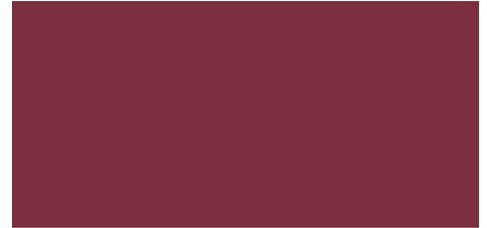


FALL SHOWCASE

OF UNDERGRADUATE RESEARCH EXCELLENCE



Augustus B. Turnbull III • Florida State Conference Center

Division of
UNDERGRADUATE STUDIES
*Center for Undergraduate Research
and Academic Engagement*

Monday, October 2nd
5:30pm-7:30pm



IDEA Grants award selected students funding to conduct research, develop creative projects, and advance or evaluate new or existing ideas.

Special thanks to the FSU Provost's Office for their generous sponsorship of tonight's event.

WELCOME TO THE 2017 FALL SHOWCASE OF UNDERGRADUATE RESEARCH EXCELLENCE!



Latika L. Young, Ed. M.
Director
Center for Undergraduate
Research and Academic
Engagement

We are delighted that you could join us tonight in celebrating outstanding undergraduate research. The students who are presenting their projects have enhanced their undergraduate experience by taking on directed research and creative activity under the supervision and mentorship of some of Florida State University's most distinguished faculty.

Sponsored by the Center for Undergraduate Research and Academic Engagement (CRE), this event serves as the culmination of the IDEA Grant experience, but the work these students present tonight does not end here. Many of the awardees will continue their intellectual pursuits through honors theses, independent study projects, graduate research, and entrepreneurial and creative work, both here on our campus and beyond.

Please also join us tonight in recognizing Nancy Casper Hillis and Mark Hillis, David Ford, Jim Lee, John and Sally Day, Phil and Linda Lewis, Steve Madden, Scott and Ina McNichols, Dr. Mark S. Wrighton, Fred and Debbie Tresca, the Atlantic Coast Conference, the Garnet and Gold Scholar Society, and Phi Eta Sigma for their continued financial support of our summer research awards. Our sincerest gratitude is also offered to FSU Provost Sally McRorie for her office's generous sponsorship of the event. Of course, we also wish to thank all the faculty members who have volunteered their time and expertise to mentor these student researchers, as these efforts would not be possible without them.

If you're attending this event as a student, we hope you'll be inspired to develop your own research or creative projects. Applications for next year's awards are available at cre.fsu.edu and are due January 31, 2018.

FALL SHOWCASE

OF UNDERGRADUATE RESEARCH EXCELLENCE

PRESENTATION SCHEDULE

5:30 PM

Ballroom, Room 208

OPENING REMARKS AND RECOGNITIONS
DR. GARY OSTRANDER, VICE PRESIDENT
FOR RESEARCH
FLORIDA STATE UNIVERSITY

KYLE HILL, PRESIDENT
FSU STUDENT GOVERNMENT
ASSOCIATION

DR. KAREN LAUGHLIN, DEAN
UNDERGRADUATE STUDIES

LATIKA L. YOUNG, DIRECTOR
CENTER FOR UNDERGRADUATE
RESEARCH & ACADEMIC ENGAGEMENT

6:00-7:30 PM

First Floor Dining Room

REFRESHMENTS

6:00-7:30 PM

Atrium and Walkways

POSTER PRESENTATIONS

6:00-7:15 PM

ORAL PRESENTATIONS
(SEE DETAILED SCHEDULE)

6:00-7:30 PM

Room 115

CREATIVE PRESENTATIONS

EXCERPTS OF CREATIVE WORKS
ONGOING - SEE SCHEDULE POSTED
OUTSIDE ROOM

6:10-6:25 PM

Room 103

ORAL PRESENTATIONS

**LIFETIME AND PAST MONTH SUICIDALITY
IN AN ACUTE PSYCHIATRIC SAMPLE**
KIRSTEN CHRISTENSEN

6:10-6:25 PM

Room 114

COASTAL PEOPLE
SARAH DODAMEAD

6:10-6:25 PM **Room 201**
SA'K TE PASE AYITI? POSTCOLONIAL
DEVELOPMENT, THE BLACK STATE, AND
DEMOCRATIC CONSOLIDATION
JOAN JOSEPH

6:10-6:25 PM **Room 205**
HIGH SPEED TURNING FOR DYNAMIC
LEGGED QUADRUPEDAL ROBOT
DAVID BALBUENA

6:10-6:25 PM **Room 214**
HISTORY ON STAGE: INCORPORATING
HISTORY INTO THEATRE AND MUSIC
RESEARCH
REBECCA BARTON AND GRACE HAYES

6:35-6:50 PM **Room 103**
INVESTIGATING THE BIOCHEMICAL
INTERACTIONS BETWEEN A KEY
INITIATION FACTOR, MCM10, AND
THE SINGLE-STRANDED DNA-BINDING
PROTEIN, RPA, AND THEIR ROLES IN DNA
REPLICATION INITIATION
MATTHEW MARTINEZ

6:35-6:50 PM **Room 114**
TRADITIONAL ART IN A MODERN ERA:
INFLUENCES OF THE VIETNAM WAR ON
SOUTHERN VIETNAMESE REFORMED
THEATER
BRANDON DINH

6:35-6:50 PM **Room 201**
ASYLUM IN THE UNITED STATES:
LEGAL OBSTACLES AND IMMIGRATION
DETENTION
AMBAR G. MARTIN

6:35-6:50 PM **Room 205**
THE MANY FACES OF KATE: EXPLORING
PERFORMANCE IN OLIVER GOLDSMITH'S
"SHE STOOPS TO CONQUER", 1773-2017
SIDNEY TURNER

6:35-6:50 PM **Room 214**
MODERNITY MEETS MYTHOLOGY:
HOW CAPITALISM AND THE ANACONDA
INTERTWINED IN THE PERUVIAN AMAZON
WILL BOOSE

7:00-7:15 PM **Room 103**
NEURAL CORRELATES OF TOURETTE'S
SYNDROME IN MU OSCILLATIONS OF THE
SENSORIMOTOR CORTEX
OLIVIA ROSE

7:00-7:15 PM **Room 114**
FRIED YUCA E, DORES
MACKENZIE G. TEEK

7:00-7:15 PM **Room 214**
TRAVERSING TRADITIONS: PERSPECTIVES
ON "ALTERNATIVE" CHILDBIRTH
METHODS AND PRENATAL CARE FROM
BLACK MOTHERS IN NORTH FLORIDA
INAM SAKINAH



DAVID BALBUENA is in his final year of a Mechanical Engineering and Applied Mathematics double major. He has been working in the Scansorial and Terrestrial Robotics and Integrated Design Lab since 2014, and his research interests are in dynamical systems and controls.



WILL BOOSE, a Naples resident, is a senior History major with a minor in Spanish and is also a Presidential Scholar. He is currently working on his Honors in the Major thesis under the direction of Dr. Robinson Herrera of the History department. Upon graduation, Will plans to pursue a master's degree in Latin American Studies. His career goal is to improve relations between Latin America and the United States, potentially as a member of the U.S. Foreign Service.



REBECCA BARTON is a junior at Florida State University double majoring in Theatre and Editing, Writing, and Media. She has been conducting research with Danielle Wirsansky and Grace Hayes since last fall through the Undergraduate Research Opportunity Program and is excited to be continuing this research under Dr. Nathan Stoltzfus. She wants to continue to use theatre to educate and inspire others in her future.



BRANDON DINH is in his third year of studies in Classical Guitar Performance under the tutelage of Professor Bruce Holzman. His interest in the status of traditional music in post-1975 era Vietnam motivated him to conduct ethnographic research in Vietnam with the guidance of Dr. Michael Bakan from FSU's College of Music and Professor Huynh Khai from the Conservatory of Ho Chi Minh City. Upon graduation, Brandon will pursue graduate school and further his research of modern transformations in Vietnamese traditional music.



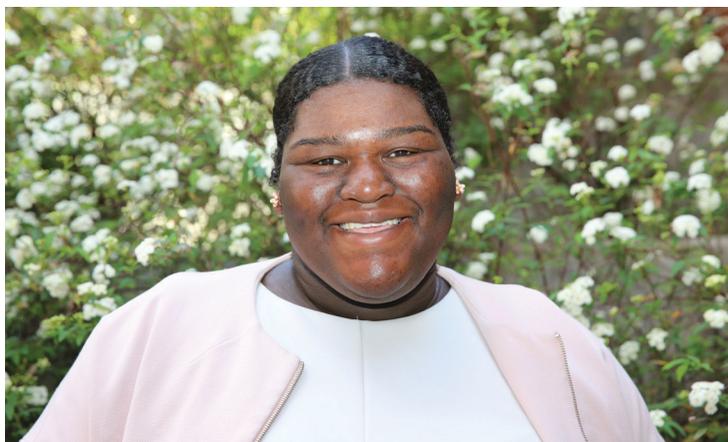
KIRSTEN CHRISTENSEN is a senior majoring in Psychology and Statistics. During her time at FSU she has conducted research with Dr. Marty Swanbrow Becker in the Department of Educational Psychology and Learning Systems and Dr. Thomas Joiner in the Department of Psychology. With the support of an IDEA Grant, she spent the summer of 2017 conducting research with Dr. Courtney Beard in the Behavioral Health Partial Hospital Program at McLean Hospital in Belmont, MA. She is currently working on her honors thesis, and hopes to pursue a research career in Clinical Psychology.



GRACE HAYES is a second-year Choral Music Education student from Barrington, Illinois. During her time as a participant in the Undergraduate Research Opportunity Program last year, she helped conduct research and compose music for the workshop performance of “Shadow of Darkness” under Danielle Wirsansky, and she will continue composing for the project through the end of the year. Her career goals include teaching middle school & high school choir and obtaining postgraduate degrees in Music Education and Choral Conducting. In addition to her UROP experience, she is also a Presidential Scholar, a member of the Honors Program, and a College of Music scholarship recipient.



SARAH DODAMEAD, who was born in the British Virgin Islands and grew up in the Florida Keys, is in her second to last year completing her B.S. in Physics with a minor in Mathematics. She previously conducted research under Dr. Gao, where she looked at energy exchange of light through materials. She received a Critical Language Scholarship in 2016 through the U.S. State Department where she traveled to India and studied Bengali language and culture. The following year, during her IDEA Grant, she became a visiting researcher at the International Center for Climate Change and Development in Bangladesh. She wishes to pursue a career in renewable energy.



JOAN JOSEPH, a senior pursuing a dual degree in Political Science and Statistics along with minors in Mathematics and Computational Science, is currently working on her Honors Thesis. Her current research trajectory aims to flesh out patterns of democratization and inform our understanding of the racially charged context of colonialism, as well as its impacts on postcolonial development. This summer she conducted archival research to trace the progression of democratic consolidation in postcolonial Haiti by probing colonial period political and administrative systems present in historical and oral narratives. Upon graduation, Joan plans to pursue a Ph.D. in political science.



AMBAR G. MARTIN is a senior International Affairs major from Venezuela who immigrated to the U.S in 2005. She researched the Close the School of the Americas Movement through the Undergraduate Research Opportunity Program and presented her research at the 2016 Florida Undergraduate Research Conference. She has interned for Amnesty International's Security with Human Rights Program and Human Rights First Refugee Representation Program. Currently, Ambar is a legal research intern at a civil rights firm and a national youth organizer for AIUSA. Her career goal is to become an immigration lawyer and provide pro bono legal representation for detained asylum seekers.



OLIVIA ROSE is a senior Psychology major and Presidential Scholar. Her love of research, facilitated by UROP, began her freshman year, and has since culminated in an Honors Thesis. She currently conducts neurological research in the labs of Dr. Wen Li and Dr. Zuoxin Wang. Upon graduation, Olivia aims to obtain her Ph.D. in neuroscience and pursue a career in research. Her research interests fall within the neurobiological underpinnings of disordered movement, with a primary focus on Tourette's syndrome. Outside of the lab, Olivia teaches UROP, maintains daily yoga and meditation practices, and advocates for science-based politics.



MATTHEW MARTINEZ, entering his fourth year as a Biology major with minors in Chemistry and Italian, has been conducting research under Dr. Daniel Kaplan in Biomedical Sciences for over a year. He will continue his IDEA grant funded project for his Honors Thesis this upcoming year. Matthew's interest in DNA replication initiation is driven by its complexity and potential as a novel target for cancer therapeutics. Aside from research and medical interests, he is involved in the music program here at FSU. Matthew plans to pursue an MD/Ph.D., hoping to become a physician while continuing to conduct translational cancer research.



INAM SAKINAH is a rising senior and Presidential Scholar at Florida State University. She majors in Interdisciplinary Social Sciences and aspires to pursue an integrated medical and public policy career. Inam was recently selected as a Florida Gubernatorial Fellow and is serving in a senior-level policy role with the Florida Department of Health. Inam is the founder of Power of WE, a pioneering student-curated initiative, under the Office of the President. Her research interests center on health inequity and she is currently collaborating with the College of Medicine at FSU on a qualitative project examining racial disparities in infant mortality.



Local to Tallahassee, **MACKENZIE G. TEEK** is a fourth-year Sociology student and a Phi Beta Kappa member. Her research interests are in race, gender, and mass media. On campus, she has served as a research assistant to several projects, and currently instructs a social sciences Freshman Interest Group. Mackenzie will pursue a Ph.D. in sociology next fall.



SIDNEY TURNER is a senior, double majoring in Literature and Political Science. She is currently completing an Honors in the Major Thesis through the English department under the direction of Dr. Helen Burke. Sidney is passionate about literature and is excited to share her research regarding Oliver Goldsmith's eighteenth-century comedy, "She Stoops to Conquer". In addition to doing this research she is currently interning as a copy editor and completing an Emergency Management Certification. Upon graduation, Sidney intends to pursue a master's degree in comparative literature.

HIGH SPEED TURNING FOR DYNAMIC LEGGED QUADRUPEDAL ROBOT

DAVID BALBUENA

Garnet and Gold Scholar Society IDEA Grant

SUPERVISING PROFESSOR: DR. JONATHAN CLARK

Legged robots are beneficial because they can move effectively in areas where wheeled robots struggle. This is due to the fact that wheeled robots require a continuous path of support, whereas legged robots need only periodic support. This fundamental difference in locomotion allows legged robots to be better suited for maneuvering through rough terrain. For autonomous navigation of unknown terrain, a high speed turning maneuver is necessary. A turning strategy can be categorized into either a kinematic or dynamic approach. Kinematic turns involve controlling leg speed or foot placement, whereas dynamic turns involve controlling the momentum of the robot to execute the turn. In this work, I evaluate the performance of high-speed kinematic and dynamic turning methods on Minitaur, a quadrupedal robot.

HISTORY ON STAGE: INCORPORATING HISTORY INTO THEATRE AND MUSIC RESEARCH

REBECCA BARTON AND GRACE HAYES

SUPERVISING PROFESSOR: DR. NATHAN STOLTZFUS

From 1933 to 1945, the Holocaust took the lives of approximately six million Jewish people and an additional five million minorities and political dissidents in Europe. This project is an original musical titled "Shadow of Darkness," which is an adaptation of the Greek myth of Orpheus and Eurydice set in Germany in 1942. "Shadow of Darkness" follows the romantic relationship between an Aryan man and a Jewish woman in Germany against the backdrop of World War II and the Holocaust. Using the knowledge we gained from preliminary research conducted in the musical's early stages, we strive to sensitively and accurately portray the events that took place at the Sobibor concentration camp and to share the perspectives and experiences of those involved. After completing our preliminary research, we wrote the script and composed the music and lyrics over the span of six months. Following a brief casting session and two-week rehearsal period, we held a workshop concert of the first draft of the musical in April 2017, at which the audience offered their feedback, comments, and suggestions for the creative team. After further editing and rewriting that will be done this semester, we expect to put on another performance of the musical with costumes, blocking, and a small pit orchestra. "Shadow of Darkness" is being produced through White Mouse Productions, a student-run grassroots theatre company focused on "theatre for social change." The plays and musicals sponsored by White Mouse Productions are intended to educate, entertain, and empower audiences. This musical in particular seeks to give a voice to victims of the Holocaust and bring further awareness to its social and cultural impact, past and present.

**MODERNITY MEETS MYTHOLOGY: HOW
CAPITALISM AND THE ANACONDA
INTERTWINED IN THE PERUVIAN AMAZON**

WILL BOOSE

Scott and Ina McNichols Undergraduate Research Award

SUPERVISING PROFESSOR: DR. ROBINSON HERRERA

In the summer of 2016, I went to Iquitos, Peru, through FSU's International Programs to teach English and conduct natural history fieldwork. That fieldwork resulted in a paper about anaconda myths and their cultural importance, which served as the inspiration for my current Honors in the Major research. As the rainforest is destroyed via illegal logging and its rivers are polluted with oil; the anaconda and other animals central to indigenous cosmologies are losing their territories. These processes of environmental degradation have also directly impacted indigenous communities by dirtying their drinking water and decreasing populations of fish and wildlife that they depend upon for protein. Neoliberal models of economic development have thus imposed violent cultural disruptions and shifts upon the indigenous peoples of the Peruvian Amazon. To investigate those disruptions, I conducted archival research and fieldwork in Peru during the summer of 2017. In Lima I gathered primary and secondary sources in El Museo Larco, one of the world's largest collections of pre-Colombian art, and in La Universidad Nacional de San Marcos, the oldest university in the Americas. In Iquitos and the surrounding communities I continued to collect written sources and also interviewed eleven people, some in indigenous communities and others in Iquitos. While in Iquitos I consulted sources at El Museo de las Culturas Indígenas, El Museo del Barco Ayapua, La Biblioteca Amazónica, and El Instituto de Investigaciones de la Amazonia Peruana. Since my return I have compiled this research, and now I am incorporating my findings into my Honors in the Major thesis project under the guidance of Dr. Robinson Herrera.

**TRADITIONAL ART IN A MODERN ERA:
INFLUENCES OF THE VIETNAM WAR ON
SOUTHERN VIETNAMESE REFORMED
THEATER**

BRANDON DINH

Scott and Ina McNichols Undergraduate Research Award

SUPERVISING PROFESSOR: DR. MICHAEL BAKAN

In the early twentieth-century, a new theatrical form emerged from South Vietnam called "cai luong", also known as reformed theater. This form was developed during the French colonization of Vietnam as musicians adapted elements of French opera into their own theatrical arts. Cai luong became the most favored form of middle-class entertainment and remained hugely popular in Vietnam up until the late 1980's. Cai luong is considered an indispensable part of the cultural heritage in South Vietnam due to its subject matter that highlights Vietnam's history and moral values; however, the popularity and commercial success of cai luong declined rapidly after the end of the Vietnam War in 1975. This project examines the sociopolitical influences of the Vietnam War on cai luong through the analysis of archived scripts, live performances, and personal accounts. Interviews were conducted with patrons, composers, retired performers, and the Professor of Traditional Music at the Conservatory of Ho Chi Minh City to gain insight on how the war affected certain disciplines and communities involved in cai luong. Several dozen scripts written after 1975 were gathered from the Ho Chi Minh General Sciences Library and examined to identify recurrent themes, tropes, or criticisms directly influenced by events of the Vietnam War. My conclusions explore the reasons for the rapid decline in popularity of cai luong, the effect on Saigonese musicians, and modern developments in Vietnamese traditional music.

LIFETIME AND PAST MONTH SUICIDALITY IN AN ACUTE PSYCHIATRIC SAMPLE

KIRSTEN CHRISTENSEN

David B. Ford Undergraduate Research and Creative Activity Award

SUPERVISING PROFESSOR: DR. THOMAS JOINER

Suicide is the 10th leading cause of death in the United States, accounting for over 40,000 deaths and an additional more than one million suicide attempts annually. Although a wealth of data exists describing suicidality in psychiatric samples, existing studies overwhelmingly rely on self-report methodologies. Self-reported suicidality is fraught with limitations, such as the possibility for misclassification. By contrast, interview-based measures allow for clarifications regarding ambiguities (e.g., in the case of distinguishing between suicide attempts and non-suicidal self-injury). However, few studies have used comprehensive, interview-based measures to differentiate among types of ideation and behaviors. Moreover, few studies have examined suicidality in partial hospital settings. A Partial Hospital Program (PHP) is an acute treatment setting that serves as a bridge between inpatient and outpatient psychiatric care, and many patients in a PHP are at elevated risk for suicide. This study aimed to describe the prevalence and characteristics of suicidal thoughts and behaviors in an acute psychiatric sample at the Behavioral Health Partial Hospital Program at McLean Hospital in Belmont, MA. We used the Columbia–Suicide Severity Rating Scale, a comprehensive interview-based measure, to assess lifetime and past month suicidal thoughts, behaviors, and attempts and examined the relationships between suicidality and various demographic and clinical variables.

COASTAL PEOPLE

SARAH DODAMEAD

ACC Creativity and Innovation Fellowship

SUPERVISING PROFESSOR: DR. ANDREW OPEL

Since we discovered how to use carbon as a source of energy, we have exploited fossil fuel resources to the extent of altering the Earth's climate. This changing climate will have a butterfly effect of catastrophic events imposed upon the lives of all people on Earth, and some areas are victimized more than others. Bangladesh, in particular, has some of the lowest per capita greenhouse gas emissions in the world, yet, due to their geographical situation, are at the front lines of the impacts. I went to Bangladesh, worked as a visiting researcher at the International Center for Climate Change and Development, and collaborated with the organization to film a documentary to convey our social responsibility to drastically reduce our greenhouse gas emissions and to support those who will be most adversely affected. This documentary will aim to create solidarity around the issue, so everyone mutually understands the cause of the problem and our ability to address the issue and mitigate the effect.

SA'K TE PASE AYITI? POSTCOLONIAL DEVELOPMENT, THE BLACK STATE, AND DEMOCRATIC CONSOLIDATION

JOAN JOSEPH

Scott and Ina McNichols Undergraduate Research Award

SUPERVISING PROFESSOR: DR. AMANDA DRISCOLL

In 1804, Haiti became the first independent black republic as a result of the largest and most successful slave rebellion in the Western Hemisphere, a fact that remains a major source of national pride. Yet, two centuries later, the persistent effects of colonialism color the political landscape of Haiti today. As a daughter of Haitian immigrants, I am motivated to understand what accounts for Haiti's persistent economic and political stagnation, and the causes of underdevelopment in postcolonial states. From any perspective, however, to understand the causes of Haiti's underdevelopment and inability to consolidate democracy or authoritarian rule, an analysis of its colonial history is necessary. This research project aims to explore the ways in which colonialism affects democratization and to test the hypothesis that institutionalized racism introduced during the colonial period is persistent and hinders democratic consolidation. My analysis also addresses a set of questions about the relationship between Spanish and French institutions and their contribution to Haiti's economic and political stagnation. To answer these questions, I conducted five weeks of archival research in Aix-en-Provence, France, and Sevilla, Spain where I analyzed codes such as Le Code Noir and Estatutos de Limpieza de Sangre to conceptualize how institutions strengthened by the codification of race hinder democratic consolidation. I have also compiled archival documents from the first French and Spanish colonial empires that trace the progression of these codes and highlights the administrative and political decisions of colonial governors, which contribute toward a broader understanding how remnants of colonial governance exist in contemporary institutions. Insights from these analyses will inform quantitative analyses to test my hypothesis cross-nationally and overtime. This archival approach is my deliberate attempt to analyze the institutional persistence of colonialism and is important in developing the literature at intersection of comparative political development and postcolonial thought.

ASYLUM IN THE UNITED STATES: LEGAL OBSTACLES AND IMMIGRATION DETENTION

AMBAR G. MARTIN

ACC Creativity and Innovation Fellowship

SUPERVISING PROFESSOR: TERRANCE COONAN, J.D.

It is fairly safe to assume that at least one point during an American's primary education, there will be some mention of the Mayflower and of those who boarded the now legendary ship for North America so as to flee religious persecution. The refugee experience is woven into the very fabric of the United States, and while our political climate has not always reflected this reality, the Statue of Liberty still stands tall and continues to call to the tired masses who are "yearning to breath free". Today, the world is facing another massive refugee crisis, one that is so severe that it is testing the strength of the current global refugee resettlement apparatus. The United States, an admittedly flawed country built in part by refugees, is confronting several problems within its asylum system, which is failing to meet the needs of those seeking protection in the United States. The current apparatus used to process asylum seekers, those who arrive on U.S soil and claim to meet the international criteria of a refugee, has a number of problematic elements. The primary three addressed here are (1) the lack of legal representation accessible to asylum seekers, (2) immigration detention, and (3) the massive backlog of asylum claims. The purpose of this project is to provide an understanding of how the current asylum apparatus fails to address the needs of asylum seekers, what current policy structures are aiding this problem, and what recommendations can be made to address these issues.

INVESTIGATING THE BIOCHEMICAL INTERACTIONS BETWEEN A KEY INITIATION FACTOR, MCM10, AND THE SINGLE-STRANDED DNA-BINDING PROTEIN, RPA, AND THEIR ROLES IN DNA REPLICATION INITIATION

MATTHEW MARTINEZ

Helen Louise Lee Undergraduate Research Award

SUPERVISING PROFESSOR: DR. DANIEL KAPLAN

DNA replication is an essential process in every living organism that involves many tightly regulated steps. Among the many regulatory steps of this process is the initiation of DNA replication. The initiation of DNA replication is used as a target for anti-cancer drugs, and many of these proteins are used as diagnostic markers for cancer. This process begins with origin melting, or the unwinding of the first few base pairs of DNA, at a location known as the origin. DNA unwinding proteins are known as helicases, and require many other initiation factors to begin the DNA unwinding process. I have been investigating a specific role of the replication factor Mcm10 in a species of yeast, "Saccharomyces cerevisiae." Mcm10 is essential for replication initiation, and it is believed to stimulate the activation of the helicase. After the helicase melts the DNA, the single-stranded DNA (ssDNA) becomes bound by Replication Protein A (RPA). RPA specifically binds to single-stranded DNA and serves to protect the ssDNA from DNA damage during DNA replication, a critical process in the prevention of cancer and other genetic diseases. I hypothesize that loading of RPA onto ssDNA is facilitated by Mcm10. In this model, RPA will bind Mcm10 and then bind and capture the ssDNA as it is melted by the CMG helicase (the eukaryotic replicative helicase, Cdc45 - Mcm2-7 - GINS), forming RPA filaments on ssDNA. Here, the interactions between Mcm10 and RPA have been determined in vitro and the Mcm10-binding region of RPA has been identified. The effects of mutating these regions will be observed in live yeast cells to determine if Mcm10 is necessary for RPA binding to ssDNA during DNA replication initiation. This research will provide important implications for the fields of DNA replication initiation and cancer research.

NEURAL CORRELATES OF TOURETTE'S SYNDROME IN MU OSCILLATIONS OF THE SENSORIMOTOR CORTEX

OLIVIA ROSE

Garnet and Gold Scholar Society IDEA Grant

SUPERVISING PROFESSOR: DR. WEN LI

In a healthy population, mu-frequency oscillations in the sensorimotor cortex desynchronize during motor movement; as movement ceases, mu synchrony resumes. In patients with Tourette's syndrome (TS), a neurodevelopmental disorder characterized by involuntary, repetitive motor and verbal tics, movement can be virtually incessant. Tics are generally preceded by a premonitory urge, akin to the sensation of needing to scratch an itch, though the tics are irrepressible. Recent developments in TS literature have implicated deficits in sensory gating as a possible mechanism through which premonitory urges arise. This current study aims to observe oscillatory activity in the brains of people with a TS diagnosis, establishing neural correlates of the disorder, while further elucidating the role these rhythmic neural networks play in the etiology of various neurodevelopmental disorders. Additionally, sensory gating will be assessed using a paired click task and subsequent P50 response, thus allowing us to observe a correlation between sensory gating deficits and motor tic severity. Preliminary data suggest that patients with TS have lower peak mu frequencies while at rest. During active tic suppression tasks, preliminary data show peak mu frequencies typical of those seen during rest in healthy controls. After substantiating this neural correlate, future implications include directly manipulating the mu oscillations; transcranial alternating current stimulation (tACS), a non-invasive electrical current passed over the skull, would be utilized to increase mu synchrony to typical levels. I believe that normalizing this biomarker through tACS will lead to a decrease in objective motor tics and an increase in subjective feelings of tic control during stimulation. The establishment of a neural correlate of TS in sensorimotor mu may help pave the way for innovative, non-invasive, electrically-based treatments. Stimulation at peak mu could compliment pharmacological and behavioral therapies, and perhaps eventually lead to refinements in Deep Brain Stimulation (DBS) interventions.

TRAVERSING TRADITIONS: PERSPECTIVES ON
“ALTERNATIVE” CHILDBIRTH METHODS AND
PRENATAL CARE FROM BLACK MOTHERS IN
NORTH FLORIDA

INAM SAKINAH

Garnet and Gold Scholar Society IDEA Grant

SUPERVISING PROFESSOR: DR. GEORGE RUST

Given that infant mortality rates (IMR) are an effective proxy for maternal and child health, persistent racial disparities in IMR represent a dire public health concern in the United States. While the literature has quantitatively substantiated the enduring existence of disparities between the Black and White IMR, it offers little qualitative context into the potentially differential birth experiences of Black birth mothers. Most studies pinpoint prenatal care and maternal behaviors as key IMR predictors and explain the disparity as partially a consequence of Black mothers failing to engage in them at adequate levels. However, few studies have assumed an asset-based outlook, focusing on strategies Black women are possibly adopting to take a more active role in their prenatal care and birthing decisions. This study attempts to address these gaps by examining the ways in which Black women in an urban county of North Florida prepare for childbirth. It undertakes a qualitative approach and relies on semi-structured interviews with Black women in Leon County who have given birth in the last 5 years or are currently pregnant. Initial findings from our study suggest that Black mothers are increasingly working together to support each other’s decisions to incorporate “alternative” methods of childbirth such as midwives, birthing centers, and doulas into their birthing plans. This insight contains important implications for health care professionals to assist them in elevating their cultural competency and capacity to empower Black mothers, and in improving pregnancy outcomes for Black mothers, overall.

FRIED YUCA E, DORES

MACKENZIE G. TEEK

ACC Creativity and Innovation Fellowship

SUPERVISING PROFESSOR: DR. PEGGY SHARPE

“Fried Yuca e, Does,” is a research and poetry creation project that explores constitutive literary figures in transnational black poetry, specifically in Brazil and the United States. Constitutive figures are historically noteworthy events, symbols, and individuals that marginalized people invoke and memorialize in the construction of their group identity. My goal for the project was to identify, compare, and apply constitutive figures that appeared in Afro-Brazilian and African American poetic works. My application of the constitutive figures that I examined are manifest in the poems of my chapbook “Fried Yuca e, Does.” I began this project in April, with an extensive reading of transnational black poetry that continued throughout the duration of my research, and still continues to inform the editing and transformation of my poetry. I started drafting poems in April and May, towards the end of the spring semester, in preparation for my trip to Brazil, where I would write most of my poems. At the end of June, I traveled to São Paulo and Rio de Janeiro, in Brazil, where I visited black cultural and historic sites, and met with museum curators, researchers, professors, and poets, to ask questions about race, and blackness. While traveling, I composed at least two dozen poems. After returning to the U.S., I sent select poems to literary magazines, and began work on my chapbook layout and design. At the end of August, I carved into linoleum the cover of my chapbook, which is modeled to look like a traditional, Northeast-Brazilian, cordel book. I painted and then stamped the image to weighted paper, and edited and bound the chapbook, and now, “Fried Yuca e, Does,” is a complete series.

THE MANY FACES OF KATE: EXPLORING PERFORMANCE IN OLIVER GOLDSMITH'S "SHE STOOPS TO CONQUER", 1773-2017

SIDNEY TURNER

Michael J. Shaara Undergraduate Research and Creative
Activity Award

SUPERVISING PROFESSOR: DR. HELEN BURKE

In this thesis I explore the performances associated with Kate Hardcastle, one of the key characters in Oliver Goldsmith's celebrated 1773 comedy, "She Stoops to Conquer". This play has entertained readers and audiences throughout the centuries. Its humor remains applicable today despite the shifts in culture and modes of entertainment that have occurred with the passing of time. However, each production of "She Stoops to Conquer" offers us a slightly different Kate. As I demonstrate in this thesis, actress choice, time period, and method of presentation all influence the audience's experience of Goldsmith's central character, Kate Hardcastle. I analyze the impact of these shifts in the representation of Kate from the original performance of 1773 to the current day, focusing on selected stage and film productions.

MIGRANT FAMILIES

LAUREN ALSINA

ACC Creativity and Innovation Fellowship

SUPERVISING PROFESSOR: PAT WARD WILLIAMS, MFA

Christopher Nguyen, a Pensacola resident, is in his third year of Biological Sciences through a Pre-Med route. Chris is an inducted member of MAPS (Minority Association of Pre-Medical Students) and an Honors Colloquium Leader. He was introduced to research through UROP and plans on pursuing an Honors Thesis in biological sciences, specifically genetics.

SERVING UP A SOCIAL MOVEMENT MANUAL FOR THE REAL FOOD CHALLENGE AT FLORIDA STATE UNIVERSITY

SERENA BALDWIN

ACC Creativity and Innovation Fellowship

SUPERVISING PROFESSOR: DR. ANNETTE SCHWABE

Serena Baldwin is a food system activist from Orlando, Florida. She is double majoring in Political Science and Sociology, and currently works as an administrative assistant for public health promotion at FSU's Center for Health Advocacy and Wellness. She also advocates for body positivity through her position as a facilitator for The Body Project, an initiative to help students resist sociocultural pressures to conform to an ideal of thinness. Upon graduation Serena plans to pursue a master's degree in Food Policy and work toward creating a healthy, fair, and ecologically sound food system.

HUMANS OF GUANACASTE: AN INTERACTIVE SHOWCASE OF COSTA RICAN LEADERS

JUAN BARCO

Fred and Debbie Tresca Global Scholars IDEA Grant

SUPERVISING PROFESSORS: DR. CHRISTOPHER REENOCK AND DR. ANDREA MELTZER

Juan Barco, born in Colombia, is a Political Science and Psychology student finishing his last semester. Juan is a Global Scholars Ambassador and is currently working on his Honors in the Major creative thesis. He was been traveling to Costa Rica for the past two years, utilizing filmmaking, photography, and storytelling as his main methods to conduct research. Upon graduation, Juan hopes to continue utilizing creative outlets to explore complex social issues while obtaining a Ph.D. in South American Politics.

THE PUERTO RICAN IDENTITY: BORICUA ACROSS BORDERS

CIARA J. BENNESE

SUPERVISING PROFESSOR: DR. ANEL BRANDL

Currently a senior in International Affairs and Political Science with a concentration in the Spanish Language, Ciara J. Bennese is passionate about the intersections of political science, history, and social activism in the global community. On campus, she currently serves as the Director of Amnesty International FSU and the Vice President of Community Activities for the Delta Nu Zeta Service Sorority. Additionally, Ciara is also a Legislative Coordinator for Amnesty International USA and plans to pursue a career in human rights and foreign policy upon graduation in May 2018.

POSTER PRESENTER BIOS

HIGH RESOLUTION 3D IMAGING AND DTI-BASED NETWORK ANALYSIS OF APP/PS1 MOUSE BRAINS

SCOTT BOEBINGER

Nancy Casper Hillis and Mark Hillis Undergraduate Research Award

SUPERVISING PROFESSOR: DR. SAMUEL C. GRANT

Scott Boebinger is a Tallahassee native in his final year of Chemical/Biomedical Engineering. He is currently working on his Honors Thesis under the direction of Dr. Samuel C. Grant. Scott has been assisting Dr. Grant as an undergraduate research assistant at the National High Magnetic Field Laboratory since his sophomore year at FSU. He hopes to obtain a Fulbright Fellowship to continue research on brain development, ultimately obtaining a Ph.D. in the field. His career goal is to become a research professor at a university who directs a laboratory that will focus on developing our understanding of the human brain.

BISPHENOL-A AS AN ESTROGEN MIMIC ALTERING CHROMATIN STRUCTURE: LINK BETWEEN ENVIRONMENTAL TOXINS AND CHROMATIN BIOCHEMICAL STATE

TAYLOR BUDINE

SUPERVISING PROFESSOR: DR. JONATHAN H. DENNIS

Taylor Budine is a senior, expecting to graduate with a major in Environmental Science and minors in Biology and Chemistry. She is currently on the executive board of the National Biological Honor Society, a teaching assistant for the Biology department, and working on her Honors Thesis. Taylor plans to publish a manuscript for review for her current experiment in early December. For two years, she has been conducting research under Dr. Jonathan H. Dennis at the Biological Sciences department. Upon graduation, Taylor would like to continue research in Epigenomics and Molecular Biology while attaining a Ph.D. in a related field. Her career goal is to conduct research and be a tenured professor.

MEASURING MEMBERS' NOTION OF FINANCIAL SELF-GROWTH, AND ORGANIZATIONAL PERFORMANCE IN THE CO-OPERATIVE COTEDEMI

ELIZA CHASE

Fred and Debbie Tresca Global Scholars IDEA Grant

SUPERVISING PROFESSOR: DR. LUKE BOOSEY

Eliza Chase, a native Floridian, is in her junior year in the College of Social Sciences and Public Policy pursuing a dual degree in Economics and International Affairs. Under the direction of Dr. Luke Boosey, and through the Global Scholars Program, Eliza conducted research this summer with a co-operative in the Dominican Republic. This year she plans to start her Honors Thesis studying the role of co-operatives in developing countries. Upon graduation, Eliza wishes to pursue a graduate degree in Economics, and plans to continue public service through volunteering with non-profits.

TRACKING SOCIETY'S PERCEPTION OF THE LGBTQ+ COMMUNITY IN COMIC BOOKS

SHAYNA COHEN

ACC Creativity and Innovation Fellowship

SUPERVISING PROFESSOR: DR. JESSE KLEIN

Shayna Cohen, from Coral Springs, Florida, is beginning her second year. She began researching last fall, assisting Dr. Jesse Klein with her ongoing work of analyzing social trends in comic books. This summer Shayna began her own project of tracking LGBTQ+ representation in comic books in the hopes of better understanding how society's perception of the community has changed over time. In the future, Shayna hopes to continue her research and advocacy for the LGBTQ+ community.

INVESTIGATING THE ORNATE DIAMONDBACK TERRAPIN IN THE BIG BEND OF FLORIDA

EMILIA DUQUE

SUPERVISING PROFESSOR: BILL TURNER, M.S.

Emilia Duque, a Colombian native, is in her final year of Biological Sciences and has completed over 500 hours of community service. Since 2016, she has been conducting research with Bill Turner, former Wyoming state herpetologist and lifelong mentor, investigating the terrapin's life history and geographic distribution. Upon graduation, Emilia will be interning with The School of Field Studies in their Tropical Island Biodiversity Program in Bocas del Toro, Panama. Her career goal is to conduct research that may aid in developing sustainable communities in third world countries, join the Peace Corps, and eventually work with U.N. Environment Programs.

THE BOTANICAL NATURE OF ARCHITECTURE

JENN EGELFELD

SUPERVISING PROFESSOR: DENISE BOOKWALTER, MFA

Jenn Egelfeld is a Studio Art BFA student whose practice incorporates numerous artistic disciplines, primarily book arts, text and media, and printmaking, among others. Since the beginning of the year, she has been developing a body of work that explores the cognitive, emotional experience and relationships between art, architecture, environments, and humanity. This project seeks to theorize, expose, and subvert perceptions of natural and artificial environments to close the long-standing gap between them. After graduation, Jenn would like to be involved in socially engaged art organizations and develop her own creative practice, facilitated by grants, fellowships, and residencies.

A NANOPARTICLE BASED APPROACH TO TUMOR TREATMENT

NKECHI N. EMETUCHE

Steve Madden Undergraduate Research Award

SUPERVISING PROFESSOR: DR. GEOFFREY F. STROUSE

Nkechi Emetuche is a current third year Psychology major whose interest in research and medicine was fanned through her involvement in a Research Freshmen Interest Group (FIG) upon arrival at the University. Soon after, she started conducting research with Dr. Geoffrey Strouse in the Chemistry department at the end of Spring 2016. Since then, she continues to seek ways to combine her love for research and medicine with her desire to serve those in need of these advancements. Upon graduation, Nkechi plans on pursuing a master's in Neuroimmunology in relation to Public Health before seeking a career in medicine.

3D PRINTING OF GRAPHITE NANO COMPOSITES

CAITLYN FAYED

SUPERVISING PROFESSOR: DR. SUBRAMANIAN RAMAKRISHNAN

Caitlyn Fayed, a Florida native, is in her final year of Chemical Engineering. She has been conducting research under Dr. Ramakrishnan in the College of Engineering for the past year and is continuing this research to complete her Honors Thesis in 3D printing of graphene nano composites for electronic applications. Upon graduation, Caitlyn hopes to gain employment in the additive manufacturing industry.

POSTER PRESENTER BIOS

EFFECTIVE INTEGRATION INDICATORS FOR REFUGEES IN VARIED COMMUNITIES

CARLY GILLINGHAM

ACC Creativity and Innovation Fellowship

SUPERVISING PROFESSOR: MARK SCHLAKMAN, J.D.

Carly Gillingham is a senior with majors in International Affairs and Political Science and is currently working on her Honors Thesis. Since Spring 2017, she has been working under the guidance of Professor Mark Schlakman in the College of Social Sciences and Public Policy, conducting research on refugee resettlement and integration in the American South. After graduation, Carly plans on going to law school with hopes for a future career in the field of international law and human rights policy.

EXAMINING CHARACTERISTICS OF WORRY IN RELATION TO DEPRESSION, ANXIETY, AND SUICIDAL IDEATION

JULIA YLAN GORDAY

SUPERVISING PROFESSOR: DR. THOMAS JOINER

Julia Ylan Gorday is a junior seeking degrees in both Psychology and Classical Civilizations. Julia has been involved in undergraduate research within the psychology department since her freshman year and has been working in Dr. Joiner's lab for just over a year. After graduation, she would like to continue research in anxiety while working towards a Ph.D. in Clinical Psychology. She plans to work towards obtaining tenure as a professor of psychology, which would enable her to lead her own research projects and mentor students just as she has experienced.

DOES THE IMPACT OF NON-GOVERNMENTAL ORGANIZATIONS ON LOCAL COMMUNITY CAPACITY DEVELOPMENT REPLACE THE RESPONSIBILITIES OF THE STATE? A CASE-STUDY OF SCHOOL LUNCH POLICY IN THE SACRED VALLEY OF PERU

SAVANNAH L. GRANT

Fred and Debbie Tresca Global Scholars IDEA Grant

SUPERVISING PROFESSOR: DR. QUINTIN BEAZER

Savannah Grant, an honors student involved in the Undergraduate Research Opportunity Program and Honors Legal Scholars, is in her junior year double majoring in Political Science and International Affairs. In May, Savannah traveled to and lived in rural Andean Peru for two and a half months conducting surveys and observational research with Quechuan communities. In partnership with a non-profit, this research was given to the Food and Agriculture Organization of Peru as a policy recommendation. Upon graduation, Savannah hopes to attend Law School and work in Washington D.C. as a consultant continuing her travels around the globe.

IDENTIFICATION OF COMPONENTS INVOLVED IN MISFOLDED PROTEIN DEGRADATION

ALEXA V. HATCHER

Garnet and Gold Scholar Society IDEA Grant

SUPERVISING PROFESSOR: DR. YANCHANG WANG

Alexa Hatcher, a sophomore, is beginning her first year in the College of Nursing. She will graduate with honors and is pursuing Honors in the Major and Garnet and Gold Scholar distinction. Alexa has been conducting research in Dr. Yanchang Wang's lab at the College of Medicine since her freshman year. Her research focus is degradation pathways employed by yeast cells with Huntington's disease. Alexa plans to obtain a doctorate degree in Nursing and serve as a medical professional in whatever capacity she feels her skills, knowledge, and dedication can best serve others.

3D PRINTING OF GRAPHITE NANOCOMPOSITES

REBECA HAZERA

SUPERVISING PROFESSOR: DR. SUBRAMANIAN RAMAKRISHNAN

Rebeca Hazera, was born and raised in the Republic of Panama. She is entering her final year of Chemical-Materials Engineering. Since the beginning of the year, she has been conducting research on graphene nanocomposites under Dr. Ramakrishnan at the College of Engineering. Aside from research, she serves as the founding Vice President of the ACS Division of Polymer Chemistry and the Division of Polymeric Materials: Science and Engineering at Florida State University. She is also a member of the Honor Society of Phi Kappa Phi. Her career goal is to go into the development of new materials in industry.

AUTOPHAGY REGULATION IN THE GENETIC NETWORK OF BRAIN DEVELOPMENT IN DROSOPHILA

KAITLYN HUETTEMAN

Fred and Debbie Tresca Global Scholars IDEA Grant

SUPERVISING PROFESSOR: DR. TIMOTHY MEGRAW

Kaitlyn Huetteman, a Tampa native, is a senior majoring in Biological Science. For the past two years, Kaitlyn has been conducting research under Dr. Timothy Megraw in the College of Medicine and is currently working on her Honors Thesis. She shares her passion for research as a UROP leader and as a Teaching Assistant for General Biology Laboratory. Upon graduation, Kaitlyn plans to attend medical school and remain actively involved in research throughout her career as a physician.

SAPPHIRE: A STUDY OF BLACK WOMEN'S IMPACT ON POLICY IN THE UNITED STATES

MARSHA ISMA

Fred and Debbie Tresca Global Scholars IDEA Grant

SUPERVISING PROFESSOR: DR. JENS GROßER

Marsha Isma is a fourth year student from Miami pursuing a degree in Political Science with a minor in Business. Currently, Marsha is working on her Honors Thesis, which focuses on the political underrepresentation of women and racial minorities. Since the beginning of the year, she has been conducting research under the supervision of Dr. Jens Großer at the College of Social Sciences and Public Policy. Marsha hopes upon graduation to enroll in a J.D. program to pursue her passion of becoming an attorney.

OXYTOCIN'S EFFECT ON BRAIN ACTIVITY IN POSTNATAL MICE

TAYLOR MERRITT

SUPERVISING PROFESSOR: DR. ELIZABETH HAMMOCK

Taylor Merritt is a senior Biology major from Pensacola, Florida. She has been working in Dr. Elizabeth Hammock's Neuroscience research lab for the past three years and is now pursuing Honors in the Major under Dr. Hammock's supervision. She has shared her passions for research, science, and service as both a Freshman Interest Group Leader and Biology Lab Teaching Assistant. After graduation, Taylor plans to attend medical school with the goal of utilizing the skills she has learned through research to aid future patients.

POSTER PRESENTER BIOS

SEASONAL CHANGES IN MALE SIZE AND ALTERNATIVE MATING TACTICS IN SAILFIN MOLLIES (POECILIA LATIPINNA)

IVONNE A. MENDIETA

SUPERVISING PROFESSOR: DR. KIMBERLY HUGHES

Ivonne Mendieta hails from the Republic of Panama and is a senior Biology and Religion double major. Her dedication to research in Dr. Kimberly Hughes' Ecology and Evolution lab led Ivonne to successfully defend her Honors Thesis last spring. After graduation, Ivonne wishes to work in the health field to build clinical experience in preparation for medical school. She intends to apply research to her career as a medical doctor to be more well-rounded.

BIOINFORMATIC ANALYSIS OF G4 DNA CONSERVATION IN MAIZE AND SORGHUM

CHRISTOPHER NGUYEN

Phi Eta Sigma Undergraduate Research Award

SUPERVISING PROFESSOR: DR. HANK BASS

Christopher Nguyen, a Pensacola resident, is in his third year of Biological Sciences through a Pre-Med route. Chris is an inducted member of MAPS (Minority Association of Pre-Medical Students) and an Honors Colloquium Leader. He was introduced to research through UROP and plans on pursuing an Honors Thesis in biological sciences, specifically genetics.

THE FINANCIAL SYSTEMS AND ASSIMILATION RATES OF CHINESE DIASPORA IN THE AMERICAN SOUTH

JAMES G. NOVELLO

Garnet and Gold Scholar Society IDEA Grant

SUPERVISING PROFESSOR: DR. AARON LAN

James Giovanni Novello is a senior pursuing a dual degree in both Finance and Chinese, with an Honors in the Major as well. For the past year, he has worked under the head of FSU's Chinese Department, Dr. Aaron Lan, focusing on research related to Chinese diaspora in the United States. In addition to completing three full years of undergraduate research upon graduating, he is also an executive board member of Tau Kappa Epsilon. After graduation, he is looking to enter the field of finance, with the hopes of eventually attending law school.

HIGH RESOLUTION 3D IMAGING AND DTI-BASED NETWORK ANALYSIS OF APP/PS1 MOUSE BRAINS

TARA PALIN

Nancy Casper Hillis and Mark Hillis Undergraduate Research Award

SUPERVISING PROFESSOR: DR. SAMUEL C. GRANT

Tara Palin is a first-generation college student in her senior year as a Chemical/Biomedical Engineering student. Since January, she has been working in Dr. Samuel C. Grant's lab at the National High Magnetic Field Laboratory as an undergraduate research assistant. Using the 900MHz ultra-wide bore 21.1 T MRI scanner, she is observing physiological changes associated with the progression of Alzheimer's Disease. Additionally, she has been working on her Honors Thesis. After undergrad, she wishes to continue her studies as a Ph.D. student focusing on MRI technologies. Her ultimate career goal is to work with MRIs in the industry.

CAN HONESTY PUT YOUR HAPPINESS IN JEOPARDY?

ALEXANDRA PELAEZ

SUPERVISING PROFESSOR: DR. PAUL CONWAY

Alexandra Pelaez is a senior majoring in Philosophy. As of last fall, she has been a member of the Moral and Social Processing Lab Group where she conducted her own research in moral psychology under the supervision of Dr. Paul Conway. Alexandra has been working on an Honors Thesis in Philosophy which she will defend this coming December. Both her research project and her thesis focus on topics surrounding moral virtues and human wellbeing. Upon graduation, Alexandra would like to continue doing interdisciplinary research in Philosophy and Psychology as she works towards a Ph.D. in Philosophy.

BETWEEN THE FAMILY AND THE DEEP POLITICAL SEA: PORTRAYAL OF FEMALE POLITICIANS IN HOLLYWOOD AND BOLLYWOOD FILMS

MUHAMMAD EHAB RASUL

SUPERVISING PROFESSOR: DR. STEPHEN MCDOWELL

Muhammad Rasul is a Tallahassee resident who is double majoring in Media/Communication Studies and Psychology while participating in undergraduate research. He has conducted research as a UROP student in 2016 under Dr. Stephen McDowell in the School of Communication. He has also presented his work at national and international conferences such as the IAMCR conference in Fall 2016 in Leicester, UK, and in Summer 2017 in Cartagena, Colombia. Upon graduation, Rasul would like to conduct research in Media Psychology while pursuing a Ph.D. in Media/Communication Studies. His goal is to conduct research and teach at a university.

TODDLERS' VOCABULARY KNOWLEDGE INFLUENCES THE ABILITY TO LEARN NOVEL STATISTICAL REGULARITIES

EDDA LUZ RODRIGUEZ

Garnet and Gold Scholar Society IDEA Grant

SUPERVISING PROFESSOR: DR. ARIELLE BOROVSKY

Edda Luz Rodriguez, an Ocala native, is completing her undergraduate degree in Psychology. In her final year she is working on her Honors Thesis while also serving as a UROP Leader. Since January 2016, she has been conducting research under the guidance of Dr. Arielle Borovsky, in the field of child language development. Upon graduation, she will continue on to complete her Masters of Public Health, while also working to attend medical school. Her career goal is to work in the Health Care profession to improve the lives of children.

ANALYSIS OF IN VITRO MOTILITY ASSAYS

JOSLYN SCHIPPER

SUPERVISING PROFESSOR: DR. JOSE PINTO

Joslyn Schipper, a resident of Islamorada, Florida, is entering her third year of studies in Biological Sciences on the Pre-Med track. She is currently a Teaching Assistant for the Interdisciplinary Medical Sciences Department. Since her freshman year she has conducted research under Dr. Jose Pinto at the College of Medicine, where she studies skeletal and cardiac muscle protein interactions. Upon graduation, Joslyn hopes to attend medical school and continue to conduct research in a clinical setting.

POSTER PRESENTER BIOS

ORNATE DIAMONDBACK TERRAPIN (MALACLEMYS TERRAPIN MACROSPILOTA) DISTRIBUTION IN THE BIG BEND AREA OF FLORIDA

SAMANTHA SKROB

Phi Eta Sigma Undergraduate Research Award

SUPERVISING PROFESSOR: BILL TURNER, M.S.

Samantha Skrob, a Tallahassee native, is in her final semester of Biological Science. For the past three years, she has been working with Bill Turner in the Office of Science Teaching Activities conducting research on the conservation of the Ornate Diamondback Terrapin. Upon graduation, with Honors, Samantha would like to continue conservation research while obtaining a Ph.D. in Informal Science Education. Her career goal is to be a conservation science educator for at-risk youth.

ELECTROCHEMICAL RECOVERY OF THERMAL ENERGY USING POLYMER ELECTROLYTES

RICKY TORRES

Dr. Jack Saltiel Undergraduate Research Award

SUPERVISING PROFESSOR: DR. DANIEL HALLINAN

Ricky Torres is a Marine veteran and junior Chemical Engineering major with a special interest in sustainable energy and water management. Beginning last spring, he has been conducting research under the supervision of Dr. Hallinan in the Polymers for Advanced Energy Sustainability lab at the College of Engineering. Upon graduation, Ricky intends to enter the industry and work towards obtaining his Professional Engineering License. Over time, he hopes to gain enough knowledge and experience to help oversee some of the global projects helping shape a safer, more sustainable world.

IMPROVING INSULIN DELIVERY: PROBLEMS WITH LIPOHYPERTROPHY AND PROPOSED SOLUTIONS

JOHN H. WILCOX

Phi Eta Sigma Undergraduate Research Award

SUPERVISING PROFESSOR: DR. CESAR RODRIGUEZ

John Wilcox is a senior who is studying Biological Sciences with a minor in Chemistry. Over the course of the past three years, John has focused on diabetes research in various labs due to having type 1 diabetes. His previous work has led to a publication and a provisional patent related to insulin pump technology. This is John's second IDEA Grant, and he is involved as a UROP leader and the Honors in the Major program. After graduating, John looks to complete a Fulbright award and apply to medical school.

ANALYZING HISTORICAL IMPACTS ON IDENTITIES IN ALSACE, FRANCE

SHELBY YOUNG

John W. Day III Undergraduate Research Award

SUPERVISING PROFESSOR: DR. NATHAN STOLTZFUS

Shelby Young is in her third year pursuing dual degrees in History and French with a minor in Criminal Justice and is beginning her Honors Thesis this fall. She has been conducting research under Dr. Nathan Stoltzfus within the Undergraduate Research Opportunity Program (UROP) since fall of 2016. She is currently interning under Senator Bill Nelson and will partake in research on the island of Martinique in the spring. After graduation, Shelby seeks to attend law school while continuing research in the international policy field. Long-term, Shelby hopes to become an environmental lawyer for an international agency.





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