

*Medallion  
Ceremony  
2021*



*Medallion Ceremony  
Program 2021  
Speakers:*

**DR. JUSTIN PERRY,**  
Dean

**DR. KANYBEK NUR-TEGIN,**  
Presenting Student Recognition Awards

**OMAR AVILA MONGE,**  
2021 Class Speaker

**DR. MICHAEL METZNER,**  
Wilkes Honors College 2021  
Distinguished Alumni Award Winner

*List of  
Graduates  
2021*

*Kareem Al-Said*

**CONCENTRATION:** Neuroscience

**ADVISORS:** Monica Maldonado

**THESIS TITLE:** Neuropathology of Sports Related  
Head Injuries

To better understand sports-related head injuries and the effects they have on the neural pathways of athletes. The goal is to analyze the sports with the most calamitous head injuries specifically to the athlete's neurological pathway and find a universal guideline to implement to change the future of these injuries.

**FAVORITE HONORS COLLEGE MEMORY:** All the intramural leagues I won.

**AFTER GRADUATION PLANS:** Gap year to find my true calling.





## Omar Avila Monge

**CONCENTRATION:** Cellular Neuroscience and Psychology

**ADVISOR:** Laura Vernon

**THESIS TITLE:** The Role of Exercise Mimetics in Learning and Memory

Alzheimer’s disease is characterized by progressive neurodegeneration, accompanied by a global decline of personality and cognitive functioning. Physical inactivity has been identified as an important risk factor for Alzheimer’s disease. Furthermore, evidence suggests that a reduction in the growth of neurons in the hippocampus may underlie cognitive impairments and dysfunction associated with aging and neuropathological disorders such as Alzheimer’s. Physical activity enhances cognition and increases hippocampal volume. However, advanced age may preclude physical activity. Thus, use of exercise mimetics could serve as an alternative therapeutic agent to mediate cognitive benefits of exercise.

**FAVORITE HONORS COLLEGE MEMORY:** I have several HC memories that I cherish but a theme is that many of them include students and faculty enjoying time together. Ironically, a particular favorite is ResFest 2020, when the Faculty and Staff team beat the commuter students team in tug of war! Both CarnivOwl and ResFest bring many great memories.

**AFTER GRADUATION PLANS:** Soon after graduation, I will be joining a Cancer Immunotherapy lab as a Research Associate at the Broad Institute of MIT and Harvard. I plan to pursue an MD/PhD following my postbac experience.

## Marie Belizaire

**CONCENTRATION:** Business

**ADVISOR:** Kanybek Nur-tegin

**THESIS TITLE:** A Housing Analysis: The Great Recession Impact on Homeownership for Minorities

About 3.8 million Americans lost their homes due to the Great Recession; included are minority groups. I claim that minority homeownership rates were impacted more than white homeownership rates by the Great Recession. I analyze tables and graphs, government agencies and policies, and the Great Recession history to support my claim.

**FAVORITE HONORS COLLEGE MEMORY:** My favorite memory of the Honors College is when I got my job as an AV Administrative Assistant! That was by far my favorite job, and the best time I spent at the Honors College. Marc Verdieu, Mark DeHass, Alberto Fernandez were the best bosses, and I had some great coworkers. I learned a lot during my time there. I love the lunches we’d do and the places we’d visit. We got to know each other on a deeper level. I wouldn’t trade it for the world!

**AFTER GRADUATION PLANS:** After I graduate with my BA, I will be working full-time at a small real estate firm in West Palm Beach as a Marketing and Sales Associate. I will also be getting married, so I will take a year off to enjoy time with my husband and get accommodated to working full time. Once the year is over, I will work on my MBA in Marketing.



## Maggie Boing

**CONCENTRATION:** Biology

**ADVISOR:** Yaouen Fily

**THESIS TITLE:** Automatic Detection of Coral Reef Microhabitats using Computer Vision Libraries in Python

Coral reefs host a large amount of our ocean's biodiversity, but due to climate change the reefs are rapidly changing and dying. Currently the tracking of coral reef changes over time largely depends on manual annotation of different benthic coverages, which is very time-consuming. The objective of my thesis is to utilize Python programming language to automate the detection of various microhabitats on coral reefs photographs.

**FAVORITE HONORS COLLEGE MEMORY:** Going out to the beach at 3am to see meteor showers.

**AFTER GRADUATION PLANS:** I'm taking a gap year to prepare for medical and graduate school applications.

## Alec Borislaw

**CONCENTRATION:** Media Studies and Social Sciences

**ADVISOR:** Rachel Luria

**THESIS TITLE:** Batman Can Be Anybody: Self-Transcendence and Christopher Nolan's The Dark Knight Trilogy

Christopher Nolan's The Dark Knight Trilogy examines the origin and evolution of Bruce Wayne and his alter ego, Batman. Bruce's post-traumatic journey for physical and mental excellence results in transformative and personal discovery, leading to self-transcendence, the highest level of human consciousness and development. Bruce's unwavering morality, intrinsic motivation, and spirituality are characteristic of both humanistic and transpersonal psychology and further illustrate how the motion picture series exemplifies a road map to self-transcendence.

**FAVORITE HONORS COLLEGE MEMORY:** The close-knit community of professors, personnel, and peers.

**AFTER GRADUATION PLANS:** I plan to pursue a career in media studies and social sciences in the entertainment industry, emphasizing storytelling and personal development.





## Gabrielle Byrd

**CONCENTRATION:** Cellular Neuroscience

**ADVISOR:** Lucia Carvelli

**THESIS TITLE:** Assessing the Impacts of Amphetamine Exposure Following Selective Ablation of Dopaminergic Neurons Via the Fluorescent Protein, KillerRed

Killer Red (KRed) is a fluorescent protein which is capable of the selective ablation of targeted cells via reactive oxygen species (ROS) when exposed to the appropriate wavelengths of visible light. By targeting dopaminergic neurons via the dat-1 promotor, these neurons may then be ablated with minimal to no damage to external structures. Utilizing this targeted ablation, this study aims to ascertain the impacts of amphetamine exposure in the absence of DAT-1, a predominant target of amphetamine. These impacts will be asserted via the collection and analysis of SWIP data for the model organism *C. elegans*, comparing results for control animals to those which have undergone the selective ablation of dopaminergic neurons. This study adds to a body of literature assessing the neurobiological mechanisms of addiction, raising further research questions and possibilities in the realm of treatment, mechanistic action, impacts of drug abuse.

**FAVORITE HONORS COLLEGE MEMORY:** I loved to have been able to serve the FAU community through my involvement with multiple organizations. Be it the Owlette's Dance Company, Pride Student Alliance, or the Council for Scholarship, Inquiry, Design, and Engagement, all of the beautiful connections I made through these organizations and the great work we did together to give back to FAU and the community as a whole will always hold a special place in my heart.

**AFTER GRADUATION PLANS:** I have recently been admitted to the Environmental Economics and Policy Master's program at the Duke Nicholas School of the Environment. I am looking forward to moving to Durham to continue with my graduate studies and currently applying to a summer internship program in data analysis with the Department of Energy.

## Jessica Chomik

**CONCENTRATION:** Cognitive Neuroscience

**ADVISOR:** Alex Keene

**THESIS TITLE:** The Genetic Experimentation And Scientific Communication Of The Effects Of Human Alzheimer's Variants On Fruit Fly Sleep



Part One of my Thesis analyzes the effects of Ab42-Arctic gene expression on fruit fly sleep. This gene is associated with Alzheimer's Disease, and produces proteins similar to those found in the brains of affected patients. I analyzed the effect of this variant when expressed in all glial cells of the model organism as well as its effect when expressed only in a subtype of glial cells called astrocytic cells. In addition, I examined the effects of diet on sleep and evaluated differences between the sexes.

Part Two of my Thesis outlines the production of The Research Diaries, an educational podcast produced with Dr. Alex Keene and Dr. Bethany Stanhope. The purpose of The Research Diaries Podcast is to provide a genuine experience of an undergraduate scientist starting to work in a research lab.

**FAVORITE HONORS COLLEGE MEMORY:** One of the most touching memories that I will carry with me is of the day I walked into Dr. Erik Duboue's office, who was my genetics professor at the time, during my sophomore year. I was having a crisis about what to do with my neuroscience degree and I figured that he could point me in the right direction, being the successful neuroscientist that he is. He asked me about my passions and told him I loved people like Bill Nye and Joe Rogan who closed the gap of knowledge between experts in science and the general public. After hearing what I had to say, he promptly walked me next door to Dr. Alex Keene's office to introduce me so that I could tell him about those passions. Dr. Keene, that same day, told me that if I was up for it he could get me a microphone and that he would help me produce a podcast. On that day, the first domino tipped the cascading chain of events that have made me as successful as I am today. And to think it all started with a crisis.

**AFTER GRADUATION PLANS:** After graduation I anticipate working as a post-bac researcher at a neuroscience institution before pursuing a Ph.D. in clinical neuropsychology. Over the summer I plan on developing a model of an entrepreneurial project I have been working on, and anticipate its official launch in the Fall.



## Manuel Contreras

**CONCENTRATION:** Biological Chemistry

**ADVISOR:** Johanna Kowalko

**THESIS TITLE:** Neuromast Mediated Craniofacial Differences in *Astyanax Mexicanus*

My thesis aimed to understand the phenomenon of variation in craniofacial shape and how it may be influenced by evolution of sensory systems. To do this, we utilized the model *Astyanax mexicanus*, which has sighted surface fish and blind cavefish populations. The different populations, in addition to having differing sensory capabilities, also experience differences in craniofacial shape. The coinciding variation in craniofacial shape and sensory adaptations provide a valuable platform for understanding the relationship between these phenomena. We used a surface-cave hybrid F2 population to measure a number of sensory and craniofacial traits and uncover the relationships that exist between them.

**FAVORITE HONORS COLLEGE MEMORY:** Working in the chemistry labs as a TA and helping students learn.

**AFTER GRADUATION PLANS:** I have accepted a research technician position at Dana-Farber Cancer Institute in Boston, Massachusetts. After my time there, I intend to pursue a PhD in Biomedical Sciences.

## Olivia Lurtis

**CONCENTRATION:** Cellular Neuroscience

**ADVISOR:** Catherine Trivigno

**THESIS TITLE:** Effects of Exercise on Diencephalic Connections to the Hippocampus: a Behavioral and Neuroanatomical Pilot Study

My undergraduate thesis focused on conducting a pilot study, which aimed to characterize the diencephalic connections to the hippocampus. Characterization was based on chemogenetic approaches, hippocampal-dependent behavior, and histology.

**FAVORITE HONORS COLLEGE MEMORY:** As an OURI Peer Mentor, I really enjoyed helping students start their undergraduate research experience.

**AFTER GRADUATION PLANS:** I will take a gap year to do research, work, volunteer, and study for the MCAT.





## Thalles De Oliveira Caiado

**CONCENTRATION:** Economics and Mathematics

**ADVISOR:** Kanybek Nur-tegin

**THESIS TITLE:** The Implementation of the Brazilian Real Plan in Venezuela

Venezuela is currently experiencing inflation rates that are higher than 50 percent per month, which means the country is officially experiencing hyperinflation. The economic dependency on one natural resource, oil, makes the country's GDP fluctuate as oil prices change. The country has increased its government spending during times in which oil prices were high. However, now that the price of oil has fallen, the country is facing considerable debt; in order to pay its debt, the country is printing money which has led to hyperinflation. The shortages, constant changes in the price of consumer goods, and government debt in Venezuela are similar to the economic situation in Brazil in 1994. Brazil was able to curb its hyperinflation with an economic plan called the Real Plan. Some of the measures of the plan were to cut state expenditures, to stop price freezing, and to partially link the currency to U.S. dollars. I claim that some of the measures carried out in Brazil through the Real Plan could be implemented in Venezuela. Three measures that could bring inflation more under control are shrinking government spending, diversifying the economy, and reducing the country's dependency on oil. These measures would be more effective if the current political situation changes.

**FAVORITE HONORS COLLEGE MEMORY:** The Club Fair in the soccer field during my first semester at the WHC during the Fall of 2018. It was great to learn about all the student activities on campus. Also, the free food was really good.

**AFTER GRADUATION PLANS:** I was accepted in the Master's of Science in Business Analytics (MSBA) Program at the University of Tennessee (UT). I'm planning to defer my enrollment and take a gap year. I'm also currently doing an internship, and I have hopes to work full-time until I start the MSBA program at UT next year.

## Faakhira Diljohn



**CONCENTRATION:** Behavioral Neuroscience

**ADVISOR:** Catherine Trivigno

**THESIS TITLE:** Elucidation of Mechanisms Underlying Sex-Biased Psychostimulant Responses in DAT Val559 Mice

We evaluated the mechanisms underlying differences in psychostimulant-induced responses of both wild type and DAT Val559 males and females. It was found that amphetamine-induced behavior was affected by sex and genotype, leading to the hypothesis that it may be due to differences in the DA receptors. Following receptor blocking in behavioral assays, we found that D1 receptors function differently in males vs females and if there is disruption in the dopamine system (such as the DAT Val559 mutation), behavior is influenced by sex.

**FAVORITE HONORS COLLEGE MEMORY:** I loved working in the FAU Brain Institute and waking up in the morning to see the sunrise at the beach with my friends.

**AFTER GRADUATION PLANS:** I plan to gain medical experience while studying for my MCAT to pursue an MD.



## Joëlle Dwek

**CONCENTRATION:** Cellular Neuroscience

**ADVISORS:** Nicholas Baima

**THESIS TITLE:** The Ethics Behind Euthanasia and Neurodegenerative Diseases

This paper looks over the history, laws and debate surrounding euthanasia in the United Kingdom, the United States and the Netherlands, and how euthanasia affects those with neurodegenerative diseases.

**FAVORITE HONORS COLLEGE MEMORY:** My favorite Honors College memory is getting up at 5am to get Jupiter Donuts and go to the beach to watch the sunrise with some friends. Food truck Fridays were also a blast!

**AFTER GRADUATION PLANS:** As I am graduating early (I am 20 years old) and I have a bit of time before attending grad schools, I will be attending EMT school this summer. I have future plans of becoming a paramedic and then going to PA school.

## Matthew Eximond

**CONCENTRATION:** Biochemistry

**ADVISORS:** Tanja Godenschwege

**THESIS TITLE:** The role of Drosophila Attractin homolog Dsd in regulation of E3-ligase Mgrn1 and Metabotropic Glutamate Receptors

Drosophila Melanogaster was used to observe the role of Attractin homolog Dsd in regulating Mgrn and GABA receptors which are identified as potential participants with the neurodegenerative.

**FAVORITE HONORS COLLEGE MEMORY:** Black Student Union gatherings

**AFTER GRADUATION PLANS:** Osteopathic Medicine at Lincoln Memorial University



## Hailey George

**CONCENTRATION:** Independent Concentration in Psychology and Creative Writing

**ADVISOR:** Kevin Lanning

**THESIS TITLE:** Eating Elephants

Eating Elephants, a novella, is a fictional case study of Jethro Jones, a young man who suffers from three pathologies including Binge Eating Disorder, Major Depressive Disorder, and Panic Disorder. It traces the development of his suffering from infancy through childhood trauma into adolescent manifestations such as severe panic attacks, a suicide attempt, and weekly episodes of binge eating. The creative nature of the piece was inspired by works such as *The Bell Jar* by Sylvia Plath and *Wasted: A Memoir of Anorexia and Bulimia* by Marya Hornbacher. The character and story were informed by peer-reviewed studies about the aforementioned pathologies including risk factors, manifestation and course, subtypes, and treatments. While research exists on all three of these topics separately, little of the literature exists on the comorbid presentation of these disorders, despite common occurrence. Thus, this is what the novella attempts to tackle.

**FAVORITE HONORS COLLEGE MEMORY:** As a transfer student from a much larger, less personal university, I have had many wonderful memories at the Honors College. From my tour where I got to sit in on Thinking and Decision Making to my last semester in Thesis class, I think my favorite memories have been those surrounded by the discussions and conversations prompted by the wonderful people here. I have learned so much and met so many great people who have challenged me and caused me to grow. While my journey was not the one I was expecting, it was exactly the one I needed and ultimately the one I wanted.

**AFTER GRADUATION PLANS:** I will be attending Lynn University for a Master's in Clinical Mental Health Counseling while also working as a legal assistant.

## Jillian Hanley

**CONCENTRATION:** Biology

**ADVISOR:** Rachel Harris

**THESIS TITLE:** Underutilized Potential of Small-Scale Oyster Reef Restoration Units as Habitat for Invertebrates



Oyster reefs play vital roles in an estuary's health by filtering the water and by serving as nurseries for many aquatic animals. The objective of my thesis was to investigate habitat use of smaller macroinvertebrates on restored oyster reefs. Small-scale cage (bagged shell) and string (hanging shell) oyster clutch units were deployed on two restored oyster reefs in the Loxahatchee River Estuary for one year. Fauna inhabiting the units were monitored monthly, identified to the lowest practical taxonomic level, and categorized into functional groups based on feeding mode, living position, and mobility. Results showed similar abundance, richness, and diversity of functional groups in cage and string units. These findings suggest that even small-scale oyster reef restorations, such as individual 'vertical oyster gardens' (i.e. string units), add valuable habitat for smaller organisms. This provides additional options for small-scale restoration efforts.

**FAVORITE HONORS COLLEGE MEMORY:** Studying abroad in Madrid, Spain with Dr. Cañete Quesada and exploring the nature parks and Reina Sofia Museum of Art with my friends.

**AFTER GRADUATION PLANS:** I plan to study ecology in graduate school in 2022. In the interim, I plan to work as a wildlife biologist.



## Sarah Hemmen

**CONCENTRATIONS:** Cellular Neuroscience

**ADVISOR:** Catherine Trivigno

**THESIS TITLE:** The Impact of Traumatic Brain Injuries

A literature based study on the impacts of traumatic brain injuries from the perspective of the patients, families, and third party caregivers.

**FAVORITE HONORS COLLEGE MEMORY:** Spring Formal

**AFTER GRADUATION PLANS:** EMT school and then PA school

## Karla Hernandez

**CONCENTRATION:** Business and Economics

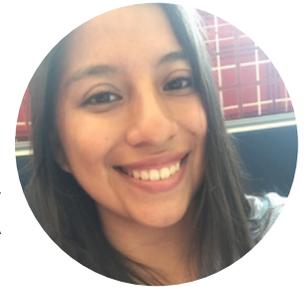
**ADVISOR:** Kanybek Nur-tegin

**THESIS TITLE:** How Brand Image and Brand Identity is Communicated in a Mobile Marketing Environment: A Comparative Analysis of Dunkin' and Starbucks

My thesis focuses on mobile marketing, a marketing communication tactic that businesses have come to recognize as a necessity to communicate and reach current and potential customers. I examine past literature on mobile marketing, structuring theories around customer buying habits, analyze past mobile communication platforms used by Dunkin' and Starbucks, and investigate practical implications of mobile campaigns on brand identity. To show how mobile marketing has been implemented successfully, I focus on Dunkin' and Starbucks, as they are among the top mobile marketing giants and are well-known by a large audience. By focusing my research on Dunkin' and Starbucks, I hope to provide readers with an understanding of how many of the concepts discussed in my thesis paper are crucial to understanding what mobile marketing is in its entirety, as well as how brand image is communicated in a marketing environment by comparing two well-known companies.

**FAVORITE HONORS COLLEGE MEMORY:** Although I made/created many memories during my time at the Honors College, I would have to say that my favorite times were when I joined the intramural soccer league. I created some very long-lasting friendships. That might sound cheesy and cliché but that's what stood out the most.

**AFTER GRADUATION PLANS:** I plan on continuing my current internship at TransMedia Group and then continuing my education by pursuing an MBA at FAU College of Business.





## Pierce Herrmann

**CONCENTRATION:** Biological Chemistry

**ADVISOR:** Catherine Trivigno

**THESIS TITLE:** Characterizing Enhanced Synaptic Activity Response Element

Immediate early genes are a common tool utilized in neuronal labeling experiments. Immediate early genes have multiple drawbacks such as precision and accuracy problems along with only being able to label a cell within a short time frame. Enhanced Synaptic Activity Response Element (ESARE) was developed as an alternative to immediate early genes due to its more accurate nature. My thesis consisted of characterizing ESARE and creating an experimental protocol for its use. The goal of my experiments was to create a ESARE/immediate early gene system that would allow one to label two neuronal populations at two different points in time.

**FAVORITE HONORS COLLEGE MEMORY:** Representing Harriet L. Wilkes Honors College at the Forum Club of the Palm Beaches and having the opportunity to ask former White House Press Secretary Sean Spicer a question on behalf of Florida Atlantic University.

**AFTER GRADUATION PLANS:** I will be taking a gap year. During my gap year, I am taking the Medical College Admissions Test and then attend a MD or DO program within the next year. I will continue to expand my photography business ([www.PTHphotography.com](http://www.PTHphotography.com)). As an entrepreneur, I believe in giving back to the community. My pro bono work at PTHphotography will continue to support those charities that I have been involved with during my tenure at the Honors College. Upon graduation, I do have an immediate project for an organization that provides mentoring and education to underrepresented minorities. This project will entail teaching photography, scientific research, and keys to success in the STEM fields. Going to the Honors College was a decision that I will never regret and am ready to take those opportunities and challenges that lay ahead.

## Julia Hetzel

**CONCENTRATION:** Biological Chemistry

**ADVISOR:** Veljko Dragojlovic

**THESIS:** The History of Molecular Modeling in Organic Chemistry

Molecular models played an important role in the development of organic chemistry as they represented the spatial and geometric aspects of the world as chemists saw it. Though today the purpose of physical models in chemistry is primarily teaching and collecting, this does not take away from their past contributions to the field.

**FAVORITE HONORS COLLEGE MEMORY:** Meeting new friends and taking classes together.

**AFTER GRADUATION PLANS:** I plan to attend the University of Florida College of Pharmacy.





## Ramona Horti

**CONCENTRATION:** Business

**ADVISOR:** Keith Jakee

**THESIS TITLE:** The Repercussions of the Soviet Occupation on Current Investment Behavior in Hungary

The Soviet occupation of Hungary between the end of World War II and the fall of the Soviet Union had major impacts on Hungary that continue up to this day. The nationalization of banks and businesses under Soviet control, the limited alternatives for investment, and the sociopolitical climate of the Soviet system led Hungarians to keep a high proportion of their wealth in cash. I evaluate the current household financial wealth of Hungarians and find that this investment behavior is still prevalent not only in Hungary, but all former Soviet Bloc countries. I attribute this investment practice to the norms and savings ethics developed during the Soviet occupation and conclude that it is restricting the individual wealth of Hungarians.

**FAVORITE HONORS COLLEGE MEMORY:** I will never forget the Colloquium I attended in my junior year with my classmates. The topic was markets and morality and it was one of the most intellectually stimulating discussions I have been to. All the discussion-based classes that the Honors College offers are what really made my college experience unique.

**AFTER GRADUATION PLANS:** I plan on taking a business analyst position after graduation and getting a Master's degree in economics in a few years. I am also excited about starting a farm with my partner and beginning our vanilla business venture.



## Reece Humphreys

**CONCENTRATIONS:** Mathematics and Physics

**ADVISORS:** Yaouen Fily, Warren McGovern

**THESIS TITLE 1:** Orbital Debris Cloud Evolution: An analysis of fragmentation events in low Earth orbit

Orbital debris have quickly become one of the newest sources of pollution due to humanity's desire to work in, explore, and utilize space. However, unlike most pollution types that people experience daily, this is impossible for the average person ever to encounter, yet poses just as significant a threat as the other types of pollution. My thesis explores how to simulate orbital fragmentation events and analyze the produced cloud as a result.

**THESIS TITLE 2:** Modeling Symmetries: An Analysis On The Interdisciplinary Applications Of Lie Groups

Lie groups are abstract structures in mathematics that help us describe symmetries and the geometry of space. The construction of Lie groups allows for mathematicians to constrain various components of a problem. As such, they can be utilized in multiple fields such as computing and control theory to simplify complex problems. My thesis explores how to apply Lie groups in these various disciplines.

**FAVORITE HONORS COLLEGE MEMORY:** Serving as an orientation and welcome leader was by far one of my favorite memories at the Honors College. Having the ability to mentor and give back to the incoming students was especially rewarding. The guidance I received my freshman year from orientation leaders immensely shaped my experience at the Honors College, so I was glad to have the opportunity to do the same.

**AFTER GRADUATION PLANS:** Post-graduation, I plan to gain work experience in computational engineering for a year. After which, I plan on attending graduate school to pursue a master's degree in aerospace engineering.



## Nikita Jayan

**CONCENTRATIONS:** Biological Chemistry and Mathematical Sciences

**ADVISOR:** Johanna Kowalko

**THESIS TITLE:** Uncovering the role of maternal effects in vision in *Astyanax mexicanus*

The visual system presents itself differently across the animal kingdom, and has evolved in a number of different ways. Maternal genetic effects have been shown to be one influence on the changing visual phenotype in offspring, including in *Astyanax mexicanus*. We test for visual function using optomotor response assays in surface fish, cavefish, and cave-surface reciprocal hybrids to determine the role of maternal effects in evolution of the visual system.

**FAVORITE HONORS COLLEGE MEMORY:** Being able to pursue different interests through internships and classes outside of my designated concentrations as well as developing connections with my peers through Student Government, clubs, and shared experiences, made my Honors College experience memorable and meaningful.

**AFTER GRADUATION PLANS:** Following graduation, I will initially continue my education with a Masters degree in Bioengineering and later attend medical school.

## Angie Joseph

**CONCENTRATION:** Visual Art and Mathematics

**ADVISOR:** Dorothea Lemeh

**THESIS TITLE:** Anamorphic Illusions: Art and Mathematics in Perspective

Anamorphosis is a visual art technique based on perspective of a distorted work. Though it is possible to achieve through grids, there are other mathematical means to achieve Anamorphosis. I will spend time understanding how lines behave in curved mirrors using Calculus methods. I then will use what I have learned to create my own anamorphic work of art.

**FAVORITE HONORS COLLEGE MEMORY:** Night Breakfast!

**AFTER GRADUATION PLANS:** I am going to be taking a year off to try and participate in fellowships and preparing my applications to multiple graduate programs. I am strongly considering applying to the Johns Hopkins Scientific Illustration Program by this time next year which would involve adding to my portfolio and taking supplemental science courses.





## Kenneth Kalczuk

**CONCENTRATION:** Economics

**ADVISOR:** Keith Jakee

**THESIS TITLE:** The Implicit Repressiveness of Governance: Freudian Insights into the Works of Buchanan and Marcuse

My thesis compares Freudian social theory with that of political philosopher Herbert Marcuse and economist James M. Buchanan. By framing my thesis around the fundamental tension between order and freedom in society, I stress how Freud's social theories emphasize the necessity of coercion in societal institutions. While, similar to Freud, Buchanan emphasized the foundational role coercive measures play in society, despite his Freudian influence, Marcuse argues that all coercive elements in society remain unnecessary. Ultimately, my thesis illustrates how disagreements between Freud and Marcuse implicate similarities between Freud and Buchanan. As such, Freudian social theory is contextualized through a "classical liberal" framework vastly different from that of the "complimentary" Marcuse.

**FAVORITE HONORS COLLEGE MEMORY:** I have many pleasant memories from my time at the Honors College. When I was a freshman, I recall being woken up by loud knocking on my door. It was the week of ResFest, and one of my friends was concerned because we didn't have a team ready for ultimate frisbee later that morning. After managing to round up a band of misfits, and despite being completely new to the game, we won a match and had something to brag about for the weeks to follow. Besides that, I will always remember the time I spent exploring new ideas. Between "Reading Group" meetings with the Economics Club, "the Colloquium" dinner, and all of the long conversations with Dr. Jakee in his office and over the phone, I will always remember my four years at the HC as a time of expansive personal growth and intellectual exploration.

**AFTER GRADUATION PLANS:** After graduation, I am planning on relocating to the D.C. area and interning/working at organizations that conduct Public Policy Research. Right now, I have applied to multiple listings and am waiting for responses. Ultimately, after taking some time to work/intern after graduation, I plan on enrolling in a JD/Master's degree program with the goal of entering public service.

## Andrew Ly

**CONCENTRATION:** Biological Chemistry and Psychology

**ADVISOR:** Chitra Chandrasekhar

**THESIS TITLE:** Post-Traumatic Stress Disorder and Cancer Treatment



The epidemiology of cancer-related post-traumatic stress disorder (PTSD) is well-documented, but the effect of front-line cancer treatments on the prevalence and intensity of PTSD has yet to be consolidated. Unlike many other traumatic events preceding the onset of PTSD, the cancer experience has ongoing stages of diagnosis, treatment, and survivorship that each present their own stressors. Due to the multifaceted nature of cancer-related trauma, it is important to understand how each component of the experience plays a role in the onset of mental illness. Thus, I review the existing literature to elucidate how the biochemical changes induced by chemotherapy, radiation, and surgery influence the onset and persistence of cancer-related PTSD. In being informed of the physiological processes underlying treatment and their implications for mental health, patients and clinicians alike can better predict the psychological changes that occur alongside cancer treatment.

**FAVORITE HONORS COLLEGE MEMORY:** The people and teachers I've met on the way.

**AFTER GRADUATION PLANS:** This August, I will be attending medical school at Johns Hopkins University on a full-tuition scholarship!



## Catherine Martinez

**CONCENTRATION:** Biochemistry

**ADVISOR:** Chitra Chandrasekhar

**THESIS:** Characterization Of Immune Phenotypes As Predictive Biomarkers For Response To The  $\alpha 4\beta 7$  Integrin Blocker Vedolizumab

Finding predictive immunophenotypic and gene regulatory biomarkers capable of predicting which ulcerative colitis and Crohn's disease patients would benefit from Vedolizumab therapy.

**FAVORITE HONORS COLLEGE MEMORY:** There was an event where we could make our own pens.

**AFTER GRADUATION PLANS:** Work at Scripps via the AYRIU program.

## Raven Mello



**CONCENTRATIONS:** Psychology and Law & Society

**ADVISOR:** Mark Tunick

**THESIS TITLE:** Funding the Fundamental Right to a Legal Defense

The underfunding of Public Defender offices nationwide causes unequal access to the Sixth Amendment right to a fair trial. Evidence suggests that the current levels of funding support a skewed legal system that favors the prosecutor and defendants who are white, abled, and wealthy. I argue that the Public Defender must be properly funded to fulfill its intended adversarial role and make justice equally accessible to underprivileged groups.

**FAVORITE HONORS COLLEGE MEMORY:** My favorite Honors College memory is going for late night Taco Bell and beach adventures with my roommate.

**AFTER GRADUATION PLANS:** I will be attending the JD program at Northeastern University School of Law with a concentration in Poverty Law and Economic Justice.



## Madison Nissan

**CONCENTRATION:** Law & Society and Philosophy

**ADVISOR:** Mark Tunick

**THESIS TITLE:** Self-Driving Cars and the Value of Human Life

An exploration of the moral and legal issues raised by the programming of self-driving cars and their introduction into the market. This thesis argues for a utilitarian approach to programming self-driving cars in an effort to save the most lives, as well as implementing nationwide standards for programming.

**FAVORITE HONORS COLLEGE MEMORY:** The trip I took to Savannah, Georgia, during my freshman year to compete in a Moot Court invitational. It was both great to participate in and wonderful to travel to a city I had never been to before!

**AFTER GRADUATION PLANS:** After taking a semester off, I plan to attend graduate school to get my Masters and then, a PhD in Political Philosophy.

## Kinar Oguz

**CONCENTRATION:** Biology

**ADVISOR:** Andia Chaves Fonnegra

**THESIS:** A Meta-Analysis to Estimate the Possible Anti-cancer Potential of IRL Sponges

A Meta-Analysis to Estimate the Possible Anti-cancer Potential of IRL Sponges was searched.

**FAVORITE HONORS COLLEGE MEMORY:** Field trips with Dr. Wetterer and online lectures!

**AFTER GRADUATION PLANS:** I will attend Pharmacy College.



## Alyssa Payne

**CONCENTRATIONS:** Behavioral Neuroscience, Psychology, and Spanish

**ADVISORS:** Julie Earles, Carmen Cañete Quesada

**THESIS TITLE 1:** Neurofeedback Training Therapy: The Future of Treatment Options for Alzheimer's Disease

My thesis evaluates the efficacy of Neurofeedback (NFB) Training Therapy, a type of biofeedback that works with the brain's natural capacity for plasticity and is a viable candidate for treatment of patients with Alzheimer's Disease (AD). Although neurons may degenerate, strengthening connections among remaining neurons may benefit patients. However, the vast number of methodologies, technological approaches, and brain wave focuses is a challenge to determining NFB's true efficacy. Therefore, this investigation addresses 1) the types of technology best suited for localization or global functioning and 2) the most suitable brain wave protocols for patients with AD.

**THESIS TITLE 2:** Identity, Exile, and Bacillus Emigraticus in the Literature of Spanish Republican Mariano Viñuales (1900-1955)

This investigation seeks to recover the memory of Mariano Viñuales (1900-1955) who was a Spanish writer forced into exile first to the Dominican Republic (1939-1942) and later to Mexico (1942-1955) due to his involvement in the Spanish Civil War (1936-1939). Never able to return to his family in Spain, Viñuales experienced what Paul Tabori calls bacillus emigraticus, a shared experience by exiles of an intense longing to return to their home country. This thesis explores common expressions of identity in Spanish Republican exiles by delving into Viñuales's experience as a political refugee and the analysis of his works "¡Siembra!" (1940), "El león y la libertad" (1950), and "Mi tía Dominga" (1952).

**FAVORITE HONORS COLLEGE MEMORY:** Only one?! Right away, I think back to the spontaneous Reading Parties my friends and I had during my Freshman and Sophomore years. We would gather in

the common area of our dorm and share any art, writing, and music we were working on. I loved how encouraging we were to each other, and there were always a lot of laughs! Of course, this section would not be complete without mentioning my study abroad experience in Madrid, Spain, led by Dr. Cañete Quesada. I will continue to cherish the people I met and the places I got to see.

**AFTER GRADUATION PLANS:** After graduation, I plan to attend Nova Southeastern University (NSU) to pursue my Ph.D. in Clinical Psychology. I will be combining my interests in Psychology and Spanish to provide treatment to both English- and Spanish-speaking patients. Hopefully I'll have the chance to do some travelling in the future!



## Riley Perez

**CONCENTRATION:** Biology

**ADVISOR:** Tracy Mincer

**THESIS TITLE:** Comparative Analysis Of Sars-Cov And Sars-Cov-2 With A Focus On Global Transportation

How did global transportation play a role in SARS-CoV in 2003 versus SARS-CoV-2 in 2019 and its spread and possible solutions to anticipate the next SARS outbreak?

**FAVORITE HONORS COLLEGE MEMORY:** Expanding my horizons and starting over. Also, playing intramural soccer on Mondays, deciding to minor in History, meeting my roommate, plus her dog and cat, who turned into one of my closest friends, and Elements Frozen Yogurt after beach days.

**AFTER GRADUATION PLANS:** I will be taking a gap year and have multiple shadowing opportunities lined up after graduation while also continuing to work at my health care jobs. I do plan on applying to medical school in 2022!

## Tram-Anh Phan

**CONCENTRATION:** Cellular Neuroscience

**ADVISOR:** Erik Duboue

**THESIS TITLE:** Measuring relative expression levels of stress genes in zebrafish via rt-qPCR

Humans subjected to childhood trauma are more likely to develop anxiety disorders, such as PTSD, yet how early life stress (ELS) impacts the function or the development of the nervous system remains poorly understood. To address how ELS impacts the brain and alters the function of neural circuits involved in stress, we use zebrafish as a model organism due to its robust stress response, a simplified nervous system, and conserved neuroendocrine stress pathways with higher-order animals. We hypothesize that ELS may alter relative expression of genes involved in these stress pathways. The results provided sufficient evidence to confirm our hypothesis. Future directions could be localizing which neuronal regions are most affected via in situ hybridization, using brain-wide imaging across development and brain atlases, together with the use of zebrafish mutant and genetic analysis tools could answer some unsolved questions.

**FAVORITE HONORS COLLEGE MEMORY:** I always remember HC as a third home, as I found enjoyment and fun when I was taking classes and seeing my friends and professors at HC. If I am not taking any classes, I will be heading over to my lab, where I can conduct lots of fun experiments, and talk to my dear mentor, Jac, who has helped me since day 1 of the HC. Everyone at the HC is always friendly, nice, and helpful. I can just stop by anyone at the HC and start a conversation, and suddenly, we become friends. I enjoyed my best college experience with the HC and will brag about the HC and how awesome this college is to everyone I know. Best college experience ever! Very proud and glad that I am here at HC. These memories will forever stay with me.

**AFTER GRADUATION PLANS:** I'm planning to take a gap year while waiting for the decision from medical schools that I applied to. During that time, I will look for jobs in the hospital, such as scribes, to gain more experience in the hospital-like environment.





## Christine Phelan

**CONCENTRATION:** Biology

**ADVISOR:** Ericca Stamper

**THESIS TITLE:** Recent Advantages and the Ethical Implications of Anti-Aging Research

There have been many recent advances in anti-aging research, paired with an increase in national funding. Whether or not it is ethical to spend such funds and resources attempting to extend the human lifespan is questionable. The ethics of anti-aging research are fully discussed in this thesis review.

**FAVORITE HONORS COLLEGE MEMORY:** Just overall having the ability to make connections with my professors in the small campus community; the relationships I have built with the FAU Honors faculty and my peers have been the best memories that I will cherish.

**AFTER GRADUATION PLANS:** Hopeful to attend graduate school after a brief sabbatical, but beforehand I desire to begin an intro job in the Forensics field as a laboratory technician.



## Jolie Reisner

**CONCENTRATION:** Women's and Gender Studies

**ADVISOR:** Wairimū Njambi

**THESIS TITLE:** "I am ready to be cleaned": The Intersections of Janelle Monáe's "Dirty Computer," Cyborg Theory, and Racializing Assemblages

"Dirty Computer," the short film accompanying Janelle Monáe's 2018 album of the same name, uses science fiction motifs and cyborg analogies to examine how race, sexuality, and their cultural meanings are ascribed to bodies from the standpoint of a Black queer woman. "Dirty Computer" (2018) fits within a lineage of controversial depictions of the future intended to catalyze present changes. I use "Dirty Computer" (2018) to critically examine Donna J. Haraway's "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century" (1991). I also use Alexander Weheliye's theory of "racializing assemblages" from "Habeas Viscus: Racializing Assemblages, Biopolitics, and Black Feminist Theories of the Human" (2014) and renowned Black feminist science fiction author Octavia E. Butler's novel "Kindred" (1979), in tandem with "Dirty Computer" (2018) to examine how racializing assemblages impose sociopolitical meanings onto bodies, while citing their "location" within the flesh as evidence refuting their constructed nature.

**FAVORITE HONORS COLLEGE MEMORY:** Countless impromptu discussions with faculty and fellow students, which helped shape my thinking and connect interdisciplinary topics just as much as my time in the classroom.

**AFTER GRADUATION PLANS:** After graduating, I will spend a few years outside of academia working in community mental health services and then pursue a Master of Social Work. I will focus on working within the LGBTQIA+ community.



## Thalita Saide

**CONCENTRATIONS:** English Literature and Business

**ADVISORS:** Michael Harrawood and Kanybek Nur-tegin

**THESIS TITLE:** Economics in Literature: An Analysis of Economic Theory in John Milton's

*Paradise Lost*

This paper aims to analyze John Milton's economic musings, focusing on how his depiction of Christian redemption is an allegory of trade that highlights the importance of value. I evaluate "Paradise Lost" as a theoretical economic framework that amplifies the never-ending struggle between free-market capitalism and communism.

**FAVORITE HONORS COLLEGE MEMORY:** There are so many! I really enjoyed Homecoming Carnival; Freshman Sailing Day; Having BritLit taught by Dr. Sourgen at the picnic benches on a nice day; Intermediate Spanish class with Dr. Vazquez; Presenting at SAMLA with Dr. Washington; Helping out Sandy and Dr. Steigenga while I was an assistant; and Discussing John Milton with Annie and Dr. Harrawood during his office hours.

**AFTER GRADUATION PLANS:** I plan on starting law school (JD degree) in the Fall of 2021.

## Christelle Samedy

**CONCENTRATION:** Business

**ADVISOR:** Kanybek Nur-tegin

**THESIS TITLE:** Online Presence in Real Estate: Case Study Abacoa



The goal of this thesis is to demonstrate that agents with multiple social media accounts and who are more active online have more listings than those who are less aggressive online. Our case study is Abacoa, a community in Palm Beach County. We study data from 10 Abacoa agents which include their Facebook and Twitter accounts, and the number of listings that they landed from April to November 2020. After examining these data, we conclude that listing agents with more than one social media account are more successful than those with only one account.

**FAVORITE HONORS COLLEGE MEMORY:** Studying with classmates.

**AFTER GRADUATION PLANS:** I am planning to continue to work on my business venture.



## Janeive Severin

**CONCENTRATION:** Business

**ADVISOR:** Kanybek Nur-tegin

**THESIS:** Economic Impact of Red Tide on the Tourism Industry in Sarasota County

My thesis will demonstrate the economic effects of the Red Tide on the Tourism sector, specifically in Sarasota. I plan to mainly show how the Red Tide has affected the region in a year of 2006 as compared to the 2018 year, where the Red Tide was persistent within both time periods. I will view how it was detrimental to dependent tourism factors such as restaurants and hotels within that time.

**FAVORITE HONORS COLLEGE MEMORY:** My favorite memory was making new friends and getting to have fun with them especially before and after classes.

**AFTER GRADUATION PLANS:** I plan to take a gap year and also apply for Accounting and Finance jobs and internships to get the professional experience. Then, I plan to attend graduate school at FAU and enroll in a Masters of Accounting program.

## Taylor Sharrard

**CONCENTRATION:** Biological Anthropology

**ADVISOR:** Rachel Corr

**THESIS TITLE:** The Death Positive Community and Change in American Mortuary Ritual

American mortuary ritual, including either embalming and burial or cremation, has largely gone unchanged since the Civil War. The growing movement of “death positivity” started by mortician Caitlin Doughty has been educating the American public about funeral alternatives that advocates believe are better for survivors of the deceased as well as the environment. I analyze past criticisms of American mortuary ritual and highlight the eco-friendly and family involvement-based funeral rituals that the death positive community promotes that have started to change the homogeneity of current U.S. funeral rituals.

**FAVORITE HONORS COLLEGE MEMORY:** Finding such an amazing group of now close friends early on in college by meeting during freshman orientation.

**AFTER GRADUATION PLANS:** As a Fall 2020 graduate, I am currently a 7th grade science teacher at a middle school in the School District of Palm Beach County!





## Maria Smirnova

**CONCENTRATION:** Cellular Neuroscience

**ADVISOR:** Ning Quan

**THESIS TITLE:** Interleukin-1 Receptor Type 1 contributes to synapse formation in the dentate gyrus: possible mechanism for epilepsy

Epilepsy is a chronic neurological disorder that affects 2.3 million adults and 450,000 children within the US. The etiology of epilepsy is unknown; however, increased severity and neuropathology of epilepsy is associated with inflammatory pathways. Specifically, pro-inflammatory cytokine Interleukin-1 signaling via Interleukin 1 receptor type 1 (IL-1R1) has been shown to decrease sensitivity to kainic acid induced status epilepticus. Our lab hypothesizes that IL-1R1 signaling alters synaptic connectivity in the hippocampus thus conferring increased neuronal excitability. Using WT and IL-1R1 null (Il-1r1r/r) mice, colocalization of immunolabeled pre- and post-synaptic markers (VGLUT-1/HOMER1) were analyzed, indicating synapses. Additionally, using the Golgi-Cox method we visualized synaptic spines and analyzed dendritic spine morphology in WT and Il-1r1r/r mice. Our results indicate that IL-1R1 does alter synaptic structure suggesting a possible role in the induction of epilepsy. However, these results require further investigation.

**FAVORITE HONORS COLLEGE MEMORY:** Going to Spring Formal with my friends my freshman year!!

**AFTER GRADUATION PLANS:** I will attend the Integrative Biology-Neuroscience Ph.D. program at Florida Atlantic University and will write my dissertation in Dr. Ning Quan's laboratory at the FAU Brain Institute.

## Rodrigo Sotelo

**CONCENTRATION:** Interdisciplinary Sociology

**ADVISORS:** Wairimū Njambi

**THESIS TITLE:** For The Women Who Did Not Deserve to Die: Femicide and the Violence Against Women



Femicide is the killing of women and girls by men because of their gender. It constitutes a violation of the most basic human right, the right to live. In this thesis, I provide a general overview and definition of the term "femicide." Then, using critical feminist theory, I explore how patriarchal ideologies shape men's behavior to elicit violence as a means to regain control and dominance over women. Lastly, I suggest several key factors that I believe are necessary to move forward as a society to prevent, reduce, and eliminate femicide from reoccurring.

**FAVORITE HONORS COLLEGE MEMORY:** Skipping biology to go to The Weeknd concert.

**AFTER GRADUATION PLANS:** After I graduate, I plan to pursue a master's degree or work with a non-profit organization.



## Shanay Thompson

**CONCENTRATION:** Cellular Neuroscience

**ADVISOR:** Evelyn Frazier

**THESIS TITLE:** Behavioral Interactions Amongst Gopher Tortoises, Green Iguanas, and Burrowing Owls

The conservation area on the FAU Boca Campus is home to gopher tortoises and burrowing owls, both native species and listed as threatened in Florida. Both species dig burrows that are sporadically occupied by the green iguana, which is an invasive species. It has been shown that burrowing owls eat young green iguanas (McKie et al., 2005) but the overall impact of the green iguana on populations of gopher tortoise and burrowing owls is not well known. This project will analyze the interactions between these species.

**FAVORITE HONORS COLLEGE MEMORY:** There are too many - food truck nights with my friends, trips to Universal, events in the Burrow, PB Carniv-OWL, etc.

**AFTER GRADUATION PLANS:** I am applying to Medical School in the summer. I will be working throughout the year, hopefully in the healthcare field, until it is time to go to Med School.



## Annika Tiller

**CONCENTRATION:** Biological Chemistry

**ADVISOR:** Predrag Cudric

**THESIS:** Optimization of Solid-Phase Synthesis of a Biologically Active Cyclic Disulfide-Rich

In this project we attempted to modify Odorranalectin (OL), a naturally occurring cyclic peptide, by the insertion of a somatostatin analogue sequence (CTOP), a known  $\mu$  opioid receptor antagonist. The  $\mu$  opioid receptor is the binding site for many highly addictive opioids such as fentanyl and heroin. In addition, the receptor also causes physical dependence, as well as respiratory depression, the main cause of overdose death. OL has lectin mimic properties that allow for it to bind to oligosaccharides, facilitating its transport to the brain after intranasal administration. These characteristics make OL a promising compound for drug delivery to the brain. The incorporation of CTOP in OL is challenging, as both compounds are cyclized through formation of disulfide bonds producing a bicyclic  $\mu$  opioid receptor antagonist (OL-CTOP). This poses a synthetic challenge, in which reaction conditions should be carefully manipulated to obtain the desired product in high yields.

**FAVORITE HONORS COLLEGE MEMORY:** I was originally very insecure about committing to exclusively honors level taught classes. Therefore, I will never forget the support, encouragement, and empathy from both professors and students.

**AFTER GRADUATION PLANS:** After graduating from the Honors College, I am planning to attend graduate school this fall to get my PhD and continue the research I fell in love with over the last 2 years. I am currently deciding whether to attend Marquette University, Medical College of Wisconsin, Medical University of South Carolina, or Scripps Research Institute.



## Destiny Twohill

**CONCENTRATIONS:** Biology

**ADVISOR:** Catherine Trivigno

**THESIS:** Optimization of 3D Spheroids as a Model For Monitoring the Overexpression of Matrix Metalloproteinase 14

Matrix Metalloproteinase-14 (MMP-14 or MT1-MMP) is a protease that takes part in the degradation of collagen, which is a vital component of the extracellular matrix (ECM). MMP-14 may be associated in the processes of metastasis, invasion, and promoting tumor progression in cancers such as melanoma, lung, breast, neuroblastoma, and pancreatic. Therefore, MMP-14 may contribute to the poor prognosis given to patients with the aforementioned cancers. The development of specific inhibitors that can target the actions of this enzyme may aid in halting the progression of cancers. We focused on developing and optimizing a 3D model called spheroids in which 3D cell culture can occur. Along with creating the spheroids, type 1 collagen was embedded into the spheroids to observe MMP-14 mediated invasion. The protocols involved with this project will be used for future research involving cell-based MMP-14 kinetic activity assays that are used to eventually develop selective inhibitors for MMP14.

**FAVORITE HONORS COLLEGE MEMORY:** My own orientation and the orientations I participated in as an orientation leader. Never will I forget how wonderful and beneficial my own orientation was for meeting friends that have become family and learning about the opportunities the Honors College has to offer. Then becoming an orientation leader after my own orientation allowed me to witness the connections students make with each other and their professors.

**AFTER GRADUATION PLANS:** I would like to pursue PA school and become a Physician Assistant. Before I head to PA school however, I'm interested in becoming an EMT and a paramedic.

## Anastasiya Valevski

**CONCENTRATION:** Law and Society

**ADVISOR:** Mark Tunick

**THESIS:** The Impact of Expanding Protection Against Sex Discrimination in Title VII to Encompass Sexual Orientation and Sexual Identity

The USSC's decision in *Bostock v Clayton County*, 590 U.S.\_(2020) is a critical Title VII ruling that should serve as a springboard to more inclusive directives and legislations when it comes to "sex" inclusivity beyond just employment law, but to society as a whole.

**FAVORITE HONORS COLLEGE MEMORY:** My women in the workplace class focused on employment law under a gendered scope taught by Adjunct Professor, Amy Borman. As an attorney, she made me fall in love with the topic much more than I would have ever known, and because of her, I was able to intern at the 15th Judicial Circuit, for which I am eternally grateful.

**AFTER GRADUATION PLANS:** Prep for LSAT's, and to reevaluate my passions.



## Valerie Viluan

**CONCENTRATIONS:** Biology

**ADVISOR:** James Wetterer

**THESIS TITLE:** Potential Impact of Stinging Ants on Vertebrates in South Florida

Several predatory ants are known to attack, injure, and even kill vertebrates. Of which, the most notorious of these are possibly the Red Imported Fire Ant (*Solenopsis invicta*) and the Little Fire Ant (*Wasmannia auropunctata*). Both species have spread through human commerce, and in areas they invade, can be considered as agricultural pests. I compared the distribution of both ant species at the Gopher Tortoise burrows located in the Abacoa Greenway, and the possible impact they may have on these vertebrates.

**FAVORITE HONORS COLLEGE MEMORY:** Sailing Day during orientation week

**AFTER GRADUATION PLANS:** I am currently working as a veterinary technician at an animal hospital and I am also applying for this year's veterinary application cycle. I am hoping to gain more experience in the veterinary field and to possibly continue research with Dr. Wetterer regarding Florida Keratopathy and blindness in animals.

## Amanda Wade

**CONCENTRATIONS:** Biology

**ADVISOR:** Johanna Kowalko

**THESIS:** Melanocytic Effects of *hipk2* Mutation on *Danio rerio*

We disrupted the function of the *hipk2* gene using CRISPR mutagenesis in another teleost fish, *Danio rerio*, and quantified the effects on pigment cell number. Identification of the genes associated with color loss in cavefish will enhance our understanding of *Astyanax* pigmentation evolution and will provide insight into genetic mechanisms of phenotypic trait loss that have occurred throughout evolutionary history.

**FAVORITE HONORS COLLEGE MEMORY:** Meeting my boyfriend, making lifelong friends, and playing soccer

**AFTER GRADUATION PLANS:** Applying to medical school





## Jessica Young

**CONCENTRATIONS:** Environmental Science, Geographic Information Science, Writing and Art

**ADVISORS:** Rachel Luria, William O'Brien

**THESIS TITLE 1:** Strange Frequencies: Development of a Post-Human Sequential Narrative

This project grapples with questions of humanity, spirituality, and environment through sequential storytelling using an android protagonist. This adds critical reflection to the body of posthumanist works by serving as one of a few stories where the main character is not human, and the world is after the time of humankind. Instead of encapsulating a purely entertaining story of science fiction, this work delves into ideas of rapid environmental degradation and ever-evolving levels and functions of technology in our world and our near future.

**THESIS TITLE 2** Asexual Reproduction of Native and Non-native Milkweeds in Variant Soil Conditions

This study collected results about the effects of different soil substrates, milkweed species, and exposure to indole-3-butyric acid on the survival rates of cuttings from progenitor plants. A binomial logistic regression model was developed to determine the significance of each of the independent variables in the likelihood of survival of any individual cutting. The model specified had an 84.3% accuracy in correctly predicting the survival of the cuttings. This experiment may offer insights on the best environment for the propagation of native species of milkweed, which could be beneficial in the development of more native habitats for monarch butterflies in Florida.

**FAVORITE HONORS COLLEGE MEMORY:** The connections I've made with my peers, that have been nurtured by a residential experience and small campus size, have fostered some of my best memories, from spending a day downtown in West Palm at the Norton, to sitting on the floor of the dorms singing and playing ukulele with my friends, to visiting the beach to watch the full moon. I am, and always will be, thankful that I got to spend not just four years at the Honors College, but four very full and rewarding years here.

**AFTER GRADUATION PLANS:** I will be pursuing my PhD in Geosciences at FAU, and then looking forward to earning another graduate degree in English.

Medallion  
Ceremony  
Awards  
2021

FLORIDA ATLANTIC UNIVERSITY HONORS CONVOCATION AWARDS

*Reece Humphreys*

WHC University Scholar

*David Harbaugh*

University Club Merit Award

*Alyssa Payne*

WHC Undergraduate Researcher of the Year

HARRIET L. WILKES HONORS COLLEGE AWARDS

*Reece Humphreys*

Outstanding Senior

*Madison Brockelbank*

Outstanding Junior

*Irene Gatimi*

Outstanding Sophomore

*Ashley Perry*

Outstanding First Year

*Manuel Contreras*

Outstanding Scholar

*Shanay Thompson*

Distinguished Service Award

*Frida Zavala*

Distinguished Community Service

# 2021 Outstanding Thesis Awards

*Alyssa Payne* (Canete Quesada, Vazquez)

*Andrew Ly* (Chandrasekhar, Earles, Maldonado)

*Angie Joseph* (Lemeh, McGovern)

*Camilla Andrade* (Tunick, Njambi)

*Catherine Martinez* (Chandrasekhar, Sundrud)

*Chelsy Davis* (Luria, Washington)

*Faakhira Diljohn* (Trivigno, Stewart)

*Hailey George* (Lanning, Luria)

*Jillian Hanley* (Moore, Harris)

*Julia Hetzel* (Dragojlovic, McGovern)

*Luis Pollon* (Jakee, Nur-tegin)

*Maggie Boing* (Chaves Fonnegra, Fily)

*Omar Avila* (Vernon, Van Praag)

*Ramona Horti* (Jakee, Nur-tegin)

*Reece Humphreys* (Fily, Welker)

*Rodrigo Sotelo* (Njambi, O'Brien)

*Taylor Sharrard* (Corr, Trivigno)

*Thalita Saide* (Harrawood, Nur-tegin)

*Gabrielle Byrd* (Carvelli, Chaves Fonnegra)

*Kenneth Kalczuk* (Jakee, Baima)

H A R R I E T L . W I L K E S  
**HONORS COLLEGE**  
F L O R I D A A T L A N T I C U N I V E R S I T Y

Harriet L. Wilkes Honors College  
Florida Atlantic University  
5353 Parkside Drive  
Jupiter, Florida 33458  
561.799.8579  
[www.honorscollege.edu](http://www.honorscollege.edu)