor: Dr. Leslee A. D'Amato-Kubiet (Nursing)

Creative Approaches to Meeting Diabetes-Related Needs in Florida

Anudeep Udumula

Mentor: Dr. Judith Ortiz (Health Sciences)

Impact of Work-Life Balance on Health-Related Quality of Life Among College Students

Emily Vernet

Mentor: Dr. Suha Saleh (Health Sciences)

LIFE SCIENCES

The Role Circadian Rhythm Plays in Incidence of Myocardial Infarction

Samantha Abbott

Mentor: Dr. Raheleh Ahangari (Biomedical Sciences)

Behavioral Analysis of the *Cryptoprocta ferox* in an Ex-Situ Condition

Emilie Alfonso

Mentor: Frank Logiudice (Biology)

The Effect of Vitamin D and Changes in Short-Chain Fatty Acids on Multiple Sclerosis (MS)

Ariej Alkowni

Mentor: Dr. Raheleh Ahangari (Biomedical Sciences)

Investigating the Role Altered Circadian Rhythm Play in an Astronaut's Gut Microbiome

Brianna Ariza, Kirsten Scheller

Mentor: Dr. Raheleh Ahangari (Biomedical Sciences)

Probing the Secondary Structure of Intrinsically Disordered Squid Reflectin Protein Through ssNMR

Harriet Austin

Mentor: Dr. Bo Chen (Physics)

E-cigarette Vapor Exposure Promotes Streptococcus Mutans Biofilm Formation

Matthew Caldwell

Mentor: Dr. Claudia Andl (Biomedical Sciences)

High Rates of Misdiagnosis of Pediatric Acute-Onset Neuropsychiatric Syndrome and How to Reduce Them: A Meta-Analysis

Aliya Centner

Mentor: Dr. Mohtashem Samsam (Biomedical Sciences)

Analysis and Classification of Lubricants using Fourier Transform Infrared Spectroscopy

Sharon Dale

Mentor: Dr. Candice Bridge (Chemistry)

Anthropogenic Changes: Impact on Wildlife Living in Florida Marshes

Melanie DallaValle, Timothy

Evan McCann, William David

Bevan-Thomas, Maxwell Gebhart,

Madeleine Elizabeth Schmitz

Mentor: Dr. Linda Walters (Biology)

siRNA Knockdown of the Boris Protein utilizing Receptor-Mediated Endocytosis

Christina DeBarro, Brandon Kaye

Mentor: Dr. Robert Borgon, Nicole Verity (Biomedical Sciences)

Look & Smell Pretty? Correlates of Petal Carotenoid Content & Terpenoid Variation in Cultivated *Helianthus*

Bree-Alexandra Donley

Mentor: Dr. Eric Goolsby (Biology)

The Interactions Between Microplastic and Inorganic Biogeochemical Nutrients

Evan Duga

Mentor: Dr. Lisa Chambers (Biology)

Assessing Density and Diversity of Oyster Reef Resident Fishes Following Habitat Restoration

Katie Durham

Mentor: Dr. Geoffrey Cook (Biology)

Evaluating Green Turtle (*Chelonia mydas*) Differential White Blood Cell Counts in the Indian River Lagoon

Gianna Fanelli

Mentor: Dr. Kate Mansfield (Biology)

Extraterrestrial Plant Growth: Why Climate Change Is More Important Than the Colonization of Mars

Savanna Freeman, Hannady Halaby

Mentor: Dr. Rani Vajravelu (Biology)

Utilizing Potato Chip Waste for Intertidal Oyster Reef Restoration

William Giles

Mentor: Dr. Linda Walters (Biology)

Potential Benefits of CXL Treatment for Thinning Corneas Due to Contact Lenses

Nicole Hancock, Marissa Dyer,

Jillian Mezo, Samantha Totty

Mentor: Dr. Camilla Ambivero (Biomedical Sciences)

Investigating the Potential Role of Dopamine in Regulating Growth of Gliomas

Connor Harmon, Marco Foreman

Mentor: Dr. Raheleh Ahangari (Biomedical Sciences)

From Dwarfs to Giants: A Genome-Wide Association Study on the Growth Rate of Cultivated Sunflower (*Helianthus annuus*)

Austin Hart

Mentor: Dr. Chase Mason (Biology)

Exploring Alternative Therapies in the Treatment of Huntington's Disease

Kenneth Hawkins

Mentor: Dr. Mohtashem Samsam (Biomedical Sciences)

Maternal Thyroid Dysfunction Effect on Brain Development During Pregnancy: Links to Autism Spectrum Disorder

Caroline Hobson

Mentor: Dr. Raheleh Ahangari (Biomedical Sciences)

Pollinator Populations: Impacts of Various Urban Landscapes on Pollinator Diversity

Elli Howard, Brooke Saitta,

Shannon Murphy, Andrew Geml,

Sophia Vermeulen

Mentor: Jennifer Elliott, Kelsie Johnson (Biology)

Developmental Effects of Terpenes on *Vanessa Cardui* at Varying Temperatures

Mari Irving

Mentor: Dr. Chase Mason (Biology)

Identifying Microplastic Abundances and Hotspots in the Guana, Tolomato, and Matanzas Rivers in northeast Florida

McKenna Keplinger

Mentor: Dr. Linda Walters (Biology)

Comparative Analysis of Creative Therapy for Opioid Addiction

Daniella King, Richard Shao, Jason

Young

Mentor: Dr. Mohtashem Samsam (Biomedical Sciences)

Protein Disulfide Isomerase's Role in the Inhibition of Amyloid Beta Aggregation

Jasmina Kovacevic

Mentor: Dr. Kenneth Teter (Biomedical Sciences)

Hoot for the Root - Urban Sandhill Tree Canopy Restoration

Nicole Kraemer, Tracy Alt,

Savannah Leduc, Mariah Aponte,

Sophia Hutton

Mentor: Jennifer Elliott (Biology)

The Combinatorial Effect of Constitutively Active Rheb and Taxol on Axon Outgrowth in Vitro on Inhibitory and Growth-Promoting Substrates

Cathy Le

Mentor: Dr. Alicia Hawthorne (Biomedical Sciences)

Investigating the Effects of Autonomous Sensory Meridian Response on Neurotransmitter Levels in Mental Health Patients

Elenie Lopez, John Nicho

Mentor: Melissa Worley (Biomedical Sciences)

The Transstadial Effects of Roundup on the Life History, Stress Response, and Immune Function of *Aedes aegypti*, the Yellow Fever Mosquito

Lindsay Martin

Mentor: Dr. Kenneth Fedorka (Biology)

Investigating Cerebrovascular Hemodynamics in Clinical Development of Alzheimer's Disease

Ana Martins

Mentor: Dr. Mohtashem Samsam (Biomedical Sciences)

Role of Genetic Factors in Generalized Anxiety Disorder and Treatment Response

Sara Matiz

Mentor: Dr. Raheleh Ahangari (Biomedical Sciences)

Non-Coding RNAs in Lung Tumor Initiation and Progression

Ruben Mercado, Cerena Moreno

Mentor: Dr. Wencai Zhang (Biomedical Sciences)

The Role of dSLC12A8 in Polyamine Transport

Victoria Millington

Mentor: Dr. Laurence von Kalm (Biology)

Salmonella Smugglers: Investigating the Role that Migratory Birds Play in The Spread of Salmonella

Julia Nadeau Gneckow

Mentor: Dr. Anna Forsman (Biology)

Investigating the Role of ChREBP in Alcohol-Induced Congenital Heart Defects

Thuy Tien Nguyen

Mentor: Dr. Steven N. Ebert (Biomedical Sciences)

Clinical Efficacy of Novel Antibiotic Formulation-X is Demonstrated by Reduction in Crohn's Disease Activity Index Score

Tarek Obeid

Mentor: Dr. Saleh Naser, Dr. Ahmad Qasem (Biomedical Sciences)

The Effect of Pesticides on the Foraging Behavior of Hymenoptera: A Systematic Review

Veronica Ospina, Whitney S.

Stephen

Mentor: Dr. Chase Mason (Biology)

Investigating the Effects of an Altered Gut Microbiome in Diabetes

Pruthvi Patel

Mentor: Dr. Mohtashem Samsam (Biomedical Sciences)

Genetic Structure of Green Turtle (*Chelonia mydas*) Foraging Aggregations on the East Coast of Florida (USA)

Monica Reusche
Mentor: Dr. Kate Mansfield, Dr. Eric Hoffman (Biology)

Observational Study of Two Ex Situ North American River Otters (*Lontra canadensis*)

Julia Rifenberg
Mentor: Frank Logiudice (Biology)

The Effects of Roundup® on Disease Transferability Probability of *Aedes aegypti*

Jennifer Rote, Michele Crowhurst
Mentor: Dr. Kenneth Fedorka (Biology)

Population Dynamics of Microbial Communities Among Cystic Fibrosis Patients Receiving CFTR Modulator

Anita Samadabadi
Mentor: Dr. Taj Azarian (Biomedical Sciences)

De Novo Discovery of Pathogens in American Alligators

Jessica Scales
Mentor: Dr. Robert Fitak (Biology)

Investigating Advanced Treatments for Rheumatic Fever and Rheumatic Heart Disease

Monica Sehgal
Mentor: Dr. Mohtashem Samsam (Biomedical Sciences)

Involvement of RIP2 in ALOX5 Activation and Specialized Pro-Resolving Lipid Mediator (SPM) Production

Roopin Singh
Mentor: Dr. Justine Tigno-Aranjuez (Biomedical Sciences)

The Genetic Control of Mycorrhizal Colonization in Sunflower

Katherine Stahlhut
Mentor: Dr. Chase Mason (Biology)

Dried Whole-Leaf Tissue VS Homogenized Ground-Leaf Tissue: A Comparative Analysis of Predictive Reflectance-Based Models for Determining Nutrient Content

Milton Valdiviezo
Mentor: Dr. Chase Mason, Dr. Eric Goolsby (Biology)

Investigating the Role of Vitamin D in Alopecia Patients

Lynn-Caelle Valere, Barbara Mukonyo
Mentor: Melissa Worley (Biomedical Sciences)

Tracking the Lionfish Invasion Across the Indian River Lagoon using Environmental DNA

Katherine Viehl
Mentor: Dr. Michelle Gaither (Biology)

Exploring the Driving Factors Behind Mangrove Colonization of Oyster Reefs within Mosquito Lagoon

Megan Witt
Mentor: Dr. Linda Walters (Biology)

PHYSICAL SCIENCES AND MATHEMATICS

Understanding the Photoisomerization reaction of Tricyanofuran-type Metastable-state Photoacids

Mohamed Abdelrahim
Mentor: Dr. Karin Chumbimuni-Torres (Chemistry)

Sodium Analysis in Blood using Ion-Selective Electrodes

Cody Autrey
Mentor: Dr. Karin Chumbimuni-Torres (Chemistry)

Environmental Analysis for Further Economic Prosperity of St. Kitts and Nevis Dual-Island Nation

Morgan Baranek, Morgan Longielliere
Mentor: Dr. Michael Hampton (Chemistry)

Design and Characterization of a Portable Mini-CO₂/VOC Sensor and Gas Chromatograph for Field Research

Rishi Basdeo
Mentor: Dr. Michael Hampton (Chemistry)

Reagentless Amplification of the Electrochemical Signal of a Biosensor for a cancer Biomarker in Serum Sample

Maria Boza
Mentor: Dr. Karin Chumbimuni-Torres (Chemistry)

Factors Contributing to Nucleic Acid Binding Dye Interactions with Single-Stranded DNA

Colin Campbell
Mentor: Dr. Yulia Gerasimova (Chemistry)

Algebraic and Combinatorial Approaches for Counting Cycles Arising in Population Biology

Brian Chau
Mentor: Dr. Zhisheng Shuai (Mathematics)

Novel Non-Precious Metal Catalyst for Vehicle Emission Control

Samantha Collier
Mentor: Dr. Shaohua Xia, Dr. Fudong Liu (Civil, Environmental, and Construction Engineering)

Observation of Dirac state in DySb

Klauss Dimitri
Mentor: Dr. Madhab Neupane (Physics)

Detection of a Peptide Hormone - Somatostatin - with Label-Free Split-Aptameric Probes

Charles Dowis
Mentor: Dr. Yulia Gerasimova (Chemistry)

Development of Nonlocal Green Kubo Formalism with Applications to Heat and Mass Transport

Kevin Fernando
Mentor: Dr. Patrick Schelling (Physics)

Protocol Establishment of Temperature-Based Degradation of Lubricants

Nancy Flynn
Mentor: Dr. Candice Bridge (Chemistry)

Cell Design for Inclusion with IRAS of Thin-Film Aluminosilicate Model Regolith for Space-Weathering Studies

Jillian Gloria
Mentor: Dr. William Kaden (Physics)

Hybridization Light-Up Probes for Prediction of Nucleic Acid Base-Pairing

Mary Gomez
Mentor: Dr. Yulia Gerasimova (Chemistry)

Experimental Characterization of Hafnium Boride (HfB₂), Zirconium Boride (ZrB₂) and Hafnium-Zirconium Boride Samples

Daniel Harrison
Mentor: Dr. William Kaden (Physics)

Predicting h-BCN Geometric Structures using Clustering and Regression Methods

Sonali Joshi
Mentor: Dr. Talat Rahman (Physics)

Tuning the Dielectric Constant of Substitutional Solid State Materials

Kyle Langlois
Mentor: Dr. Fernando Uribe-Romo (Chemistry)

Predicting Diffusion Barriers of Ag Clusters on the Ag(111) Surface Using Machine Learning

Connor Malley
Mentor: Dr. Talat Rahman, Dr. Duy Le (Physics)

Numerical Investigation of Particle Physics and its Implications for Planetesimal Formation

Jeb Massaro

Mentor: Dr. Joshua Colwell (Physics)

Investigating the Effect of Caffeine Coated Quantum Dots of Cell Uptake

Ava Milani

Mentor: Dr. Swadeshmukul Santra (Chemistry)

DNA Nanorobots for Cancer Therapeutics

Caitlyn Niccum

Mentor: Dr. Dmitry Kolpashchikov (Chemistry)

How Unique is Almahata Sitta and How Relevant is it to Bennu?

Jennifer Nolau

Mentor: Dr. Humberto Campins (Physics)

Versatile Metallic Nanostructure for Enhanced Full Angle Independent Colorization

Juan Sebastian Perilla

Mentor: Dr. Debashis Chanda (Physics)

SOCIAL SCIENCES

Impact of Information and Communication Technology Use on Loneliness among Older Adults

Taila Ben-lulu, Nikia Crews

Mentor: Dr. Janan A. Smither, Dr. Daniel McConnell (Psychology)

Differences in Language Processing Between Monolinguals and Bilinguals as Determined by Biobehavioral Responses and Electrophysiology

Aaron Canafe

Mentor: Dr. Mustapha Mouloua (Psychology)

An Examination of Oppression Via Anti-Abortion Legislation

Saphronia Carson

Mentor: Dr. Kenicia Wright (Political Science), Dr. Anne Bubricki (Women's and Gender Studies)

Loneliness and Parasocial Relationships with Video Game Characters

Radha Chebolu

Mentor: Dr. Janan Smither, Dr. Daniel McConnell (Psychology)

Assessing Risk Factors, Warning Signs, and Protective Factors Among Suicidal Youth by Race

Michael Cosare

Mentor: Dr. Kimberly Gryglewicz (Social Work)

Difficulties Sleeping and Loneliness; Qualitative Analysis

Nikia Crews, Taila Ben-lulu

Mentor: Dr. Daniel McConnell (Psychology)

None of Your Business: Situational Antecedents of Knowledge Sharing and Warmth

Clayton Culbreth, Camila Velez De Jesus, Richelle Cruz Quetell

Mentor: Dr. Mark Ehrhart (Psychology)

Can Underdog Stories Help Students to Overcome Perceived College Barriers? A study on Gender and Ethnicity Differences

Daniela Gonzalez

Mentor: Dr. Alvin Wang (Psychology)

History of Combat Sports Involvement and Severity of Subtypes of Psychopathy

Allen Hagen

Mentor: Dr. Jeffrey Bedwell, Dr. Daniel (Psychology)

Voter Suppression and its Effects on Voter Participation

Corina Hajj

Mentor: Dr. Amy Reckdenwald (Sociology)

Effects of Stress on Prefrontal Cortex (PFC) Activity: Emotion Versus Pressure Based Stress on Top-Down Functioning During Attention Based Tasks

Dalaia Hernandez

Mentor: Dr. Joseph Schmidt (Psychology)

Mosquito Lagoon from a Bird's-Eye View: Engaging Hospitalized Children in Citizen-Science to Investigate Threatened/Endangered Aquatic Bird Diversity and Abundance

Jacob Hromyak

Mentor: Dr. Linda Walters (Biology)

Competence and Warmth: Investigating the Relationships Between Perceived Traits and Perceiver Emotions and Behaviors During the Evaluation of Professionals

Tori Jansen

Mentor: Dr. Grace White (Psychology)

"I Got Your Back": The Role of Social Support on Black Students' Mental Health.

Chelsea Johnson

Mentor: Dr. Grace White (Psychology)

Positive Connections to Nature

Fatima Khan

Mentor: Dr. Daniel S. McConnell, Dr. Janan Smither (Psychology)

Ancient Gaming: Patolli Game Boards in Pre-Columbian Mesoamerica

Nicholas Kopp

Mentor: Dr. Brigitte Kovacevich (Anthropology)

Emotion Expression Suppression Relates to Lower Empathy

Chloe LaRoche

Mentor: Dr. Jeffrey Bedwell (Psychology)

Too Worried to Sleep: The Effect of Present and Future Workload on Employee Sleep Quality

Angela Le, Zoe Politis

Mentor: Dr. Steve Jex (Psychology)

Examining the Relationship Between Relative Gender Composition of Peer Study Groups and Mathematics Self-Efficacy

Gustavo Lemos Moure

Mentor: Dr. Amy Reckdenwald (Sociology)

Prevalence Effects are not Driving Hazard Detection on the Road

Priscilla Louis, Minh Pham,

Alexandra Figueroa Rodriguez,

Bryan Medina

Mentor: Dr. Ben Sawyer, Dr. Katherine Rahill (Industrial Engineering and Management Systems)

Content Analysis of Community Doulas' Impact on Women of Color with Low Incomes

Emely Matos

Mentor: Dr. Angela Vergara (Sociology)

An Analysis of "Lucky's" Lake Cane

Jaire McNichols

Mentor: Dr. Peter Jacques (Political Science)

Profiles in Political Ideology: Why Are Women More Religious but Not More Conservative?

Keira Monaghan, Ceeara Carlos

Mentor: Jason Chesnut (Psychology)

**Using Spatial Technology to
Capture Cape Canaveral's Past**

Alexander Nalewaik, Summer
Warren, Hannah JeanLouis
Mentor: Dr. Sarah Barber (Anthropology)

**Event-Related Potentials
Following Rare Visual Targets
and Working Memory Ability in
a Transdiagnostic Psychiatric
Sample**

Samuel Naranjo Rincon
Mentor: Dr. Jeffrey Bedwell (Psychology)

**The Fungus Among Us: An
Anthropological Analysis of
Psilocybin-Assisted Retreats in
Jamaica**

Maria Orozco
Mentor: Dr. Shana Harris (Anthropology)

**Intersectional Analysis; Effects of
Active Shooter Drills on Students**

Angelica Powell
Mentor: Dr. Anne Bubriski (Women's and
Gender Studies)

**21st Century Engagement among
UCF Students: Exploring Metrics &
Platforms**

Daniel Robles
Mentor: Dr. Aubrey Jewett (Political
Science) Dr. Carolyn Massiah (Marketing)

**Enhancing Learning Outcomes
with Gamification**

Dishanki Savla
Mentor: Dr. Kristin Horan, Dr. Steve Jex
(Psychology)

Religiosity and Mental Illness

Eileen Stremming
Mentor: Dr. Shahram Ghiasinejad
(Psychology)

**Mistreatment on the Mind:
The Impact of Mistreatment
Characteristics on Deliberate and
Intrusive Rumination.**

Eram Syed, Magali Scotto Lavina
Mentor: Dr. Steve Jex (Psychology)

INDEPENDENT PROJECT PRESENTATIONS

POSTER SESSION III: 2:30 – 4 P.M.

ARTS AND HUMANITIES

Crafting Fables for the 21st Century

Sean Glatch

Mentor: Dr. Tyler Fisher (Modern Languages and Literatures)

Daughters of Lesbos: Exploring the Historical and Modern Impact of Hellenic Texts on Lesbian Neopagan Practitioners

Madeline Judy

Mentor: Dr. Jeanine Viau (Philosophy)

The Shoe Fits: The Cinderella Cycle and Women's Voice

Farrah Kurronen

Mentor: Dr. Charlotte Trinquet du Lys (Modern Languages and Literatures)

Social Stigma and Substance Use Disorder in Albania

Ediola Malkouari

Mentor: Dr. Yovanna Pineda (History)

Look Out, Here Comes Fraud!: A Multimodal Analysis of Retail Scammers

DiGray Olcima

Mentor: Melissa Pompos Mansfield (Writing and Rhetoric)

Australian and New Zealand ANZACs of World War I: Public Memory and the Making of National Identity

Simran Pawar

Mentor: Dr. Amelia Lyons (History)

Exploring Creative Rigging Solutions For Non-Humanoid Skeletons

Alycia Robb

Mentor: Michael Cabrera (Visual Arts and Design)

An Ethical Study of the Modern Western Adolescent Transition of Care Model

Samuel Schepps

Mentor: Dr. Luciana Garbayo (Philosophy)

Examining Video Conversion and the Integration of 2D animation

Larisa Toledo-Delgado

Mentor: Michael Cabrera (Visual Arts and Design)

Ergonomics and Architecture in a Well-Designed Hospital Environment

Natalie Verdiguél

Mentor: Tommy James (Visual Arts and Design)

ENGINEERING, OPTICS AND PHOTONICS, AND COMPUTER SCIENCE

Evaluation of Lift with Wing Icing

Patricia Baker

Mentor: Dr. Michael Kinzel (Mechanical and Aerospace Engineering)

Single Sensor Fiber-Based High-Speed Tomographic 4D Particle Image Velocimetry

Alexander Bazzi

Mentor: Dr. Kareem Ahmed (Mechanical and Aerospace Engineering)

Validation of Prism Layer Design in 2-D Incompressible Flow Modeling

Joshua Bentley

Mentor: Dr. Michael Kinzel (Mechanical and Aerospace Engineering)

Chalcogenide Fiber Bundle for Large Field of View Thermal Imaging

Austin Brigham

Mentor: Dr. Kyle Renshaw

Intelligent, Interactive and Intuitive Autonomous Robotic Cart (I3ARC)

Joao Pedro Cilento Lopes

Mentor: Dr. Joon-Hyuk Park (Mechanical and Aerospace Engineering)

Virtual Brain Tingles: Exploring Augmented Reality Induced Autonomous Sensory Meridian Response

Alyssa Feagans

Mentor: Dr. Gregory Welch (Computer Science)

Characteristics of a Reacting Jet-in-Crossflow at Elevated Pressures

Max Fortin

Mentor: Dr. Kareem Ahmed, Dr. Nina Orlovskaya (Mechanical and Aerospace Engineering)

Examining Potentially Harmful Viral Social Media Challenges on Reddit

Amy Godfrey, Maria Lopez

Mentor: Dr. Pamela Wisniewski (Computer Science)

Laser Speciation Measurements During Shock Tube Ignition of Cyclic Jet and Rocket Fuel Components

Robert Greene

Mentor: Dr. Subith Vasu

Probing the Effects of Substrate Stiffness on Endothelial Cell Adhesion and Spreading Mechanics

Jovani Gutierrez

Mentor: Dr. Robert Steward Jr. (Mechanical and Aerospace Engineering)

The Effect of Altering PDMS Solutions on Hemiwickings

Manuel Hernandez

Mentor: Dr. Shawn Putnam (Mechanical and Aerospace Engineering)

Exploring Airfoil Designs for Flight Efficiency Optimization of a Subsonic Cruise Missile

Hannah Jarrett

Mentor: Dr. Michael Kinzel (Mechanical and Aerospace Engineering)

Characterization of Contact Resistance Properties of Different TLM Structure Designs

Nicole Karam

Mentor: Dr. Kristopher Davis, Dr. Mengjie Li (Materials Science and Engineering)

Evaluating the Importance of Domain Knowledge in Extractive Meeting Summarization Systems

Jia Jin Koay

Mentor: Dr. Fei Liu (Computer Science)

Using Weather Predictions and MODBUS Microcontroller for Energy Distribution in a Small Community Net Zero Grid

Lynn Komarek, Francis Olearczyk

Mentor: Dr. Qun Zhou (Electrical and Computer Engineering)

Fabrication of Metal Biopolymer Composite Electrochemical Sensor for Heavy Metal Detection in Water

Hew-Tun Li

Mentor: Dr. Hyoung Jin Cho, Dr. Pawan Pathak (Mechanical and Aerospace Engineering)

Evaluating a Space Vehicle User Interface with UX Methodologies

Thomas Lukas, Timothy Dinh
Mentor: Dr. Pamela Wisniewski (Computer Science)

A Comparison Of Virtual Reality and Augmented Reality as Educational Tools

Matthew MacKinnon, Kevin Galeano
Mentor: Dr. Joseph J. LaViola Jr. (Computer Science)

A Qualitative Examination on Adolescents' Support Seeking for Online Sexual Experiences

Madison Maynard
Mentor: Dr. Pamela Wisniewski (Computer Science)

Applications of Machine Learning Bias Correction Algorithms for Predictions of Hurricane Storm Surge Risk

Joel Montano
Mentor: Dr. Talea Mayo (Civil, Environmental, and Construction Engineering)

Manufacturing and Optimization of Self-assembled Metallic Nanoparticles Using Thin-Film Deposition Techniques

Leidy Moreno, Iliana Sunkara
Mentor: Dr. Debashis Chanda (Optics and Photonics)

Online Peer Support for Adolescent Online Sexual Experiences: An Analysis of Digital Trace Data

Pia Nelson, Gabriel Laaroussi, Gabriela Mariz
Mentor: Dr. Pamela Wisniewski (Computer Science)

Performance of Ultra-High Performance Concrete Shells for Use in Concrete Beams and Columns

Bolivar Perez
Mentor: Dr. Kevin Mackie (Civil, Environmental, and Construction Engineering)

Impacts of Climate Change on Wave Energy Conversion and Coastal Erosion

Kelsey Perez
Mentor: Dr. Talea Mayo (Civil, Environmental, and Construction Engineering)

Heart Modeling and Identification of Scar Tissue based on Cardiac Diffusion Tensor Imaging

Munish Persaud, Maria Bower
Mentor: Dr. Luigi Perotti (Mechanical and Aerospace Engineering)

Sample Generating Apparatus for the Chemical Profiling of Tire Traces

Kestrel Pourchot
Mentor: Dr. Luigi Perotti (Mechanical and Aerospace Engineering)

Assessment of Correlation between Learning Diagnostics and Performance in Simulated Tasks through Machine Learning-Based Techniques

Geela Margo Ramos
Mentor: Dr. Stephen Fiore (Philosophy), Dr. Gita Sukthankar (Computer Science)

Optimizing a Parabolic Solar Trough's Receiver

Adil Riahi
Mentor: Dr. Shawn Putnam (Mechanical and Aerospace Engineering)

Defining an Effective Heat Transferring Metamaterial via Van der Waals Forces

Bianca Rosendahl
Mentor: Dr. Shawn A. Putnam (Mechanical and Aerospace Engineering)

Applications of Augmented Cognition in Cyber Security

Andres Rosero, Corey Walton
Mentor: Dr. Ryan Wohleber, Samantha Napier (Simulation and Technology)

Improving the Range Performance of Infrared Imagers

Jasper Rowe
Mentor: Dr. Ronald Driggers (Optics and Photonics)

Tech Talk: Examining Factors that Influence How Teens and Parents Perceive Their Communication about Teen Internet Use

Tara Rutkowski
Mentor: Dr. Pamela Wisniewski (Computer Science)

Statistical and Lifetime Characterization of PTFE Materials for Extreme Environments

Sannmit Shinde
Mentor: Dr. Ali Gordon (Mechanical and Aerospace Engineering)

Characterization of Coal Ash: Identifying the Constituents of Ash Samples

Nino Stea, Alexandra Lobanova
Mentor: Dr. Debra Reinhart (Civil, Environmental, and Construction Engineering)

Direct-Contact Biocompatibility Analysis of Additive Manufactured WE-43 Magnesium Alloy

Taylor Toth
Mentor: Dr. Stephen J. Florczyk (Materials Science and Engineering)

Understanding Urban Traffic Congestion through Uber Movement Using Non-parametric Regression Approach

Jorge Ugan
Mentor: Dr. Mohamed Abdel-Aty, Dr. Samiul Hasan (Civil, Environmental, and Construction Engineering)

A look at the Role in Temperature in Wicking Performance on a Microstructured Surface

Anthony Villegas
Mentor: Dr. Shawn Putnam (Mechanical and Aerospace Engineering)

HEALTH SCIENCES

Long-Term Outcomes of Neonatal Herpes Simplex Virus Infection and Treatment

Genesis Brador
Mentor: Dr. Humberto López Castillo, Dr. Michael Rovito (Health Sciences)

Effectiveness of a Mindfulness Meditation App on Those with Intellectual Disabilities Enrolled in a Post-Secondary Education Program

Michele Guillard, Madilyn Maschhoff, Kaylan Kelly, Taylor Duffy, Audley Ridley, Cristal Rivera
Mentor: Dr. Keith Brazendale (Health Sciences)

A Quantitative Analysis of Loneliness and Somatic Symptoms

Luciana Jones
Mentor: Dr. Janan Smither, Dr. Daniel McConnell (Psychology)

Possible Misdiagnosis of Deep Vein Thrombosis After Acute Achilles Tendon Rupture in a Collegiate Recreational Athlete

Stephen LeStrange
Mentor: Dr. L. Colby Mangum, Dr. Kristen Couper Schellhase (Kinesiology and Physical Therapy)

Reported Exercise Enjoyment of Upper-Body and Lower-Body Cycling Exercise

Shanelle Osorio
Mentor: Dr. David Fukuda (Kinesiology and Physical Therapy)

Optimizing Transcranial Magnetic Stimulation Research Methodology: How Many Pulses are Necessary to Minimize Interpulse Variability in Corticospinal Excitability?

Jason Pagan
Mentor: Dr. Matt Stock (Kinesiology and Physical Therapy)

Tobacco Use Disparities by Sexual and Gender Minority Status Among UCF Students

Parth Patel

Mentor: Dr. Julia N Soulakova (Biomedical Sciences)

The Fighting Journey of the Premature Baby: A Systemic Review

Dana Patel

Mentor: Dr. Katia Ferdowsi (Health Sciences)

Exploring the Impact of Pre-Exposure Prophylaxis Related to Sexual Behavior in College Men

Dalton Poe

Mentor: Dr. Christa Cook (Nursing)

Blood Pressure Responses to Lower And Upper Cycling Exercises

Hillary Porto

Mentor: Dr. David Fukuda (Kinesiology and Physical Therapy)

Association Between Central Motor Conduction Time and Rapid and Absolute Grip Strength in Older Adults

Gabriela Rodriguez

Mentor: Dr. Matt Stock, Dr. Nicole Dawson (Kinesiology and Physical Therapy)

Cold Water Immersion Yielded Decreased Perception of Delayed Onset Muscle Soreness within Elite Athletes Over Contrast Therapy Immersion: A Critically Appraised Topic

Danielle Scognamiglio, Andrew

Schewitzer, Kameelah Jade

Belgrave, Amaris McLendon

Mentor: Dr. Lauren Colby Mangum (Kinesiology and Physical Therapy)

The Impact of Food Insecurity in Puerto Rico After Hurricane Maria

Valeria Sostre

Mentor: Dr. Humberto López Castillo (Health Sciences)

Relationship Between Executive Function and Postural Control

Lara Suarez

Mentor: Dr. Nicole Dawson (Kinesiology and Physical Therapy)

The Impact of Virtual Reality on Chronic Pain Management

Alexis Whitehead

Mentor: Dr. Kelly Allred (Nursing)

LIFE SCIENCES

Using eDNA to Test Whether Cuban Tree Frogs (*Osteopilus septentrionalis*) Can Amplify the Amphibian Pathogen *Perkinsea*

Matthew Blow

Mentor: Dr. Anna Savage (Biology)

The Effects of Salinity on Kidney Histology in Coastal vs. Inland Alligators

Sara Brunner

Mentor: Dr. Eric Hoffman (Biology)

Defining the Role of a SenX3-RegX3 Orthologous Two-Component System in *Mycobacterium Abscessus*

Christian Castano

Mentor: Dr. Kyle Rohde (Biomedical Sciences)

Systematic Genetic Analysis of L,D-Transpeptidases in *M. Abscessus* and *M. Smegmatis* as Synergistic Targets for Beta-Lactam Antibiotics

Isabella Castellano, Nivas Patel

Mentor: Dr. Kyle Rohde (Biomedical Sciences)

Tinnitus's Effect on Mental Health

Farzon Danesh

Mentor: Dr. Kersten Schroeder (Biomedical Sciences)

A Plant-Based Diet and its Effects on Cardiovascular Diseases

Seena Darwish, Sara Darwish

Mentor: Dr. Raheleh Ahangari (Biomedical Sciences)

Screening Temperate Woody Plants for Aluminum Hyperaccumulation and Exclusion

Dashiell Desravines

Mentor: Dr. Chase Mason (Biology)

Acknowledging Conservative Options to Knee Arthritis Surgery in Elderly Patients

Mostafa Diab, Eric Singh

Mentor: Dr. Mohtashem Samsam (Biomedical Sciences)

Role of Antioxidant Therapies in the Prevention and Treatment of Diabetic Retinopathy

Carlos Diaz

Mentor: Dr. Mohtashem Samsam (Biomedical Sciences)

The Effects of the Gut Microbiome in Hypothyroid Patients

Safa El-Ali

Mentor: Dr. Mohtashem Samsam (Biomedical Sciences)

Quantifying the Mutagenic Potential of BPA Analogs on Mouse L-Fibroblast Cell Lines in vitro

Eric Neil Emperio, William Hudson Shaw, Joseph Sullivan

Mentor: Dr. Alicia Hawthorne, Dr. Emily Bradshaw (Biomedical Sciences)

Using Genetics to Understand Hybridization and Immunogenetic Variation in *Cyclura Iguanas*

Noah Fabiano

Mentor: Dr. Anna Savage (Biology)

Developing an eDNA Tool for Monitoring the of Dwindling Dwarf Seahorse (*Hippocampus zosterae*)

Tara Fellows

Mentor: Dr. Michelle Gaither (Biology)

Using DNA Barcoding to Understand the Evolution of Plant Physiology Through a National Survey of Mycorrhizae and Wild Sunflower Associations

Gillian Gomer

Mentor: Dr. Chase Mason (Biology)

Integrative Taxonomy Reveals Cryptic Amphibian Diversity in the Tropical Andes of Ecuador

Brittney Gray

Mentor: Dr. Anna Savage (Biology)

Investigating the Persistence of Stress and its Relationship to the Development of Chronic Migraine

Collin Harris

Mentor: Dr. Mohtashem Samsam (Biomedical Sciences)

Role of Monoclonal Antibodies in Treating Migraine

Amin Kordian

Mentor: Dr. Mohtashem Samsam (Biomedical Sciences)

Elucidating the Value Of Skin, Blood, and Fibropapilloma Samples For Detecting Herpesvirus In *Chelonia mydas*

Tamara Lee

Mentor: Dr. Anna Savage, Dr. Kate Mansfield (Biology)

Utilizing Wildlife Cameras to Identify Vertebrate Behaviors and Abundance on a Living Shoreline in Canaveral National Seashore

Jason Litwak, Julia Rifenberg

Mentor: Dr. Linda J. Walters (Biology)

The Search for Groundcover

Katlyn McCoy, Colin Kelley, Karyssa

Kemp, Desdemona Kurowski, Kristi

Malanga

Mentor: Jennifer Elliott (Biology)

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Meeti Mehta

Mentor: Dr. Steven Ebert (Biomedical Sciences)

Potential Role of SSRI Usage by Mothers Leading to Increasing Risk of Autism in Children

Jillian Mezo, Marissa Dyer, Nicole Hancock, Samantha Totty

Mentor: Dr. Raheleh Ahangari (Biomedical Sciences)

Synthesis of IL-6/gp130 Protein-Protein Interface Small Molecule Inhibitors

Alyssa Mickle

Mentor: Dr. Chenglong Li (University of Florida)

Therapeutic Strategies Targeting Immunological Factors to Reduce Multiple Sclerosis Progression and Relapse Rate Occurrence

Selena Miranda

Mentor: Dr. Mohtashem Samsam (Biomedical Sciences)

Identification of the region in protein disulfide isomerase that is responsible for the disassembly of cholera toxin

Daisy Mora, Elizabeth Torres, Elisabeth Emory, David M Caraballo Delgado, Antonio Mele, Antonio Torres

Mentor: Dr. Kenneth Teter (Biomedical Sciences)

Memory T Cell Regulation of Innate Lymphoid Cell Repair Proteins Following Influenza A Virus Vaccination and Infection

Mate Nagy

Mentor: Dr. Tara M. Strutt (Biomedical Sciences)

Effect of Vitamin D and Beta Interferon in Multiple Sclerosis Patients

Anvita Nath

Mentor: Dr. Raheleh Ahangari (Biomedical Sciences)

Terpenoid Diversity of Rhododendron

Lindsay Plyler

Mentor: Dr. Eric Goolsby (Biology)

Sea Turtle Nesting Behavior and Incubation Duration in Response to Increasing Storm Severity

Jessica Provenzano

Mentor: Dr. Kate Mansfield (Biology)

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Lauren Puleo

Mentor: Dr. Anna Forsman (Biology)

Marine Leeches are Associated with the Tumor Disease Fibropapillomatosis in Green Sea Turtles but Not in Loggerhead Sea Turtles

Leah Rittenburg

Mentor: Dr. Anna Savage, Dr. Kate Mansfield (Biology)

Role of Polyploidy in Leaf Functional Traits and Secondary Metabolite Evolution Across Wild Helianthus

Anestacia Robinson

Mentor: Dr. Chase Mason (Biology)

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Coral Robson

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Alexa Rodriguez

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Thalia Romero

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Optimization of Western Blots

Briana Marie Rosado, Ruben Mercado

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Eliel Ruiz

Mentor: Dr. Cristina Fernandez-Valle (Biomedical Sciences)

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Sumeen Sajid

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Ashley Santana

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Kirsten Scheller, Brianna Ariza

Mentor: Dr. Mohtashem Samsam (Biomedical Sciences)

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Justin Shaw

Mentor: Dr. Debopam Chakrabarti (Biomedical Sciences)

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Isabel Silva

Mentor: Dr. Ioannis Dragatsis (University of Tennessee)

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Brandon Simons

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Surveying Endogenous Regions for Varying Epigenetic Regulation via a Novel Suntag-dCas9 System

Anishaa Sivakumar

Mentor: Dr. Yoon-Seong Kim (Biomedical Sciences)

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Valorie Smith, Brian Brady

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Jaynlynn Sosa

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Isabella Stamas, Michaela Carson

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Noah Stoeckel

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Holiyan Suresh
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Ghada Swissi
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Brittany Thompson
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Alyssa Uebele
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Tania Velez Mercado
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Logan Walck
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George Walters-Marrah
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Elizabeth Williamson
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Zoe Barbeau
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Dennis Corraliza
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Ezat El-Said
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Michael Greenberg
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Velda Iskandar
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Jillian Morgan
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Alexander Nicola, Austin Rothermich
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Lauktona Rimpel
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Courtney Scalf
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Austin Schrader
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Tammy Van
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Connor Hack
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Karin Shull
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