PRESIDENT’S SHOWCASE
OF UNDERGRADUATE RESEARCH EXCELLENCE

Monday, October 1st
5:30pm-7:30pm
2018

Augustus B. Turnbull III • Florida State Conference Center

Division of UNDERGRADUATE STUDIES
Center for Undergraduate Research and Academic Engagement

Monday, October 1st
5:30pm-7:30pm
IDEA Grants award students funding to conduct summer research and creative projects and to develop or evaluate new or existing ideas.

Special thanks to the FSU President’s Office for their generous sponsorship of tonight’s event.
WELCOME TO THE 2018 PRESIDENT’S SHOWCASE OF UNDERGRADUATE RESEARCH EXCELLENCE!

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 FSU’s Office of the President and the Center for Undergraduate Research and Academic Engagement (CRE), this event serves as the culmination of the IDEA Grant, Tech Fellows, and iGEM summer awards, 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 Robert and Mary Frappier, Nancy Casper Hillis and Mark Hillis, David Ford, Jim Lee, John and Sally Day, Steve Madden, Scott and Ina McNichols, Dr. Mark S. Wrighton, Fred and Debbie Tresca, 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 President John Thrasher for his 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 due February 1, 2019 and are available at cre.fsu.edu.
## PRESIDENT’S SHOWCASE OF UNDERGRADUATE RESEARCH EXCELLENCE

### PRESENTATION SCHEDULE

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<td>JOHN THRASHER, PRESIDENT FLORIDA STATE UNIVERSITY</td>
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<td>BRANDON BROWN, VICE PRESIDENT FSU STUDENT GOVERNMENT ASSOCIATION</td>
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6:35-6:50 PM  Room 103

IMPROVING UPCONVERSION EFFICIENCY USING OXYGEN SCAVENGING
ANDREW OLSSON

6:35-6:50 PM  Room 114

SCULPTING SOUTH FLORIDA
MADELENE WISHART

6:35-6:50 PM  Room 201

HOW THE ROSE CITY ROSE TO POWER: RECONSTRUCTION, REDEMPTION, AND REMEMBERING IN THOMASVILLE
JENNA NOEL POPE

6:35-6:50 PM  Room 205

THE SUMMIT OF THE SOUL: PLATO'S DIAMONIC PSYCHOLOGY
JACOB DVORAK

6:35-6:50 PM  Room 214

MORAL DISENGAGEMENT STRATEGIES AND WAR ON TERROR: A CONTENT ANALYSIS OF THE ELITE PAKISTANI AND AMERICAN ENGLISH NEWSPAPERS
MUHAMMAD E. RASUL

6:35-6:50 PM  Room 214

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7:00-7:15 PM  Room 114

GO WITH THE FLOW: THE EFFECT OF FLUCTUATING RIVER FLOW, SALINITY AND TIDAL CYCLES ON THE ACTIVITY PATTERNS OF BULL SHARKS (CARCHARHINUS LEUCAS) AND BONNETHEADS (SPHYRNA TIBURO)
ASHLEY MACKENZIE DAWDY

7:00-7:15 PM  Room 201

THE SACRED IN A POST-SOVIET SPACE: THE EFFECTS OF MODERNIZATION AND COMMERCIALIZATION ON THE BURYAT PEOPLES
GRACE ELIZABETH MICHAELS

7:00-7:15 PM  Room 205

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7:00-7:30 PM  Room 103

SOUND ACTIVATED ENGINEERED CELLS
INTERNATIONAL GENETICALLY ENGINEERED MACHINES TEAM (iGEM)
AWARD RECIPIENTS

ISAAC BARZSO is in the final year of his Bachelor of Music in Composition and is currently completing his honors thesis; he composed the majority of this work under the guidance of the late Dr. Ladislav Kubik. He currently studies composition with Dr. Stephen Montague. After graduation, Isaac plans to pursue a Master of Music in Composition and to continue his work in interdisciplinary collaborations between artists.

DANIEL BIS, originally from Poland, is in his final year of Computer Science and is currently working on Natural Language Processing research while being a part of FSU Swimming and Diving Varsity Team. Since spring, he has been conducting research under Dr. Xiuwen Liu at the Department of Computer Science. Upon graduation, Daniel would like to continue research in the Machine Learning and Natural Language Processing field while obtaining a PhD in Computer Science. His career goal is to make computers literate - enable them to comprehend and generate human language.

ALEX DUC CAO is from Destin, Florida, and is a junior, graduating with his degree in Food and Nutrition in May 2019. Alex’s project has been conducted with the help of his Textile Science professor, Dr. Meredith McQuerry, here at Florida State University and at the University of Kentucky.

ALEX DUC CAO is in the final year of his Bachelor of Music in Composition and is currently completing his honors thesis; he composed the majority of this work under the guidance of the late Dr. Ladislav Kubik. He currently studies composition with Dr. Stephen Montague. After graduation, Isaac plans to pursue a Master of Music in Composition and to continue his work in interdisciplinary collaborations between artists.

V ALENTINA CEA SALAZAR, a senior at FSU, is currently majoring in Psychology with a double major in Spanish. She became involved in undergraduate research at the end of her sophomore year in the Biomedical Sciences Department under Dr. Cathy Levenson and is now currently working on an honors thesis. After graduation she will continue her research in traumatic brain injury while pursuing a PhD degree in neuroscience. Her career goal is to become an independent investigator in the neuroscience field while teaching in a research university.
ASHLEY MACKENZIE DAWDY is in her final year of Biological Science and is currently working on her honors thesis for the Marine Biology Honors in the Major program. She has been working with Dr. Dean Grubbs’ elasmobranch research group at the FSU Coastal and Marine Laboratory since her first year at FSU. She is also a scientific diver, often assisting other students and faculty with various research projects. Upon graduation, Ashley would like to pursue a master’s degree in Marine Biology and a career involving marine research.

JACOB DVORAK is in his third year pursuing a BA in Philosophy and Classics from FSU. He has conducted research supervised by Dr. Svetla Slaveva-Griffin since his freshman year and studies virtue ethics and ancient philosophy with a focus on Plato and Neoplatonism. He hopes to develop his reading of Plato’s dialogues and ethics upon graduation.

GRACE ELIZABETH MICHAELS, a third-year student pursuing degrees in International Affairs and Russian Language and Literature, is currently working on her honors thesis. This past summer, she conducted research internationally under Dr. Nina Efimov in the Department of Russian and Eastern European Studies. Upon graduation, Grace would like to obtain a PhD. Her career goals are varied, as she hopes to work for the Department of State, continue conducting research within various think tanks, and eventually contribute to relevant journals, publications, and news outlets.

ANDREW OLSSON is a senior in the Department of Chemistry and Biochemistry at FSU, performing research in photo-chemistry under Dr. Kenneth Hanson. He started his time at FSU as a biology major doing research in Ecology but kindled a passion for chemistry in the later years of his college career, prompting him to switch majors. Upon graduation, Andrew plans to attend graduate school to obtain a PhD in Chemistry with aspirations of continued work in the field of renewable energy.
JENNA NOEL POPE, a native of Norman Park, Georgia, graduates this December with a degree in History. She previously attended Abraham Baldwin Agricultural College before transferring to FSU in Spring 2017. An honorary local in Thomasville, her research on the city came to fruition in the form of an honors thesis under the direction of Dr. Katherine Mooney. Jenna hopes to continue her research on the historical memory of slavery at the doctorate level. As a future teacher, she aspires to make history relevant and accessible to rural students.

MUHAMMAD E. RASUL is a senior double majoring in Media Communication Studies and Psychology. Although he is a Tallahassee resident, Rasul is originally from Pakistan. He has been conducting research since 2016 while he was a part of the Undergraduate Research Opportunity Program. He first received the IDEA grant in 2017 for his project on political cartoons in India. Rasul has presented his research at national and international conferences, such as the IAMCR conference in Leicester in 2016 and the ICA conference in Prague in 2018. Upon graduation, Muhammad would like to continue his research while obtaining a PhD in Media Psychology.

SARIT SANDLER, from Jacksonville, Florida, is in her final year of Digital Media Production and is currently working on her honors thesis. Sandler has worked with production companies across the country on a variety of projects such as feature independent films, music videos, commercials, short films, and documentaries. She recently launched her own production company, MangoSoul Productions. Sandler focuses on producing unique revolutionary content to stimulate acceptance, change, and understanding of all people. Her career goal is to create films that tell compelling and inspiring stories—to inform, educate and entertain.

MADELENE WISHART is from Stuart, Florida, and is in her senior year of Studio Art. She has been conducting research under the supervision of Assistant Professor Rob Duarte in the Department of Art. While pursuing a dual degree in Environment and Society, her art practice broadly investigates the significance of geography and ecology to the development of social relationships. Madelene hopes to continue working in sculpture fabrication upon graduating with her BFA.
The FSU iGEM TEAM is the University’s representative in the annual International Genetically Engineered Machines Competition, the premiere student competition in synthetic biology. The team is being led by Ian Schlander and Associate Team Leader Alexandra Kata. The Create team is made up of Daniela Quijano (Team Lead), Luis Millares, and Christopher Cruz. The Design team is Michael Taylor (Team Lead), Arianna Sigalos, Rollin Scott, and Olamoyo Thomas. The Human Practices team includes Jessie Griesheimer (Team Lead) and Arian Rastgou with Nedgie Paul and Benjamin Cynamon acting as Fundraising and Electronic Communication Leads, respectively.
**“IN A SLEEPIER CENTURY”: COLLABORATION AND ART AS HEALING**

**ISAAC BARZSO**

David B. Ford Undergraduate Research and Creative Activity Award

SUPERVISORY PROFESSOR: DR. EVAN JONES

I approached this work with a simple goal at the beginning: to create a piece for dancers and musicians. I began, following that simple start, with a ballet loosely based around Virgil’s book-length poem “The Georgics”; consulting various analyses of the poem, I read it as an exploration of using one’s work (in the case of “The Georgics”, agriculture) to deal with loss in one’s life. However, after a lengthy period of thoughts, discussions, and composing, my composition mentor, Ladislav Kubík, passed away. I found myself using my work to get through my loss; a work that I had created on the theme itself of working through loss. The piece then became much more of a rumination on how the journey of writing this piece would help me than a rumination on the subject itself. Artists often tend to use their work to deal with their lives, and I decided that I wished to deal with this idea head-on (leaving the Virgil component behind). Upon finishing the music, scored for chamber orchestra, I began working with choreographers Ben Howard and Holly Stone in order to add dance that complemented my artistic ideas and themes and with conductor Dan Smith to put together the performance. In November 2018, I will complete the project with a performance of the full twenty-minute work at FSU.

**DARTS: DEPENDENCY AWARE REINFORCED TEXT SUMMARIZATION USING TREE-STRUCTURED LSTM ENCODER WITH MULTI-LEVEL ATTENTION**

**DANIEL BIS**

Nancy Casper Hillis and Mark Hillis Undergraduate Research Award

SUPERVISORY PROFESSOR: DR. XIUWEN LIU

Automated text summarization is an important problem because of the abundant textual information in the huge number of digital documents. Most of them are unstructured. Processing documents is, therefore, a perfunctory task. Improving the techniques of text summarization has practical applications in condensing articles, thus reducing the reading time and making article selection easier, making search queries more accurate based on their actual meaning, and increasing the number of textual data being processed. Furthermore, automatic summarization algorithms are more objective than human summarizers and can lead to more effective systems for legal and other document understanding and processing. One of the elementary tasks in Natural Language Processing (NLP) is Dependency Parsing - converting a sentence into a tree-structured graph representing dependencies between words. Furthermore, Tree-Structured Long Short-Term Memory Network (LSTM) showed promising results in various NLP tasks, among others, sentiment analysis, showing that Dependency Tree sentence representation should be superior to linear sentence representation, as it better captures the relations between words in a text. Motivated by recent progress in Dependency Parsing accuracy, I incorporated Tree-Structured LSTM into my Summarization Model, to emulate the Dependency Tree sentence representation. Furthermore, I incorporated multi-level attention to enable my model to focus on the correct parts of the text. Finally, my model learns to summarize text through a mixed loss function, combining Negative Loss Likelihood and Reinforcement Learning. In the result, the model learns not only from training examples, but also from own mistakes.
ABILITY OF SURGICAL GOWNS TO MEET INDUSTRY STANDARDS CONCERNING IMPACT PENETRATION, HYDROSTATIC PRESSURE AND DURABILITY PERFORMANCE ACROSS THEIR LIFESPAN

ALEX DUC CAO

ACC Creativity and Innovation Fellowship

SUPERVISING PROFESSOR: DR. MEREDITH MCQUERRY

The Ebola crisis of 2014 has become a faded memory with current issues receiving the media spotlight. The virus claimed the lives of over 11,000 people, and among this number were over 500 healthcare personnel. Surgical gowns worn when treating patients with the Ebola virus were found to be defective, allowing fluids to permeate through the gowns. The primary objective of my research was to ensure that surgical gowns on the market today are passing the appropriate industry tests as set forth by the Association for the Advancement of Medical Instrumentation (AAMI). My secondary objective was to perform the same tests on reusable surgical gowns after 1, 25, 50 and 75 wash cycles, to ensure that they continue to meet industry standards even after the harsh laundering surgical gowns necessitate. All gowns, both disposable and reusable, were also tested on several other textile test methods including air permeability, breaking strength, and tearing abrasion resistance.

EFFECT OF TRAUMATIC BRAIN INJURY IN A MODEL OF ATTENTION DEFICIT HYPERACTIVITY DISORDER

VALENTINA CEA SALAZAR

Scott & Ina McNichols Undergraduate Research Award

SUPERVISING PROFESSOR: DR. CATHY LEVENSON

Attention Deficit Hyperactivity Disorder (ADHD) can interfere with daily life due to inattention, impulsivity, and hyperactivity. With proper treatment, ADHD may be manageable. However, new studies have shown that this disorder can increase the risk of concussions. Mild traumatic brain injury (mTBI), or concussion, can cause a number of post-concussive symptoms such as depression, anxiety, and headaches. Repetitive concussion appears to have more severe effects and can produce permanent brain damage. We hypothesize that brain injury in the form of repetitive concussion exacerbates the behaviors associated with ADHD, making recovery from concussion and ADHD treatment more difficult. To test this hypothesis, I will use a well-established mouse model of ADHD produced by nicotine administration. Pregnant mice will be given nicotine in their water during gestation and throughout lactation. When the mouse pups grow to adulthood (60 days of age), they will then receive concussions under anesthesia. Behavioral testing for attention, depression, and working memory before and after TBI will enable us to determine the degree to which repetitive concussion exacerbates the symptoms associated with ADHD. My long-term goal for this work is to collect data that will impact the treatment of ADHD and concussion.
PRESENTATION ABSTRACTS

GO WITH THE FLOW: THE EFFECT OF FLUCTUATING RIVER FLOW, SALINITY, AND TIDAL CYCLES ON THE ACTIVITY PATTERNS OF BULL SHARKS (CARCHARHINUS LEUCAS) AND BONNETHEADS (SPHYNRA TIBURO)

ASHLEY MACKENZIE DAWDY
Helen Louise Lee Undergraduate Research Award
SUPERVISING PROFESSOR: DR. R. DEAN GRUBBS

Apalachicola Bay is a biodiversity hotspot that houses many economically and ecologically important species of fishes and invertebrates. Since this bay is the terminus of a watershed that drains multiple states, and, therefore, a high impact area for anthropogenic activity, it is important to monitor its overall health in order to protect the important species in the area. One way to survey ecosystem health is to analyze the fine-scale movements and habitat use of top and intermediate ecosystem predators. Bull sharks (Carcharhinus leucas) are among the top predators in Apalachicola Bay and have a broad salinity tolerance ranging from freshwater to full seawater. In this study, bull sharks and bonnethead sharks (Sphyrna tiburo) were tracked using active and passive acoustic telemetry. Individuals were tagged with active and passive transmitters simultaneously and actively tracked for 52 hours. Passive tracking tags remained and were detected by fixed listening stations for years after active tracking was complete. Locations of individuals throughout time were compared to maps of sea floor substrata of the area from Florida Fish and Wildlife Commission (FWC) to reveal their habitat use throughout the bay and the river, as well as to be compared to salinity data in order to determine if their movement patterns were driven by tide or water influxes. Understanding the spatial use patterns of these ecologically relevant species allowed for better regulation of human impact in surrounding areas in order to protect many species in Apalachicola Bay, including ecologically relevant species and important fishery species.

THE SUMMIT OF THE SOUL: PLATO’S DIAMONIC PSYCHOLOGY

JACOB DVORAK
Scott & Ina McNichols Undergraduate Research Award
SUPERVISING PROFESSOR: DR. SVETLA SLAVEVA-GRIFFIN

Plato defines daimons as intermediaries between humans and the gods, and calls them the summit of the human soul. What does he mean by calling part of the soul a daimon, and how does this affect his psychology and ethics? Based on research conducted at the Plato Centre at Trinity College, Dublin, I examined how the daimon was involved in Plato’s psychology, ethics, and metaphysics, and explored Plato’s views of the role of philosophy and philosophers in the community. I argued that, for Plato, daimons represent reason and illustrate the role rationality plays for humans in guiding, but not defining, moral thought. This reading of Plato and of the daimon follows the work of classicists Gregory Shaw, Pierre Hadot, and Werner Jaeger, and has much in common with approaches in contemporary virtue ethics established by Alasdair MacIntyre and Julia Annas. My work carried implications for the role of moral disintegration, moral learning, and moral community in the modern ethical experience, and concluded that ancient beliefs and images, from the feathered soul to the guardian spirit, have more bearing on modern issues than contemporary philosophy would suggest.
THE SACRED IN A POST-SOVIET SPACE: THE EFFECTS OF MODERNIZATION AND COMMERCIALIZATION ON THE BURYAT PEOPLES

GRACE ELIZABETH MICHAELS

Garnet and Gold Scholar Society IDEA Grant

SUPERVISING PROFESSOR: DR. NINA EFIMOV

Following the collapse of the Soviet Union, the birth of the Russian Federation was met with uncertainty. The international community paid special attention to the capitalistic transformations of Moscow and of St. Petersburg. Industry, investment, and the influence of western culture facilitated Russia’s economic growth and global incorporation. This summer, I investigated the effects of this economic transition on the indigenous Buryat peoples of southeastern Russia. Specifically, I examined the effects of tourism on the indigenous economy and the consequent commercialization of sacred lands, religious traditions, and cultural practices. I approached the topic with a simple methodology and an applied knowledge of area-specific religious and cultural tradition, geography, and language. The research began with the creation of a continuous literature review to gather information about the changing geographic and cultural landscape of the Buryat peoples. The gathered scholarship guided the creation of a universal questionnaire centered on the modernization and commercialization of the region and culture. Upon arrival at the southeastern cities of Irkutsk, Listivanka, and Olkhon Island, my supervising professor and I accrued local testimony about the aforementioned modernization and commercialization. We utilized the questionnaire and conducted interviews in Russian with Buryat peoples of varied socioeconomic and professional backgrounds. I recorded their responses, and I created a cataloged sample-sized oral history of the thoughts and opinions of people directly affected, supplemented by a compilation of existing scholarship. Moving forward, I hope for this to act as a pilot project in a continual effort to catalog and compare indigenous experience when met with commercializing vicissitude.

IMPROVING UPCONVERSION EFFICIENCY USING OXYGEN SCAVENGING

ANDREW OLSSON

Professor Jack Saltiel Undergraduate Research Award

SUPERVISING PROFESSOR: DR. KENNETH HANSON

Solar energy has gained widespread attention as a viable, green, alternative to fossil fuel generated energies. The benefit of solar technology is the ability to harvest energy from a renewable source of light; however, a drawback for current solar cells is their inability to harvest low energy light. A potential solution for this issue is photon upconversion (UC) whereby two molecules, a sensitizer and an acceptor, take low energy photons and combine them to form a higher energy state which can be harnessed as electrical energy. Typical UC solar cells are tested in deoxygenated solvent, but it has been shown by the Hanson research group that efficient low energy photon upconversion can be achieved with the molecules linked in a bilayer configuration to a semiconductor metal oxide film. An issue arises when low energy oxygen molecules enter the solar cell system and quench the energy transfer processes that allow for the upconversion to take place. In this project I used oleic acid (OA), a known oxygen scavenger, as well as various other supposed oxygen scavenging solvents to see if efficient and robust photon upconversion could be achieved and maintained in samples containing aerated solvent after photochemical deoxygenation has taken place. I utilized a variety of spectroscopic techniques to characterize the effects of the solvents on the cells and hope that this research adds to the larger body of work dedicated to creating more efficient solar technologies.
HOW THE ROSE CITY ROSE TO POWER: RECONSTRUCTION, REDEMPTION, AND REMEMBERING IN THOMASVILLE

JENNA NOEL POPE

Scott & Ina McNichols Undergraduate Research Award

SUPERVISING PROFESSOR: DR. KATHERINE MOONEY

This case study examined Thomasville, Georgia - a seemingly quiet southern town with a history that speaks volumes. After the Civil War, Thomasville went for broke and broke the mold in the 1870’s, popularizing itself as a health resort for pulmonary patients in the North. By the 1890’s, Old South cotton plantations transformed into northern-owned hunting plantations, retaining the plantation title and the black labor force. While these changes seemed to occur naturally, New South engineers anticipated the town’s success as the result of efforts put forth by one Confederate-steeped family and a black workforce dedicated to supporting the needs of visiting northerners. White northerners and black southerners performed a recitation of plantation life that emulated the Old South and reinforced toxic labor patterns. Home to roughly seventy plantations today, Thomasvillians literally live in the past, but shroud themselves in their progressive rhetoric. The skeleton of the physical and social infrastructures, built to maintain this idyllic state, still remains and provides evidence of disparity that undermines the progress Thomasville purports to project.

MORAL DISENGAGEMENT STRATEGIES AND WAR ON TERROR: A CONTENT ANALYSIS OF THE ELITE PAKISTANI AND AMERICAN ENGLISH NEWSPAPERS

MUHAMMAD E. RASUL

SUPERVISING PROFESSOR: DR. ARTHUR RANEY

The portrayal of violence and conflict in news media may justify violence and morally disengage audiences by using euphemistic language and dehumanizing the enemy. Especially in times of conflict, moral disengagement leads to widespread brutalities, and principles guiding social justice are totally changed. Moral exclusion leads to psychological distancing, displacement of responsibility, ethnocentrism, and glorification of violence in a society, which could culminate in pervasive unrest and tension among individuals and groups. This study examines the use of moral disengagement strategies in elite English Pakistani and American newspapers, which opposed terrorism in the name of religion and supported war against extremist groups. The study is significant as elite English newspapers wield widespread influence on policymakers and citizens and the newspaper content changing public opinion on an important international issue. Using Bandura’s moral disengagement theory, this study fills a critical gap in academic literature by analyzing the moral disengagement strategies used by Pakistani and American elite English newspapers during December 2014 to December 2017.
THE RISE DOWN-UNDER: THE RISE OF ANTI-SEMITISM IN AUSTRALIA

SARIT Sandler
ACC Creativity & Innovation Fellowship
SUPERVISING PROFESSOR: DR. MALIA BRUKER

With the increase of hate crimes around the world, the discussion often leaves out the issue of anti-Semitism. As the number of Holocaust survivors decrease, there seems to be a parallel in the increase of anti-Semitism. The documentary research film “The Rise-Down Under” explores the rise of anti-Semitism in Australia through the eyes of Holocaust survivors, Jewish leaders, and students. The film provides insight into how Jewish communities in Australia are learning to cope and respond to these acts of hate based on generational wisdom and tradition. The documentary investigates Australian Jewry through the eyes of various generations, highlighting the importance of Jewish communities and families coming together in times of fear. While the efforts of Holocaust institutions to commemorate survivors are remarkable, this project is meant to expand on the work of these institutions with a short film that can be seen around the world and tie current-day issues with the past. With interviews of Jewish community members, Holocaust survivors, university students, and historians, this documentary can be a part of our history and help educate the world. Overall, this film was created to advocate for social justice and educate through the art of film.

SCULPTING SOUTH FLORIDA

MADELENE WISHART
Fred & Debbie Tresca Global Scholars IDEA Grant
SUPERVISING PROFESSOR: ROB DUARTE, MFA

In recent years there has been a surge of ecological issues across the South Florida waterways. Faults in water drainage designs have created massive blooms of algae that release toxins into the air and water. Through the lens of environmental sociology, this research investigates how solutions proposed to mitigate the ecological crisis are complicated by the political, economic, and cultural barriers. It aims to ask why solutions are difficult to find and execute by examining cultural perceptions of the environment and our relationship to it. The first phase of the project was to research different sociological theories to frame current solutions to environmental crises. With these as a frame, I traveled along the flow of water, documenting the cultural and ecological landscape. I attended multiple events and public meetings on the topic to examine what factors influence the solutions proposed by the government and residents. The research took the form of a sculptural art installation that aimed to visually investigate the significance of the individual’s relationship to the environment in solving these issues. Throughout the making process, I considered questions of positionality and geography in the social construction of landscapes. The large-scale art installation mimics the biogeography of the area while reflecting on the fracturing relationship between people and the land due to ecological contamination. I further seek to investigate whether the significance of the environment in our daily life is being diminished as we spend more time within digital space that is devoid of geographies, time, and place.
SOUND ACTIVATED ENGINEERED CELLS

INTERNATIONAL GENETICALLY ENGINEERED MACHINES TEAM (iGEM)

SUPERVISING PROFESSOR: DR. CESAR RODRIGUEZ

It is routine to trigger the production of a protein in engineered E. coli using a small molecule such as arabinose, lactose, and rhamnose. Our project is focused on answering the question, “Can sound be used to induce gene expression in engineered E. coli?” Prior iGEM projects demonstrated that sound can be used to activate eukaryotic cells. Review of the scientific literature revealed projects where exposing E. coli to sound correlated with more vigorous growth in cell cultures and increased production of proteins. In 2008, the University of California, Berkeley (UC Berkeley) iGEM team contributed five genetic parts to the iGEM community. The genetic parts were derived from DNA sequences found upstream from genes that were potentially upregulated when the cells were exposed to sound. The UC Berkeley iGEM team was unable to demonstrate definitively that the genetic parts could be used as sound inducible promoters of gene expression. We decided to build on their work. We designed, analyzed, built, and tested new genetic devices that include the genetic parts from UC Berkeley and new genetic parts developed by the FSU iGEM team intended to detect sound and trigger the expression of reporter proteins. Members of the FSU iGEM team also investigated the potential positive and negative impacts of sound activated gene expression in engineered cells. Today, we will report on the potential impacts of our technology along with the design and performance of the new genetic devices.
THE DORSET CHRONOTOPE: AN ECO-CRITICAL READING OF THOMAS HARDY’S “JUDE THE OBSCURE” AND “THE MAYOR OF CASTERBRIDGE”

DAVID ADVENT

Phi Eta Sigma Undergraduate Research Award

SUPERVISING PROFESSOR: DR. BARRY FAULK

David Advent, a North Carolina native, is an honors English Literature and International Affairs double major in his fourth year at FSU. He is currently working on his honors thesis under the direction of Dr. Faulk in the English Department. He holds many campus positions that promote the visibility and accessibility of undergraduate research: these include being a UROP Leader and the Assistant Director of the Student Council for Undergraduate Research and Creativity (SCURC). Upon graduation, David would like to pursue a PhD in English Literature with a subsequent career goal of being a professor.

MOLECULARLY IMPRINTED POLYMER-BASED SENSOR FOR THE DETECTION OF PORCINE HEMOGLOBIN IN FOODS

JONATHAN ALBO

Garnet and Gold Scholar Society IDEA Grant

SUPERVISING PROFESSOR: DR. QINCHUN RAO

Jonathan Albo is in his junior year as a Chemical Engineering student. For the past year, he has worked in Dr. Qinchun Rao’s food science lab, which focuses on improving food safety and quality, in an effort to develop detection sensors to combat food fraud. He hopes to bring a different approach to solving various issues in the food industry by coupling his chemical engineering background with his desire to improve the quality of foods we eat. Jonathan plans to pursue his master’s degree in Chemical Engineering while continuing his research to combat food fraud.

USING DROSOPHILIA TO MODEL CANCER RESPONSE TO CHANGES IN AMINO ACID TRANSPORT

NOAH BARTFIELD

SUPERVISING PROFESSORS: DR. WU-MIN DENG

Noah Bartfield is a sophomore Biochemistry major from Orlando, Florida, and has conducted research under Dr. Wu-Min Deng since the beginning of his freshman year. Noah is a member of the 2017 FSU Presidential Scholars, the University Honors Program, and the Academic Recruitment Organization (ARO), where he regularly works to recruit high-achieving high school students to the university. Noah’s current postgraduate plans are to attend an MD-PhD program and ultimately work to better the standard of cancer treatment in the medical community.

METABOLIC ACTIVITY OF A SPONGE ENDEMIC TO THE NORTHERN GULF OF MEXICO

ISABELLE BASDEN

SUPERVISING PROFESSOR: DR. JANIE WULFF

Isabelle Basden is in her final year of Biology and will graduate with honors in Marine Biology. She is currently working on her honors thesis under the supervision of Dr. Janie Wulff. Isabelle hopes to utilize the skills she has gained from her time at FSU to pursue a PhD in Marine Biology. Her career goal is to run a lab that conducts marine conservation and ecology research.
POSTER PRESENTER BIOS

THE EFFECT OF MICROPLASTIC ON THE THERMAL PROFILE OF SEDIMENT: IMPLICATIONS FOR SEA TURTLE NESTING SITES

VALENCIA BECKWITH

Garnet and Gold Scholar Society IDEA Grant

SUPERVISING PROFESSOR: DR. MARIANA FUENTES

Valencia Beckwith is in her final year of Biological Science and is currently working on her Honors in the Major Thesis. Since summer 2017, she has been conducting research under Dr. Mariana Fuentes at the Department of Earth, Ocean and Atmospheric Science. She achieved her first publication last April on microplastic at sea turtle nesting grounds. Valencia would like to continue conducting research on sea turtles while earning a doctorate in Veterinary Medicine. Her career goal is to be an aquatic veterinarian and assist in the rescue, rehabilitation, and release of sick and injured marine animals.

BARRIERS TO SEXUAL HEALTH EDUCATION AND ACCESS TO WOMEN’S HEALTHCARE IN CUSCO, PERU

KYLIE BEGIN

Fred & Debbie Tresca Global Scholars IDEA Grant

SUPERVISING PROFESSOR: DR. MANDY BAMBER

Kylie Begin, from St. Petersburg Florida, is in her second year at FSU and currently working towards achieving her Bachelor of Science in Nursing. This summer, she has conducted research under Dr. Mandy Bamber at the College of Nursing in order to look at the barriers women face in having access to sexual healthcare and sexual health education while working with an NGO that focuses on healthcare in Cusco, Peru. In the future, Kylie would like to continue research on women’s health to improve sexual health education and awareness. Her career goal is to become a traveling nurse midwife abroad and continue working to improve the conditions surrounding sexual health for women globally.

CHEMNOBYL: THE LEGASOV SYNDROME

COLBY BLACKWILL

SUPERVISING PROFESSOR: DR. JAMES KIMBRELL

Under the supervision of Dr. James Kimbrell, Dr. Valliere Richard Auzenne, and Dr. Skip Horack, Colby Blackwill is in his final year of Creative Writing and is currently working on his honors thesis about Chernobyl and the social effects which resulted from the accident. Colby traveled to Ukraine and interviewed the “self-settlers” of the Chernobyl Exclusion Zone and had a question to ask: How do you define “home”? After graduation, Colby wants to continue his studies and obtain a master’s degree in Film. In the future, he aspires to be a cinematographer as well as direct documentaries.

THE NATIONAL OUTDOOR LEADERSHIP SCHOOL: STORIES FROM THE BACKCOUNTRY

TRAVIS BURHART

Garnet and Gold Scholar Society IDEA Grant

SUPERVISING PROFESSOR: DR. KATHY GUTHRIE

Travis Burhart is a third-year Environment & Society major from Franklin, Tennessee. After his freshman year, he enrolled in a Pacific Northwest Backpacking course through the National Outdoor Leadership School. During the summer of 2017, his course spent 31 days trekking through the North Cascades Range of Washington state, learning a variety of technical skills and leadership theories. His month in the mountains inspired him to spend this summer studying storytelling in outdoor education. Following graduation, he hopes to pursue a career in environmental communications to share stories that encourage others to pursue a life outside.
LET’S FEED THE STARVING ARTIST: CREATIVE ENTREPRENEURSHIP COURSE

TALISE BURTON

Garnet and Gold Scholar Society IDEA Grant

SUPERVISING PROFESSOR: DR. MEREDITH HAND

Talise Burton is a senior Creative Writing major and Entrepreneurship minor. As a sophomore Undergraduate Research Opportunity Program participant, Talise conducted research on creative entrepreneurship pedagogy under Dr. Meredith Hand. Her interest in the subject led her to complete an internship with Dr. Hand, present her research at the Florida Undergraduate Research Conference, and educate students as a UROP Leader. With the support of an IDEA Grant this summer, Talise composed a syllabus for an arts entrepreneurship course she hopes to implement at FSU. Upon graduation, she aspires to develop an arts entrepreneurial venture and advocate for arts entrepreneurship education.

EFFECTS OF SOCIAL REJECTION ON SUICIDE: A PILOT EXPERIMENT USING A VIRTUAL REALITY APPROACH

KENSIE FUNSCH

Garnet and Gold Scholar Society IDEA Grant

SUPERVISING PROFESSOR: DR. JOSEPH FRANKLIN

Kensie Funsch, a senior Psychology major, became interested in studying suicide and depression after her time volunteering at 211 Big Bend, a local crisis hotline. She sought out a research assistantship in Dr. Joseph Franklin’s lab studying self-injurious thoughts and behaviors and has held the position since Fall 2017. She is currently completing an honors thesis investigating the relationship between social rejection and suicidal behavior. After graduating, Kensie plans to pursue a PhD in Clinical Psychology and continue her research on suicide and self-injury.

THE PRESENTATION OF VISUAL DETAILS IN MODERN AUDIO DRAMA, 2012-2017

ERIN CHRISTOPHER

ACC Creativity & Innovation Fellowship

SUPERVISING PROFESSOR: DR. BARRY FAULK

Erin Christopher, a third-year Presidential Scholar from Lexington, Kentucky, is presenting her creative project as part of her honors thesis in Creative Writing. Since Spring 2018, she has conducted research on audio drama (fiction podcasts) under the guidance of Dr. Barry Faulk in the Department of English. After graduation, Erin would like to pursue a Master of Fine Arts in Screenwriting or obtain a professional writing job. She hopes to make a career writing full-time for film and television.

THE ROLE OF AIR-SEA COUPLING IN THE SUPERSTORM OF 1993

CAITLYN A. GILLESPIE

SUPERVISING PROFESSOR: DR. VASU MISRA

Caitlyn Gillespie, a Michigan native, is entering her final year of the Meteorology program and is currently working on her honors thesis. She has been conducting research under Dr. Vasu Misra at the Center for Oceanic and Atmospheric Prediction Studies. Throughout her time at FSU, Caitlyn has interned in the State Meteorological Unit at the Florida Division of Emergency Management and has been an executive board member of FSU Sailing and the local chapter of the American Meteorological Society/National Weather Association. Upon graduation, she would like to continue research in the atmospheric and oceanic sciences while pursuing a master’s degree.
POSTER PRESENTER BIOS

REFLECTIONS OF WHITEWASHING IN SOUTHERN ARCHITECTURE

KASEY GRACE

ACC Creativity & Innovation Fellowship

SUPERVISING PROFESSOR: ANNE STAGG, MFA

Kasey Grace is a post-baccalaureate student completing her Bachelor of Fine Arts in Studio Art. For the past year, she has been completing her honors thesis project under Anne Stagg in the College of Fine Arts. Her research focuses on the minutia between socio-economic relationships and race in the United States. After graduating, she hopes to continue making work discussing current social issues while completing her Master of Fine Arts, eventually establishing a career in academia where she can both pursue her art and teach.

CONSERVATION WORLDWIDE: AN ANALYSIS OF PROTECTED AREA IN DIFFERENT POLITICAL SYSTEMS

MATTHEW HEBRON

Robert and Mary Frappier Undergraduate Research Award

SUPERVISING PROFESSOR: DR. ERIC COLEMAN

Matthew Hebron is a fourth-year student who has been involved with academic research throughout his career at FSU. Beyond various research projects in the College of Communications (starting as an Undergraduate Research Opportunity Program student), he now is conducting his Honors in the Major project with Dr. Eric Coleman in the Political Science Department. Upon graduation, Matt aspires to a career in public service, particularly in diplomacy.

ACETYLCHOLINESTERASE AND VX: USING GIBBS FREE ENERGY TO INCREASE THE EFFICIENCY OF ACETYLCHOLINESTERASE REACTIVATORS

VICTORIA LI

SUPERVISING PROFESSOR: DR. WEI YANG

Victoria Li is a native Tallahassee resident and is currently a second-year Chemistry major. Since the beginning of summer, she has been conducting dry lab research under the supervision of Dr. Wei Yang. In the future, Victoria would like to continue research with Dr. Yang and eventually pursue a doctorate in Chemistry.

MUCH ADO ABOUT MACHINE LEARNING

CAROLYN LINEHAN

Phi Eta Sigma Undergraduate Research Award

SUPERVISING PROFESSOR: DR. PAUL VAN DER MARK AND DR. PRASAD MADUMAGE

Carolyn Linehan, an honors student in her third year, is studying Finance and Management Information Systems. For the past year, she has worked under Dr. Paul Van Der Mark and Dr. Prasad Maddumage conducting research on machine learning and data mining in the Research Computing Center. She is excited to intern in Charlotte next summer as a Financial Advisory Consultant. Post-graduation, Carolyn would like to pursue Financial Advisory or Technology Management Consulting.
CUTTLESOFT: A CASE STUDY ON THE TRANSITION FROM STUDENT TO ENTREPRENEUR

DEMARCO LOCKHART

FSU Tech Fellows

Demarco Lockhart, a Fort Lauderdale native, is in his final year of Information Communication Technology. Demarco was privileged enough to be selected to participate in the Tech Fellows Program this summer. During his tenure with Domi Station and Cuttlesoft he also conducted research on why more students are opting to become entrepreneurs. Upon graduation, Demarco would like to work for a multinational corporation and eventually transition into becoming an entrepreneur.

IMPACT OF CULTURE IN STARTUPS AND ENTREPRENEURIAL ECOSYSTEMS

MIA MERCADO

FSU Tech Fellows

Mia Mercado, an Ocala resident, is in her final year of studying Information, Communications and Technology. Since the beginning of the summer, she has been conducting research during her internship with 500 Startups in Miami. Upon graduation, Mia would like to move to Miami to continue to help support and connect Latin America and the Southeast US ecosystems. Her career goal is to focus on the communications aspect of the tech community while also traveling internationally.

CRIME ONLINE: EVALUATING BUSINESS TYPOLOGIES THAT INCREASE THE VULNERABILITY TO CYBERCRIME

NATHEN MERGEN

SUPERVISING PROFESSOR: DR. GEORGE PESTA

Nathen Mergen is an out-of-state sophomore studying Criminology. Since the spring semester of 2018, he has studied the vulnerability of United States businesses to cyberattacks, under Dr. George Pesta (College of Criminology and Criminal Justice). As an FSU Service Scholar, Nathen volunteers often at the Leon County Sheriff’s Office Community Relations Department to encourage healthier relationships between police and minority communities.

ALTERATIONS IN THE STRUCTURE AND FUNCTION OF THE BRAIN IN RESPONSE TO A HIGH FAT DIET

TYSON MURRAY

Stephen Madden Undergraduate Research Award

SUPERVISING PROFESSOR: DR. GREGG STANWOOD

Tyson Murray, a Tallahassee native, is in his senior year at FSU. He is majoring in Biochemistry and Biomathematics. Over the past year he has worked under Dr. Gregg Stanwood at the FSU College of Medicine. Tyson is an Honors Colloquium leader and competes for FSU in cross country and track and field. He plans to enter medical school upon graduation with the goal of becoming a pediatric surgeon.
POSTER PRESENTER BIOS

NEXT GENERATION OF ENTREPRENEURIAL SUPPORT AND IDENTITY BASED DISPARITIES

ISIAH PARFAIT
FSU Tech Fellows

Isiah Parfait is in his final year of Spanish Business and has specialized himself in the entrepreneurial ecosystem in the Florida community and abroad. This summer, Isiah has been conducting research with the support of FSU Tech Fellows. Upon graduation, Isiah would like to engage himself in design thinking and intrapreneurship. Isiah hopes to improve private ownership among marginalized communities, helping others by implementing social justice theory in his praxis.

IMPACTING DIVERSITY IN TECH

FABUOLA PIERRE
FSU Tech Fellows

A junior majoring in Information Communication Technology, Fabuola was chosen to be a part of FSU’s Tech Fellows program spending her summer interning at the Tampa Bay Wave. The company, which is a nonprofit entrepreneurial hub for tech startups, received a grant from the Nielsen Foundation to support minority/women/veteran/LGBTQ owned businesses through the TechDiversity program. Pierre examined the program’s impact on the community and as a whole to provide insight on diversity in tech.

MODELING PHEOCHROMOCYTOMA AND PARAGANGLIOMA IN DROSOPHILA

JUAN-MARTIN PORTILLA
SUPERVISING PROFESSOR: DR. WU-MIN DENG

Juan-Martin Portilla is completing his final year of Biology and his honors thesis in Dr. Wu-Min Deng’s lab. He has been involved in the Deng lab since his sophomore year. After graduating, he would like to continue research in the field of cancer while obtaining a PhD in Molecular Biology. His ultimate goal is to not only contribute to our current understanding of cancer, but to also eventually begin his own biotechnology company.

NONPROFIT ORGANIZATIONS AND THE COLONIES OF THE RIO GRANDE VALLEY

ATALYA SANTOS
ACC Creativity & Innovation Fellowship

SUPervising professor: Dr. Lisa Turner De Vera

Atalya Santos, a resident of Broward County, is entering her third year of her undergraduate career. Since the beginning of her sophomore year, she has been doing research under Dr. Turner De Vera at the College of Urban and Regional Planning for her documentary about Colonias. Located along the United States-Mexico border, Colonias are characterized by poverty and extreme government neglect. Through the documentary medium, she hopes to uncover the cultural richness of the Rio Grande Valley, where the highest concentration of Colonias exists. Upon graduation, her goal is to pursue a career in journalism.

SICKNESS OR STATUS?: ANALYZING SOCIAL INFLUENCES ON THE DISTRIBUTIONS OF MEDICINE IN THE 17TH CENTURY MEDICI COURT PHARMACY

MICHELA SIEMAN
John W. Day, III Undergraduate Research Award

Supervising professor: Dr. Silvia Valisa

Michela Sieman is in her third and final year as a History major, minoring in Italian and Hospitality Management. She conducted research this summer at the Archivio di Stato in Florence, Italy, with the Medici Archive Project. She is currently a UROP Leader and the Communications Chair for the Student Council for Undergraduate Research and Creativity. In addition to research, she is passionate about photography and is the President of Phocus Photography. Her long-term career goal is to conduct research as an Imagineer at Walt Disney Imagineering.
LEAF SHAPE VARIATION IN THE CARNIVOROUS PITCHER PLANT SARRACENIA PURPUREA IN RESPONSE TO ENVIRONMENTAL CUES IN THE FIELD AND IN GREENHOUSE EXPERIMENTS

CAROLYN SIZEMORE AND SCARLETT ROY

Garnet and Gold Scholar Society IDEA Grant

SUPERVISING PROFESSOR: DR. THOMAS MILLER

Carolyn Sizemore is a sophomore majoring in Editing, Writing and Media. She hopes to create media that makes environmental information more accessible. Scarlett Roy is finishing up her degree in Biology and is currently completing her senior thesis on Sarracenia purpurea microbial diversity and its effects on the decomposition of insects. She intends on earning a Master of Science in Microbiology once she graduates.

DEVELOPING A PRODUCTION PROCESS FOR AN IMMERSE SIZE THEATRE EXPERIENCE

CARLEE SOEDER

ACC Creativity & Innovation Fellowship

SUPERVISING PROFESSOR: DR. KRIS SALATA

Carlee Soeder, originally from Miami, Florida, will complete her dual degree in Theatre and Media/Communication Studies with a minor in English this coming May 2019. Inspired by Immersive Theatre she saw during her time spent with FSU’s Theatre Academy London (Fall 2017), she has begun practical research to establish a fixed methodology or concrete guidelines to produce an Immersive Theatre Experience. Her ultimate goal is to share with our community this innovative experience of theatre-making and theatre-going. With the help of FSU’s Student Theatre Association, Carlee plans to stage her full Immersive Theatre production in late October 2018.

REGIONAL PLANNERS MITIGATION EFFORTS FOR CONCENTRATED ANIMAL FEEDING OPERATIONS

ALLISON STOCKER

Robert and Mary Frappier Undergraduate Research Award

SUPERVISING PROFESSOR: DR. CHRISTOPHER COUTTS

Allison Stocker, in her final semester of a Political Science degree, has utilized her IDEA Grant to pursue a research project in Urban and Regional Planning. She began working in research through the Undergraduate Research Opportunity Program, and is currently working with Dr. Chris Coutts on planning research. Allison is committed to sustainable agricultural practices and promoting environmental integrity through the built environment and local planning. After graduation, Allison intends on pursuing a graduate degree in Urban Planning at Florida State and hopes to continue to develop her research.

INVESTIGATING SERIAL DEPENDENCE AS AN INTERACTION BETWEEN INDIVIDUAL WORKING MEMORY STATES

ROBIN STUART

SUPERVISING PROFESSOR: DR. DEREK NEE

Robin Stuart is in the final year of her Psychology degree. She has been conducting research in the Psychology department since her sophomore year. As an Undergraduate Research Opportunity Program student, she investigated the link between alcoholism and autobiographical memory. She is now a research assistant in Dr. Derek Nee’s lab, where she has spent the past year studying the cognitive processes underlying working memory. After graduating, Robin plans to pursue a PhD in Applied Cognition and Human Factors, with the overall goal of studying the effects of flight on human cognition. Professionally, she plans to conduct research in the aerospace industry.
CULTURAL DANCE RESEARCH IN ST. KITTS & NEVIS: UNDERSTANDING MY HERITAGE THROUGH DANCE

IMRANDA WARD

ACC Creativity & Innovation Fellowship

SUPERVISING PROFESSOR: JAWOLE WILLA JO ZOLLAR, MFA

Imranda Ward, born and raised in Miami, is in her final year in the dance program and is currently working on her honors thesis. During the summer, she has been conducting folkloric dance research in St. Kitts and Nevis under the direction of Jawole Zollar at the School of Dance. Since the beginning of the school year, Imranda has been researching the Christena Disaster, a ferry boat that sank in 1970 traveling from St. Kitts to Nevis on Emancipation Day. Upon graduation, Imranda would like to continue analyzing the Christena Disaster and present a choreographic work in April 2019.

DIVERSITY OF INCENTIVES AND HOW THEY PLAY A ROLE IN STARTUP COMMUNITY GROWTH

KEVIN ZHOU

FSU Tech Fellows

Kevin Zhou, an Economics major at FSU, is in his final year and has spent his summer as a Tech Fellow at Groundswell Startups, where he interned and conducted research on Melbourne's entrepreneurial community. In the future, Kevin wishes to launch his own startup.

THEODORE ABEL AND THE NAZI WOMEN

SARAH R. WARREN

SUPERVISING PROFESSOR: DR. DANIEL MAIER-KATKIN

Sarah R. Warren is a senior studying Political Science. Currently, she is working on her Honors in the Major Thesis. She has had the pleasure of working with Professor Maier-Katkin in a variety of contexts since arriving at FSU and is thankful to have him as her thesis director. Sarah currently serves as a UROP leader and the Assistant Director of the Undergraduate Research Ambassadors. Upon graduation, she hopes to attend law school and continue researching.
We are so grateful for the generous donors who have sponsored the following IDEA Grants:

**John W. Day, III Undergraduate Research Award:**

John and Sally Day are retired educators and John is a two-time FSU alumnus who have long been fascinated by history and lifelong learning. They established their award to support students whose research is in the field of History, though they do not have to necessarily be History majors.

**Robert and Mary Frappier Undergraduate Research Award:**

Robert and Mary Frappier are strong supporters of FSU and undergraduate research. This award is for a student focusing on the environment and sustainability or housing.

**Scott and Ina McNichols Undergraduate Research Award:**

Scott and Ina McNichols Undergraduate Research Award--Scott and Ina McNichols are both FSU alumni who have a deep desire to support research which provides an enriching experience for the student engaged in research who wants to better the community around them. This award is open to all majors.

**Helen Louise Lee Undergraduate Research Award:**

This award was established by Dr. Jim Lee in memory of his mother Helen who was a proponent of higher education and the ways it can help students enhance their lives. This award is for a student majoring in Biology. (Must be a full-time FSU student in spring)

**Steve Madden Undergraduate Research Award:**

Steve is an FSU graduate in Engineering who is supportive of students finding their passion in STEM fields. His award is open to students in any STEM major. (Must be a full-time FSU student in spring)

**David B. Ford Undergraduate Research and Creative Activity Award:**

Named for David B. Ford of New York, New York who is currently the President of DBF Associates, a private investment firm, and Senior Advisor to Gatemore Capital Management, LLC, a private wealth and institutional investment management firm. This award is open to all majors.

**Phi Eta Sigma Undergraduate Research Award:**

The Phi Eta Sigma Freshman Honor Society established an undergraduate research award to support the research endeavors of students who are members of the honor society. This award is for Phi Eta Sigma members in good standing. (Must be a full-time FSU student in spring)

**Fred and Debbie Tresca Global Scholars IDEA Grant:**

Fred and Debbie are both FSU graduates whose international experience in the former Soviet Union shaped their world view and solidified their desire to support student travel to developing countries through the Global Scholars Program. This award is to support research projects of students engaged in the Global Scholars Program.

**Garnet and Gold Scholar Society IDEA Grant:**

With generous funding from the Garnet and Gold Scholar Society, this award is open to students from any major who have already submitted their Garnet and Gold Scholar Society Intent to Participate with research selected as one of their three engagement areas.

**Atlantic Coast Conference (ACC) Creativity and Innovation Fellowship:**

This award provided by the Atlantic Coast Conference supports students with creative and innovative projects.
The Center for Undergraduate Research and Academic Engagement extends great appreciation and gratitude to:
IDEA Grant Donors
Faculty Mentors
The Center for Undergraduate Research & Academic Engagement Advisory Board
FSU Office of the President
Student Government Association