

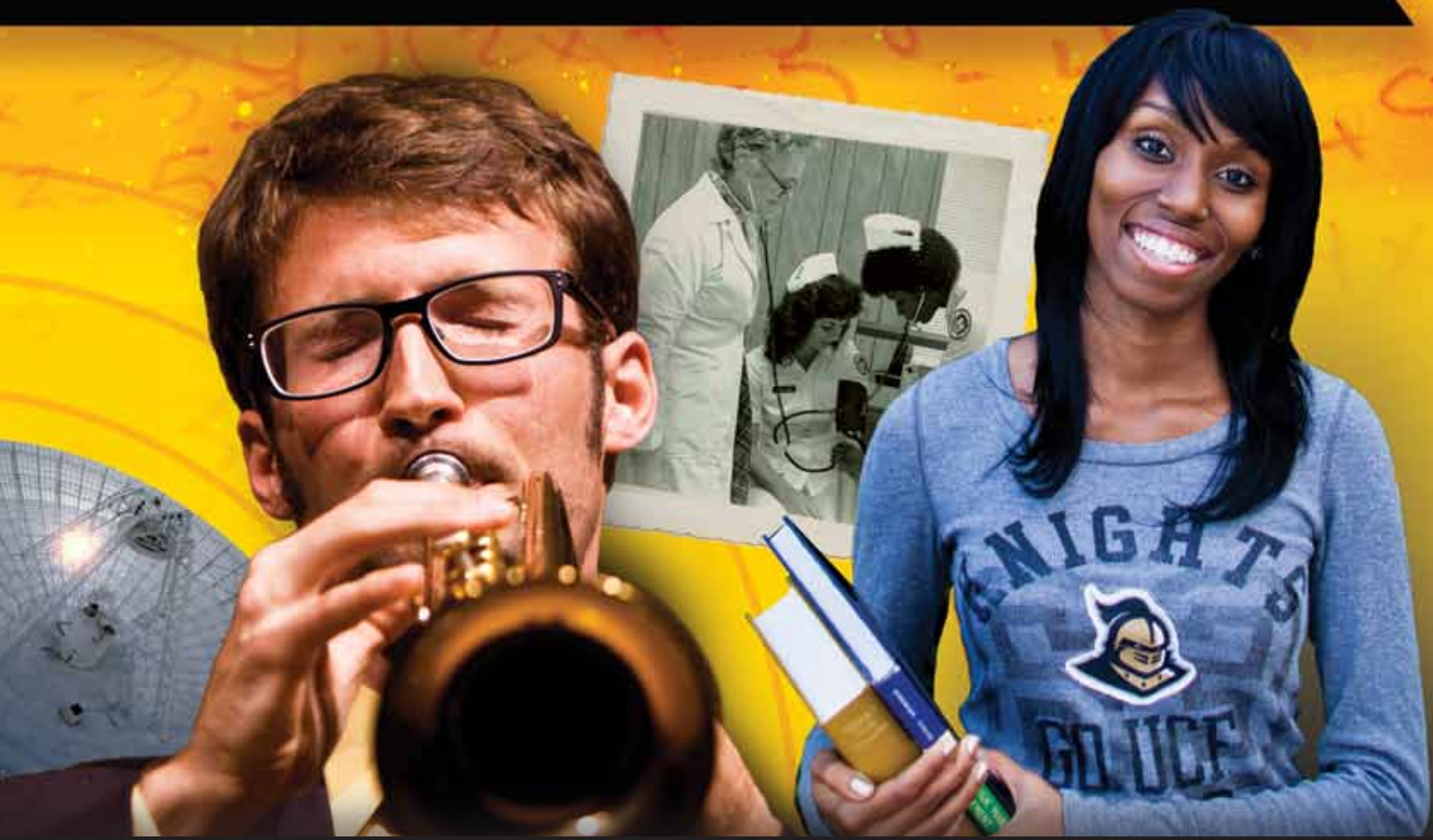
2013



10 YEARS OF SHOWCASE • 50 YEARS OF UCF

SHOWCASE OF  
**UNDERGRADUATE RESEARCH EXCELLENCE**

CELEBRATING UNDERGRADUATE RESEARCH AND CREATIVITY ACROSS THE CURRICULUM



THURSDAY, APRIL 4, 2013 • 1:30-5:00 P.M. • PEGASUS BALLROOM—UCF STUDENT UNION

## **Welcome to the Tenth Annual Showcase of Undergraduate Research Excellence.**

The Showcase is a poster- or display-based forum for University of Central Florida undergraduates to present their research and creative projects to the university community. Undergraduates from all disciplines are encouraged to present current or recently completed academic projects showcasing the diversity of topics, approaches, and interests at UCF. The Showcase serves as a resource for undergraduates not yet engaged in research and creative pursuits to learn how fellow students have developed their intellectual interests, current projects, and faculty connections. The Showcase also demonstrates to students, faculty, staff, alumni, and the Central Florida community that student research builds upon and enriches the UCF undergraduate experience. The Showcase is sponsored by the Office of Undergraduate Research, which is a unit of Undergraduate Studies. For more information about undergraduate research, please visit the Office of Undergraduate Research's website **[www.OUR.ucf.edu](http://www.OUR.ucf.edu)**.

The Showcase is part of the 2013 Research Week at UCF.

**[www.Showcase.ucf.edu](http://www.Showcase.ucf.edu)**

UNIVERSITY OF CENTRAL FLORIDA | ORLANDO, FLORIDA

**SHOWCASE OF  
UNDERGRADUATE RESEARCH EXCELLENCE**

Celebrating undergraduate research and creativity across the curriculum.

OFFICE OF UNDERGRADUATE RESEARCH

ORDER OF EVENTS

**STUDENT PRESENTATIONS** (*Pegasus Ballroom*) . . . . . **1:30-4:00 P.M.**

**FACULTY MENTOR OF THE YEAR** (*Cape Florida Ballroom*) . . . . . **4:20 P.M.**

**Student Undergraduate Research Council**

**REMARKS AND PRESENTATION  
OF SCHOLARSHIPS** (*Cape Florida Ballroom*) . . . . . **4:30 P.M.**

**John C. Hitt**  
President

**Elliot Vittes**  
Interim Vice Provost and Dean of Undergraduate Studies

**STUDENT RESEARCH WEEK 2013**

## SHOWCASE JUDGES

The Office of Undergraduate Research is indebted to the following faculty for devoting a substantial amount of their time serving as Showcase judges.

Kimiko Akita	Jennifer Kent-Walsh	Erin Saitta
Amanda Anthony	Dmitry Kolpashchikov	Shadab Siddiqi
Patrick Bohlen	Steven Kuebler	Valerie Sims
Bob Borgon	Patrice Lancey	Hojun Song
Hyoung Jin Cho	Victoria Loerzel	Mary Tripp
Christa Diercksen	Daniel McConnell	Kerry Welch
Maysoun Dimachkie	Lisa Mills	Chrysalis Wright
William Hanney	Ram Mohapatra	Andrew (Hae-Bum) Yun
Martin Dupuis	Karen Mottarella	Antonis Zervos
James Hogg	Daniel Murphree	Shaojie Zhang
Mollie Jewett	Jeff Novak	Cliff Zou
Travis Jewett	Wanda Raimundi-Ortiz	
Dana Joseph	Jeff Rosky	

## SHOWCASE BENEFACTORS

Through the generosity of the following organizations and individuals, substantial scholarships will be awarded to students judged to have the best projects presented at the Showcase. The Office of Undergraduate Research and the planners of Student Research Week are grateful to these benefactors for their encouragement and support of student research at UCF.

The Burnett Honors College  
Ken Fedorka and Kimberly Schneider  
Florida High Tech Corridor  
Richard H. Harrison II in honor of past and current SURE faculty mentors  
Institute for Social and Behavioral Sciences  
Office of Research and Commercialization  
John (Rick) Schell  
Student Government Association  
Undergraduate Studies

## FACULTY MENTORS

The faculty is a university's paramount asset, and the Office of Undergraduate Research recognizes the following UCF faculty mentors who have advised, counseled, tutored, and encouraged students presenting at today's Showcase.

Kelly Allred	Jason Ford	Steven Leon	Alfons Schulte
Deborah Altomare	Homer Edward Fouty	Connie Lester	William Self
Theodore Angelopoulos	Andrew Frazer	Xin Li	Jose Sepulveda
Uluc Aysun	Barbara Fritzsche	Yi Liao	Denver Severt
Jeffrey Bedwell	Martha Garcia	Humberto Lopez	Shadab Siddiqi
Kevin Belfield	Andrew Gay	Saeed Lotfifard	Valerie Sims
Kathleen Bell	David Gay	Kaveh Madani	Eileen Smith
Luciano Berardi	Linda Gibson-Young	Carolyn Massiah	Janan Smither
Steven Berman	Avelino Gonzalez	Michal Masternak	Mary Lou Sole
Alaina Bernard	Ali Gordon	Daniel McConnell	Hojun Song
Richard Blair	Melanie Guldi	Joanna Mishtal	Ken Stanley
Patrick Bohlen	Darlene Hadrika	Sean Moore	Kiminobu Sugaya
Clint Bowers	Peter Hancock	Karen Mottarella	James Szalma
Shawn Burke	James Harper	Mustapha Mouloua	Michael Taylor
Michael Carney	Christopher Hawkins	Mark Muller	Kenneth Teter
Shannon Carter	Florencio Hernandez	Erin Murdoch	Jayan Thomas
Necati Catbas	James Hickman	Gina Naccarato-Fromang	George Tita
Debopam Chakrabarti	Eric Hoffman	Saleh Naser	Betsy Von Holle
Ratna Chakrabarti	Bari Hoffman Ruddy	Charles Negy	Laurence von Kalm
Bo Chen	Carolyn Hopp	Mark Neider	Julee Waldrop
Karin Chumbimuni-Torres	Lin Huff-Corzine	Anne Norris	Linda Walters
Joshua Colwell	Charles Hughes	Christopher Parkinson	Earl Weaver
Richard Crepeau	Gulnora Hundley	Jennifer Pazour	Patricia Weinstein
Anne Culp	Marcel Ilie	Otto Phanstiel	John Weishampel
Andrew Daire	Peter Jacques	Cynthia Poole	Grace White
Henry Daniell	Suhada Jayasuriya	Seetha Raghavan	Shannon Whitten
Eduardo Divo	David Jenkins	Amy Reckdenwald	Graham Worthy
Amy Donley	Jae-Kyun Jeon	Kimberly Renk	Chrysalis Wright
Melinda Donnelly	Jayanta Kapat	Teddy Reynolds	Jingdong Ye
Steven Duranceau	Jeffrey Kaplan	Fernando Rivera	Cherie Yestrebksy
Steven Ebert	Alain Kassab	Cecilia Rodriguez-Milanés	Yu Yuan
Costas Efthimiou	Jennifer Kent-Walsh	Kyle Rohde	Shaojie Zhang
Roberta Ergle	Sherron Killingsworth	Michael Rovito	Shengli Zou
Alvaro Estevez	Roberts	William Russell	
Jiyu Fang	Joo Kim	Hari Saha	
John Fauth	Joshua King	Francis Salmon	
Francisco Fernández-Rubiera	Stephen King	Mohtashem Samsam	
Cristina Fernandez-Valle	Dmitry Kolpashchikov	Maria Cristina Santana	
Nick Forand	Stephen Kuebler	Kristen Schellhase	
	Yovanna Kuperman	Mary Schmidt-Owens	
	Kwan-Chul Kwon		

## FACULTY RECOGNITION

As we celebrate the 10 year anniversary of the Showcase of Undergraduate Research Excellence we would like to honor and thank all the faculty who have mentored students over the years. The following list of faculty have mentored students for five or more years:

Jeffrey Bedwell	Eric Hoffman	Kimberly Renk
Steven Berman	Rosalyn Howard	Cecelia Rodriguez-Milanes
Humberto Campins	Charles Hughes	Houman Sadri
Necati Catbas	Peter Jacques	Maria Cristina Santana
Debopam Chakrabarti	David Jenkins	Kristen Schellhase
Ratna Chakrabarti	Jayanta Kapat	Alfons Schulte
Sic Chan	Alain Kassab	William Self
Kristin Congdon	Jennifer Kent-Walsh	Denver Severt
Andrew Daire	Joo Kim	Valerie Sims
Henry Daniell	Stephen Kuebler	Eileen Smith
Eduardo Divo	Ranganathan Kumar	Janan Smither
Amy Donley	Michele Montgomery	Kiminobu Sugaya
Tosha Dupras	Karen Mottarella	Ken Teter
Steven Ebert	Mustapha Mouloua	Laurence von Kalm
Costas Efthimiou	Mark Muller	Linda Walters
Kenneth Fedorka	Erin Murdoch	John Weishampel
Terri Susan Fine	Charles Negy	Shannon Whitten
Barbara Fritzsche	Chad Nye	Kurt Young
Martha Garcia	Dawn Oetjen	Cynthia Young
David Gay	Christopher Parkinson	Antonis Zervos
Michael Georgiopoulos	Marianna Pensky	
Avelino Gonzalez	Otto Phanstiel	
Ali Gordon	Seetha Raghavan	



## ARTS AND HUMANITIES

### MATTHEW ANGELO

#### Plant Nanny: Demonstration of Real World Data Capture Through a Self-Monitoring Garden

*Student Co-Authors:* John Carlson, Kathryn Hahn, Jessica Chiancone

*Mentor:* Mr. Michael Carney (Visual Arts and Design)  
Plant Nanny is a proof of concept that demonstrates the use of real world sensors to create data streams. We aim to inform the informal education field by showcasing the potential impact of real world data capture.

### CORTNEY BADDGER

#### Invasive Lionfish: Predator on the Loose!

*Student Co-Authors:* Rebecca Raz, Thomas Vina

*Mentor:* Ms. Eileen Smith (Visual Arts and Design)

Lionfish have become an epidemic along the borders of the Atlantic and the Caribbean coast. Our goal as a collaborative team is to illustrate the devastating effect of invasive lionfish. To accomplish this, we will use digital media and create a dynamic short film on the effects of this species.

### JAMIE DIAMOND

#### Duck Tales: Take a Journey Through Dangerous Ocean Currents

*Mentor:* Ms. Eileen Smith (Visual Arts and Design)

To teach classes and individual students about the effects of ocean currents and how debris travels across the oceans. Students will also learn how debris may pick up unwanted wildlife or plant life and carry these species to foreign shores.

### PORSHA DOSSIE

#### Fancy Maids: The Rape and Commodification of Black Bodies During Chattel Slavery

*Mentor:* Dr. Connie Lester (History)

This study examines the impact of the Fancy Trade on the social status of slave women in the antebellum South, and how this systematic rape and commodification of black women was abetted by the myth of Jezebel and concurrently concealed by the pervasive illusion of Black Mammy.

### PETE FELLNER

#### Da Vinci Dreams: Envisioning How “The Master” Might Have Perceived His World

*Mentor:* Ms. Darlene Hadrika (Visual Arts and Design)

The project’s objective is to present a 3D animation of how Leonardo Da Vinci might have perceived his world and come up with his inventions. The animation will start with realistic rendering and morph into a Da Vinci-esque sketch style and then morph back into realism.

### KATIE HARRISON

#### A Linguistic Investigation of Root Transformations in Subordinate Clauses: Are They Really “Root?”

*Mentor:* Dr. Francisco Fernández-Rubiera (Modern Languages and Literatures)

An investigation of the syntactic structures called root transformations which consist of transpositions of sentence components and are hypothesized to occur exclusively within a main (root) clause. The research examines, through use of survey and analysis, if and in what contexts these constructions can occur grammatically in subordinate clauses.

### AUBREY KUPERMAN

#### Scientific Motherhood: A Positivist Approach to Patriarchy in Fin-de-Siècle Argentina

*Mentor:* Dr. Yovanna Kuperman (History)

At the turn of the 20th century, Argentine elites influenced by Positivism worried that modernity would cause chaos. In order to counteract this, elites adopted the role of parents to the nation and used science to ensure the health of the next generation.

### JORDAN LYNTON

#### Intersectionality as a Means for Understanding Agency in Female Protagonists in Chinese and African-American Fiction

*Mentor:* Dr. Kathleen Bell (Writing and Rhetoric)

This project seeks to evaluate the effectiveness of the intersectional paradigm as a comparative lens with which to analyze the construction of female characters in mid-twentieth century Chinese and African-American fiction in place of a Western feminist lens.

### MEGAN MOORE

#### Chinese Farmers’ Paintings: Cultural Awareness Through Interactive Media

*Mentor:* Dr. Joo Kim (Visual Arts and Design)

The project investigates Chinese farmers’ paintings by creating an interactive game for children. The game explores common themes in these paintings: vibrant colors, simple shapes, and the importance of community. The interactive game employs influences, materials, and appreciation of Chinese culture.

### SANJANA NAYEE

#### Not Really Bollywood: Popular Hindi Films, Songs, and Dance with Pedagogical Applications for Understanding Indian History and Culture

*Mentor:* Dr. Sherron Killingsworth Roberts (Educational Studies)

Contemporary fascination with Bollywood proliferates American pop culture media that homogenizes India as *simply* Bollywood. Some socio-political outlets place South Asians into fitted stereotypes that are ridiculed and largely distorted. This thesis explores how the growing intrigues of popular Hindi films exist beyond the fantastically escapist cinema erroneously labeled “Bollywood.”

### DETRACHIA NEELY

#### Getting Your Words in Print: Researching, Writing, Editing

*Mentor:* Dr. Cecilia Rodriguez-Milanés (English)

The purpose of the project was twofold with the ultimate goal of publication. The first part required researching publication venues that are appropriate for my creative work as well as seeking suitable presses for my mentor’s edited collection. The second stage required editing my short fiction for publication.

### KENNETH NEGY

#### Methods Short of War: The United States Reacts to the Rise of the Third Reich

*Mentor:* Dr. Richard Crepeau (History)

This project analyzes the various opinions in the United States of Adolf Hitler and the Nazis during the 1930s before entering World War II and seeks to explain why the U.S. did relatively little to influence German and European affairs even in the face of increasing Nazi brutality and bellicosity.

## **MONEIKA OKAWA**

### **ARC-2**

**Mentor:** Ms. Eileen Smith (Visual Arts and Design)

To deliver an interactive learning experience that displays the detrimental impacts of sea level rise through a stimulating computer application. Clients will visualize and learn about the negative aspects of sea level rise by exploring a hands-on 3D virtual underwater Florida museum set 100 years in the future.

## **MELISSA PALOMINO**

### **Dancing with a Cuban Accent: Creating and Designing a Dance Piece Based on Historic Research**

**Mentor:** Mr. Earl Weaver (Theatre)

To understand defected dancers from the Cuban National Ballet, research was conducted in the form of studying the company's history, past performances, and observing or conducting interviews. The research was then used to create a documentary and a dance piece, which will be performed at UCF Theatre's Annual Dance Concert.

## **RODNEY RITCHEY**

### **Auditor Empowerment Research Initiative**

**Student Co-Authors:** Dominique Groover, Joshua Searles

**Mentor:** Ms. Eileen Smith (Visual Arts and Design)

A website that hosts an interactive training video (about auditing cash or payrolls) targeted for first time young auditors. And a forum space or blog spot where new and young auditors could go to ask questions, share experiences, and have access to resources dealing with client intimidation.

## **MAILLIM SANTIAGO**

### **Little Women: Study of Female Representation in Teen Films and How They Affect Gender Perception**

**Mentor:** Mr. Andrew Gay (Visual Arts and Design)

The objective of this project is to discover how influential the teen film genre is on the perceptions of the young women they target.

## **NATALIA SEPULVEDA**

### **The Importance of Education from a Global Perspective: Teaching Don Quixote in the 21st Century**

**Mentor:** Dr. Martha Garcia (Modern Languages and Literatures)

The objective of this study is to concentrate on the topic of education in the Cervantine works, by examining the importance and significance from a global perspective using a seventeenth century text, *Don Quixote of La Mancha*, as part of the teachings in the 21st century classroom.

## **SONJA SHANK**

### **Arts Integration: Learning Through and with the Arts, a Curricular Process, and Collaborative Engagement**

**Mentor:** Dr. Carolyn Hopp (Educational Studies)

The purpose of my research has been to explore the integration of the arts into a middle school curriculum. I have used Howard Middle School in Orlando for the bulk of my research as they are an arts magnet school.

## **WILLIAM SHIPLEY**

### **Social Classes as Portrayed in Two Caribbean Literatures**

**Mentor:** Dr. Humberto Lopez (Modern Languages and Literatures)

This projects intends to analyze and compare socio-cultural aspects within two Caribbean novels, *Sab*, by Gertrudis Gomez de Avellaneda and *La Charca*, written by Puerto Rican author Manuel Zeno Gandia.

## **NICOLE SMALLEY**

### **Chew on This: A Student's Guide to Sustainable Eating**

**Mentor:** Ms. Eileen Smith (Visual Arts and Design)

Our group intends to raise awareness by providing research and knowledge on eating sustainably for the environmentally conscious student so that they can save money, eat healthfully, and reduce their carbon footprint.

## **ARLIN SORHAINDO**

### **Food Porn: Finding the Truth in Advertising by Looking at What is Underneath the Covers**

**Student Co-Authors:** Morgann Grassi, Mateo Calderon, JoBeth Ramoo, Hope Yoders

**Mentor:** Ms. Eileen Smith (Visual Arts and Design)

In America we are all about the package, how shiny the cover is, does the presentation make you salivate? But is that what we should really be concerning ourselves with? Food Porn's objective: uncover the truth in advertising to make you a healthier consumer.

## **ENGINEERING AND COMPUTER SCIENCE**

## **PRABHJOT AHLUWALIA**

### **The Application of Games**

**Student Co-Author:** Summer Carlson

**Mentor:** Dr. Kaveh Madani (Civil, Environmental, and Construction Engineering)

The purpose of this research is to create a database of a wide variety of interactive games while analyzing their pros and cons. Focusing on the specifications and quality of the game, we want to take this information and eventually create a game that focuses on water conflict.

## **ZAYD BABAMIR**

### **Load-Shedding Model of Intermittent Energy Sources with Markov Chains**

**Mentor:** Dr. Saeed Lotfifard (Electrical Engineering and Computer Science)

In this study, a statistical model for intermittent energy sources such as solar cells is created with the use of Markov Chains. By developing a model for intermittently powered systems, a more efficient way to manage said systems with surety is explored.

## **MATTHEW BRICKNER**

### **Aerodynamic Characteristics of Flow Through a Three-Dimensional Cavity: A Computational Approach**

**Mentor:** Dr. Marcel Ilie (Electrical Engineering and Computer Science)

Numerical methods were used to understand how fluid flows through a three dimensional cavity, which is a comparison to the landing gear bay on a typical commercial aircraft. The results have potential use to optimize aircraft designs which could increase aerodynamic efficiency during takeoff and landing.

## **ERIK DURNBERG**

### **Piezospectroscopy to Compare Analytical and Numerical Nanoparticle Load Transfer Theories**

**Student Co-Author:** Timothy Johnson

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

The goal of this present work is to predict the stress sensing abilities of these nanocomposites by modeling the PS properties using a variety of analytical and numerical techniques.



## **BRANDON EALY**

### **Laser Additive Manufacturing of Turbine Components**

**Mentor:** Dr. Jayanta Kapat (Mechanical, Materials, and Aerospace Engineering)

This research investigates the success of manufacturing porous structures in gas turbine blades by laser additive techniques. This method of manufacturing allows for more radical blade designs considered unachievable by current standards, making it possible for increased internal convective heat transfer coefficients and higher overall efficiencies.

## **JUAN GONZALEZ**

### **A Systems Approach to Energy Sustainability Evaluation**

**Mentor:** Dr. Kaveh Madani (Civil, Environmental, and Construction Engineering)

The objective of the project is to show the importance on using an informed decision based on the available resources in a given area for the energy production method. As well as the efficiency of the production based on multiple criteria as an equal value to each other.

## **SKYLER GOODELL**

### **Multirobot Behavior Synchronization Through Hive Brain Neuroevolution**

**Mentor:** Dr. Ken Stanley (Electrical Engineering and Computer Science)

A team of robotic agents controlled by artificial neural networks (ANNs) are evolved to communicate through novel internetwork connections. This communication scheme, called a hive brain, causes agents to evolve their own internal "language" that is robust to noise and perturbation.

## **TRAVIS HENRIQUES**

### **Structural Health Monitoring: Performance Evaluation of Civil Infrastructures Through Structural Health Monitoring in Comparison with Physical Human Inspection**

**Mentor:** Dr. Necati Catbas (Civil, Environmental, and Construction Engineering)

The overall effectiveness and benefits of implementing a structural health monitoring (SHM) system on a bridge will be investigated in comparison to current physical human inspection techniques. The objective of this research is to study the advantages of SHM techniques in comparison with more traditional inspection methods, including manual inspection.

## **MICHAEL HUNTER**

### **Monitoring Strain Evolution within Thermal Barrier Coatings Under Thermal Gradients and Mechanical Loading**

**Student Co-Author:** Stephen Sofronsky

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

Using high energy synchrotron x-rays, strain evolution was measured across the layers of thermal barrier coatings applied to tubular specimens. These specimens were subjected to mechanical and thermal gradient loading that simulated real world operating conditions.

## **JOSHUA KELLER**

### **Discovery of New Riboswitch Families from Bacteria Genomes**

**Mentor:** Dr. Shaojie Zhang (Electrical Engineering and Computer Science)

The objective of this project is to discover new riboswitch families in the bacteria genomes through computational methods that evaluate the energies of alternative structures of RNA segments in 5' untranslated regions.

## **ZACHARY LITTLE**

### **Transient Heat Transfer Experiments Using Thermochromic Liquid Crystals**

**Mentor:** Dr. Jayanta Kapat (Mechanical, Materials, and Aerospace Engineering)

A fast technique suitable for investigating heat transfer in internal cooling passages found in gas turbine engines is discussed. A semi-infinite solid model is combined with a lumped-capacitance model in order to allow the surface heat transfer coefficient to be measured on all surfaces.

## **JACYNTH MALCOLM**

### **Constitutive Modeling of Randomly Oriented Particle-Reinforced Polymetric Composites**

**Mentor:** Dr. Ali Gordon (Mechanical, Materials, and Aerospace Engineering)

This research focused on creating a method to analyze different microscopic composite material structures for testing. A program was written using FORTRAN to create a text file that produced and analyzed the structure in ANSYS.

## **ANNE PHAM**

### **Characterization of Thermochromic Liquid Crystals for Multicolor Transient Heat Transfer Experiments**

**Student Co-Authors:** Zachary Little, Patrick Tran

**Mentor:** Dr. Jayanta Kapat (Mechanical, Materials, and Aerospace Engineering)

The work demonstrates a multicolor calibration of thermochromic liquid crystal mixtures. The ability to obtain two distinct color intensity peaks allows for two independent measurements of surface temperature and will double the yield of usable data in future transient heat transfer experiments.

## **DUHWAN RASMUSSEN**

### **Imprinted DNA-CTMA Grating Structures**

**Mentor:** Dr. Jayan Thomas (Engineering Technology)

The objectives of this research are to develop and optimize the conditions necessary to print bio-optical and photonic devices using DNA-based polymer. We printed patterns of optical devices with representative feature sizes from 100 nanometers to 10 micrometers.

## **GENESIS RIOS**

### **Reduction of Total Trihalomethane Precursors from Central Florida Surface Water**

**Mentor:** Dr. Steven Duranceau (Civil, Environmental, and Construction Engineering)

The purpose of this study is to compare the effectiveness of aluminum and iron-based chemicals for the removal of disinfection byproduct (DBP) precursors from Central Florida drinking water supplies during coagulation.

## **VALERIA SAETTA**

### **Underutilization of Systems: Carpooling at UCF**

**Mentor:** Dr. Jennifer Pazour (Industrial Engineering and Management Systems)

Analyzing the underutilization of systems, specifically vehicles, traveling to and from UCF, we will develop models to measure the current state of the UCF community to determine if it would be beneficial for students to carpool to campus. Our analysis will consider economic, environmental and social costs associated with carpooling.

**KEVIN SMITH****The Fracture Toughness of a Hyperelastic Material in Surgical Cutting**

*Mentor:* Dr. Ali Gordon (Mechanical, Materials, and Aerospace Engineering)

A parametric finite element debonding contact model is being used to describe the minimal force required to cut a hyperelastic material with viscoelastic relaxation, while analyzing contact stress, blade sharpness, blade angle, and ultrasonic loads. This model is being empirically validated by using various cutting instruments on animal skin.

**KRYSTEN THOMAS****The Development of a Robotic Navigation System Used for Virtual Exploration**

*Mentor:* Dr. Charles Hughes (Electrical Engineering and Computer Science)

This project involves the design and development of a robot navigation system that will allow individuals to teleoperate a robot in a remote environment.

**IVAN TRIVINO****CFD Analysis of a Rotating Soccer Ball**

*Student Co-Author:* Johnny Castro

*Mentor:* Dr. Marcel Ilie (Mechanical, Materials, and Aerospace Engineering)

This research focuses on identifying the aerodynamic properties of an official size 5 soccer ball in flight while it spins in the air at various revolutions per minute. The characterization of the flow obtained will aid in the optimization of its design in rotating situations.

**TATIANA VIECCO****Redesign and Improvement of Orlando VA Medical Center**

*Mentor:* Dr. Jose Sepulveda (Industrial Engineering and Management Systems)

To create a redesign and improvement both in infrastructure and processes for the Orlando Veterans Affairs Medical Center. Additionally, we hope to assist with the strategic decision-making ability of OVAMC senior leadership by providing them with the ability to process data, and to identify and formulate key performance measures.

**MARTISA WASHINGTON****Structural Health Monitoring**

*Mentor:* Dr. Necati Catbas (Civil, Environmental, and Construction Engineering)

Using the non-destructive bridge inspection method of infrared data imaging, it could be possible to obtain a sort of formula or method to determine the best time to collect thermography of civil infrastructure.

**BRYAN WILDER****Episodic Memory in a Conversational Avatar**

*Student Co-Author:* Christopher Walls

*Mentor:* Dr. Avelino Gonzalez (Electrical Engineering and Computer Science)

We integrate episodic memory into a conversational avatar. Episodic memory allows the avatar to remember prior events in the conversation, facilitating more lifelike behavior. We determine the impact of the memory module by comparing the performance of an avatar with episodic memory to the same avatar without it.

**SAMUEL YACINTHE****Dynamic Model Validation of a Differential Drive Robot**

*Mentor:* Dr. Suhada Jayasuriya (Mechanical, Materials, and Aerospace Engineering)

The goal of this project is to study a newly proposed dynamic model of a differentially driven robot. This work will verify if the model functions as intended while investigating the correlation between theoretical and experimental data.

**HEALTH SCIENCES****KATHERINE ALLEN****Pepsin and Amylase in the Oral and Tracheal Secretions of Patients with Standard and Continuous Suctioning Endotracheal Tubes**

*Mentor:* Dr. Mary Lou Sole (Nursing)

Suctioned secretions were collected and analyzed to compare the incidence of pepsin and salivary amylase in paired oral and tracheal samples by endotracheal tube type.

**JENNY ARZT****Grammatical Roundup: Improving the Expressive Communication of Children Using an iPad App**

*Student Co-Author:* Nicole Dickerson

*Mentor:* Dr. Jennifer Kent-Walsh (Communication Sciences and Disorders)

Post-hoc analyses were employed in this pilot investigation to evaluate an intervention program on the production of inverted yes-no questions (e.g., "Is Woody laughing?") and 'to be' declaratives (e.g., "Anne is laughing.") using an augmentative and alternative communication (AAC) iPad application. Three children with motor speech disorders participated in this sub-investigation.

**STEPHEN BENDER****An LCL Avulsion Fracture in a Female Collegiate Soccer Player**

*Mentor:* Dr. Kristen Schellhase (Health Professions)

I did a case study on one of the UCF athletes. She had a rare injury and I took her throughout the entire rehabilitation protocol. I visited with doctors and discussed surgical techniques that could be provided and utilized this information to formulate a rehab program specifically for this athlete.

**ESTEFANY BOLOGNA****Impact of Abortion on the Current Mental Health Status of College Women**

*Mentor:* Dr. Homer Edward Fouty (Psychology)

This study intends to measure the impact of abortion on the current mental health status of college women. Additionally, this study intends to describe the characteristics of women obtaining abortions. This information may be used by clinicians who encounter women from this cohort suffering from post-abortion negative mental health outcomes.

**HATTIE BREWER****Staphylococcal Infection Following Knee Ligament Repair in a High School Football Athlete**

*Mentor:* Dr. Kristen Schellhase (Health Professions)

The purpose of this research study is to present the case of a staphylococcal infection following a knee ligament repair in a high school football athlete. Only 1 percent of the postoperative population produces an onset of this infectious complication. Immediate recognition is vital in the appropriate care of these patients.

## **CHASE CAVAYERO**

### **A Practicality Analysis Pertaining to Minimally Invasive Robot-Assisted Urologic Surgery**

**Mentor:** Dr. Michael Rovito (Health Professions)

This project analyzed three separate types of robot-assisted and laparoscopic urologic surgery procedures using an exploratory research tool developed by the author. This tool was developed as a standardization technique for the evaluation of three specific procedures with hopes for future utilization in the field of urologic surgery.

## **DOREY CHAFFEE**

### **Truly Accomplished: A Motivation and Feedback Approach to Fitness**

**Mentor:** Dr. Barbara Fritzsche (Psychology)

This study examines the effectiveness of a lifestyle intervention designed to produce behavior change by integrating well-established principles and research on motivation and feedback into an innovative program. Specifically, this study examines different ways the intervention can be utilized to help people become more physically fit.

## **CHRONA CONLEY**

### **Pill Poppers: Dynamics of Prescription Pain Reliever Misuse, Abuse, and Dependence in the Adult Population**

**Mentor:** Dr. Jason Ford (Sociology)

The most popular class of prescription drugs for nonmedical use is prescription pain relievers (PPRs), and is currently an epidemic. This project expands on previous research, using data from the 2011 National Survey on Drug Use and Health (NSDUH) to analyze those who misuse, abuse and/or become dependent on PPRs in the adult population.

## **LISA D'AGOSTINO**

### **The Association Between Maternal Perceptions of Touch, Reports of Infant Touch, and Resiliency**

**Mentor:** Dr. Julee Waldrop (Nursing)

Touch is important in the development of infants and their ability to cope with stress. It has not yet been demonstrated if touch is associated with coping ability in mothers. This study measured how mothers of infants perceive and use touch with their infants and the association with maternal resiliency.

## **GABRIELLE DENNEN**

### **Assessment of Perinatal Nurses' Knowledge of Antiphospholipid Antibody Syndrome**

**Mentors:** Dr. Julee Waldrop, Dr. Patricia Weinstein (Nursing)

To assess perinatal nurses' knowledge and nursing management of pregnant women with APS.

## **NICOLE GERARDI**

### **Evaluation of Computer-Based Simulation for Pain Management Education**

**Mentor:** Dr. Kelly Allred (Nursing)

An innovative computer based simulation game was developed as an alternative method of teaching pain management in nursing practice. The purpose of this study is to evaluate how nursing students respond to the game as a method of teaching and evaluate its potential to change nursing practice.

## **ADERONKE ILEGBUSI**

### **Evidence of Acid pH and its Effect on the Larynx**

**Mentor:** Dr. Bari Hoffman Ruddy (Communication Sciences and Disorders)

This study investigated the frequency and duration of acid exposure to the upper airways and quantified the impact acid had on the pharynx, larynx, and oral cavity by use of pH monitoring. The results showed the importance of analyzing both quantitative and qualitative data prior to diagnosing patients.

## **RACHEL KNOWLES**

### **Factors Contributing to the Commission of Errors and Omission of Standard Nursing Care Among New Nurses**

**Mentor:** Dr. Linda Gibson-Young (Nursing)

The researcher completed an integrative review examining the factors contributing to the commission of errors and the omission of standard nursing care among new nurses, identifies and discusses three themes from the findings, and makes suggestions for practice.

## **ELSSY LOPEZ**

### **To Treat or Not to Treat: An Exploration of General Dental Providers' Insight on Medicaid Services**

**Mentor:** Dr. Fernando Rivera (Sociology)

To better understand the reasons why some dental providers in Orange County, Florida, take/don't take Medicaid patients.

## **ALEXIS MARANO**

### **Non-Invasive Positive Pressure Ventilation (NPPV): Its Uses, Complications, and Implications Within Nursing Practice in Acute Care Settings**

**Mentor:** Dr. Mary Lou Sole (Nursing)

The purpose of this integrated review of literature was to examine the increased role of non-invasive positive pressure ventilation (NPPV) in acute care settings with particular emphasis on the role of the nurse. Several recommendations were presented to guide future nursing research.

## **KIMBERLY MENDOZA**

### **Alleviating Obesity Bias: Does an Emotional Appeal Work?**

**Mentor:** Dr. Erin Murdoch (Psychology)

Obesity bias has become the most acceptable form of prejudice in American society. Stigmatization of the obese has tremendous social and economic costs for society as a whole. This study seeks to expand the research on effective ways to reduce obesity bias.

## **AUREA MIDDLETON**

### **Pepsin and Salivary Amylase: Biomarkers of Microaspiration in Oral and Tracheal Secretions of Intubated Patients**

**Mentor:** Dr. Mary Lou Sole (Nursing)

This study examined the incidence of total pepsin, pepsin A, pepsin C, and salivary amylase in the endotracheal tracheal aspirate and oral secretion samples of intubated patients on mechanical ventilation; incidence may support the use of pepsin and salivary amylase in identifying microaspiration without the onset of complications.

## SUZANNE PICKENS

### Motivations for the Use of Complementary and Alternative Therapies by Patients with Systemic Lupus Erythematosus

**Mentor:** Dr. Patricia Weinstein (Nursing)

The objective of this study is to determine the motivations for using complementary and alternative therapies (CAM) by patients with systemic lupus erythematosus (SLE).

## ADRIANA RAMIREZ

### Interactive Health Information Tool for Testicular Cancer and Self-Examination

**Student Co-Authors:** Hannah Kim, Michael Reif

**Mentor:** Dr. Michael Rovito (Health Professions)

A new health information tool was developed based on previous research suggesting male preference of private health information. This interactive website will be implemented to increase knowledge, awareness, and interest in testicular cancer and testicular self-examination.

## VIVIAN RIVERA

### Insidious Onset Pulmonary Embolism and Thrombus in the Right Ventricle

**Mentor:** Dr. Kristen Schellhase (Health Professions)

To present research in a case study on pulmonary embolism and thrombus in the right ventricle of the heart.

## JOHANNA SALAZAR

### The Pathophysiology of Maternal Obesity

**Mentor:** Dr. Theodore Angelopoulos (Health Professions)

The research project will examine the connection between childhood obesity and maternal obesity through examination of the pathophysiology of maternal obesity.

## TESS SALISBURY

### Femoroacetabular Impingement with Labral Fraying in a Collegiate Track and Field Runner

**Mentor:** Dr. Kristen Schellhase (Health Professions)

My research was done on a chronic injury known as femoroacetabular impingement (FAI) experienced by a track and field athlete. I chose to research this due to its limited prevalence in a track and field athlete rather than in a football, hockey, or soccer player.

## LEAH WHITE

### Human Papillomavirus and Vaccination of Males: Knowledge, Beliefs, and Perceptions of Registered Nurses

**Mentor:** Dr. Julee Waldrop (Nursing)

The purpose of this study is to determine knowledge, beliefs, and perceptions of registered nurses about the human papillomavirus and associated vaccination.

## LIFE SCIENCES I

## ADAM ALEXANDER

### Profiles of Tumor Suppressor and Oncogene Expression in Mouse Pancreatic Tumor Cells Reveal Genetic Interactions of Significance to Human Cancer

**Mentor:** Dr. Deborah Altomare (Biomedical Sciences)

Use real-time qPCR arrays to screen expression levels of known tumor suppressor and oncogenes in mouse pancreatic tumor cells, and analyze how expression changes may implicate novel gene interactions relevant to the human tumor progression cascade.

## CHELSEA BONNAIN

### Addition of Degradation Tag to Essential Gene *YbeM* in *E. coli*

**Mentor:** Dr. Sean Moore (Biomedical Sciences)

It is my goal in this project to successfully insert a degradative tag next to a gene which is highly conserved and essential to *E. coli*. A protease can then be used to selectively degrade the tag and observe the physiological effects on the cell.

## CHRISTOPHER BRITT

### A Hybrid Approach to Elucidating the Mechanisms of Bacterial Intoxication

**Mentors:** Dr. Kenneth Teter, Dr. Michael Taylor (Biomedical Sciences)

The objective of this project was to identify the binding sites of several chaperones to cholera toxin during its translocation from the endoplasmic reticulum (ER) to the cytoplasm. This will give us a better understanding of ER translocation mechanisms and may eventually allow us to block bacterial intoxication.

## ABIGAIL CARBONELL

### Identification of Potential Lead Antimalarial Compounds from Marine Microbial Extracts

**Mentor:** Dr. Debopam Chakrabarti (Biomedical Sciences)

The goal of this project was to screen 1,000 marine microbial extracts for inhibition of drug-resistant *Plasmodium falciparum*, the causative agent of malaria. Active fractions with low toxicity in mammalian cells were prioritized for dereplication to identify components that can be developed as novel antimalarials.

## MORGAN CARSON

### The Potential Transport Role of *YedE* in *Escherichia coli*

**Mentor:** Dr. William Self (Biomedical Sciences)

To test whether the protein encoded by the *yedE* gene in *Escherichia coli* plays a role in the transport of selenium in rich or defined culture media.

## SHARON CARTER

### Toward a Robust Phylogeny of *Toxicocalamus* (Elapidae)

**Mentor:** Dr. Christopher Parkinson (Biology)

New Guinea is home to specialized snakes in the genus *Toxicocalamus*. Previous studies based on morphological data have had difficulty placing the genus within the Elapid family. This study aims to determine the evolutionary relationships of this group of snakes using mitochondrial and nuclear gene sequences.

## LINH ANH CAT

### An Apple Snail a Day Keeps the Plants Away: Effects of an Invasive Snail on Aquatic Ecosystems

**Mentor:** Dr. Patrick Bohlen (Biology)

This study focuses on population density effects of the non-native *Pomacea canaliculata* on the pH, dissolved oxygen, and nutrient concentrations of aquatic ecosystems as well as changes in plant community composition that may lead to the domination of the invasive plant *Hydrilla verticillata*.

## MARIA CHAMORRO

### Effect of Amino Acids on *Clostridium difficile*

**Mentor:** Dr. William Self (Biomedical Sciences)

*Clostridium difficile* is one of the leading causes of antibiotic induced diarrhea. There are certain amino acids in the environment that directly affect toxin production. This study aims to analyze the effects of glycine, proline, and L-hydroxyproline on *C. difficile*.



## MICHAEL CHISUM

### Mechanism of MS-818

**Mentor:** Dr. Kiminobu Sugaya (Biomedical Sciences)  
Our lab has demonstrated the ability of a pyrimidine derivative, MS-818, to increase epithelial regeneration in the rat cornea. My research now focuses on elucidating the mechanism of action of MS-818.

## KEVIN CHOY

### Increase Efficacy of Glioblastoma Multiforme Therapy

**Mentor:** Dr. Kiminobu Sugaya (Biomedical Sciences)  
To increase the effectiveness of drug therapy for treatment of glioblastoma multiforme, the most aggressive form of brain tumor, by knocking down embryonic stem cells' gene expression using small interference RNA (siRNA) technology.

## ANTHONY COLE

### Live Imaging of Directional Schwann Cell Motility on a Curved Surface

**Mentor:** Dr. Cristina Fernandez-Valle (Biomedical Sciences)  
A time-lapse imaging technique was utilized to quantitatively measure the effect of the radius of curvature of a substrate on the directional motion and myelination of Merlin-null Schwann cell lines grown in-vitro on tapered glass fibers.

## LYDIA CRAWFORD

### Spectral Analysis: Eradication Effectiveness and Growth Patterns of *Lygodium microphyllum* in South Florida Using Landsat Imagery

**Mentor:** Dr. John Weishampel (Biology)  
The focus of this research is to determine the effectiveness of eradication methods for an invasive climbing vine in Jonathan Dickinson State Park using Landsat data to compare patch sizes over several years.

## KELLY DIAMOND

### Evolutionary History and Polymorphism of the Eyelash Palm Pit-Viper (*Bothriechis schlegelii*)

**Mentor:** Dr. Christopher Parkinson (Biology)  
We use morphological characters including 22 scale counts, overall color variation, and 11 morphometric measurements in combination with a molecular phylogeny to estimate the evolutionary history of this wide ranging tropical rainforest species. We predict that the current classification underestimates the diversity observed across this species.

## ANDREW DO

### The Effects of Growth Hormone and Thyroxine Treatment on Insulin Signaling in Skeletal Muscle Tissue of Female Ames Dwarf Mice

**Mentor:** Dr. Michal Masternak (Biomedical Sciences)  
In this project, we extracted RNA and protein from skeletal muscle tissue of Ames Dwarf mice treated with GH and T4 to compare levels of protein expression involved in Insulin signaling with control mice. We are attempting to determine what changes in gene and protein expression occur after hormonal treatment.

## LISETTE DOMINGUEZ

### Desmoplastic/Stromal Response and Its Role in Pancreatic Cancer Tissue Remodeling

**Mentor:** Dr. Deborah Altomare (Biomedical Sciences)  
To understand the role of the pancreatic microenvironment in facilitating tumor growth and metastasis. This understanding will ultimately be used to discover biological markers of pancreatic tumor progression in the epithelial ducts or surrounding stroma in order to delineate better treatment prognosis or monitoring of treatment response.

## MATTHEW DONNAN

### Drug Discovery Studies for Neurofibromatosis Type 2

**Mentor:** Dr. Cristina Fernandez-Valle (Biomedical Sciences)  
The purpose of this research is to identify and understand the mechanism of action of compounds that selectively reduce schwannoma cell growth in Neurofibromatosis Type 2.

## CODY GALE

### The Role of Cerationlin in the Natural History of *Schistocerca ceratiola*

**Mentor:** Dr. Hojun Song (Biology)  
The purpose of this project is to identify the role that Ceratiolin has in the life of the grasshopper *Schistocerca ceratiola*. This chemical is the precursor to one that is highly allelopathic and the chemical ecology of Ceratiolin may have had an effect on the evolution of the insect.

## QUINTO GESIOTTO

### Discovery of Human Cytomegalovirus Inverse Agonists

**Mentor:** Dr. Otto Phanstiel (Chemistry)  
The objective of this project was to develop new drugs to treat human cytomegalovirus (HCMV), which currently infects 60 percent of the world's population. The drugs target the signaling of the viral US28 receptor, which has high sequence homology to host proteins and facilitates HCMV survival.

## SARAH GIDUS

### Role of Adrenergic Hormones on Mitochondrial Function and Development in the Embryonic Mouse Heart

**Mentor:** Dr. Steven Ebert (Biomedical Sciences)  
This study aims to determine if adrenergic hormones affect mitochondrial function and biogenesis by quantifying the mitochondrial DNA and RNA expression of mitochondrial proteins in adrenergic-deficient and control wild-type mice hearts during critical stages of embryogenesis.

## WISSAM HADRI

### The Voiding Positions' Effects on the Prostate and Prostatic Urethra: A Link To Prostate Cancer

**Mentors:** Dr. Mohtashem Samsam, Dr. Kiminobu Sugaya (Biomedical Sciences), Dr. Eduardo Divo (Engineering Technology), Dr. Alain Kassab (Mechanical, Materials, and Aerospace Engineering)  
My project involves creating 3D simulations using computational fluid dynamics to prove that pressure exerted by urine flow and defecation is one of the main causes of prostate cancer. Our study also demonstrates the ideal voiding position to reduce the stress on the prostate, thereby inhibiting cancerous symptoms.

## MICHAEL HERNANDEZ

### An Analysis of Selenium Toxicity

**Mentor:** Dr. William Self (Biomedical Sciences)  
Our objective is to analyze the difference in the toxicity of selenium under aerobic and anaerobic conditions and determine if an alternative mechanism of selenium toxicity exists under anaerobic conditions.

## HALEIGH HODGES

### Protein-Protein Interactions in *Mycobacterium tuberculosis*

**Mentor:** Dr. Kyle Rohde (Biomedical Sciences)  
The objective of this project is to discover protein-protein interactions within *Mycobacterium tuberculosis* that contribute to its virulence by using a technique called mycobacterial protein fragment complementation.



### **ARIEL HORNER**

#### **Co-Occurrence Patterns of Sirens and Amphiumas in Wetlands of the Southeastern, Atlantic Coastal Plain, USA**

**Mentor:** Dr. John Fauth (Biology)

My research investigates the distributional patterns and interactions among sirens and amphiumas of the southeastern USA. Using presence-absence data taken from the Atlantic Coastal Plain, I statistically analyzed distributions of these giant salamanders to test whether they were randomly assembled within wetlands or were structured by biological interactions.

### **STEPHANIE IGTIBEN**

#### **Using the Current Latitudinal Range in Plant Species as a Predictor for Theoretical Range Expansion Due to Global Climate Change**

**Mentor:** Dr. Betsy Von Holle (Biology)

Global climate changes demand heightened understanding species range expansion to develop effective policies and programs for ecosystem management and conservation. We propose to identify plant traits associated with successful range shifts in recent climatic change. If identified, plant traits can then be used as a predictor for future range expansion.

### **REBEKAH KATSANDRIS**

#### **Echocardiography Evaluation of Stress-Induced Cardiomyopathy in Post-Menopausal Mice**

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

The purpose of our study is to gain a better understanding of the Tako-Tsubo syndrome by injecting post-menopausal mice with epinephrine and/or isoproterenol and evaluating the mice with echocardiography before, during, and immediately after the stress challenges.

### **OMAR KHAN**

#### **Correlation of *Mycobacterium avium* Sbp. *paratuberculosis* "MAP" and Key Host Genes in IBD Patients and Healthy Relatives**

**Mentor:** Dr. Saleh Naser (Biomedical Sciences)

To examine the incidence of MAP DNA in the blood of IBD patients and their biologically and non-biologically linked family members, both CD-positive and healthy in relation with the occurrence of single nucleotide polymorphisms in key genes (NOD2, ATG16L1, IL23R and IRGM) and their variants in CD-patients and their relatives.

### **ALEXIS KIMMEL**

#### **Transcription Regulation of the Formate Hydrogenase in *Escherichia coli* in Response to Altered Selenium Metabolism**

**Mentor:** Dr. William Self (Biomedical Sciences)

Studying the mechanisms by which the formate hydrogenase in *Escherichia coli* is transcribed in response to synthesis of selenocysteine

### **JOAN KING**

#### **Queen and Worker Dynamics of the Fire Ant, *Solenopsis invicta*, During Egg Laying Events**

**Mentor:** Dr. Joshua King (Biology)

The objective of this project is to better understand queen and worker dynamics of the fire ant, *Solenopsis invicta*. Of main interest is the sequence of interactions between queen and worker behavior before, during, and after egg layings. This will help elucidate the process underlying colony and population growth rates.

### **ALAINA KURTZ**

#### **Gopher Tortoise Survey: *Gopherus polyphemus* on the University of Central Florida's Natural Lands**

**Mentor:** Ms. Alaina Bernard (Biology)

The UCF Land Management Program requires an annual survey of the *Gopherus polyphemus* population that occupies the natural lands. The purpose of this study is to use the scute system to mark any unmarked tortoises, document morphometric changes in previously marked tortoises, and to survey both active and inactive burrows.

### **AARON LEDRAY**

#### **Standstill in Intracellular Motility: How to Halt Dynein-Dependent Traffic Utilizing the Drug Ciliobrevin**

**Mentor:** Dr. Stephen King (Biomedical Sciences)

We will determine the conditions in which ciliobrevin can be used effectively to inhibit all dynein-based forms of intracellular motility.

### **NICOLE MALIZIA**

#### **Effect of the Ascidian *Botrylloides nigrum* on Settlement of Larvae of *Crassostrea virginica***

**Mentor:** Dr. Linda Walters (Biology)

Recently in Mosquito Lagoon, Florida, *Botrylloides nigrum*, a colonial encrusting ascidian, has become prevalent within the estuary overgrowing the eastern oyster *Crassostrea virginica*. We conducted experiments to test the effects of *B. nigrum* on settlement of larvae of *C. virginica*.

## LIFE SCIENCES II

### **MARCO MEJIA ACEVEDO**

#### **Identifying Novel Anticancer Drugs That Alter Epigenetic Patterns**

**Mentor:** Dr. Mark Muller (Biomedical Sciences)

The goal of my project is to identify compounds that alter epigenetic patterns and/or disrupt the DNA homology-directed repair pathway using a cell-based GFP reporter system.

### **SHELBY MORAN**

#### **A Cypress Dome in Need: Restoring a Disturbed Wetland Back to its Natural Biotic and Abiotic Conditions**

**Mentor:** Ms. Alaina Bernard (Biology)

The cypress dome located alongside the UCF Student Union has many unnatural biotic and abiotic components. A detailed investigation into the hydrological cycle along with a survey of the flora and fauna located within the wetland is being conducted in order to determine how to restore and manage the cypress dome.

### **MIKAELA MOROLLA**

#### **This is Spartina: Determination of Planting Densities for Maximum Shoreline Restoration Success Using the Marsh Grass *Spartina alterniflora***

**Mentor:** Dr. Linda Walters (Biology)

By determining planting densities that optimize growth of *S. alterniflora* in living shoreline projects, we will be able to maximize shoreline restoration and stabilization to better protect highly eroded shorelines.

### **HEARDLEY MURDOCK**

#### **Silver Ion as a Potent Inhibitor of Glutathione Reductase**

**Mentor:** Dr. William Self (Biomedical Sciences)

The effects of silver on human physiology is poorly understood, as is the potential of silver as an anti-proliferative therapeutic. Thus, we investigated the silver ion mediated inhibition of the enzyme glutathione reductase, which is critical in oxidative defense and cellular proliferation.

### **NATHANIAL NAFZGER**

#### **Equifinal Ecosystem Productivity Despite Biodiversity Variance in Replicate, Open Ecosystems**

**Student Co-Authors:** Christopher Carvalho-Grimont, Edward Rysak, John Houder IV

**Mentor:** Dr. David Jenkins (Biology)

We are experimentally testing the effect of biological diversity on ecosystem net primary productivity and respiration (main energetic pathways) in 40 open "ecosystems" constructed in large cattle tanks and exposed to treatments that affect biodiversity.

### **SARAH NAJJAR**

#### **A BioMEMS Device to Measure Functional Physiological Parameters of Individual Skeletal Muscle Myotubes in vitro**

**Mentor:** Dr. James Hickman (Biomedical Sciences)

I used a novel laser and photodetector system to measure functional physiological parameters of individual adult-derived skeletal muscle myotubes in order to characterize the behavior of single cells in vitro.

### **PASCALE NELSON**

#### **Construction of a Fork Head Responsive Element Reporter to Monitor Signaling Pathways in Motor Neurons**

**Mentor:** Dr. Alvaro Estevez (Biomedical Sciences)

To construct a Luciferase Reporter Vector with the addition of Fork Head Responsive Element to monitor signaling pathways in motor neurons.

### **AMBER NIES**

#### **Little Deer, Little Genetic Diversity: Investigating a Bottleneck in the Florida Key Deer**

**Mentor:** Dr. Eric Hoffman (Biology)

To assess the effects of a bottleneck on genetic diversity and to calculate an effective population size for the Florida Key Deer, *Odocoileus virginianus clavium*.

### **NICOLETTE OCAMPO**

#### **Synthesis and Bioevaluation of Polyamine Transport Inhibitors in Pancreatic Cancer**

**Mentor:** Dr. Otto Phanstiel (Biomedical Sciences)

The objective was to develop a new combination therapy to treat aggressive human pancreatic cancers. This involved the use of difluoromethylornithine (DFMO), which is a polyamine biosynthesis inhibitor, and the development of new polyamine transport inhibitors. The combination therapy results in sustained intracellular polyamine depletion, initiating cell death via apoptosis.

### **NICOLE PARADA**

#### **Development of a Deoxyribozyme-Based Sensor to Lower MRSA's Limit of Detection**

**Mentor:** Dr. Dmitry Kolpashchikov (Biomedical Sciences)

The objective of this project is to create an MNzyme based sensor in order to lower the limit of detection required for the accurate detection of nosocomial and community acquired MRSA, thereby providing a more efficient method that will lower the risk of spreading the infection.

### **BRANDICE PARANTO**

#### **Validity of Classroom-Based Predictions When Compared to Current Locations of Florida Gopher Tortoise Burrows Within the Econ River Wilderness Area**

**Mentor:** Mr. Francis Salmon (Interdisciplinary Studies)

I predicted the location of Florida gopher tortoise burrows within the Econ River Wilderness Area through methods learned in my geographic information systems class. Actual burrows were then located. Maps of these data were created and deemed similar, proving the validity of my mentor's teachings.

### **GABRIEL PENT**

#### **Quantification of the Autoantigen, Proinsulin, Expressed in Plant Chloroplasts for Oral Delivery in Treatment of Type I Diabetes**

**Mentors:** Dr. Henry Daniell, Dr. Kwang-Chul Kwon (Biomedical Sciences)

As a non-invasive method, potentially replacing conventional expensive injection systems for treatment of type I diabetes, plant chloroplasts have emerged as a new system for production of the autoantigen and oral delivery. Consequently, for the treatment of diabetes patients, quantification of the therapeutic protein expressed in the chloroplasts is required.

### **ABDUL RAHIM**

#### **Characterization and Functional Analysis of Unique VTV-Proteins**

**Mentor:** Dr. Shadab Siddiqi (Biomedical Sciences)

Primary aim of this research is to analyze the very low density lipoprotein (VLDL) transport vesicle (VTV) proteins already characterized in recent studies from the lab. Functional analysis of these unique VTV proteins will be a crucial step toward the identification of therapeutic molecular targets in controlling atherosclerosis.

### **ASHLEY RAMIREZ**

#### **Gene-Directed Mutagenesis in Vivo**

**Mentor:** Dr. Sean Moore (Biomedical Sciences)

The goal of the project is to use a synthetic-lethal screening system to investigate essential genes of unknown function which are universally conserved. My focus was to validate our reengineered recombineering system's activity and determine the frequency of mutants.

### **KRISTI RAY**

#### **Phylogeny, Smylogeny, it All Looks Like Mussels to Me: Assessing Evolutionary Relationships Between Invasive Marine Species**

**Mentor:** Dr. Eric Hoffman (Biology)

The objective of this project is to track evolutionary relatedness between separate marine invasive species of *Perna perna*, *Perna viridis*, *Brachidontes spp.*, and *Mytilopsis sallei*.

## NOÉMI RÉBELI-SZABÓ

### Seasonal Observations of Wading Bird Behavior and Community Structure Indicate Oyster Reef Restoration Success

**Mentor:** Dr. Linda Walters (Biology)

My objective is to determine restored ecological function of oyster reefs in Mosquito Lagoon, Florida by observing wading bird community structure, behaviors, diversity, and abundance on natural, restored, and dead oyster reefs.

## TODD RICHMANN

### Lost in Trans-Translation: The Role of tmRNA in *M. tuberculosis* Pathogenesis

**Mentor:** Dr. Kyle Rohde (Biomedical Sciences)

The purpose of this project was to investigate the role of tmRNA in different *Mycobacterium* strains. Specific aims included mapping the tmRNA gene locus, determining changes in regulation of those genes under various conditions, identifying targets of tmRNA and changes in overall phenotype with and without the system present.

## SHARANAH RIDORE

### Exploring the Role of Adrenergic Cells in Heart Development Using a Novel Suicide Gene Model

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

The objective of this project was to determine the structural and functional contributions of adrenergic cells in heart developments.

## JASMINE RODRIGUEZ

### Identifying Genes Involved in Polyamine Transport in *Drosophila*

**Mentor:** Dr. Laurence von Kalm (Biology)

The purpose of our research was to identify genes associated with polyamine transport in *Drosophila melanogaster*.

## DANIELLE RUDLEY

### Restoration of UCF's Disappearing Sawgrass Marsh

**Mentor:** Ms. Alaina Bernard (Biology)

The historic data on the natural communities within the MacKay tract, a UCF-owned parcel of land, will be assessed to create a long-term land management plan. The implementation of this plan will restore the parcel to its ecological state previous to anthropological influence.

## DANIELA SEBASTIANI

### Characterization of *Plasmodium falciparum* Protein Kinases

**Mentor:** Dr. Debopam Chakrabarti (Biomedical Sciences)

Elucidate the functions of PfPK5, an essential *Plasmodium* homologue of metazoan CDK1, and PfPK6, an atypical kinase with features of both CDKs and MAP kinases, could provide new targets for drug design. It is hypothesized that the functions will be revealed through analysis of the interacting partners of each kinase.

## ADRIENNE SHOWMAN

### Selection of RNA Antibodies for the Crystallization of RNA Mimics of Green Fluorescent Protein

**Student Co-Author:** Andrew Towers

**Mentor:** Dr. Jingdong Ye (Chemistry)

Chaperone-assisted RNA crystallography (CARC) is used to determine the structure of the RNA aptamer-fluorophore complex named Spinach. By selecting antigen binding fragments targeted against Spinach, CARC aims to create RNA-Fab dimers that will pack into an ordered crystal lattice to be used in X-ray diffraction.

## LAUREN SMITH

### Message in a Bottleneck: Surprisingly High Genetic Diversity in the Sea Urchin *Diadema antillarum*

**Mentors:** Dr. Eric Hoffman, Dr. Linda Walters (Biology)

*Diadema antillarum*, the long-spined sea urchin, is an ecologically important species which suffered a severe population reduction in 1983. We gathered tissue samples from 15 populations across the Caribbean to analyze the current levels of genetic diversity after such a dramatic bottleneck.

## CAITLIN STEVENSON

### Tracking the Geographic Origin of Stranded Dolphins Potentially Impacted by the 2010 Deepwater Horizon Oil Spill Near the Florida Panhandle

**Mentor:** Dr. Graham Worthy (Biology)

Our goal was to compare stable isotope signatures of skin collected from dead bottlenose dolphins with those of animals with known residency patterns. The objective was to determine whether isotopes could assign dead dolphins to their home population and thereby assess impacts of mortality events on local populations of dolphins.

## STEPFANI TAGUPA

### Binding Sites for Protein-Protein Interactions Between Cholera Toxin Subunit A1 and Protein Disulfide Isomerase

**Mentor:** Dr. Kenneth Teter (Biomedical Sciences)

The binding sites needed for protein disulfide isomerase to interact with and separate cholera toxin (CT) subunit A1 from the rest of the toxin were analyzed to see how CTA1 may be kept from traveling through the cell to its target, causing peruse diarrhea.

## SAMANTHA TINDEL

### Effect of Salinity on Red Mangrove Seedling Growth

**Student Co-Authors:** Marie Kasprzyk, Oscar Guzman

**Mentors:** Dr. Linda Walters, Ms. Melinda Donnelly (Biology)

Red mangrove seedlings were grown in different salinities (0-40 ppt) to determine if a specific salinity of water facilitates faster growth rates. Previous studies have found larger seedlings had higher rates of survival after transplanting and data from our study will help living shoreline restoration efforts along the Florida coast.

## OTNIEL ULLOA

### A Relationship Between LIM Kinase 1 Function and Expression of CXCR4 in Prostate Cancer Cells

**Mentor:** Dr. Ratna Chakrabarti (Biomedical Sciences)

Metastasis is the most dreadful event in progression of cancers. A need exists for identifying the molecular basis for changes in tumor microenvironment (TME) associated metastasis, which can be used as prognostic factors to customize effective therapies. In this project, regulation of a key mediator of metastasis has been studied

## SOREN WEBER

### Climate Change as a Range Expansion Factor for Invasive Species

**Student Co-Author:** Stephanie Igtiben

**Mentor:** Dr. Betsy Von Holle (Biology)

The range limiting effect of temperature on subtropical plant species will be reduced because of the warming expected from global climate change, allowing both native and non-native species to potentially expand their range northward. Our question is, will non-native species be better at range expansion?

## PAULA YESPELKIS

### Improving Community-Based Shoreline Stabilization Projects: Impact of Potential Nurse Plants on Red Mangrove Biomass Production and Survival

**Mentor:** Dr. Linda Walters (Biology)

Mangrove communities protect coastal areas from erosion. Red mangroves may benefit from neighboring marsh plants if these plants act as nurse plants by increasing mangrove seedling growth and survival. A replicated greenhouse experiment was used to assess total biomass. In the field, mangroves were deployed to determine retention success.

## MARISA ZIMMERMAN

### Habitat Use of Florida Sandhill Cranes (*Grus canadensis pratensis*) in an Urban Environment

**Mentor:** Dr. Patrick Bohlen (Biology)

To identify the location and timing of lands used by the Florida Sandhill Crane (*Grus canadensis pratensis*) as foraging and nesting habitat on the UCF campus.

## PHYSICAL SCIENCES

## DANIELLE ABBITT

### All Solution Processed Flexible Supercapacitors

**Mentor:** Dr. Jayan Thomas (Physics)

The purpose of this project is to develop a flexible, high energy density supercapacitor using manganese dioxide, a conductive polymer, and silver nanowires.

## BRIAN ALLEN

### Theoretical Study of Light Propagation Along a Nanorod

**Mentor:** Dr. Shengli Zou (Chemistry)

Theoretical investigation of the light propagation along a path smaller than the incident wavelength.

## ALESIA ANTOINE

### Volume Changes in Vesicles and Erythrocytes Probed by Microscopy at Variable Pressure

**Mentor:** Dr. Alfons Schulte (Physics)

The ability of red blood cells to dramatically change their shape yet retain their physiological integrity is attributed to membrane proteins. Through creation of vesicles we mimic the phospholipid bilayer of the cell to isolate its role in transport and volume changes at high pressure.

## STEPHANY BAUTISTA

### Structural Analysis of Prostatic Acid Phosphatase 248-286 Amyloid Fibrils

**Student Co-Author:** Justin Castillo

**Mentor:** Dr. Bo Chen (Physics)

The objective is the structural analysis of the mechanism of amyloid fibril formation that leads to enhanced HIV infection. This study will study the structural assembly of the amyloid fibrils formed by Prostatic Acid Phosphatase (PAP) to elucidate the underlying mechanism of the enhancement for HIV infection.

## NOORULAIN BAWANEY

### DNA-Modified Liposomes

**Mentor:** Dr. Dmitry Kolpashchikov (Chemistry)

The goal of this project is to accomplish a controllable fusion of two distinct species of liposomes using DNA strands attached to the outer leaflet. These can be used as a molecular tool for detection, controlled chemical reactions, and to enhance the susceptibility of target cell for drug delivery.

## HILLARY BENGTON

### A Differential Fluorescent Receptor for the Analysis of Single Nucleotide Polymorphisms

**Mentor:** Dr. Dmitry Kolpashchikov (Chemistry)

To develop a differential fluorescent receptor (DFR) that has the ability to differentiate DNA of different strains of *Mycobacterium tuberculosis*. The DFR produces distinctive fluorescent signatures for DNA sequences that differ by a single nucleotide mutation. DFR is a promising tool in the diagnosis of infectious diseases and genetic disorders.

## KEVIN BERTRAND

### Thermal Stability of Bio-Fuels

**Mentor:** Dr. Richard Blair (Chemistry)

The objective of this project was to test the thermal stability of bio-fuels in comparison to a fossil fuel to make them more compatible with vehicles that are used today.

## TOBY BOAS

### The Shrinkage Function and Its Applications

**Mentor:** Dr. Xin Li (Mathematics)

In this research, we discuss the shrinkage function and some of its applications to various matrix decomposition problems and to the field of computer vision. We detail new derivations of certain theorems relating to the shrinkage function, which allows us to provide better insight into why these results are correct.

## KRISTIN BOOKSTAVER

### Green Solvents for Precision Cleaning Aerospace Components

**Mentor:** Dr. Cherie Yestrebeky (Chemistry)

The development of environmentally friendly solvent systems to replace current methods for the removal of hydrocarbon fuels and grease residues from aerospace components, current systems used for precision cleaning aerospace components pose a hazard to human health and the environment. Both solvent properties and cleaning efficiency have been studied.

## ALLISON BRATCHER

### Analysis of a Triple Star Occultation of Saturn's Rings

**Mentor:** Dr. Joshua Colwell (Physics)

Using the ultraviolet imaging Spectrograph aboard the Cassini Spacecraft, we analyzed an occultation of Saturn's rings as they passed in front of the triple star system Iota Orionis. We detected three distinct signals simultaneously, which allows us to measure short scale longitudinal variations of the rings.

## ELEANOR CAMPBELL

### The Characterization of Connectable DNA Logic Gates

**Mentor:** Dr. Dmitry Kolpashchikov (Chemistry)

Our objective is to create DNA strands that perform basic Boolean logic functions found in computer chips: AND, NOT, and OR. These strands of DNA are designed to be connectable and can complete more complicated logic functions necessary for computation.

## STEPHANIE CASTILLO

### Chiral Distillation Using the Photon Momentum of Circularly Polarized Light

**Mentor:** Dr. Florencio Hernandez (Chemistry)

The main goal is to prove concept on the development of a novel optical approach to separate mixtures of optical isomers using circularly-polarized light. By shining CPL of a specific wavelength through a mixture of stereoisomers, chiral distillation is produced by means of photon-momentum acting preferentially on one enantiomer.



### **KATERINA CHAGOYA**

#### **Mechanocatalysis of Cellulose for Use as Feedstock**

*Mentor:* Dr. Richard Blair (Chemistry)

Our research works to create and perfect a method of converting cellulose extracted from various natural sources into simple monomers of glucose using a method known as mechanocatalysis. Creating the most successful procedure should lower the cost of producing feedstock for biofuels.

### **JOSE COLLAZO**

#### **RSV-Capsid Assembly and Morphological Conditions: Optimization Methods and Visual Representation of Assembly Mechanisms**

*Mentors:* Dr. Bo Chen, Mr. Jae-Kyun Jeon (Physics)

RSV is a retrovirus, which includes viruses such as HIV, and the retroviral capsid (CA) protein assembly mechanism for retroviruses is poorly understood. The optimization of CA protein expression and purification has been achieved, with documentation of TEM images for structural studies of the CA assembly via solid-state NMR.

### **MARIA COLON GOMEZ**

#### **Squaraine Dyes for Two-Photon Fluorescence Bioimaging**

*Mentor:* Dr. Kevin Belfield (Chemistry)

The purpose of the research project is to synthesize squaraine dyes that could serve as fluorescent probes in bioimaging applications. The synthesized dyes have undergone photophysical characterization and will be incubated with cancerous cells. This will elucidate the efficiency of the probes to detect cancer in its early stages.

### **CHRISTOPHER FRYE**

#### **Corrections to the Classic Tests of General Relativity imposed by String Theory**

*Mentor:* Dr. Costas Efthimiou (Physics)

Near massive stars, Einstein's theory of gravitation predicts both the bending of light rays and the precession of orbital perihelia. We calculate the modification string theory imposes on these effects and explore the ramifications for the classic tests of general relativity.

### **YESSENIA GONZALEZ**

#### **Paper Based Ultrasensitive Ion Selective Electrodes for Detecting Trace Levels of Hazardous Metal Ions**

*Student Co-Authors:* Michelle Rich, Jeffrey Gisel, Shelly Hassett

*Mentor:* Dr. Karin Chumbimuni-Torres (Chemistry)

The goal of this project is to develop cost-effective, paper-based, ion-selective electrodes that are ultrasensitive and capable of detecting nanomolar concentrations of hazardous metal ions, such as silver, lead, cadmium, and zinc.

### **HAFEEZ HANIFF**

#### **Aggregation Properties of Donor-Acceptor-Donor 2,4-bis[4-(N,N-dialkylamino)-2,6-dihydroxy-phenyl] Squaraine Dyes in Solution and with Polymeric and Host Guest Assembly Substrates**

*Mentor:* Dr. Kevin Belfield (Chemistry)

This project focuses on photophysical studies of squaraine derivatives to determine the effects that aliphatic chain length as well as polymeric and host-guest assembly substrates have on aggregation phenomena and two-photon absorption properties.

### **KASEY HAUGEN**

#### **Synthesis and Linear and Nonlinear Optical Characterization of Novel Near-Infrared Diphenylaminofluorene-based aza-BODIPY Dyes**

*Mentor:* Dr. Kevin Belfield (Chemistry)

The purpose of the research was to synthesize organic dyes with high two photon cross-section and absorption that extends into the near-infrared for applications toward bioimaging for early cancer detection research. The project involved the synthesis and characterization of novel fluorene-based Aza-BODIPY dyes and their linear and non-linear characterization.

### **VIVIAN HERNANDEZ**

#### **Dichlorodiphenyltrichloroethane (DDT) Dechlorination with Magnesium and Acidified Alcohol**

*Mentor:* Dr. Cherie Yestrebky (Chemistry)

Reductive dechlorination of Dichlorodiphenyltrichloroethane (DDT), a chlorinated pesticide, and its byproducts with acidified ethanol and magnesium will be examined experimentally to evaluate the effectiveness of the reaction and to optimize the experimental parameters.

### **KEVAN KING**

#### **Novel V-Shaped Cationic Molecules as Potential Two-Photon Fluorescence Probes**

*Mentor:* Dr. Andrew Frazer (Chemistry)

I have synthesized v-shaped fluorescent dyes based off a system with donor-pi-acceptor-pi-donor architecture. These cationic dyes have the potential as red-near infrared NIR fluorescent probes. The diphenylamino group is serving as a donor while the quinolinizinium is serving as an acceptor.

### **GABRIEL PADILLA**

#### **Studies on Linear and Nonlinear Absorption of Triarylsulfonium Hexafluoroantimonate Photo-Acid Generator**

*Mentor:* Dr. Stephen Kuebler (Chemistry)

SU-8 is a photopolymer commonly used to create microdevices. The material contains a photoacid generator (PAG) that activates cross-linking upon excitation. UV/visible spectroscopy was used to study the optical properties of the PAG and to identify conditions that are suitable for studying its nonlinear optical properties using the Z-scan technique.

### **RACHEL PENABADE**

#### **Heterogeneous Metal-Free Hydrogenation Over Defect Laden Hexagonal Boron Nitride**

*Mentor:* Dr. Richard Blair (Chemistry)

Experimental evidence and DFT calculations show that metal-free heterogeneous hydrogenation can be realized over defect laden h-BN.

### **CHRISTOPHER RAMIREZ**

#### **The Effect of Novel Photoacids in Gels**

*Mentor:* Dr. Yi Liao (Chemistry)

The objective of this experiment was to synthesize copolymers with different ratio of PEG and acrylic acid, which are expected to show significant mechanical and properties changes when saturated with photoacids and irradiated under visible light.



## MONICA RIVAS

### Synthesis of Ortho-Hydroxyphenylglyoxylic Acid

**Mentor:** Dr. Yu Yuan (Chemistry)

Ortho-hydroxyphenylglyoxylic acid will be synthesized and isolated from the diazotization and substitution of isatin. Its regulation on the fatty acid metabolism will prevent obesity and heart disease in diabetes patients. The pure compound will be tested on mice in collaboration with the UCF College of Medicine.

## COLLEEN TANNER

### Liquid Crystal Biosensor for Lithocholic Acid Detection

**Mentor:** Dr. Jiyu Fang (Mechanical, Materials, and Aerospace Engineering)

Lithocholic acid is an important molecule to detect, as it is a biomarker for intestinal diseases. We present a simple and fast detection method based on surfactant-stabilized liquid crystal films. The sensitivity of detection can be tuned by varying the surfactants used to stabilize the liquid crystal.

## ADRIAN TATULIAN

### Investigation of Excitation and Ionization of Argon Atoms

**Mentor:** Dr. Hari Saha (Physics)

We present a theoretical calculation of cross-sections in the case of electron-impact ionization of argon atoms. This calculation, performed using the multiconfiguration Hartree-Fock method, is then compared to published experimental data. Such work has diverse applications including a better understanding of physics of the upper atmosphere, astrophysical plasmas, and lasers.

## DOMENIC VALENTI

### Isolation of Natural Products from Endophytic Fungi Found in Florida's Native Flora

**Mentor:** Dr. James Harper (Chemistry)

My goal is to isolate and characterize biologically active natural products from endophytes.

## ROBERT WILLIAMSON

### A Feasibility Study on the Use of *Pseudomonas putida* and *Pseudomonas fluorescens* for the Biodegradation of Oxygenated Polyaromatic Hydrocarbons

**Mentor:** Dr. Cherie Yestrebeky (Chemistry)

This project was designed to qualitatively measure whether or not direct biodegradation of oxy polycyclic aromatic hydrocarbons is feasible.

## BRIAN WOODS

### Theoretical Investigation of Photo-Ionization Processes with Atoms and Molecules

**Mentor:** Dr. Hari Saha (Physics)

We will use the highly accurate and sophisticated method, known as the multiconfiguration Hartree-Fock method to accurately determine the excitation and ionization cross sections of atomic oxygen. This data will be compared to experimental results to test the validity of the multiconfiguration Hartree-Fock method as well.

## SOCIAL SCIENCES I

## MELISSA ANTLER

### I Am a Critical Thinker! Exploring the Relationship Between Self-Concept and Critical Thinking Ability

**Mentor:** Dr. Shannon Whitten (Psychology)

Various researchers have explored both self-concept (for example, Marsh & Craven, 2006) and critical thinking (for example, Halpern, 1998) as important elements in the educational process. The present study investigated whether or not there was a relationship between these two variables.

## KENDRA BARTEL

### The Effects of Music on Anxiety and Depression in Emerging Adults

**Mentor:** Dr. Chrysalis Wright (Psychology)

The current study observed how music affects the mood of those with anxiety and depression, hypothesizing that music would alter these variables. Statistical analysis were completed and were found significant for the variables: alternative music, soundtracks/showtunes, race, age, gender, reasons why participants listened to music as well as participants moods.

## PAUL-HENRY BLANCHET

### Sinking Under: An Analysis of the Collapse of Oyster Fisheries

**Mentor:** Dr. Peter Jacques (Political Science)

Extant literature and primary sources will be examined to investigate the policy regimes of historical oyster fisheries in order to diagnose the cause of collapse.

## MELISSA BLEIBERG

### Personality as a Predictor of Distributed Team Leadership Network Structures

**Mentor:** Dr. Shawn Burke (Psychology)

Leadership in distributed teams (DTs), is critical to ensuring effective team processes and outcomes. A laboratory study of 204 undergraduate teams was conducted to examine DT leadership. Results support the idea that in DTs, having team members who possess particular characteristics, may help to facilitate the emergence of leadership networks.

## JILLIAN BLUEFORD

### Differentiating the Reasoning Behind the Etiology of Dissociative Identity Disorder

**Mentor:** Dr. Gulnora Hundley (Educational and Human Sciences)

The goal of analyzing previous research concerning Dissociative Identity Disorder (D.I.D.) was to further understand the specific factors involved with the etiology. With the hope of knowing the reasoning behind the development of D.I.D., more can attain the knowledge of why only certain people are living with the disorder.

## SAMUEL BOOKHARDT

### The Response of Self-Employment Income to the Tax Reform Act of 1986

**Mentor:** Dr. Melanie Guldi (Economics)

I analyzed the response of self-employed persons to The Tax Reform Act of 1986 (TRA86). TRA86 significantly reduced marginal tax rates, which effectively increased after-tax wages. I intend to find out if this increase in wages caused more people to partake in self-employment and if self-employment income rose as a result.

**JESSICA BRANDT****First Love: The Formative Years***Student Co-Author:* Vera Harvey*Mentor:* Dr. Chrysalis Wright (Psychology)

This study examined the relationship in attitude toward cohabitation and out-of-wedlock childbirths based on when participants started dating. Results indicated a positive correlation between attitudes toward cohabitation and out-of-wedlock childbirth but no relationship based on when participants started dating was found.

**SARAH CASTRO****Immigration Reform's Effect on Cuban Migration to the United States: Past and Present***Mentor:* Dr. Gina Naccarato-Fromang (Legal Studies)

This project will be an examination and analysis of immigration legislation, past and present, and its effect on Cuban immigration to the United States.

**LUCIEN CHARLAND****The Strategic Threat of Sea Level Rise for the United States and its Allies in the Caribbean***Mentor:* Dr. Teddy Reynolds (Political Science)

Drawing from a series of studies, news articles, and relevant texts, this paper presents an overview of the strategic threat of sea level rise to the U.S. east coast and the Caribbean while examining socio-political attitudes surrounding the issue and proposing a number of steps to address the threat.

**COURTNEY CHRISTOVICH****Do College Students Rate Female Professors More Harshly Than Their Male Counterparts?***Mentor:* Dr. Shannon Whitten (Psychology)

The extensive research by Susan Bennet (1982) on how professor gender affects student evaluations shows that male and female professors are not always rated equally by their students. The present study explores the relationship between both the gender and instruction style of the professor and their student evaluations.

**CHRISTY CLARKE****The Quality of Attachment in Premature Infants: An Analysis of Mother-Infant Relationships***Mentor:* Dr. Anne Culp (Child, Family, and Community Sciences)

A systematic literature review was conducted dating from the 1980s to 2012 on early mother-infant relationships and the preterm population to determine if premature infants are susceptible to insecure attachments at 12 months of age.

**RAVEN COKLEY****The Role of Mentoring on the Development of Ethnic Identity and Body Image Concerns in Ethnic Minority Women***Mentor:* Dr. Erin Murdoch (Psychology)

The primary objective for this study is to determine if there is indeed a positive link between mentoring and the development of ethnic identity in minority adolescents, and if mentoring also has a positive effect on the future body image perceptions of ethnic minority college-age women.

**JESSICA COLLIER****An Examination of Differences Between Pre-Post Relationship Satisfaction Scores for Participants Following a 30-Hour Parenting Intervention***Mentor:* Dr. Andrew Daire (Educational and Human Sciences)

This research project will examine the effects of a parenting intervention program, Becoming Parents Program (BPP), through pre and post Relationship Adjustment Scale (RAS) scores for males and females.

**NICHOLAS COLON****Analyzing the Effects of Rubbernecking on Driving Performance***Mentor:* Dr. Mustapha Mouloua (Psychology)

The objective of this study was to empirically examine whether barriers would prevent distraction caused by accident scenes. Also, this research aims to further understand the effects of rubbernecking on major highways, help mitigate the effects of accidents' distraction, increase driver awareness, and ensure traffic safety.

**JACQUELYN COOK****Trust and Perception of Robots: The Effects of Morality and Reliability***Mentor:* Dr. Peter Hancock (Psychology)

This research has been designed to ascertain which levels of morality and reliability affect human perceptions of robots, as well as whether or not humans can trust robots with high and low levels of morality, when given information on how reliable these robots are.

**SAMANTHA DALEY****Taking Up Space: Empowerment Through Community-Building and Peaceful Protest***Student Co-Author:* Nicole Elinoff*Mentor:* Dr. Maria Cristina Santana (Women's Studies)

Research conducted by the Young Women Leaders Program (YWLP) from the University of Central Florida examines bullying perceptions and experiences of their seventh grade participants. Our research was to have little sister mentors engage themselves and their fellow classmates in peace movements against bullying and harassment and discover their agency.

**KELSEY DEGENARO****An Examination of the Influence of Religiosity on Political Views of the Millennial Generation***Mentor:* Dr. David Gay (Sociology)

For my undergraduate thesis I chose to research the correlations between religious ideologies and political ideologies of the millennial generation. My aim for this research was to close the gaps of existing research and to try to understand Millennials further because Millennials are the future of the United States.

**NAJEE DEVORE****Academic Achievement: How Personality and Music Preference Affect GPA***Student Co-Authors:* Carolin Prior, Abigail Bueno*Mentor:* Dr. Chrysalis Wright (Psychology)

Examined how personality traits, as defined by the Five Factor Model of Personality, and musical preference, correlated with grade-point average of college age students.

### **SARAH DIERKING**

#### **Cultural Aspects of American Society and Attitudes Toward Immigrants**

*Student Co-Author:* Jessica Brandt

*Mentor:* Dr. Chrysalis Wright (Psychology)

This study examined how views of American society relate to attitudes toward immigrants. Those who rated America high on women's rights and treatment of the poor held more positive attitudes toward immigrants. A gender effect was found between attitudes toward immigrants and treatment of the poor, but not women's rights.

### **EMILY EDWARDS**

#### **Aiding in Successful Reintegration: Societal Patterns of Discrimination Toward Offenders**

*Mentor:* Dr. Karen Mottarella (Psychology)

This study explores prisoner stigma related to offender reintegration. Participants were randomly assigned to complete the Bogardus Social Distance Scale on offenders. When the offender was described as "completing therapy," participants indicated less desire for social distance. Encouraging offenders to disclose therapy completion may reduce stigma they face.

### **JESSICA FRELOW**

#### **Living Within Perceptions: The Mentally and Physically Disabled**

*Mentor:* Dr. Amy Reckdenwald (Sociology)

This study examines how the perceptions of society impact the quality of life of certain groups, particularly the mentally and physically disabled. This information offers an outline for comprehension, awareness, and education to improve the communities in which stigmatized groups live.

### **SYMONE GIBSON**

#### **Leave Him or Keep Him: Predictors of Forgiveness After an Infidelity Among Women**

*Student Co-Authors:* Licelia Moo, Vina Santamaria

*Mentor:* Dr. Grace White (Psychology)

The current study attempts to illuminate the role which personality, self-esteem, adult attachment, and relationship commitment may play in a woman's forgiveness and continuation of a romantic relationship in which an infidelity has occurred.

### **JESSICA GRAHAM**

#### **Let's Get Together: A Study of the Key Attributes of a Successful Study Group**

*Mentor:* Dr. Carolyn Massiah (Marketing)

The study examines the link between study groups and student success by exploring the development of study groups along dimensions such as student study habits, schedules, and backgrounds. The objective is to determine the ideal manner in which to develop a study group that will lead to improved student success.

### **JASMINE GYANT**

#### **The Language of a Creative Mind: Exploring the Relationship Between Creativity and Lexical Choice**

*Student Co-Authors:* Sarah Sanders, Courtney Christovich, Breanna Nelson, Diana Calderon, Melissa Antler, Angela Vanella

*Mentor:* Dr. Shannon Whitten (Psychology)

The present study explored the relationship between creativity and lexical choice in writing. It was found that participants who scored in the top 35 percent on a creativity test used significantly more words indicating cognitive processes (think), more words indicating perception (see), more spatial words (up), and less social words (talk).

### **JENNIFER ISARD**

#### **The Effect of Choice on Motivation and Sustained Attention**

*Mentor:* Dr. James Szalma (Psychology)

This study examined how task choice affects vigilance performance, perceived workload, and stress. Sustained attention is important in many domains ranging from industrial settings to threat detection in the military, and this study contributes to broader research efforts to understand this capacity.

### **EMMANUEL JACKSON**

#### **Beating the Odds: Examining Success Among African-American Male Students**

*Mentor:* Dr. Amy Donley (Sociology)

The objective of this project is to explore the lives of successful African-American male students attending a known low-performing school. Through semi-structured qualitative interviews that were transcribed and analyzed for themes, it examines what the students attribute to their success and whether they face stigma from their peers.

### **BROCK JACOBI**

#### **Jury Decision Making on the Perceptions of Violence from Video Games**

*Mentor:* Dr. Valerie Sims (Psychology)

Jury vignettes will be created that will determine whether a perpetrator who was found guilty of a particular crime is given a varying sentences based on the perpetrator's age, whether the perpetrator played video games, whether those games were violent, sex of the perpetrator, and the age of the participant.

### **NICHOLAS JAMES**

#### **Gauging Factors of Gameplay**

*Mentor:* Dr. Clint Bowers (Psychology)

Focusing on the experience of game play, this study sought to determine how engagement experienced while playing a browser-based Flash game differed between individuals due to factors such as age, educational level, gender, and video game self-efficacy.

### **NATACHA JEROME**

#### **The Effect of Academic Entitlement Among Generation Y College Students**

*Mentor:* Dr. Carolyn Massiah (Marketing)

The study aims to explore sense of entitlement among Generation Y college students. Through database research and surveying it will help the general population to gain an understanding of how entitlement within the Generation Y college student population affects their attitudes toward expectations in the classroom and teacher relations.

### **LISA KADISON**

#### **The Relationship Between Anticipatory and Consummatory Anhedonia, Skin Conductance Changes to Affective Pictures, and Symptoms of Schizotypy**

*Mentor:* Dr. Jeffrey Bedwell (Psychology)

The present study examined self-reported measures of anhedonia subtypes (including social, non-social, consummatory, and anticipatory) in UCF undergraduate students with a range of schizotypy. Scores on these measures were compared to facial expressivity (measured by facial electromyography) and arousal (measured by skin conductance).

## SOCIAL SCIENCES II

### JENYA KOLPAKOVA

#### Childhood Cat Bites and Disorganized Symptoms in Schizotypy in Adulthood

**Mentor:** Dr. Jeffrey Bedwell (Psychology)

There is a known connection between schizophrenia and infectious diseases, and while schizotypy represents a psychological construct of latent schizophrenia liability on the level of personality organization, my research examined the relationship between schizotypal personality in adulthood and puncturing cat bites during childhood.

### DAPHNE KOPEL

#### Creating Memory Distortion Through Spatial Experiences at Similar Disney Theme Parks

**Mentor:** Dr. Valerie Sims (Psychology)

The objective of this study is to determine whether spatial expertise can influence, distort, or transfer spatial cognition in a strikingly similar place. This study will investigate whether memory interference occurs as a result of changing an experts' schema of their existing, familiar place.

### CHARLENE KORMONDY

#### International Value of Sea Turtles

**Student Co-Author:** Cheyenne Canon

**Mentor:** Dr. Peter Jacques (Political Science)

We use content analysis of the State of the World Fisheries and Aquaculture (SOFIA) reports to measure the value that the Food and Agriculture Organization (FAO) of the United Nations places on sea turtles. This value is then compared to the effectiveness and scope of current conservation policies.

### ALI KURNAZ

#### Attitudes Toward the Florida Bright Futures Scholarship Program

**Mentor:** Dr. Amy Reckdenwald (Sociology)

The objective of the current research is to explore whether the political party affiliations of students will have an effect on their attitudes toward a statewide, merit based scholarship program.

### RAINA LECKIE

#### Exploring Religious Bias and Perceptions of Atheism

**Mentors:** Dr. Karen Mottarella, Dr. Shannon Whitten (Psychology)

This study explores religious bias and bias against atheists. Participants reviewed a resume in which the candidate was suggested to be Christian, Muslim, Scientologist, Atheist, or no religion identified. The results reveal whether the candidate's religion influences ratings on appropriateness for hire, attractiveness, expertise, and/or trustworthiness.

### JASMINE LOFTIN

#### Getting Help When Needed: Food Insecurity Among College Students

**Mentor:** Dr. Amy Donley (Sociology)

Explores the barriers experienced by college students and examines the negative social stigmas that may prevent them from attending the campus food pantry. Specifically examining students who already use the pantry, gaining insight on their initial apprehensions can potentially help to alleviate stigmas for those wanting to receive food assistance.

### HEATHER LOPEZ

#### Effects of Father Involvement on Marriage Attitudes Among Hispanic Young Adults

**Mentor:** Dr. Chrysalis Wright (Psychology)

The purpose of this paper was to analyze the relationship between father involvement and attitudes about marriage among a participant group of 404 Hispanic young adults ages 18 to 21.

### JOSE MARQUEZ

#### GDP Growth Differences and Financial Contagion: Evidence from the 2008-2009 Subprime Crisis

**Mentor:** Dr. Uluc Aysun (Economics)

During the last major global recession in 2008-2009, much focus was given to the term contagion. This paper tries to analyze empirically the linkages between financial market activity in terms of stock market correlations, bank holdings and cross-border portfolio holdings, and GDP growth differences.

### DYLAN MARTIN

#### Transgender Identity Development

**Mentor:** Dr. Steven Berman (Psychology)

The psychological impact of gender reassignment surgery, specifically in regard to identity development and capacity for intimacy, was explored using a cross sectional design with time since surgery being used to predict identity, intimacy, and psychological adjustment, while controlling for age of the individual.

### ALICIA MARTINEZ

#### Exploring Portrayals of Multiple Intelligences in Male and Female Protagonists in Best-Selling Picture Books, 2008-2012

**Mentor:** Dr. Sherron Killingsworth Roberts (Teaching, Learning, and Leadership)

The focus of the study is to explore gender roles of protagonists in fictional best-selling picture books which appeared on *The New York Times* Best Sellers list, 2008-2012. These protagonists are evaluated according to Howard Gardner's multiple intelligence theory.

### SHANE MCCORMACK

#### The Effects of Auditory Stimuli on Change Blindness

**Mentor:** Dr. Mark Neider (Psychology)

This research examined the effects of different auditory stimuli on rates of change blindness. Change blindness involves failure to detect changes in a visual scene. The research examined whether music would increase rates of detection, and whether or not it would take less time to do so.

### JESSICA MCDONALD

#### Relationship Education for Single Parents: Does it Work?

**Mentor:** Dr. Andrew Daire (Psychology)

This study reviews the effects of relationship education (RE) on the relationship satisfaction of single parents attending RE workshops without a partner, as measured by the Outcome Questionnaire 45.2 (OQ45.2), a 45-item self-report survey that measures perceived symptom distress associated with depression and anxiety, interpersonal relations, and social role functioning.



### **KATHERINE MEJIA**

#### **Reliability and Concurrent Validity of the Family Adjustment Measure-II**

**Mentor:** Dr. Andrew Daire (Educational and Human Sciences)

The Family Adjustment Measure-II (FAM-II) is a thirty-item, research-designed assessment that evaluates relationships in parental adjustment such as: parental distress, family-based support, social support, and positive coping skills. This presentation highlights the development of the tools reliability and concurrent validity.

### **KATELYNN MESSER**

#### **What Factors Do UCF Students Think Motivate Individuals to Bully Others?**

**Mentor:** Dr. Amy Donley (Sociology)

The objective for this project is to examine the factors University of Central Florida students think motivate individuals to bully others.

### **MICHELLE MILLARD**

#### **Problem Based Learning Units: Meeting Common Core Standards for Ninth and Tenth Grade ELA**

**Mentor:** Dr. Jeffrey Kaplan (Teaching, Learning, and Leadership)

I have designed seven problem-based learning units that will encompass an entire school year for ninth and tenth grade students. Each unit is designed to meet all four strands of the Common Core State Standards for English Language Arts.

### **ALEXANDRA MINNICK**

#### **Just Eat It: The Sociological Factors that Influence the Eating Habits of College Students**

**Mentors:** Dr. Lin Huff-Corzine, Dr. Amy Donley (Sociology)

The objective of my study is to examine how all three factors — gender, living arrangements, and convenience — influence the eating habits of college students. The findings from my study will provide a more comprehensive understanding of the predictors of weight gain in college and overall health.

### **JASMIN MOKBEL**

#### **Profanity's Relation to Personality and Impulsivity**

**Mentor:** Dr. Chrysalis Wright (Psychology)

This study analyzed the effects of swearing in relation to social construction, personality characteristics, and religiosity.

### **JOSHUA MOUSSA**

#### **The Effects of Blindfolding and Ice Breakers on Group Cohesion**

**Student Co-Author:** Israel Pacheco

**Mentor:** Dr. Janan Smither (Psychology)

We are researching the effectiveness of an ice breaker involving blindfolding the participants and asking them several thought provoking questions. The idea is that this form of ice breaker will increase group cohesiveness. We want to add a scientific background to this technique and possibly use it in classrooms.

### **MAXINE NAJLE**

#### **Views of the Nonbeliever: Implicit and Explicit Attitudes Toward Atheism**

**Mentor:** Dr. Valerie Sims (Psychology)

Two studies examined the implicit and explicit attitudes of participants toward atheists. These studies revealed that the stigmas against atheists might not be as strictly negative as usually assumed and more related to deviant groups associated with the label "Atheist."

### **BREANNA NELSON**

#### **The Impact of Training on Eyewitness Memory**

**Mentor:** Dr. Shannon Whitten (Psychology)

The purpose of the present research was to explore the impact that training has on eyewitness memory. Research conducted by Elizabeth Loftus (1975) exposed the fallibility of eyewitness accounts through the use of leading questions and misinformation. The present study investigated whether or not training eyewitnesses reduces suggestibility.

### **AMIRICA NICHOLSON**

#### **Depression-Stigma: An Examination of Enforcers in College Communities**

**Mentor:** Dr. Charles Negy (Psychology)

This study examined the influence of gender, ethnicity, social support, and acculturation on depression-stigma in African-American versus Caucasian college populations. Undergraduates of various ages, ethnicities, and class standings were given surveys pertaining to their demographics, family history of depression, and personal views regarding depression.

### **ELISABETH NIEDERMAN**

#### **Contribution of Physiological Limitations of Vision to Change Blindness**

**Mentor:** Dr. Peter Hancock (Psychology)

Change blindness is defined as an attentional phenomenon. However, it seems likely that physiological limitations of vision contribute to the effect. I hypothesize that participants must fixate on a change to detect it, suggesting a better understanding of change blindness may be achieved by including eye-tracking measures.

### **ANISULRAHMAN NIZAM**

#### **Improving Long-Range Forecast Errors for Better Capacity Decision-Making**

**Mentor:** Dr. Steven Leon (Marketing)

This project set out to create a better model for projecting airline passenger travel. The objective was to beat forecast errors from reputable agencies like the FAA. Prior methods were built upon and newer ideas were incorporated to create a model with better fit for predicting long-term passenger demand.

### **GREG NORRIS**

#### **The Correlation of Food Demand and Food Stocks to the Acceptance of Genetically Modified Organisms: An International Regional Comparison**

**Mentor:** Dr. Peter Jacques (Political Science)

As food demand increases on an international scale the scarcity of food becomes elucidated. This study seeks to understand the governance and regulation of genetically modified organisms in relation to food scarcity in Europe and Asia.

### **NATALIE PAQUETTE**

#### **Attentional Guidance in Visual Search: Examining the Interaction Between Goal Driven and Stimulus Driven Information in Natural Images**

**Mentor:** Dr. Mark Neider (Psychology)

We were interested in exploring the effects of contextual information on visual search behavior using recorded eye movement data. First, by means of a realistic visual search task, then through the introduction of color singletons, we were able to explore the effects of semantic guidance against interfering stimulus properties.



## **PRIYANKA PARIKH**

### **Individual Differences in Confronting Prejudice**

*Student Co-Authors:* Kristen Wilson, Kimberly Mendoza, Arielle Young, Michael Ogradowski, Michael Keeller  
*Mentor:* Dr. Erin Murdoch (Psychology)

The objective of the research is to explore individual differences relating to the likelihood of confronting prejudicial comments. Personality traits relevant to social interactions (e.g., fear of negative evaluation, need to belong) are expected to contribute to differences in the likelihood of confronting prejudice.

## **GRACE PARKER**

### **Uneven Ground: Comparing Environmental Concern and Perceptions of Women's Equality Among College Students**

*Mentor:* Dr. Amy Reckdenwald (Sociology)

The objective of my research is to examine the relationship between UCF students' sexist attitudes and concern for the environment. The results will utilize gender equality as a lens to understand and deconstruct environmental worldviews.

## **STEPHEN PERKINS**

### **Simulator Sickness: An Unexpected Effect of Priming**

*Student Co-Authors:* Petal LaBorde, Elisabeth Neiderman  
*Mentors:* Dr. Daniel McConnell, Dr. Peter Hancock (Psychology)

The current research investigated the surprising effect of priming on the incidence of simulator sickness. Instead of the common effects of priming, the frequency of reported simulator sickness was found to be reduced by cues which would be thought to instigate its occurrence.

## **ZOE PERLOW**

### **Don't Stand-By, Stand-Up: Engaging Bystanders to Assume an Active Role in Bullying Prevention**

*Student Co-Authors:* Kristina Ramos, Edgardo Jimenez, Lindsey Friedel, Marc Gomes  
*Mentor:* Dr. Anne Norris (Nursing)

Our main objective is to create an interactive media platform through independent research and behavioral trends of middle school students to reinforce alternative approaches to bullying. Our goal is to impact middle schoolers through positive, reinforcing visuals, ultimately enabling victims and bystanders of bullying to stand up and speak out.

## **CHELSEA PINER**

### **Corridors to Conservation and Environmental Policy at UCF: How to Save a Keystone Species**

*Mentor:* Dr. Peter Jacques (Political Science)

Should UCF implement policies to include habitat corridors with future development? Would implementing these corridors allow species to have a broader range for dispersal and food acquisition while limiting road mortality rates? Would implementing environmental policies to include habitat corridors in future development benefit the gopher tortoise population at UCF?

## **SOCIAL SCIENCES III**

## **SARAH PRENTICE**

### **College Student Self-Esteem, Perceived Stress, and Psychological Well-Being**

*Mentor:* Dr. Kimberly Renk (Psychology)

College students' self-esteem, perceived stress, and psychological well-being during college will be analyzed in relation to the context of different living situations. The contribution of parental involvement will be examined to identify types of relationships that afford positive student outcomes, even for those students who have entered emerging adulthood.

## **CARLOS PUENTES**

### **Toward Precision Medicine: A Method for Identifying Individuals Who are Expected to Benefit from Antidepressants**

*Mentor:* Dr. Nick Forand (Psychology)

We developed a predictive model with the shared intention of deciphering differential responses to antidepressant medication and accurately estimating treatment outcome prior to the administration of the treatment for individuals suffering from major depressive disorder.

## **ERUM QURESHI**

### **Music Influences on Health Compromising Behavior**

*Mentor:* Dr. Chrysalis Wright (Psychology)

This study is examining media influence and its relation to health compromising behavior. This study proposes that frequent exposure to lyrical content, the public image of artists, and music videos promotes illegal drug use and sexual activity.

## **APOORVA RAJAN**

### **Attitudes Toward Women: Predictive Personality Trait of Undergraduate Men and Women**

*Student Co-Author:* Carolin Prior

*Mentor:* Dr. Chrysalis Wright (Psychology)

The purpose of this study was to examine how gender and personality traits of undergraduate students relate to their attitudes toward women.

## **KAYLIN RATNER**

### **Parental Attachment's Role in Identity Style Formation**

*Mentor:* Dr. Steven Berman (Psychology)

The role of parenting in identity formation was investigated during this study. It was posited that parenting and attachment would influence identity style development. Knowing more about how parenting affects an adolescent's blooming identity can aid in the creation of prevention and intervention programs directed at fostering positive youth growth.

## **ROBERT REARDON**

### **Factors Influencing the Attitudes of UCF Students Regarding Kidney Transplantation**

*Mentor:* Dr. Amy Reckdenwald (Sociology)

I am researching, via a survey link to the Qualtrics company, what sociological factors, such as race, gender, religiosity/spirituality, and even political party affiliation, impact the decision to donate a kidney, either in life or in death.

### **SHAUN RICHARDSON**

#### **Viewing All Shades of the Rainbow: What are the Most Salient Factors that Affect Students' Perceptions of Homosexuality?**

*Mentor:* Dr. Amy Donley (Sociology)

The research measured the most pertinent factors that would affect a student's perception of homosexuality. The research aims to increase awareness of homophobia upon college campuses. The research also aims to add to the previous work done on the acceptance of homosexuality on college campuses.

### **THERESA RIFE**

#### **How Do You Want It? Personality Predictors of Cybersex Infidelity**

*Student Co-Authors:* Sarah Sacra, Michael Edmunds, Geoffery McDole

*Mentor:* Dr. Grace White (Psychology)

The goal(s) of this study are to examine participant's frequency of cybersex infidelity behaviors, assess personality traits associated with actual and perceived cybersex infidelity, examine whether individuals consider engaging in cybersex with someone other than their partner as cheating, and examine how personality and commitment predicts engaging in cybersex.

### **CARLOS E. ROBLES**

#### **The Effectiveness of Mobile Apps on Consumer Brand Perception**

*Mentor:* Dr. Carolyn Massiah (Marketing)

Though used extensively in marketing, the effect of mobile apps on consumer brands remains unknown. This research explores the effectiveness on smartphone consumers. The impact of advertisement types and sources are also examined. This work attempts to provide a greater understanding of the true benefits of mobile apps.

### **MONICA ROSEN**

#### **Are We There Yet? The Effects of Stress on Distance Perception**

*Mentor:* Dr. Mark Neider (Psychology)

The objective of this research was to investigate the effects of mental and physical stress on a person's ability to accurately perceive distances. We define stress as the mental/physical strain exerted on a person. We predicted the more stress a person endures the more likely they are to overestimate distances.

### **EMILY ROSENBAUM**

#### **Does Knowledge Predict Fear: Prior Knowledge of Mass School Shootings and Student's Fear of Crime on a College Campus**

*Mentor:* Dr. Amy Donley (Sociology)

The purpose of this research is to examine whether a UCF student's prior knowledge of mass school shootings has an effect on their overall fear of crime on campus.

### **KELCEY SABLON**

#### **The Effect of Service Provider Skin Tone on Customer Perceptions of Service Quality**

*Mentor:* Dr. Carolyn Massiah (Marketing)

This project explores effects of service provider skin tone on service quality. The study exposes respondents to provider images with various ethnicities. Specifically, the study aims to examine the possibility that ethnicity directly influences how a customer perceives the quality of service they receive from the service provider.

### **SARAH SACRA**

#### **Teach Me: Influences of Personality on Individual Preferences for Instructional Modality**

*Student Co-Author:* Theresa Rife

*Mentor:* Dr. Grace White (Psychology)

The primary goal(s) of this study are to: (1.) Examine students' reported preferences for face-to-face versus online-only instructional modalities, and (2.) Assess the personality traits that are associated with instructional preference.

### **SARAH SANDERS**

#### **Exploring the Linguistic Styles of Students with a Propensity for Alcoholism and Students with Symptoms of Depression**

*Mentor:* Dr. Shannon Whitten (Psychology)

Several researchers have explored the relationship between alcohol abuse and depression. The present study compares the similarities in the linguistic styles of students with a propensity for alcoholism with students who display symptoms of depression. Implications for improving diagnosis are discussed.

### **NELSON SANTOS**

#### **Inside and Out on an International Humanitarian Aid Group and Its Impact on Haiti's Health**

*Mentor:* Dr. Fernando Rivera (Sociology)

The objective of this study is to explore the experiences of members of an international humanitarian aid program that provides health education to the rural people of Haiti.

### **SEBASTIAN SARRIAA**

#### **The Effectiveness of New Urbanism in Alleviating the Lives of Slum Dwellers**

*Mentor:* Dr. Peter Jacques (Political Science)

To better understand New Urbanist policies in developing countries toward achieving Target 7D of the Millennium Development Goals, which is to improve "the lives of at least 100 million slums dwellers" by 2020.

### **FEDERICO SCHOLCOVER**

#### **Attributions of Agency in High Risk Situations**

*Mentor:* Dr. Valerie Sims (Psychology)

The goal of the research project is to answer the question, "How much responsibility do we attribute to a robot when acting in a high risk situation, and does that have a measureable effect on performance?" This will be tested from the perspectives of both an observer and operator.

### **AMY SIERCKS**

#### **Understanding and Achieving Brain-Based Instruction in the Elementary Classroom: A Qualitative Study of Strategies Used by Teachers**

*Mentor:* Dr. Roberta Egle (Teaching, Learning, and Leadership)

This study takes a closer look at the perspective of teachers when it comes to what brain-based instruction strategies are. Teachers were given a survey to voice their opinions about brain-based instruction and how they incorporate it into their classrooms.

### **JESSICA SILER**

#### **Generation and the Google Effect: Transactive Memory System Preference Across Age**

*Mentors:* Dr. Valerie Sims, Dr. Peter Hancock (Psychology)

The purpose of this study has been to investigate a possible shift in thinking that has occurred since the onset of the Internet and related technology, specifically it examines whether preference for transactive memory system types (either book- or computer-related) varies with age.

## **NICHOLAS SIMONS**

### **The Discursive Practices and Social Construction of Trans\* Identities in an Online Community**

**Mentor:** Dr. Shannon Carter (Sociology)

This project examines how race, class, and gender affect the narratives and discourse used by trans\* individuals in the construction of their identities on the popular microblogging website, Tumblr. Trans\* people are those who identify as male-to-female or female-to-male transgender and those who identify beyond the gender binary.

## **KYLE SIMPSON**

### **The Benefits of Living Near Light Rail Transit Compared to a Major Arterial Roadway Comparing Environmental, Economic, and Health Factors**

**Mentor:** Dr. Christopher Hawkins (Public Administration)

Since the 1950s, transportation in the United States has centered on automobiles. This large reliance on automobiles has resulted in numerous negative side effects, from environmental degradation, social inequality, and decreased quality of life. This project highlights the benefits that light rail has compared to traditional, auto-dependent development.

## **SAMANTHA SPIERS**

### **Changing Cultural Norms: A Case Study of Smoke-Free UCF**

**Mentor:** Dr. Mary Schmidt-Owens (Child, Family and Community Sciences)

The project objective was to research how effective smoke-free policies on a college campus are in changing attitudes, beliefs, and behaviors of college students and faculty/staff.

## **ROSEANN SWIDEN-WICK**

### **Exploration of Worker Arrogance and the HEXACO Model of Personality Factors**

**Mentor:** Dr. Karen Mottarella (Psychology)

Workplace arrogance involves displays of superiority and is measured by the new Workplace Arrogance Scale (Johnson et al., 2010). The HEXACO Personality Inventory (HEXACO-PI) measures six personality factors including honesty-humility. Participants' WARS and HEXACO-PI scores will be examined to advance convergent and discriminant validity information for the new WARS.

## **BRIAN SZCZUCKI**

### **Go On, Touch Yourself**

**Student Co-Author:** Fabio Giraldo

**Mentor:** Dr. Michael Rovito (Health Professions)

The intention of the "Go On, Touch Yourself" poster is to raise intent in at-risk males to perform a testicular self-exam.

## **ROBERT THALLY**

### **A Dialogical Approach of Group Identity Salience and the Academic Competence of Nontraditional College Students**

**Mentor:** Dr. Chrysalis Wright (Psychology)

The current study proposes a novel measure of group identity salience to examine the dialogical relationships associated with predictors of academic competence. Results suggest that nontraditional college students exhibit role identities unrelated to their learning environment.

## **ANGELA VANELLA**

### **The Label of Madness: The Effects of Career Choice and Gender on Perceptions of Mental Illness**

**Mentor:** Dr. Shannon Whitten (Psychology)

Do people stereotype creative writers? Is it expected of females to be more creative than scientific? The purpose of the present study is to explore whether or not there is an interaction between gender and major (creative writing versus science) on stereotypes of mental illness, personality, and substance abuse.

## **NESTOR VERA TATA**

### **The Individual Motives that Cause Violence Within Gang Members**

**Mentor:** Dr. George Tita (Criminal Justice and Legal Studies)

The project objective was to determine the primary reasons for juveniles to join gangs and to see if violence that is related to criminal gangs occurs more for individual purposes than for gang motives. The beginning of the research was conducted by examining previous elaborated studies of existing gang models.

## **JENNIFER WALSH**

### **Attachment and Adjustment During the High School-College Transition**

**Mentor:** Dr. Luciano Berardi (Psychology)

The objective of this project is to determine if there is a correlation between first-year college students' relationship with their caregiver(s) and their adjustment during the transitional period between high school and college. Specifically, we are interested in personal-emotional adjustment as well as social adjustment.

## **KRISTEN WILSON**

### **Equine-Assisted Psychotherapy as an Effective Therapy in Comparison to or in Conjunction with Traditional Therapies**

**Mentor:** Dr. Erin Murdoch (Psychology)

Equine-Assisted Psychotherapy (EAP) is an experiential psychotherapy that offers a unique nonverbal therapeutic encounter for clients who have difficulties with traditional talk therapies. This research was designed to outline the fundamentals of EAP and its efficacy as well as to encourage more mental health professionals toward the use of EAP.

## **LINDSAY WISEMAN**

### **A Review in the Collection and Measurement Practices of Patient Satisfaction in Emergency Departments**

**Mentor:** Dr. Denver Severt (Hospitality Services)

Working alongside the Market Research Department at Orlando Health, further research was conducted with regard to the methodology, retrieval, interpretation, and implementation of patient satisfaction surveys distributed to discharged patients, with the hopes of improving the system to better illustrate the quality of patient care in the emergency room.

## **ARIELLE YOUNG**

### **Single and Looking**

**Student Co-Authors:** Michael Keller, Kimberly Mendoza, Priyanka Parikh, Kristen Wilson

**Mentor:** Dr. Erin Murdoch (Psychology)

This study evaluated self-objectification for female participants when observed by a male and how his relationship status affected women's feelings of self-evaluation. The study was done through the use of hypothetical situations consisting of two different locations along with the relationship status of the observer.

**ERIKA YOUNG**

**Influence of Relationship and Parenting Education on Parenting Attitudes Regarding Children’s Power and Independence in Couples Impacted by Under/Unemployment**

*Mentor:* Dr. Andrew Daire (Educational and Human Sciences)

This study will demonstrate the pre/post effects that the Becoming Parents Program (BPP) curriculum intervention has on children’s power and independence parenting attitudes, with the use of the Adult-Adolescent Parenting Inventory-II, between males and females.

**REBECCA YOUNG**

**The Perceptions of Homelessness and Strategies for Receiving Services Among the Florida Homeless**

*Mentor:* Dr. Joanna Mishtal (Anthropology)

This project’s goal is to examine how homeless people view the reasons for their homelessness as well as how they respond to service providers who may have different views. This project involves anthropological primary data collection with a population of homeless people in Oviedo, Florida.

**MISHA ZAIDI**

**Future Educators’ Response to Bullying**

*Mentors:* Dr. William Russell, Ms. Cynthia Poole (Teaching and Learning Principles)

This study seeks to analyze how preservice elementary teachers’ previous experiences with bullying affect their anticipated response to bullying in their future classrooms.



## 2012 UNDERGRADUATE RESEARCH JOURNAL PUBLICATIONS

The *UCF URJ* encourages, recognizes, and rewards the intellectual scholarship of undergraduate students by providing a peer-reviewed forum to share their research. The journal accepts student articles, essays, and adapted thesis projects from all majors. Students who publish their work gain valuable academic experience, preparing them for future success. Collaborative research is always welcomed.

The *University of Central Florida Undergraduate Research Journal* showcases articles of exemplary works from a wide range of student scholarship in all fields. The journal seeks outstanding research submitted by undergraduate students who have been involved in faculty-mentored research projects and activities related to scholarship.

The *University of Central Florida Undergraduate Research Journal* is on display at [www.URJ.ucf.edu](http://www.URJ.ucf.edu).

### ELLITA WILLIAMS

Early Adolescent Latinas and Non-Coital  
Sexual Behavior: Individual, Social, and  
Parental Variables

*Mentor:* Dr. Anne Norris

### MARLAINE MONROIG

Associations Between Positive Health  
Behaviors and Psychological Distress

*Mentor:* Dr. Jeffrey Bedwell

### MOLLY WILHELM

Understanding Older Women's Experience  
of Being Diagnosed with Breast Cancer

*Mentor:* Dr. Victoria Loerzel

### JIE LIANG

An Iteratively Reweighted Least Square  
Implementation for Face Recognition

*Mentor:* Dr. Xin Li

### ROSS COTTON

Political Participation and E-Petitioning: An  
Analysis of the Policymaking Impact of the  
Scottish Parliament's E-Petitioning System

*Mentor:* Dr. Bruce Wilson

---

## UNIVERSITY OF CENTRAL FLORIDA LIBRARIES

Annual Award for Excellence in Undergraduate Research Publishing in the  
*University of Central Florida Undergraduate Research Journal*

---

The University of Central Florida Libraries is pleased to announce  
**Ross Cotton**, author of *Political Participation and E-Petitioning:  
An Analysis of the Policymaking Impact  
of the Scottish Parliament's E-Petitioning System*,  
has won its 2012 Award for Excellence in Undergraduate Research Publishing.

Congratulations to Ross Cotton and his mentor, Dr. Bruce Wilson!

## UNDERGRADUATE RESEARCHER OF THE MONTH

In January 2010, the Student Undergraduate Research Council, in collaboration with the Office of Undergraduate Research, developed the Undergraduate Researcher of the Month program.

Each month a new student is honored with the award. Students are nominated by advisors, mentors, or peers. The following students were recognized in 2012.

### JANUARY

#### **KARLA COLON-URQUIOLA (Psychology)**

ROFLMFAO: An Investigation on the “Netspeak” Dialect

*Mentor:* Mr. Matthew Bryan (Writing and Rhetoric)

### FEBRUARY

#### **WILLIAM CROSBY (Nursing)**

An Evaluation of Tracheostomy Care Anxiety Relief Through Education and Support (T-CARES)

*Mentor:* Dr. Mary Lou Sole (Nursing)

### MARCH

#### **ANTONIO ORTIZ (Biology)**

Sex Reversal in Non-Native Mussels When Starved

*Mentor:* Dr. Linda Walters (Biology)

### APRIL

#### **JOSH PATZNER (Industrial Engineering)**

Reducing the Environmental Impacts of Electronic Products Through Sustainable Consumption and Extended Producer Responsibility

*Mentor:* Dr. Dima Nazzal (Industrial Engineering and Management Systems)

### MAY

#### **ABDUL RAHIM (Biotechnology)**

Proteomic Analysis of the Very Low Density Lipoprotein (VLDL) Transport Vesicles (VTV)

*Mentor:* Dr. Shadab Siddiqi (Biomedical Sciences)

### JUNE

#### **PATRICK CHERUBIN (Biomedical Sciences)**

Polyphenolic Compounds of Grape Extract as Potential Inhibitors of Cholera Toxin

*Mentor:* Dr. Kenneth Teter (Biomedical Sciences)

### JULY

#### **LILIAN MILANES (Anthropology)**

Health Care Providers’ Perspectives on Male Involvement in Sexual and Reproductive Health Care Needs

*Mentor:* Dr. Joanna Mishtal (Anthropology)

### AUGUST

#### **ALEXANDRA RODRIGUEZ (Biomedical Sciences)**

Generation of Pre-Adipocytes from Human Mesenchymal Stem Cells

*Mentor:* Dr. Kiminobu Sugaya (Biomedical Sciences)

### SEPTEMBER

#### **GENESYS SANTANA (History)**

A Case of Double Consciousness: Americo-Liberians and Indigenous Liberian Relations 1840-1930

*Mentor:* Dr. Fon Gordon (History)

### OCTOBER

#### **LAURA MABEN-TENNEY (Nursing)**

Nursing Attitudes Toward the Use of Reprocessed Single Use Medical Devices

*Mentor:* Dr. Vicki Loerzel (Nursing)

### NOVEMBER

#### **SARA BOLIVAR WAGERS (Biomedical Sciences)**

Sea Urchin Conservation Genetics

*Mentor:* Dr. Linda Walters (Biology)

### DECEMBER

#### **NATHANIEL ENOS (Computer Engineering)**

Understanding the Balance Between Economic Equality and Economic Growth: A Generative Computer Approach

*Mentor:* Dr. Ivan Garibay (Electrical Engineering and Computer Science)

Nominations can be made at [www.our.ucf.edu/accomplishments/urotm/](http://www.our.ucf.edu/accomplishments/urotm/).

## UCF UNDERGRADUATE RESEARCH COUNCIL

The Undergraduate Research Council promotes the involvement of undergraduates in the ongoing activities of the UCF research community and advises the Office of Undergraduate Research as to policies and programs that pertain to undergraduate research at UCF.

Michael Aldarondo-Jeffries	Christopher Hawkins	Pedro Patino
Kelly Astro	James Hogg	Charles Perry
Monifa Beverly	Peter Jacques	Tison Pugh
Amy Bickel	Bernie Jensen	Andrew Randall
Ratna Chakrabarti	Joo Kim	Michael Rivoto
Matthew Chin	Jennifer Kent-Walsh	Jeff Rosky
William Crampton	Dmitry Kolpashchikov	Julie Steen
Laura Crouch	Stephen Kuebler	Kenneth Teter
Melissa Dagley	Robb Lindgren	Mary Tripp
Niels da Vitoria Lobo	Victoria Loerzel	John Veneck
Jonathan Decker	Karol Lucken	Alberto Villanueva
Amy Donley	Amelia Lyons	Elliot Vittes
Maysoun Dimachkie	John Malala	John Walker
Martin Dupuis	Stacey Malaret	Linda Walters
Costas Efthimiou	Lisa Mills	Ze Wang
Debbie Hahs-Vaughn	Abby Milon	Michael Wilkinson
William Hanney	Jennifer Mundale	Chrysalis Wright
Richard Harrison	Daniel Murphree	

## UCF STUDENT UNDERGRADUATE RESEARCH COUNCIL (SURC)

SURC was formed to promote awareness about undergraduate research for students at the University of Central Florida. Ten students actively engaged in research are selected each year to serve on this council. Through their support the Office of Undergraduate Research has greater exposure on campus and continuously gets feedback on undergraduate research programs. Their help in promoting and running the Showcase of Undergraduate Research Excellence is greatly appreciated.

Linh Anh Cat	Natalie Holloway	Chris Ramirez
Christy Clarke	Mario Pita	Adrienne Showman
Jacquelyn Cook	Sarah Prentice	Tyler Wittman

## SPECIAL THANKS

The Office of Undergraduate Research thanks the following individuals and entities for their time, expertise, and support in the planning of today's event.

Joe Adams	Lauren Haar	Lidia Kawashima
Michael Aldarondo-Jeffries	Richard Harrison II	Rick Schell
Kelly Astro	Jennifer Hartman	Brian Strickland
Robert Bilic	President John C. Hitt	Elliot Vittes
Austin Brogle	Martha H. Hitt	UCF Foundation
Sandra Cherepow	Careen Krapf	UCF Libraries
Denise Crisafi	Nancy Lynch	UCF Student Union
Michelle Fuentes	Chris Morgan	UCF Marketing
Drew Guarino	Tray Neeley	Provost Tony Waldrop

# INDEX OF STUDENT PRESENTERS

Abbitt, Danielle . . . . .	15	Choy, Kevin . . . . .	11
Ahluwalia, Prabhjot . . . . .	6	Christovich, Courtney . . . . .	18
Alexander, Adam . . . . .	10	Clarke, Christy . . . . .	18
Allen, Brian . . . . .	15	Cokley, Raven . . . . .	18
Allen, Katherine . . . . .	8	Cole, Anthony . . . . .	11
Angelo, Matthew . . . . .	5	Collazo, Jose . . . . .	16
Antler, Melissa . . . . .	17	Collier, Jessica . . . . .	18
Antoine, Alesia . . . . .	15	Colon, Nicholas . . . . .	18
Arzt, Jenny . . . . .	8	Colon Gomez, Maria . . . . .	16
Babamir, Zayd . . . . .	6	Conley, Chrona . . . . .	9
Baddger, Courtney . . . . .	5	Cook, Jacquelyn . . . . .	18
Bartel, Kendra . . . . .	17	Crawford, Lydia . . . . .	11
Bautista, Stephany . . . . .	15	D'Agostino, Lisa . . . . .	9
Bawaney, Noorulain . . . . .	15	Daley, Samantha . . . . .	18
Bender, Stephen . . . . .	8	DeGenaro, Kelsey . . . . .	18
Bengtson, Hillary . . . . .	15	Dennen, Gabrielle . . . . .	9
Bertrand, Kevin . . . . .	15	DeVore, NaJee . . . . .	18
Blanchet, Paul-Henry . . . . .	17	Diamond, Jamie . . . . .	5
Bleiberg, Melissa . . . . .	17	Diamond, Kelly . . . . .	11
Blueford, Jillian . . . . .	17	Dierking, Sarah . . . . .	19
Boas, Toby . . . . .	15	Do, Andrew . . . . .	11
Bologna, Estefany . . . . .	8	Dominguez, Lisette . . . . .	11
Bonnain, Chelsea . . . . .	10	Donnan, Matthew . . . . .	11
Bookhardt, Samuel . . . . .	17	Dossie, Porsha . . . . .	5
Bookstaver, Kristin . . . . .	15	Durnberg, Erik . . . . .	6
Brandt, Jessica . . . . .	18	Ealy, Brandon . . . . .	7
Bratcher, Allison . . . . .	15	Edwards, Emily . . . . .	19
Brewer, Hattie . . . . .	8	Fellner, Pete . . . . .	5
Brickner, Matthew . . . . .	6	Frelow, Jessica . . . . .	19
Britt, Christopher . . . . .	10	Frye, Christopher . . . . .	16
Campbell, Eleanor . . . . .	15	Gale, Cody . . . . .	11
Carbonell, Abigail . . . . .	10	Gerardi, Nicole . . . . .	9
Carson, Morgan . . . . .	10	Gesiotto, Quinto . . . . .	11
Carter, Sharon . . . . .	10	Gibson, Symone . . . . .	19
Castillo, Stephanie . . . . .	15	Gidus, Sarah . . . . .	11
Castro, Sarah . . . . .	18	Gonzalez, Juan . . . . .	7
Cat, Linh Anh . . . . .	10	Gonzalez, Yessenia . . . . .	16
Cavayero, Chase . . . . .	9	Goodell, Skyler . . . . .	7
Chaffee, Dorey . . . . .	9	Graham, Jessica . . . . .	19
Chagoya, Katerina . . . . .	16	Gyant, Jasmine . . . . .	19
Chamorro, Maria . . . . .	10	Hadri, Wissam . . . . .	11
Charland, Lucien . . . . .	18	Haniff, Hafeez . . . . .	16
Chisum, Michael . . . . .	11	Harrison, Katie . . . . .	5



Haugen, Kasey . . . . .	16
Henriques, Travis . . . . .	7
Hernandez, Michael . . . . .	11
Hernandez, Vivian . . . . .	16
Hodges, Haleigh . . . . .	11
Horner, Ariel . . . . .	12
Hunter, Michael . . . . .	7
Igtiben, Stephanie . . . . .	12
Ilegbusi, Aderonke . . . . .	9
Isard, Jennifer . . . . .	19
Jackson, Emmanuel . . . . .	19
Jacobi, Brock . . . . .	19
James, Nicholas . . . . .	19
Jerome, Natacha . . . . .	19
Kadison, Lisa . . . . .	19
Katsandris, Rebekah . . . . .	12
Keller, Joshua . . . . .	7
Khan, Omar . . . . .	12
Kimmel, Alexis . . . . .	12
King, Joan . . . . .	12
King, Kevan . . . . .	16
Knowles, Rachel . . . . .	9
Kolpakova, Jenya . . . . .	20
Kopel, Daphne . . . . .	20
Kormondy, Charlene . . . . .	20
Kuperman, Aubrey . . . . .	5
Kurnaz, Ali . . . . .	20
Kurtz, Alaina . . . . .	12
Leckie, Raina . . . . .	20
Ledray, Aaron . . . . .	12
Little, Zachary . . . . .	7
Loftin, Jasmine . . . . .	20
Lopez, Elssy . . . . .	9
Lopez, Heather . . . . .	20
Lynton, Jordan . . . . .	5
Malcolm, Jacynth . . . . .	7
Malizia, Nicole . . . . .	12
Marano, Alexis . . . . .	9
Marquez, Jose . . . . .	20
Martin, Dylan . . . . .	20
Martinez, Alicia . . . . .	20
McCormack, Shane . . . . .	20
McDonald, Jessica . . . . .	20
Mejia, Katherine . . . . .	21
Mejia Acevedo, Marco . . . . .	12
Mendoza, Kimberly . . . . .	9
Messer, Katelynn . . . . .	21

Middleton, Aurea . . . . .	9
Millard, Michelle . . . . .	21
Minnick, Alexandra . . . . .	21
Mokbel, Jasmin . . . . .	21
Moore, Megan . . . . .	5
Moran, Shelby . . . . .	12
Morolla, Mikaela . . . . .	12
Moussa, Joshua . . . . .	21
Murdock, Heardley . . . . .	13
Nafzger, Nathaniel . . . . .	13
Najjar, Sarah . . . . .	13
Najle, Maxine . . . . .	21
Nayee, Sanjana . . . . .	5
Neely, Detrachia . . . . .	5
Negy, Kenneth . . . . .	5
Nelson, Breanna . . . . .	21
Nelson, Pascale . . . . .	13
Nicholson, Amirica . . . . .	21
Niederman, Elisabeth . . . . .	21
Nies, Amber . . . . .	13
Nizam, Anisulrahman . . . . .	21
Norris, Greg . . . . .	21
Ocampo, Nicolette . . . . .	13
Okawa, Moneika . . . . .	6
Padilla, Gabriel . . . . .	16
Palomino, Melissa . . . . .	6
Paquette, Natalie . . . . .	21
Parada, Nicole . . . . .	13
Paranto, Brandice . . . . .	13
Parikh, Priyanka . . . . .	22
Parker, Grace . . . . .	22
Penabade, Rachel . . . . .	16
Pent, Gabriel . . . . .	13
Perkins, Stephen . . . . .	22
Perlow, Zoe . . . . .	22
Pham, Anne . . . . .	7
Pickens, Suzanne . . . . .	10
Piner, Chelsea . . . . .	22
Prentice, Sarah . . . . .	22
Puentes, Carlos . . . . .	22
Qureshi, Erum . . . . .	22
Rahim, Abdul . . . . .	13
Rajan, Apoorva . . . . .	22
Ramirez, Adriana . . . . .	10
Ramirez, Ashley . . . . .	13
Ramirez, Christopher . . . . .	16
Rasmussen, Duhwan . . . . .	7

Ratner, Kaylin . . . . .	22	Thally, Robert . . . . .	24
Ray, Kristi . . . . .	13	Thomas, Krysten . . . . .	8
Reardon, Robert . . . . .	22	Tindel, Samantha . . . . .	14
Rébeli-Szabó, Noémi . . . . .	14	Trivino, Ivan . . . . .	8
Richardson, Shaun . . . . .	23	Ulloa, Otniel . . . . .	14
Richmann, Todd . . . . .	14	Valenti, Domenic . . . . .	17
Ridore, Sharanah . . . . .	14	Vanella, Angela . . . . .	24
Rife, Theresa . . . . .	23	Vera Tata, Nestor . . . . .	24
Rios, Genesis . . . . .	7	Viecco, Tatiana . . . . .	8
Ritchey, Rodney . . . . .	6	Walsh, Jennifer . . . . .	24
Rivas, Monica . . . . .	17	Washington, Martisa . . . . .	8
Rivera, Vivian . . . . .	10	Weber, Soren . . . . .	14
Robles, Carlos E. . . . .	23	White, Leah . . . . .	10
Rodriguez, Jasmine . . . . .	14	Wilder, Bryan . . . . .	8
Rosen, Monica . . . . .	23	Williamson, Robert . . . . .	17
Rosenbaum, Emily . . . . .	23	Wilson, Kristen . . . . .	24
Rudley, Danielle . . . . .	14	Wiseman, Lindsay . . . . .	24
Sablon, Kelcey . . . . .	23	Woods, Brian . . . . .	17
Sacra, Sarah . . . . .	23	Yacinthe, Samuel . . . . .	8
Saetta, Valeria . . . . .	7	Yespelkis, Paula . . . . .	15
Salazar, Johanna . . . . .	10	Young, Arielle . . . . .	24
Salisbury, Tess . . . . .	10	Young, Erika . . . . .	25
Sanders, Sarah . . . . .	23	Young, Rebecca . . . . .	25
Santiago, Maillim . . . . .	6	Zaidi, Misha . . . . .	25
Santos, Nelson . . . . .	23	Zimmerman, Marisa . . . . .	15
Sarriaa, Sebastian . . . . .	23		
Scholcover, Federico . . . . .	23		
Sebastiani, Daniela . . . . .	14		
Sepulveda, Natalia . . . . .	6		
Shank, Sonja . . . . .	6		
Shiple, William . . . . .	6		
Showman, Adrienne . . . . .	14		
Siercks, Amy . . . . .	23		
Siler, Jessica . . . . .	23		
Simons, Nicholas . . . . .	24		
Simpson, Kyle . . . . .	24		
Smalley, Nicole . . . . .	6		
Smith, Kevin . . . . .	8		
Smith, Lauren . . . . .	14		
Sorhaindo, Arlin . . . . .	6		
Spiers, Samantha . . . . .	24		
Stevenson, Caitlin . . . . .	14		
Swiden-Wick, RoseAnn . . . . .	24		
Szczucki, Brian . . . . .	24		
Tagupa, Stepfani . . . . .	14		
Tanner, Colleen . . . . .	17		
Tatulian, Adrian . . . . .	17		

# UCF50

1963-2013 YEARS

*UCF is the university that seeks opportunities, creates opportunities, and brings them to fruition. The university's culture of opportunity is driven by the diverse people it attracts and serves, its Orlando environment, its history of entrepreneurship, and its youth, relevance, and energy.*