Ninth Annual
Undergraduate Research Symposium
04.08.19
Welcome to the 9th Annual Undergraduate Research Symposium, which showcases undergraduate students at FAU who are engaged in research, scholarship and creative activities. Students present their findings through poster or visual and oral or performing arts presentations, and represent all disciplines, all colleges, and all campuses of FAU.

Few activities are as rewarding intellectually as research and inquiry. In addition to the acquisition of invaluable research skills, students learn how knowledge is created and how that knowledge can be overturned with new evidence or new perspectives. Such scholarly activities engage students in working independently, overcoming obstacles, and learning the importance of ethics and personal conduct in the research process.

The Office of Undergraduate Research and Inquiry (OURI) serves as a centralized support office of both faculty and students who are engaged in undergraduate research and inquiry. We offer and support university wide programs such as undergraduate research grants, annual undergraduate research symposia, and undergraduate research journals, to name a few. We also support all departments and all colleges across all campuses in their undergraduate research and inquiry initiatives.

The Undergraduate Research Symposium is part of our University’s Quality Enhancement Plan (QEP) efforts aimed at expanding a culture of undergraduate research and inquiry at FAU.

For more information on how OURI can help you, please visit our website at www.fau.edu/ouri
Council for Scholarship and Inquiry (CSI)
Division of Research
Division of Student Affairs
Faculty Judges
Faculty Mentors/Advisors
Graduate and Professional Student Association (GPSA)
Graduate College
Graduate Student Judges
The Office of Undergraduate Research and Inquiry (OURI)
Faculty Liaisons & Peer Mentors
Student Government
Student Volunteers
Undergraduate Studies
University Communications - Marketing and Creative Services
University Libraries

Recycled Runway
Artist Statement
Agenda
Oral Presentations
Posters
Abstracts
Recycled Runway Project
Yulia Tikhonova, Adjunct Professor, Art History

During the course of the 15-week Spring semester, 2019, 40 students of History of Graphic Design sourced and used recycled materials to create ten wearable garments that reflect historical styles in graphic design. Today, these students work in the classroom, but tomorrow they will be the primary creators of 21st-century communication. To prepare them for this future, Recycled Runway emphasizes sustainability, community engagement, and equity. A promising future for the graphic design profession will not be possible without assignments like Recycled Runway, which alert design students to their civic responsibilities.

Recycled Runway embraces experience-based learning and active learning. During our lectures, we discussed concepts of eco-materials, sustainability, and human-centered design practice. Students were asked to interview professionals in the field to determine how they creatively sustain their practices. They worked in groups, and the joy and challenges of collaboration encouraged their commitment to high standards and accountability. During our production time, students made sketches, took body measurements, and learned how to portion material accordingly; they reviewed examples of other designers’ creative re-use of everyday “stuff.” They grappled with the challenges of dressmaking. In the process, they discovered that research depends on creativity, as well as patience and decision-making. During their final presentations, students modeled their creations and learned about the need for “human-centered” design practices.

Our participation in the Undergraduate Symposium signals the importance of Recycled Runway not only as an active learning project, but also for the benefits it brings to the entire university as a unique combination of scholarly, interactive, and cognitive learning activity.

Recycled Runway Project
Dickson Luna, Graphic Design Major

At first, it was difficult. I was posed with the challenge to fuse graphic design, fashion and sustainability. I wanted the fusion to be effortless and non-blatant. I preferred the sketch because of the paper, and the texture it provided. It seemed old and appeared to be worn. Not just as a designer, but as a human, I’ve learned that I can impact the environment in a positive way, whether it is through design or everyday decisions.

ATIST STATEMENT

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**Undergraduate Research Symposium**
**Monday April 8th, 2019**

**AGENDA**

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<th>Event</th>
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<td>7:30 a.m. – 2:00 p.m.</td>
<td>On-Going Registration</td>
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<td>7:30 a.m. – 8:30 a.m.</td>
<td>Light Breakfast</td>
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<td>8:00 a.m. – 11:50 a.m.</td>
<td>Oral Presentations</td>
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<td>12:00 p.m. – 1:15 p.m.</td>
<td>Lunch &amp; Welcome Message</td>
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<td>1:30 p.m. – 3:30 p.m.</td>
<td>Poster Presentations</td>
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<tr>
<td>4:00 p.m. – 7:00 p.m.</td>
<td>Awards Ceremony and Social</td>
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**CONFERENCE CENTER LOBBY**

**MAJESTIC PALM ROOM A & B**

**HOUSE CHAMBERS**

**MAJESTIC PALM ROOM**

**A & B**

**PRESENTATIONS**

**Basic Sciences**

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<td>Ivan Riveros; Ilyas Yildirim</td>
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<td>Juanita Sanchez Rubiano; Eugene Smith</td>
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<td>Synthesis and Characterization of Novel Fluorescent Probes for Visualization of Biological Membranes</td>
<td>Deborah Thomas; Maciej Stawikowski</td>
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**Conference Center Lobby**

**Majestic Palm Room A**

**Presentations**

**Time:** 8:30–9:30 a.m.

**Design and Synthesis of Novel Analogues of Aza-Podophyllotoxin as Tubulin-Polymerization Inhibitors**
Daniel Garcia and Charles Shearer
Faculty Mentor(s): Stephane Roche

**Assessing the Therapeutic Potential of Novel Marine Products and Very Low Dose Radiation in Prostate Cancer**
Joubin Jobeli
Faculty Mentor(s): Lyndon West, James Kumi-Diaka

**Predictions of Single-Stranded RNA Structures By Computational Methods Using RNA Dimer Libraries**
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Faculty Mentor(s): Eugene Smith

**Synthesis and Characterization of Novel Fluorescent Probes for Visualization of Biological Membranes**
Deborah Thomas
Faculty Mentor(s): Maciej Stawikowski
Behavioral, Educational & Social Sciences I

Time: 9:40-10:30 a.m.

Should Grandparents Use Condoms?: The Effects of STDs and STIs in Older Adults
Yarelis Balistrieri
Faculty Mentor(s): Julie Earles

Online or Offline: Expressive Writing Administration Preferences for Non-Treatment-Seeking College Students
Cassidy Brydon, Aubrey Jones, and Elizabeth Lanzon
Faculty Mentor(s): Laura Vernon

Desperate Times Call for Desperate Measures: How Border Fortification Intensifies Transnational Insurgents’ Violence Against Civilians
Jeffrey Coltman-Comer
Faculty Mentor(s): Angela Nichols

False Memories: Are Actions More Memorable Than Faces?
Milena Da Silva Braga
Faculty Mentor(s): Julie Earles

Behavioral, Educational & Social Sciences II

Time: 10:40-11:20 a.m.

Greek Life Affiliation and Sexual Assault: Analyzing the Roles of Society, the Alpha Male, and the Beta Female
Michele Mitchell
Faculty Mentor(s): Gina Carreno-Lukasik

Uncovering Methods of Coercion through the Rhetorical Criticism of the Communist Manifesto
Abbey Peterman
Faculty Mentor(s): Andrew Tinker

Defining Hate: A Content Analysis of the Nation’s Hate Crime Laws
Anabella Remillard
Faculty Mentor(s): Seth Fallik

The Regulation of Sleep by Dietary Fatty Acids in the Fruit Fly
Estelle Laure Sah Pamboro
Faculty Mentor(s): Alex Keene

Engineering I

Time: 8:30-9:30 a.m.

Carbon Dioxide Microbubbles for Highly Efficient Biodiesel Production
Seamus Byrnes and Raymond Mathis
Faculty Mentor(s): Myeongsuk (Mike) Kim and Seokju Seo

Atmospheric Water Generator
Arturo Calderon, Mazen Hafez, Evan Olson, and Raymond Mathis
Faculty Mentor(s): Amir Azadi

Micro-particle Laser Trapping for Optical Tweezers
Daniel Cano
Faculty Mentor(s): Grigoriy Kreymerman

Carbon Dioxide and Ethanolamine Injection for Enhanced Oil Recovery
Genevieve Kunkel and Rosa Walls
Faculty Mentor(s): Myeongsuk Kim

Engineering II

Time: 9:40-10:30 a.m.

Recovering and Removing Trace Metals from Acid Mine Drainage Using Filtration
Angel Martinez and Jared Weaver
Faculty Mentor(s): Daniel Meeroff

Centrifugal Harvesting of Microalgae for Biofuel Production
Scott Shirley
Faculty Mentor(s): Myeongsuk Kim

Developing a Biologically Based Artificial Leaf to Filter and Transform Carbon Dioxide Emissions into Oxygen via Photosynthesis
Vithulan Suthakaran
Faculty Mentor(s): Peng Yi

Pi VizuWall: A Low-cost, Parallel Compute Cluster
Matthew Trask, Kristian Murphy, and Art Rosenthal
Faculty Mentor(s): Elan Barenholz
Music, Art, Literature, Theater, History & Philosophy II

Time: 10:40 - 11:20 a.m.

Theories of Love: Eros and the Object of Desire in Plato and Augustine
Alexander Dieter
Faculty Mentor(s): Richard Shusterman and Kenneth Holloway

Zen and American Pragmatism: Western Individualist Misperceptions of Zen-Buddhist Ritual
Hannah Garcia
Faculty Mentor(s): Kenneth Holloway and Richard Shusterman

The Place of the Body in Vladimir Solovyov's The Meaning of Love
Yuri Sachnowski
Faculty Mentor(s): Richard Shusterman and Kenneth Holloway

Center for Mind, Body, and Culture: Student Panel and Information Session
Hosted in Majestic Palm Room B
Student Panelists: Alexander Dieter, Hannah Garcia, and Yuri Sachnowski
Faculty Mentors: Kenneth Holloway and Richard Shusterman

Music, Art, Literature, Theater, History & Philosophy I

Time: 8:30 - 9:30 a.m.

Mythic Unity: Challenging the Rigid Human/Non-Human Binary through Mythologically Inspired Literature
Morgan Hunn
Faculty Mentor(s): Julieann Ulin and Gina Carreno-Lukasik

Presenting a Performing Arts Work to Show the Correlation of Mental Health with the Way the Actor can Portray the Character Truthfully without Making any Assumptions.
Martyna Heczka and Indya Jackson
Faculty Mentor(s): Lynn McNutt

Abdul Ghaffar Khan and the Partition of India
Elizabeth Szwica
Faculty Mentor(s): Douglas McGetchin

Hyphenated Existence: An Exploration into the Globalized Identity
Natasa Treina
Faculty Mentor(s): Gina Carreno-Lukasik

Autobiographical Video Games: Essayistic, Independent, and Empathetic
Nicholas Weid
Faculty Mentor(s): Stephen Charbonneau

Environmental, Ecological & Marine Sciences

Time: 9:40 - 10:30 a.m.

A Synthetic Sea Urchin Exoskeleton for Carbon Conversion to Environmental Calcium Carbonate Precipitates
Alexis Base
Faculty Mentor(s): Myeongsub (Mike) Kim and Peng Yi

The Effect of High Nest Temperatures on the Growth Rates of Loggerhead Sea Turtle (Caretta caretta) Embryos and Hatchlings
Kaitlin Grell
Faculty Mentor(s): Sarah Milton

Nickel Nanoparticles-assisted Monoethanolamine for Carbon Capture
Brian Lages and Alexander Shaw
Faculty Mentor(s): Myeongsub Kim

Biomimetic Synthesis of Briarane Diterpenoids from Briareium asbestinum
Shakia Williams
Faculty Mentor(s): Lyndon West
Health & Medical Sciences

Time: 10:40-11:20 a.m.

Effects of Resistance and Aerobic Training on Growth Factor Expression and B-amyloid in a Murine Model of Alzheimer’s Disease.
Michael Correa
Faculty Mentor(s): Michael Whitehurst

Synthesis of Glycosylated Amino Acids Bearing Tumor-Associated Carbohydrate Antigen
Mary Minore
Faculty Mentor(s): Mare Cudic and William Miranda

Computational Analyses of MicroRNA-Ago2 in RNA Inducing Silencing Complex (RISC)
Marina Nad
Faculty Mentor(s): Ilyas Yildirim

Business, Marketing, Finance & Public Administration

Time: 11:20-12:00 p.m.

Do Americans Feel Comfortable with the Advancements In Self-Driving Car Technology?
Laura Baptista and Julia Caglio
Faculty Mentor(s): Monica Escaleras and Eric Levy

The Value of a Vote: How Civic Enthusiasm Influences Voting Habits
Crayton Hudspeth and Geoff Leavitt
Faculty Mentor(s): Monica Escaleras

POSTERS

Basic Sciences I

1. Quantification of Ecdysone Levels In Drosophila Melanogaster Methionine Sulfoxide Reductase Mutants
Kristina Belavacay, Nathania Harppari
Faculty Mentor(s): David Brininger

2. Assessing the Therapeutic Efficacy of Novel Marine Products on PC-3 Prostate Cancer Cells
Davian Corbajello, Joubin Jebelli, and Akeal Sheikh
Faculty Mentor(s): James Kumi-Diaka and Lyndon West

3. Engineering of Novel Matriptase Inhibitors Based on Eglin C Core Structure
Lisa Cook
Faculty Mentor(s): Maciej Stawickowski

4. The Synthesis of O-glycosylated Tyrosine for Solid-Phase Peptide Synthesis of Aβ glycopeptides
Alessandra Massetti
Faculty Mentor(s): Mare Cudic

5. Inhibition of Matriptase at the Cell Surface: Modeling and Synthesis of Membrane-anchored Matriptase Inhibitors
John Pearl and Peter Ramdhan
Faculty Mentor(s): Maciej Stawickowski

Robert Snyder, Alexandra DeCesare, Daniel Carvalho, and Daniel Gil Valenzuela
Faculty Mentor(s): Grigoriy Kreymerman and Warner Miller

7. Comparison of the Determination of Chloride Concentration by Potentiometry and Gravimetric Analysis
Daniel Gil Valenzuela
Faculty Mentor(s): Jerome Hak

Basic Sciences II

8. Identifying the Endogenous Expression Pattern and Subcellular Location of Arginine Kinase in D. melanogaster Motor Neurons
Sarah Cell
Faculty Mentor(s): Gregory Mackled

9. Synthesis of Kalloisin from Kallolide A
Uradh Sahan
Faculty Mentor(s): Lyndon West and Paul Sosca

10. Identification of Amphid Neurons Where Autophagy Acts to Control C. elegans Development
Lana Ilazarova, Luis Campos, Merna Mankarious, and Julie Yassa
Faculty Mentor(s): Kailiang Jia

11. Assessing the Therapeutic Potential of Novel Marine Products and Very Low Dose Radiation in Prostate Cancer
Joubin Jebelli and Akeal Sheikh
Faculty Mentor(s): James Kumi-Diaka and Lyndon West

12. Identification of Biologically Active Marine Diterpenoids on MCF-7 Breast Cancer Cells
Joubin Jebelli
Faculty Mentor(s): Lyndon West and James Hartmann

13. Optimized Protocols for Extraction of Microbial Natural Products
Alexis Martin
Faculty Mentor(s): Diane Baronas-Lowell
Eleanor Stuart
Faculty Mentor(s): Ata Sarajedini

Basic Sciences III
15. 3D Printing for Anatomical Structures
Ashley Amril
Faculty Mentor(s): Marianne Porter and Braden Ruddy

16. Novel Context Exposure Induced Enhancement of Novel Object Memory in C57BL/6J Mice
Jessica Baran
Faculty Mentor(s): Robert Stackman

17. Quantifying Genetic Differentiation Among Gopherus Polyphemus Populations in South Florida to Guide Translocation Efforts
Maria Fernandez
Faculty Mentor(s): Evelyn Frazier and Colin Hughes

18. Immigration, Education and Cognitive Performance in Elderly Bilingual Adults Who are Between Hypertension, Sleep, and Cognitive Risk in a Rural, Ethnically Diverse Cohort
Princess Maryam Abdul-Akbar
Faculty Mentor(s): Robert Stackman

19. Interactions Between Cyclic GMP Protein Kinase G and Methionine Sulfoxide Reductase Genes
Thomas Pelaez
Faculty Mentor(s): David Birninger

20. Rational Design of Protein-Protein Interactions (PPIs) Inhibitors
Vantir Vardanyan and Hersh Lakwani
Faculty Mentor(s): Stephanie Roche

21. Examining Rape Myth Culture and Acceptance and Implications for Survivors
Jenessa Branford
Faculty Mentor(s): Gina Carreno-Lukasik

22. Gender and the Affordable Care Act
Ariela Edwards and Mackenzie Manofsky
Faculty Mentor(s): Monica Escaleras and Eric Levy

23. Examining Affective Exchanges in Therapy Sessions with Substance Abuse Clients
Nicole Fitzgerald and Kayla Burd
Faculty Mentor(s): Lisa Finnegan

24. The Effect of Mindfulness and Concentrative Meditation on Recall of Emotional-Valenced Stimuli
Alexandra Rosas-Merritt, Hannah Stamos, and Omar Avila
Faculty Mentor(s): Lisa Wiese

25. Artificial Intelligence for EEG-Based BCI
Harrison Rudd, Andreas Noel-Williams, Holly Schlichting, and Renata Rigueira
Faculty Mentor(s): Elan Barenholz

26. Self-Regulatory Orientations and Relationship Quality
Vanessa Szabolcs
Faculty Mentor(s): Michael Morniaci

27. The Relevance of Cultural Commonality Based Relationships Developed Between Teachers and Students with Emotional and Behavioral Disorders
Kelly Thomas
Faculty Mentor(s): Lisa Finnegan

28. Analyzing the Semantic Ranges and Genre Moves of Three Minute Thesis Presentations
Chelsea Zuvieta
Faculty Mentor(s): Andres Ramirez

29. Investigating Relationships Between Teachers and Relationship Developed Cultural Commonality Based Relationships Developed Between Teachers and Students with Emotional and Behavioral Disorders
Kathy Thomas
Faculty Mentor(s): Lisa Finnegan

30. 3D Printing for Anatomical Structures
Stephane Roche
Faculty Mentor(s): Rindy Anderson

Winnie Fresh
Faculty Mentor(s): Cindy Daniel

32. Developing an Education Program for the Florida Atlantic University Ecological Preserve
Avery Knodl
Faculty Mentor(s): Evelyn Frazier and Diane Owen

33. Interactions of the Nucleus Reuniens of the Thalamus and Hippocampus in Elapsed Time Reuniens of the Thalamus and Hippocampus
Vanessa Szabolcs
Faculty Mentor(s): Michael Morniaci

34. Interactions Between Cyclic GMP Protein Kinase G and Methionine Sulfoxide Reductase Genes
Thomas Pelaez
Faculty Mentor(s): David Birninger

35. Identifying Appropriate Behavior Trigger Compulsive Sexual Behavior
Stefani Moccia
Faculty Mentor(s): Elan Barenholz

36. Event-Related Potentials, Race Categorization, and Implicit Racial Biases in Children and Adults
Haylee Trulson and Melissa Mildorff
Faculty Mentor(s): Giselle Anzures and Julie Earles

37. Deep Mind: The Effects of Virtual Reality on Mindfulness Training
James Adaryukov
Faculty Mentor(s): Laura Vernon and Julie Earles

38. EEG and FMRI Data Analysis
Nadine Akin
Faculty Mentor(s): Emanuelle Tognoli

39. Understanding the Origins of Agency
Amy Argueta
Faculty Mentor(s): Nancy Jones

40. AI-based Feedback for Prevention of Body-focused Repetitive Behaviors
Stefani Moccia
Faculty Mentor(s): Elan Barenholz

41. Language and Animals
Cassandra Penrod
Faculty Mentor(s): Gina Carreno-Lukasik

42. Social Biases in Children With and Without Familial Risk of Autism
Jessica Samuel
Faculty Mentor(s): Giselle Anzures

43. Assessing Virtual Reality Mindfulness Training in Undergraduates
Hannah Tarleton
Faculty Mentor(s): Laura Vernon and James Wetterer

44. Mindfulness and Concentrative Meditation on Recall of Emotional-Valenced Stimuli
Alexandra Rosas-Merritt, Hannah Stamos, and Omar Avila
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Hannah Tarleton
Faculty Mentor(s): Laura Vernon and James Wetterer
44. Social Media’s Effect on Self-Esteem
Daphnie Dius and Jasmin Velasco
Faculty Mentor(s): Monica Escaleras and Eric Levy

45. The Effects of Infrastructure Service Disruptions and Socio-Economic Vulnerability on Hurricane Recovery
Sydney Eney
Faculty Mentor(s): Monica Escaleras and Diana Mitsou

46. Cash-Free Economy: The Relation Between Age and Online Money Activity
Elisa Gomes and Shaina Rubin
Faculty Mentor(s): Monica Escaleras and Eric Levy

47. Determining Perception of Media Bias
Grace Sauter and Daniel Terry
Faculty Mentor(s): Monica Escaleras and Eric Levy

48. Political Affiliation and the Prejudice It Creates in the NFL Protest
Geoffrey Stephen and Tariq James
Faculty Mentor(s): Monica Escaleras and Eric Levy

49. The Haunting of the Phantom Limb: An Anticipatory Study of Treatment Methods
Valeria Burgos and Nicole Landy
Faculty Mentor(s): Monica Escaleras and Angel Nevín

50. Butterfly Island Game Design Abstract
Marshall Fernsario-Minig
Faculty Mentor(s): Christopher Maraffi

51. Formation of Social Groups by Gender in Young Students
Tiffany Zhang, Kelsey Wheeler, Mahashit Glish, and Genevieve Vancamp
Faculty Mentor(s): Amy Tift

52. Effect of Student Dissatisfaction of On-Campus Food Services Causing Students to Prefer Eating Off-Campus
Austin Silverstein and Noah Jensen
Faculty Mentor(s): Monica Escaleras and Eric Levy

53. The Effect of Seating Arrangement on Active Engagement and Distractions in the Classroom
Meaghan Swiack, Kyle Long, and Natalie Ohren
Faculty Mentor(s): Amy Tift

54. Rapid Method for Human Health Risk Assessment in the Swash Zone (Wet Beach Sand) of South Florida Beaches
Lee M. Sanchez Lucas and Mariana Zuleta
Faculty Mentor(s): Nwadiuto Esibu and Brian Mercer

55. Visual Design Research Project for an Animated Short Based on a Historical Incident in Yachats, Oregon
Sharnell Tebeau
Faculty Mentor(s): Christopher Maraffi

56. All Ears: Can Ear Recognition Software be a Solution for Mobile Phone Security?
Kristen Crawford, Manuela Ceballos, and Grant Swanson
Faculty Mentor(s): William Hahn and Khaled Hafez

57. Improved Supervised Classification with Auxiliary Seq2Seq Networks
Yichengy Dai
Faculty Mentor(s): Elin Barenholz

58. Screening Soil Bacteria for Active Molecules and Inhibitory Compounds
Vithala Ramdun and Imaniiee Telusonrd
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59. The State of Hummingbirds: The Wingbeats the World Should Know
Christopher Teplettian and Tracey Tolkin
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60. The Effects of Infrastructure Service Disruptions and Socio-Economic Vulnerability on Hurricane Recovery
Sydney Eney
Faculty Mentor(s): Monica Escaleras and Diana Mitsou

61. Development of a Revolutionary New Expiration Date System
Mazen Hafez and Robert Cook
Faculty Mentor(s): Myeongsub Kim and Khaled Hafez

62. Recovering and Removing Trace Metals from Acid Mine Drainage Using Filtration
Angel Martinez and Jared Weaver
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63. Improved Supervised Classification with Auxiliary Seq2Seq Networks
Yichengy Dai
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64. Research and Development into Machine Learning as Applied to Developing Semi-Autonomous Features on the FAU High GT-EV Car
Ahsan Sanaullah
Faculty Mentor(s): Mohredjo Njouramun and Allan Phipps

65. Algae Neutralizing Cleaning Hybrid Ocean Robot (A.N.C.H.O.R)
Holly Schlichting, Lyubov Denisovska, Chad Kaplovitz, Benjamin Bloudin, Juan Rios, and Gaby Carvahlo
Faculty Mentor(s): Daniel Meece and Pak Cheung Edgar An

66. Experimental Study of Self-sustaining Submerged Breakwater to Protect Florida Beaches and Habitats
Tyler Vargo, Tahir Farrukh and Chi-Han Ho
Faculty Mentor(s): Daniel Meece and Fred Bostecher

67. An Evaluation of Gopherus Polyphemus Hatching Success Rates at the FAUP
Emma Cutkomp
Faculty Mentor(s): Evelyn Fraizer

68. Using a High-Throughput System to Manipulate Biotic Signaling and Physicochemical Parameters While Screening for Bioactive Molecules
Zachary Hollendonner and Lovenie Talen
Faculty Mentor(s): Nwadiuto Esibu

69. Determine Interspecies Relationships Between Cercopithicus Iomiamensis and Other Species in the Lomami National Park and Buffer Zone
Aaron Mencia
Faculty Mentor(s): Kate Detwiler

70. Water Quality Analysis to Assess Nutrient Loading and Algae Bloom Potential
Lisa Nguyen
Faculty Mentor(s): William Louda

71. Effects of Freshwater Releases on Water Quality in the South Florida Canal System
Brynnis Stilk
Faculty Mentor(s): Tara Root

72. Predatory Response of Aggregating Carcharhinus limbatis
Laura Sinion
Faculty Mentor(s): Stephen Kajura and Walker Nambu
73. The Effects of Rising Nest Temperatures on the Embryonic Mortality Rates of Loggerhead Sea Turtles (Caretta caretta) for the Nesting Season of 2018. Valerie Tovar  
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Faculty Mentor(s): Nwadiuto Esiobu, Brian Mercer  
75. Improving Public Health Risk assessment in Waterways  
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76. Armor in the Invasive Lionfish, Pterois Volitans: Ontogeny Head Morphology Varies Over Lionfish, Pterois Volitans: Armor in the Invasive  
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77. The Effects of Inubation and Relocation on Loggerhead Sea Turtle (Caretta caretta) Emergence and Hatching Success  
Lisa Anne Esposito  
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78. A Survey of the Arthropod Species Present in Gopherus Polyphemus Burrows at the FAU Preserve  
Lauren Morilansion  
Faculty Mentor(s): Evelyn Frazier  

79. Analysis of Vertebrate Species of Gopherus Polyphemus Burrows  
Jennifer Lingle  
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Environmental, Ecological & Marine Sciences III  
80. Expression of Tardigrade (Dsup) Gene in Tobacco Plants  
Amanda Lam, Nicholas Pizzo, and Nicholas Nifakos, Milove Jeannot, Andrew Balsamo, Tahoe Albergo  
Faculty Mentor(s): Xing-Hai Zhang, Mohamed Abutineh, Amanda Kirwan  

81. An Evaluation of Productivity in Citrus Plants on Cultivated and Uncultivated Groves in Central Florida Historically  
Nicholas Nifakos, Milove Jeannot, Andrew Balsamo, Tahoe Albergo  
Faculty Mentor(s): Xing-Hai Zhang, Mohamed Abutineh, Amanda Kirwan  

82. Comparative Volitional Swimming Kinematics of 3 Shark species: Carcharhinus Limbatus (Blacktip), Sphyma Mokarran (Great Hammerhead) and Carcharhinus Plimbeus (Sandbar) in the Wild  
Dalee Kimmer  
Faculty Mentor(s): Marianne Porter and Braden Ruddly  

83. Rapid Detection G. zonatum in Palm Trees Using qPCR  
Laurent Lorquet and Alejandro Acuna  
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84. Assessment of the Bacterial Community Structure of Citrus Plants on Cultivated and Historically Un-cultivated Groves in Central Florida  
Yasmine Sanhaj, Melissa Voorn, and Karina Murillo  
Faculty Mentor(s): Nwadiuto Esiobu  

85. Effects of Freshwater Release on Sediment Transport in South Florida Canals and Estuaries  
John Wu  
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86. Binding to Sigma Receptor 1 for Identification of Potential Treatments for Chronic Pain  
Jasmine Cano  
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87. Study of Global Gene Expression in CD4 T Cells Following HIV-1 infection  
Christopher Mauer  
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88. Transport of a Collagen-Derived Fluorogenic Substrate Across an In Vitro Model of the Blood-Brain Barrier  
Aron McFarlane  
Faculty Mentor(s): Gregg Fields and Anna Krapsinski  

89. Assessing the Efficacy of Bureaucratic Caring Theory as a Framework for Evaluating Long-Term Care Administrators Description of their Roles and Challenges  
Sarah Tsewot  
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90. Use of HF183 and BacHum Proteins Bind to the Cell Surface Receptor Membrane Protein 1 (PfEMP1) in Plasmodium falciparum  
Sawadah Ali  
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91. Human Immune Cells Recognize Intact Xenogeneic MHCs  
Lisa Victor  
Faculty Mentor(s): Mahyar Nouri-Shirazi  

Health & Medical Sciences II  
92. Targeting Resistance Mechanisms in Breast Adenocarcinoma Cell Lines in order to Induce an Adaptive Immune Response  
Marian Amir and Jennifer Jeanty  
Faculty Mentor(s): James X Hartmann and Youssef Mosti  

93. Investigation of Microglial Dynamics in Huntington’s disease  
Johanna Bensalel and Nicole Rosa  
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94. The Role of Human Polynucleotide Phosphorylase (hPNPase) in Downregulating Oxidized RNA  
Sarvi Bommakanti  
Faculty Mentor(s): Zhongwei Li and Sulochan Malta  

95. The Relationship Between Behavioral Flexibility in the Rat and Relocation on Loggerhead Sea Turtle (Caretta caretta)  
Amanda Rojas  
Faculty Mentor(s): Robert Vartes and Stephanie Linley  

Health & Medical Sciences III  
96. Determining if Plasmidic Genistein-Induced Apoptosis in Androgen-Independent DU-145 Prostate Cancer Cells in Vitro Rida Atfal  
Faculty Mentor(s): James Kurni-Disaka  

Sulochan Malla  
Faculty Mentor(s): Patricia Liefh  

98. Delineating the Role of Nucleus in Parkin and Loncupine in Motes and Un-Cultivated Groves in Central Florida Historically  
Teresa Sakraida  
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99. Irradiation Augmentation of Genistein-Induced Apoptosis in Androgen-Independent DU-145 Prostate Cancer Cells in Vitro  
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Jasmine Bovastro
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101. Optimizing Antibiotic Production of Soil Microbes
Amy Donne
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102. Breakfast Consumption and Body Weight and Fat Changes in First Semester Campus-Dwelling College Students
Katie Klump
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103. Effects of Bath Salts on the Activation of Cortical Neurons Associated with Excited Delirium
Giselle Shim and Rama Abdin
Faculty Mentor(s): Rui Tao

Music, Art, Literature, Theater, History & Philosophy

104. Analysis of American Anti-Feminism from 1880–1960
Hope Taylor
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105. Interactions Between Humans and The Public Built Environment: Creating Extensions of the Body Through Bacterial Exchange (A Sculptural Installation)
Izabella Hernandez
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106. Intermediating Politics through Subjectivity in Khwezi: The Remarkable Story of Fezekile Ntsukela Kuzwayo
Ellie Vilakazi
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107. Strange Frequencies: Development of a Post-Human Narrative
Jessica Young
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Targeting Resistance Mechanisms in Breast Adenocarcinoma Cell Lines in order to Induce an Adaptive Immune Response
Poster
Mariam Amir and Jennifer Jeanty
Faculty Mentor(s): James X Hartmann and Youself Moi

We seek to find a combination of non-mutagenic compounds that exhibit minimal toxicity while killing cancer cells so as to generate an effective immune response. Literature supports that a combination of methotrexate and wogonin may, at the least, block the ability of the cancer cell to synthesize DNA and prevent the induction of T-regulatory cells. Cancer cells depend on folic acid to synthesize DNA bases essential for DNA synthesis. This major dependence has resulted in effective anti-folates. Methotrexate competitively inhibits dihydrofolate reductase, the conversion of folic acid required for DNA synthesis. Additionally, cancers induce T-regulatory cells, which participate in suppressing an effective immune response. Wogonin, an immunostimulatory flavonoid, is an anti-tumor agent that inhibits the induction of T-regulatory cells and the glycolytic phenotype. This study may provide information regarding a novel drug-combination therapy that may block the synthesis of DNA in cancer cells and inhibit development of T regulatory cells.

Investigating Relationships Between Hypertension, Sleep, and Cognitive Risk in a Rural, Ethnically Diverse Cohort
Poster
Princess Maryam Abdul-Akbar and Lisa Wiese
Faculty Mentor(s): Lisa Wiese

Currently, there are over 47 million people worldwide who have been diagnosed with dementia. The risk for dementia is magnified in underserved populations (Mallos, et al, 2017). The purpose of this descriptive study was to investigate the relationship between hypertension, sleep deprivation, and risk of cognitive impairment in a rural, underserved, and ethnically and racially diverse population. Findings included that the majority of participants were not at risk for hypertension (73%) or cognitive impairment (76%), but those with hypertension risk correlated significantly (p = .01) with cognitive impairment (73%), while those with cognitive impairment risk correlated significantly (p = .01) with cognitive impairment (73%). Contrary to recent findings suggesting that the quality of sleep may increase risk for hypertension and dementia, sleep quality in this small cohort did not significantly influence either blood pressure or cognition. These findings suggest that examining potential cultural influences on sleep and hypertension as risk factors for dementia is needed.

POSTERS
Deep Mind: The Effects of Virtual Reality on Mindfulness Training Poster Janet A. Adanyukov, Hannah Tartleton, and Andrew Balsamo Faculty Mentor(s): Laura Vernon and Julie Adanyukov

Virtual reality (VR) has become a more commonplace therapeutic treatment for psychological conditions, including stress and anxiety. However, VR has not yet received much attention when paired with mindfulness training, despite their shared ability to promote immersive experiences and stress reduction. We hypothesized that the addition of VR would increase the immersion and effectiveness of mindfulness training, resulting in long-term efficacy of stress reduction and decreasing stress and anxiety.

Participants completed mindfulness meditations, with either a virtual or a VR environment for two meditations. Both stimuli depicted the same natural environment and were designed to reduce stress and anxiety. Participants completed four mediation sessions, with each session involving a VR condition that reported mindfulness and similar anxiety and stress reduction compared to the control condition. The implications of these findings for the treatment of young adult psychopathology will be discussed.

EEG and FMR1 Data Analysis Poster
Nadine Akin, Emanuele Tognoli, Razia Stefanescu, and Mengsen Zhang Faculty Mentor(s): Emanuele Tognoli

When it comes to human behavior a lot could be scandalous behavior, even if we are not aware of how we behave the way we do. Yet we lack understanding pertaining to the origins of these behaviors and how they unfold. In this study, we will analyze data from EEG and FMR1 scans that allow us to observe the underlying mechanisms of behavior and mental processes.

Irradiation Augmentation of Ganetek-Induced Apoptosis in Androgen-Independent DU-145 Prostate Cancer Cells in Vitro Poster
Reba Atif, James Kurni-Daika, and Roland Krae Brantly Faculty Mentor(s): James Kurni-Daika

Prostate cancer is still the most common cancer diagnosed in American men after skin cancer. According to the American Cancer Society, there will be approximately 141,690 new cases and 28,110 deaths for PCs in 2019. The increased testis mortality in the treatment of metastasized advanced PCs raises the need for the exploration of novel treatments. This study investigated the augmentation of cytotoxic dose radiation (VDR, 20 Gy/m2) on the treatment efficacy of germination (Gn) in DU-145 androgen-independent PCs cells. The objective was to assess the therapeutic potential of proteasome activator regimens relative to the single tumor treatment. We are exposing DU-145 cells to VDR for 20 minutes then incubated static or with a proteasome activator for increased therapeutic efficiency of germination (Gn); the combination treatment (VDR-Gn) significantly caused more apoptotic cell death. This observation provides a rationale and justification for further investigation in the field of radiation-phytochemical combinative treatment.

What is the Public’s Perception of Welfare in America? Poster
Alyssa Alvarez and Nicole Holness Faculty Mentor(s): Monica Escalantes and Eric Levy

Welfare is a U.S. government program, which provides financial assistance to disadvantaged individuals who can demonstrate their eligibility. It is a polycentric and contentious topic discussed in various forums like news, media, and face-to-face interaction. An asymmetric information has brought to the legislation of welfare and a lack of proper information among recipients. The purpose of this study is to quantify and analyze the public view of welfare. We conducted an online nationwide survey with 241 respondents of various backgrounds, age groups, educational levels, and party affiliations. Results show a statistically significant difference between the level of education of the survey respondents and their views on the privacy and judicious use of welfare recipients. These results could further solidify a policy change in the public opinion of not only recipients of welfare but potentially of other government assistance programs, in hopes of removing the stigma that our society has placed.

3D Printing for Anatomical Structures Poster
Andrew Amiri Faculty Mentor(s): Marianne Porter and Brandon Ruddy

Emerging technologies grant researchers the ability to effectively convey to the broader community an understanding of interest and scientific pursuits. In the world of anatomical education, the development of educational outreach comes through hands-on experiences with real tissues. The purpose of this project is to use a 3D printing technique to accurately depict anatomical aspects of various embryomorph (shakes, skates, and ray) species in an attempt to inform the public of the underlying biology, and processes that allow these organisms to thrive in their environments. By applying this reproducible technology to aid in hands-on interactive experiences with the public, we can better inform individuals of the remarkable ecomorphological complexity of these organisms to thrive.

Expression of Tardigrade Damage Suppressing Protein (Dsup) Gene in Plants Poster
Andrew Balsamo, Tahoe Allergro, Nicholas Paton, Amanda Lam, Nicholas Pizzio, Mohamed Alabdin, Justin D. Xie, and Xing-Hai Zhang Faculty Mentor(s): Xing-Hai Zhang

The microscopic tardigrade displays a remarkable tolerance for extreme conditions such as high doses of radiation. A protein from the tardigrade Rematizozus vonaeveni, Dsup, has been shown to protect human cell cultures from DNA damage caused by UV or X-ray radiation. Scientists are investigating whether Dsup is able to protect plants from UVB damages. Dsup gene was introduced into model organism Arabidopsis thaliana plants. We hypothesized that the introduction of Dsup gene would provide an added layer of protection against the adverse effects of UVB radiation. We used transgenic tobacco plants that over-express the presence of Dsup gene and various levels of UVB radiation in the plants tested. To observe the effects of UVB radiation, plants were grown in medium containing DNA mutagens (ethyl methane sulfonate or benzoic). Our study has established an ideal system for further investigation of the tardigrade Dsup gene in plants in response to various stress conditions.

ABSTRACTS

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Do Americans Feel Comfortable with the Advancements in Self-Driving Car Technology? Poster

Laura Bautista and Julia Gaglio
Faculty Mentor(s): Myeongsub (Mike) Kim and Peng Yi

American attitudes toward self-driving cars differ greatly between older and younger generations. Although, younger generations feel in favor of the automated technology than women, men would be more accepting of self-driving cars as key indicators. However, our results indicated that older adults might be more unlikely to feel comfortable with the technology than younger generations. Our results show a statistically significant difference between gender and the embracing of self-driving cars. However, our results do not show a statistically significant difference between generations. senior citizens are more likely than younger generations feel in regarding the self-driving technology. Furthermore, we found that people with higher education have a more positive attitude than the phenotype of our Drosophila mutants — deficient food have a delayed larva development, like the phenotype of our Drosophila mutants. Ecdysone — the primary hormone in Drosophila that controls molting and development in larva and pupae as well as in adult. The larvae raised on a nutrient deprivation showed a change in ecdysone production. Ultimately, we demonstrated that oxidative stress, an elevation of oxidative stress, which is previously known to participate in normal mitochondrial function. We are currently studying importance of a wide range of cellular proteins and its helicase partner. We are currently working on reliable microscopic counts of K. brevis and Karenia brevis population and blooms.”

Increasing the Arizona oxygen levels has been strongly implicated to a wide range of harmful diseases, which may reveal RNA quality control mechanisms that will eventually benefit diagnosis and prevention of human health. Therefore, we synthesized RNA and wild type groups. These results strongly implicated to a wide range of human health-related diseases. It is known that human polynucleotide phosphorylase (hPNPase), a mitochondrial exoribonuclease, reduces oxidized RNA but the molecular mechanism is not known. In this study, we demonstrated that hPNPase reduces oxidized RNA during ascorbate oxidation and cytoplasm. hPNPase forms a complex with human RNA helicase (hSUV30) which is previously known to participate in normal mitochondrial function. Our results suggest that hPNPase works on reducing oxidized RNA independent of ascorbate oxidation and cytoplasmic level. We are currently studying importance of a wide range of cellular proteins and its helicase partner. We are currently studying importance of a wide range of cellular proteins and its helicase partner. We are currently studying importance of a wide range of cellular proteins and its helicase partner. We are currently studying importance of a wide range of cellular proteins and its helicase partner.
ABSTRACTS

Paper: Photovoleic as a Qualitative Research Method for Mothers Impacted by Substance Abuse and the Child Welfare System Poster: Visualizing Maternal Care and the Child
By Jasmine Binovasto, Faculty Mentor(s): Denea Woodard, Heather Howard

This research is to help understand the stigma of mothers with substance use and child involvement and its impact on the child. In the process of this research, we will be able to view the mothers' perspective involving substance use and child welfare with community methodology. The importance of viewing the mothers' perspective is to see their viewpoint in coping with substance abuse and their interactions with child welfare, and involvement with a recovery system. The value of conducting this research is to build a constructivist and supportive approach revolving around mothers who are going through substance abuse, but also are mothers to their child. This study would increase awareness among social workers, and perhaps stakeholders may support women in their recovery when interacting with such healthcare, family, court, and child welfare. In addition, the outcome can contribute to the continuity of care in the mother’s recovery.

Paper: Examining Rape Myth Culture and Acceptance and Implications for Survivors Poster: Confidence Building Among Social Workers: The effects of rape myths and sexual beliefs and attitudes about rape based on components of the system. The readings from the system allow an optimization through coding specifications to reach temperatures much lower than the dew point, temperature, resulting in water generation. The condensate will then be collected in a reservoir for collection and use. This process will also make biodiesel a commercially viable renewable energy resource.

Paper: Atmospheric Water Generator Poster: Dispersal for the Burrowing Owl on the Boca Raton FAU Campus
By: Mariam Kedir, Zainab Sleman, Faculty Mentor(s): Dianne Owen and Evelyn Frazier

The burrowing owl, Athene cunicularia, is a species of concern consisting of 18 subspecies located in North America, but also is a species of concern in the Caribbean and Al Cordiencis. The Florida subspecies, A.c floridana, is threatened and has declined of this important species. In 2018, the burrowing owl population declined by 20% in comparison with past values. In the 2018 nesting season, six chicks hatched but only five reached survival and ledging survival rates impacted by this. To accomplish this, we have performed inhibition binding assays using rat liver membranes as a source of S1R to assess the half-maximal inhibitory concentration (IC50) of each ligand. In the assay, the different ligands are tested for analgesic activity using a chronic pain model in rats.
Micro-particle Laser Trapping for Optical Tweezers

ABSTRACTS
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Oral Jeffrey Colman-Connie Faculty Mentor(s): Michael A. Whitehurst

A variety of factors contribute to insurgent violence against civilians, yet the role of ear recognition has largely been overlooked. We explored the behavior in terms of insurgent by analyzing the ear's recognition rate by applying fingerprint recognition. To this end, we developed a novel machine learning method that can be used for ear recognition and its application. The results of this study suggest the potential of ear recognition as a new modality for insurgent violence against civilians.
Agricultural Application of Machine Learning and Robotic Offaction Poster Alexander DeCesaris Faculty Mentor(s): Rafael Barmann

As the average US consumption of poultry continues to grow, farmers increasingly need to raise the number of chickens to maintain production, which in turn raises the risk of disease. Recent studies have shown that machine learning and robotic offaction can effectively reduce the number of chickens and improve productivity by detecting sick birds, thus reducing the risk of disease spread. By combining these technologies, we can effectively address this issue and improve the overall health and productivity of the poultry industry.

Object of Desire in Plato and Augustine: Issue of Sustainable Agriculture Poster Daphne Diicos and Janir Velasco Faculty Mentor(s): Monica Escalera and Eric Levy

According to Stata.com, social media is now being used by over 3.5 billion users in 2020. However, a recent study has shown that this increase in social media use is leading to a decrease in real-world interactions. Additionally, the study found that social media use is associated with increased levels of anxiety, depression, and social isolation. Therefore, the benefits of social media use must be weighed against these potential drawbacks.

Social Media’s Affect on Self-Esteem Poster Alyssa Edwards and Mackenzie Marohn Faculty Mentor(s): Monica Escalera and Eric Levy

According to the study, there is a significant relationship between self-esteem and social media use. Specifically, the study found that individuals who spend more time on social media have lower self-esteem. This relationship is particularly strong among individuals who use social media to compare themselves to others.

Gender and the Affordable Care Act Poster Amy Nonnemacher and Mackenzie Marohn Faculty Mentor(s): Monica Escalera and Eric Levy

One of the main problems with the Affordable Care Act is the lack of enforcement of the mandate requiring that insurance companies cover essential health care services. This has led to increased costs for many individuals and has caused many people to drop their insurance coverage. Therefore, it is necessary to establish a system of enforcement to ensure that the mandate is being carried out.

The Impact of Social Media on Health Poster Sydney Ewbank Faculty Mentor(s): Monica Escalera and Diana Naismith

The increasing use of social media has led to a rise in mental health issues, particularly among young people. This study aims to identify the relationship between social media use and mental health issues, including depression and anxiety.

The Effects of Infrastructure Service Disruptions and Socio-Economic Vulnerability on Hurricane Recovery Poster Sydney Ewbank Faculty Mentor(s): Monica Escalera and Diana Naismith

The study examines the relationship between infrastructure service disruptions and socio-economic vulnerability on hurricane recovery. The findings indicate that infrastructure service disruptions have a significant impact on recovery, with those who experience disruptions facing greater challenges in the recovery process.

Quantifying Genetic Differentiation Among Gopherus Polyphemus Poster Tiffany Briggs Faculty Mentor(s): Sarah Milton and Lisa Anne Esposito

During incubation, loggerhead sea turtles may be vulnerable to flooding, which can affect their hatch and emergence success. The study suggests that nests that are wetted more frequently than those wetted just once. This study may improve hatch and emergence success.

The Effects of Inundation and Relocation on Loggerhead Sea Turtle (Caretta caretta) Emergence and Hatching Success Poster Lisa Anne Esposito, Sarah Milton, and Tiffany Briggs Faculty Mentor(s): Monica Escalera and Eric Levy

The study examines the impact of inundation and relocation on loggerhead sea turtle hatch and emergence success. The findings indicate that inundation events have a significant impact on hatch and emergence success, with nests that are wetted more frequently facing greater challenges in the hatch and emergence process.
A robust, sharp facial morphology over ontogeny, even though this extremely invasive fish has limited natural predators in their invasive range.

**Smartphones and Misperceptions:** Exploring Relationships Between Cognitive Performance and the Gut Microbiome of Zebra Finches Poster

Kathleen Galloway, Hannah Garcia, Kenneth Holloway, Shaina Rubin, and Richard Shusterman

We hypothesize that the U.S. possesses an aging gap in regard to who is more comfortable with using digital forms of money managing. Our data shows the importance in the frequency of online ordering. Through our findings, we observed some companies of various markets were companies of various markets vital, and our observations serve as companies of various markets sooner, rather than later, the reliance on these forms of money managing will become heavy. Terming the shift to digital marketing as a general route to rapidly construct an analogue of Kallolide A, we synthesized Kallosin from Kallolide A using a novel aniline catalyst pathway, a biomimetic approach to synthesis of Kallolide A was developed. Kallosin was treated with methanol to produce an analogue of Kallosin H. Scantling was then adopted to solve a solution of the Kallolide H analogue dissolved in toluene. After three hours, desiccated and dried, a rigid, robust, sharp facial morphology over ontogeny was observed. These differences in facial morphology were greater diversity of taxa and greater diversity of cognitive performance: (1) novel object recognition, (2) reversal learning, and (3) color reversal. We predict that a society becomes more self-aware and conscious of the key C-C bond rearrangement step in the biosynthetic pathway including acidic hydrolysis.

**Comparison of the Determination of Chloride Concentration Using Potentiometry and Gravimetric Methods** Poster

Elisa Gomes and Shaina Rubin

Ion-selective electrode (ISE) potentiometry is a field of instrumental analysis that lends itself to multiple applications, including the detection of chemicals, metals, and toxic ions. Advantages of this method over traditional gravimetric analysis include cost, portability, and reduced waste consumption. Ion-selective electrodes can be used to measure ion concentration in biological samples, including seawater. Using a device that can be applied to seawater samples, we observed that companies of various markets significantly greater at warmer temperatures. This is because when warmer temperatures lead to faster growth rates, the effects of aging are more pronounced. Thus, the biological clock is faster for older turtles, leading to a decrease in body size. These results should be compared with those obtained by an established method for gravimetric analysis of chloride. We predict that the chloride ion concentration from different sources will be different because chloride ion concentration from different sources will be different due to different variables involved in the methods.
Improving Public Health Risk assessment in Waterways using Metagenomic Shotgun Sequencing
Poster
Alladhi Raghavan, Brian Mercer, and Nwadiuto Esiobu
Faculty Mentor(s): Nwadiuto Esiobu
Risk assessment of complex microbial communities is critical for understanding the role of public health risk in Waterway ecosystems. Complex microbial communities are known to have regulatory roles in the environment. They can affect the health of ecosystems and humans. By utilizing Metagenomic shotgun sequencing, we can identify specific taxa that are likely to be more harmful. This will be a more cost-effective approach for public health risk assessment in Florida’s waterways.

The Value of a Vote: How Civic Enthusiasm Influences Voting Habits
Gina Crayton Hudspeth and Geoff LeWitt
Faculty Mentor(s): Monica Escalante
People decide whether or not to vote based on a variety of factors. Some vote because they believe it is their civic duty. Some because important issues are at stake, and others choose to not vote at all. Our hypothesis is that those who value voting the most would agree that voting is their civic duty. To test this hypothesis, we conducted an online survey to collect sample data regarding the voting habits and demographics of voters. The data shows that the more a person values a single vote, the more likely they are to say they vote because they view it as their civic duty.

Where Autophagy Acts to Control C. elegans
Poster
Zachary Hollendonner, Lovenie Talien, and Nwadiuto Esiobu
Faculty Mentor(s): Nwadiuto Esiobu
The global threat posed by increasing antibiotic resistance has led to a frantic search for new antibiotics by microbiologists at all levels. Antibiotic-resistant bacteria have been widespread among the human population and antibiotics are required in order to treat many infections. In this project, we aim to investigate the role of autophagy in controlling C. elegans. Our hypothesis is that autophagy plays a critical role in controlling the growth of bacteria in the environment and in human health.

Assessing the Therapeutic Potential of Novel Marine Products and Very Low Dose Radiation in Prostate Cancer
Poster
Zoubin Jabeell, Paul Scesa, Toluluke Mankarious, and Julieann Ulin
Faculty Mentor(s): Nwadiuto Esiobu and Lyndon West
Marine natural products and very low dose radiation (VLR) are proven therapeutic agents for cancer treatment. VLR can augment the chemotherapeutic effects of marine natural products, resulting in greater decreases in cell viability when treating with compounds 2-5 and 9-10 in subsequent studies. DU-145/LNCaP cells were exposed to VLR and then investigated on DU-145/LNCaP prostate cancer cells. Results from the viability and cytotoxicity assays revealed dose-dependent decreases in cell viability when treating with compounds 2-5. Assessment of 145/LNCaP revealed significant decreases in DU-145/LNCaP prostate cancer cells. Results from the viability and cytotoxicity assays revealed dose-dependent decreases in cell viability when treating with compounds 2-5.

Assessing the Therapeutic Potential of Novel Marine Products and Very Low Dose Radiation in Prostate Cancer
Poster
Gina Carreno-Lukasik
Faculty Mentor(s): Julieann Ulin and James Kumi-Diaka
Marine natural products and very low dose radiation (VLR) are proven therapeutic agents for cancer treatment. In this study, marine compounds and VLR were utilized in a series of chromatographic separations to identify specific amphid neurons that control the growth of bacteria in the environment. We have proven that this approach can be effective in controlling bacterial growth and is a promising treatment for prostate cancer.

Identifying Amphid Neurons Responsible for C. elegans Development
Poster
Lana Lazana, Luis Campos, Mema Markounakis, and Julie Yassa
Faculty Mentor(s): Kailiang Jia and Geoff LeWitt
Autophagy is a lysosomal degradation pathway that plays a critical role in the survival of the nematode Caenorhabditis elegans during starvation. Under starvation, C. elegans enters an arrested developmental stage called dauer. Dauer animals can resist metabolic stressors and are used as models for understanding the normal lifespan. We have shown that autophagy plays a critical role in the survival of the dauer C. elegans and that autophagy gene atg-18 functions to control dauer formation.
Identification of Biologically Active Marine Diterpenoids on MCF-7 Cancer Cells
Poster
Jihan Jabeel, Paul Sposa, James Kim-Urakai, James Hittmann, Lyndon West, and Karinus M. Kesavan
Faculty Mentor(s): Lyndon West and Jamie McPherson

Breast cancer is the second most commonly diagnosed cancer in American women. In the last few decades, advances made in the surveillance and treatment of breast cancer have improved the palliative care for breast cancer patients, the incidences of breast cancer has started to increase. The marine resource contains bioactive compounds that possess antineoplastic properties. In this study, four marine compounds were extracted and purified utilizing a series of reverse-phase chromatography and thin-layer chromatography. The structure elucidation was then performed by 1-H nuclear magnetic resonance (NMR) and mass spectrometry (MS) and nuclear magnetic resonance (NMR). The NMR spectroscopic data and mass spectrometry of these compounds were then investigated on MCF-7 breast cancer cells using the alamar blue and MTS viability assays. Preliminary data suggested compounds 1-4 inhibiting cellular growth and proliferation through anti-cancerous properties. A comprehensive study was designed to investigate compounds 1-4 inhibiting cell death. The results will be discussed.

Breakfast Consumption and Body Weight and Fat Changes in First Semester Campus-Dwelling College Students
Poster
Katie Drupe and Sareen Gropper
Faculty Mentor(s): Sareen Gropper

Students living on-campus their first semester of college often experience changes in diet habits, especially breakfast. Skipping breakfast has been associated with a higher prevalence of obesity throughout adulthood. The purpose of this study was to examine change in breakfast consumption habits and body weight and fatness over and above biometrical and lifestyle variables. Breakfast skipping has been associated with higher prevalence of obesity throughout adulthood. The purpose of this study was to examine change in breakfast consumption habits and body weight and fatness over and above biometrical and lifestyle variables. Breakfast skipping has been associated with higher prevalence of obesity throughout adulthood. The purpose of this study was to examine change in breakfast consumption habits and body weight and fatness over and above biometrical and lifestyle variables. Breakfast skipping has been associated with higher prevalence of obesity throughout adulthood. 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The Relationship Between Self-Care Management Activities and the Quality of Life Among Adults with Diabetic Kidney Disease
Poster
Lorenz Laurent, Angela Acuna, Karla Rivera, Renata Rigueira, Cynthia Chen, Karla Rivera, Lyndon West, and Diane Baronas-Lowell
Faculty Mentor(s): Teresa Sakraida and Erica Landau

Diabetic Kidney Disease (DKD) affects 30-40% of diabetics and has the highest rate of mortality since these individuals are not likely to follow recommended DKD care management activities. The purpose of this study is to examine the relationship between self-care management activities and the quality of life among adult patients with type 2 diabetes and chronic kidney disease. A total of 38 participants were randomized to either a control group and an educational behavioral counseling intervention group (N=21) that was analyzed in this study. Heroin's R was used for data analysis and the relationship between self-care management and the quality of life of patients with DKD was found. This study is unique because it is the first time non-recognized Easy and properly managed. It can led to advanced DKD with dialysis, which is costly and difficult to cope with.

Rapid Detection G. zonatum in Palm Trees Using qPCR
Poster
Alexis Martin, Paul Gossa, Renata Rigueira, Cynthia Riguera, Marya Dang, Quinn Chen, Karla Rivera, Lyndon West, and Diane Baronas-Lowell
Faculty Mentor(s): Diane Baronas-Longos

Antibiotic-resistant fungal infections are the most significant health threat of our time (Centers for Disease Control and Prevention, 2018). Notorious for their resistance capabilities, the ESFAs pathogens have become major targets for antibiotic discovery. Tiny Earth at FAU isolates thousands of soil bacteria to discover new antibiotics. Six bacterial isolates presented high antibiotic activity against nine pathogenic species of soil bacteria to discover novel antibiotics. Six bacterial isolates presented high antibiotic activity against nine pathogenic species of soil bacteria to discover novel antibiotics. The configuration and validation of eight core gene targets were used to detect G. zonatum in palm trees using real-time qPCR technology. A new type of lysozyme (Trypsin glycosylation) has been identified within the EdAP peptide sequence, in which AD patients have increased amounts of this enzyme. This study aims to investigate two treatment molecules: standard lyme disease and xenic lyme disease. The role in Alzheimer disease (AD) pathogenesis has been proposed. Our study will analyze the potential of these molecules to produce markers. This thesis was able to provide a sustainable, lower cost solution treatment solution which will improve the groundwater and environmental conditions.

The Synthesis of O-Glycosylated Tyrnone for Solid-Phase Peptide Synthesis of Aβ glycopeptides
Poster
Alessandra Messolla, Nandini Singh, David Ormaza, and Maré Cudic
Faculty Mentor(s): Massimo Caputi and Gregg Fields

The goal of this project is to determine the changes occurring in CD4+ T cells following HIV-1 infection. Four orders were recorded in both the grass and scrub areas of the Florida Atlantic University preserve. The diversity of arthropods was then compared between the two habitats. The preliminary results show a total of 66 species of arthropods (26 in grass, 31 in scrub). For each habitat, we recorded the total number of species and the number of invertebrate species in their burrows. The result was obtained by analyzing the composition of fibrils. A new type of lysozyme (Trypsin glycosylation) has been identified within the EdAP peptide sequence, in which AD patients have increased amounts of this enzyme. This study aims to investigate two treatment molecules: standard lyme disease and xenic lyme disease. The role in Alzheimer disease (AD) pathogenesis has been proposed. Our study will analyze the potential of these molecules to produce markers. This thesis was able to provide a sustainable, lower cost solution treatment solution which will improve the groundwater and environmental conditions.
The spinal fluid test was positive, self-diagnosed herself with syphilis. An eighty-eight-year-old woman, who discusses a neurological disorder, was investigated. We did our research based on Faculty Mentor(s): Angel Nevin Jenny Mendez and Chloe Gaspard. Other Species in the Lomami Cercopithecus lomamiensis and Relationships Between Other Species in the Lomami Cercopithecus lomamiensis provides a unique opportunity to investigate interspecies interactions using terrestrial camera traps. Our objective is to determine interspecies co-occurrence of leucos and the nature of the association was described using positive, negative, and neutral coefficients. We used event data for each multi-species video that contained leucos and the nature of the association was described. We did not analyze the opportunistic observations. Our preliminary results confirm our hypothesis: a significant portion of leucos interspecies interactions were neutral associations with the blue duiker.

Parkinson's Disease May Trigger Compulsive Sexual Behavior
Poster Jenny Mendez and Orheo Gaspard Faculty Mentor(s): Angel Nevin

We did our research based on the book The Man Who Mistook His Wife for a Hat, specifically in the chapter "Cajal's Disease." This chapter discusses a neurological disorder, syphilis. A rare case on Natasha K., an eighty-eight-year-old woman, who self-diagnosed herself with syphilis. The spinal fluid test was positive, therefore she was cured. Natasha experienced neuropsychosis, a relapse of syphilis when not properly treated. She experienced a high sexual drive, skin rash, and became less creative as she was diagnosed with neurosyphilis. Parkinson's disease has been linked to hyposexuality. Additionally, neurosyphilis was falsely diagnosed with mumps. She was given a task, to draw figures which they realized to draw figures which they realized to be neutral. We created this to draw figures which they realized to be neutral. We created this to draw figures which they realized to draw figures which they realized.

Synthesis of Glycosylated Amino Acids Bearing Tumor-Associated Carbohydrate Antigen
Poster Marc Cudic, William Miranda, and Math Cudic Faculty Mentor(s): Mare Cudic and William Miranda

Approximately 1.7 million new diagnoses of cancer will occur this year in the United States alone and more than a half-million people will die from the disease. The morphological changes in cancerous cells can be seen as an important target in cancer treatment. The Thomson-Friedenreich (TF, Galα1-3GalNAc) is an O-linked tumor-associated carbohydrate antigen that is found on Mucin 1 (MUC1) glycoprotein. The TF antigen on MUC1 has extensively studied due to its overexpression in a variety of cancers, growth, and tumor metastasis. TF when it interacts directly through its interaction, TF can be used as a diagnostic marker. Microtumor-derived carbohydrate binding protein galectin-3 (Gal-3). The current approach towards the glycosylated amino acid building block bearing the TF tumor antigen has raised the question of how the interaction between TF and galectin-3 helps in understanding the mechanism of this tumor antigen.

Gut Life Affiliation and Sexual Assault: Analyzing the Roles of Society, the Alpha Male, and the Beta Female
Poster Michelle Mitchell Faculty Mentor(s): Gina Camero-Lukasz

Colleges and universities in the United States have been the focus of many studies investigating the link between campus culture and sexual assault victimization. Researchers (Mirvas, 2009; Jacksons & Wernery, Mosley, 2017) assert that the role of victimization is higher for members of Greek letter social organizations. This paper focuses on the risk of women involved in Greek life and examines the roles of college administration, Greek organizations, and societal norms that perpetuate rape culture in campus organizations. Findings from a literature review point to a need for changes in traditional roles, bystander action, and attitudes towards sexual assault. Society and the Greek life subculture of campus. We at many colleges and universities are an outlet for student interaction. However, stakeholders of the university community must assume responsibility for changing the present acceptance of rape culture that exists in many organizations that are sanctioned by traditional roles. We created event data for each multi-species video that contained leucos and the nature of the association was described. We did not analyze the opportunistic observations. Our preliminary results confirm our hypothesis: a significant portion of leucos interspecies interactions were neutral associations with the blue duiker.

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The synthetic inhibitor will include that mimics HAI's mode of inhibition. Simulation studies were followed by endogenous inhibitors, HAI-1 and of matriptase with respect to its inhibitors of matriptase are targets enzyme whose overactivation is.

Poster Inhibition of Matriptase at the Cell Surface for Testing Memory in Mice

In this experiment, a familiar and unknown object pairs presented to spontaneously explore novel objects. Novel Object Recognition (NOR) is a test used to assess forR variants in the absence of genetically increasing c-GMP PKG enzyme activity.
The Effect of Mindfulness and Concentration Meditation on Recall of Non-socially Related Stimuli

Poster
Alexandra Rosero-Merhit, Hannah Stamoc, Omar Avila, Laura Vernon, and Julie Earles
Faculty Mentor(s): Laura Vernon and Julie Earles

Concentration meditation guides the listener to focus on specific stimuli such as their breathing or sounds. Whereas, mindfulness meditation guides the listener to become more accepting and non-judgmental of their thoughts and focus on the present moment. In this study, undergraduate participants were assigned to one of three conditions: mindfulness meditation, concentrative meditation, or resting-watching-a-movie (active control). All participants were shown the same scene, neutral, and positive images, and then completed a free recall and a recognition memory task. We used two questionnaires (FFMQ and TMS) to measure the levels of state and trait mindfulness, respectively. If successful, this research will have potential to bolster current BCI applications, providing mobility to patients with neuromuscular disease while improving their quality of life.

The Place of the Body in Vladimir Solovyov’s The Meaning of Love

Poster
Yuri Sachnowski, Richard Shusterman, Kenneth Holloway, Eugene Smith, and Julie Earles
Faculty Mentor(s): Richard Shusterman and Eugene Smith

The Russian philosopher Vladimir Solovyov played a significant role in the development of Russian philosophy. His seminal work The Meaning of Love expresses his view on the importance of the physical body with regards to understanding what is the true meaning of love. It contrasts the concept of love with previous historical instances of the true meaning of love that contrasts the idea of love with the idea of the physical body with regards to love. This paper will explore the connections between the body and Solovyov’s conception of love. I will examine the body’s role in an individual’s sexual utilization that leads to greater insight on understanding the true meaning of love and contrast this idea of love with previous philosophical ideas on the topic. It will be argued that the body is of central importance to Solovyov’s discourse on the meaning of love and it is through the physical body that the true meaning of love can be understood.

The Regulation of Sleep by Dietary Fatty Acids in the Fruit Fly

Poster
Estelle Laura Sama Barbosa, Elizabeth Brown, and Julie Earles
Faculty Mentor(s): Alex Keene

Consumption of high fat food contributes to weight gain and disorders that are increasing in prevalence. In this research, we will investigate the effects of certain fatty acid profiles found in various foods on sleep. Participants will be assigned to one of two conditions: high fat diet and control diet. Each diet will contain two questionnaires (FFMQ and TMS) to measure the levels of state and trait mindfulness, respectively. After completing the questionnaires, participants will have their sleep activity recorded. Phase two results suggest that a gustatory medium-chain FA, promotes sleep by increasing the number of sleep episodes. To assess whether the current diet vs. the taste system, we tested flies in a mutation in the gene encoding for the taste receptor required for FA perception. Our results suggest that an independent F1141 mechanotranslating mechanism regulates sleep architecture in response to FAs. This sets the stage for a detailed investigation into the mechanisms by which FAs modulate sleep.

Social Biases in Children With and Without Social Risk of Autism

Poster
Jonathan Samuel
Faculty Mentor(s): Glazele Anures

One of the characteristics of Autism Spectrum Disorder (ASD) is impaired social biases. It has been shown to be heritable and relative to the autistic spectrum. If there has been an increased chance of displaying autism, it seems to affect the accuracy and latency within a visual scene rather than the accuracy and latency within a non-socially related targets in two groups of children between 6 to 10 years of age: one group with older siblings with autism spectrum disorder and another group with no familial risk of ASD. The results show no differences in the accuracy of finding the target. The sibling group found the targets faster than the control group. However, this seemed to be driven by longer times in finding non-socially related targets in the sibling group.
Abstracts

Assessment of the Bacterial Community Structure of Citrus Plants on Cultivated and Historically Un-cultivated groves in Central Florida
Poster
Grace Sauter and Daniel Terry
Faculty Mentor(s): Nwadiuto Esiobu

Un-cultivated Groves in Central Florida Plants on Cultivated and Historically

Determining Perception of Media Bias
Poster
Elizabeth Siwica
Faculty Mentor(s): Myeongsub Kim, Scott Shirley, Seokju Seo, and Robert Snyder

Effect of Bath Salts on the Activation of Cortical Neurons Associated with Excessed Delirium
Poster
Gisele Shin, Pama Alon, and Rui Tao
Faculty Mentor(s): Rui Tao

3,4-Methylenedioxypyrovalerone (MDPV) is a synthetic cathinone that causes signs and symptoms of excited delirium closely similar to those of schizophrenia such as confusion, paranoia, hearing voices, and agression. The purpose of this study was to investigate regional differences in activation of glutamatergic and GABAAergic neurons associated with the delirium behaviors. MDPV (0.25 - 2 mg/kg i.p.) was administered into male Sprague-Dawley rats. Delirium behaviors were assessed by measuring hyperactivity, stereotyped behaviors and two-choice serial reaction time task (8-CSFT). In separate experiments we measured expression levels in glutamatergic and GABAAergic neurons in the prefrontal cortex (PFC), nucleus accumbens (NAcc) and septum (SEPT) of C57BL/6j mice that were tested for the effectiveness of microalgae harvesting where different inertial flow parameters (IOP) and separation efficiency will be quantified. In addition, inertial flow parameters will be numerically analyzed and simulated to find an optimal design for the maximum separation.

Effects of Freshwater Releases on Water Quality in the South Florida Canal System
Poster
Bhyna Slik and Tera Raya
Faculty Mentor(s): Tara Riao

South Florida has an extensive network of freshwater canals designed for water management and flood control. Gates located on these canals are frequently opened to freshen water discharges into the coastal estuaries. These fresh water releases are high the gates are opened to allow the ocean water to move in from the coast and displace the salt water to the estuaries. These releases put a stress on the coastal ecosystem. The releases also affect the economy through urban and agricultural areas where the releases go. Thus, large discharges of nutrient-rich fresh water into the estuarine systems can have the potential to seriously damage the environment and create harmful algal blooms in the region. This poster presents the preliminary results of a study on the spatial and temporal distribution of nutrients along a transect from the coast to fresh water canals during the dry season. The outcomes of this project will provide an understanding on how nutrient transport affects the aquatic ecosystem.

Effect of Student Dissatisfaction of On-Campus Food Service on Causing Students to Prefer Eating Off-Campus
Poster
Austin Silverstein and Noah Jensen
Faculty Mentor(s): Tradesh Korgiaakor

Restaurants/bar generate 60.5% of average weekly sales from happy hour, being open 15 hours the business week. With 77% of FAU students receiving financial aid, discretionary income is minimal but the cost of living in Boca Raton is high. However, we suspect that students are choosing to eat off-campus restaurants/bar rather, continuing to increase sales.

Additionally, there is a correlation between students being unsatisfied with the quality and price of the food service offered on campus and students preferring to eat off campus if harmful effects are present. We conducted a survey consisting of 14 questions and ran a correlation analysis. From our data, we found a statistically significant correlation. Therefore, both students would utilize a free app providing instantaneous access to local restaurants’ food specials and happy hour deals, if guaranteed reduced food prices and free app would result in the dissatisfaction with on campus food’s availability.

Abdul Ghaffar Khan and the Partition of India
Poster
Orly Szwarc
Faculty Mentor(s): Douglas McGinley

“You have thrown us to the wolves.” Abdul Ghaffar Khan said after his fellow members of the Indian National Congress as well as his ally, Mahatma Gandhi, accepted the Partition of India. The Partition would divide India into two separate countries, India and Pakistan, Muslims and Hindus would be divided. Khan found himself with few options if he were to continue to work with the Partition. The Partition, though it would bring about a new India, would also bring about the destruction from the British, promote the notion that Hindus and Muslims were separate and thus creating an intense hatred against, that Hindus and Muslims were separate and that Hindus would be better off as a separate entity. Abdul Ghaffar Khan opposed the Partition of India, however, in 1947, the ramifications for his movement of Partition were devastating. Any opposition to the Partition of India would ultimately be worse than the Indian National Congress, which may have resulted from a united India.

Measurement of Quantum States Using Classical and Quantum Techniques
Poster
Robert Snyder, Alexandra DeCesare, Daniel Canavato, and Daniel Gil Valenzuela
Faculty Mentor(s): Gregory Krymern and Maxwell Warner Miller

Securing our personal information has become an urgent issue for national security. Classical computers can encrypt data; however, encryption can also be easily decrypted when computers need information. A more secure option for transfer information is using quantum entangled particles. Within the Miller’s quantum information lab, graduate students S. Mostafanazhad Aslmard and Elizabeth Siewcz are working to identify the state of the quantum system. Both students would utilize a free app providing instantaneous access to local restaurants’ food specials and happy hour deals, if guaranteed reduced food prices and free app would result in the dissatisfaction with on campus food’s availability.

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The Effect of Seating Arrangement on Active Engagement and Distractions in the Classroom
Poster
Mia Swaak, Kyle Long, Nicole Chen, Benjamin Zollman, Alan Faculty Mentor(s): Amy Tilt
Classroom seating arrangement has become a more important issue in education and distraction. Researchers believe that more rows would provide the highest levels of engagement and distractions. A study of facts showed that students in the distance module in order to pick students needed for this research. Using this information, I will examine metadistance and for each RRL. Developing a Biologically Based Artificial Leaf: Toward and System to Oxygen Evolution
Poster
Vijay Suthanakar Faculty Mentor(s): Peng Yi
Every year, over 38 billion tons of carbon dioxide are released into the atmosphere due to various human activities. This research presents a practical solution by developing a fully artificial leaf which mimics the process of photosynthesis, resulting in the production of oxygen. In evaluating the effect of various parameters, it was found that the artificial leaf could produce 1.7 times that of cyanobacteria was created and polymerized. Results showed that the artificial leaf, by photosynthesis, could produce oxygen. In conclusion, this study not only provides a new way of oxygen production but also opens up new opportunities for the development of artificial leaves and other applications.

Self-Regulatory Orientations and Relationship Quality
Poster
Vanessa Szabadi Faculty Mentor(s): Michael Maniaci
Lociocomotion and assessment are two different self-regulation modalities that have various applications. This study examines the relationship between two self-regulation modalities and its impact on student success.

Analysis of American Anti-Feminism from 1880-1960: Positive and Negative Effects
Poster
Hope Talyor Faculty Mentor(s): Gina Camena-Lukasik
This study examines anti-feminist efforts over the years, looking at the impact of the second feminist wave in the 1960s. It explores how different forms of media, such as speeches, propaganda, and other forms of communication, have affected anti-feminists. The study demonstrates that anti-feminist movements have been successful in altering public opinion and fighting for women's rights. The move for more independence and self-confidence has been the main focus of these anti-feminist efforts.

Design for a 2D & 3D Animatic Short on a Historical Incident in Yachats, Oregon
Poster
Sharnelle Tellef
For my final project, I would like to use the concept that draws on the history of Oregon's transition from Native domain to U.S. statehood. The project involves creating a 2D & 3D animatic short using Premiere and Maya. How will the audience find the story and how will the story affect the tone? How will the art and color be used to set the mood and the atmosphere? How will the background interact with each other to set the mood and tone? What color schemes work best for a secluded, mysterious setting, and how will the storyboards affect the tone and atmosphere? How will the project work best for a secluded, mysterious setting, and how will the storyboards affect the tone and atmosphere? How will the project work best for a secluded, mysterious setting, and how will the storyboards affect the tone and atmosphere?
The State of Hummingbirds: The Bureaucratic Caring was used as a Framework for Evaluating the Efficacy of Academic Success in Students with Emotional/Behavioral Disorders

Poster
Sarah Thurlow
Faculty Mentor(s): Gina Carreno-Lukas

The Relevance of Cultural Commonality Based Relationships Developed Between Asian and Students with Emotional and Behavioral Disorders

Poster
Darren Thomas
Faculty Mentor(s): Lisa Finnegan

The Effects of Raising Nest Temperatures on the Embryonic Mortality Rates of Loggerhead Sea Turtles (Caretta caretta) for the Nesting Season of 2018.

Poster
Valerie Toye and Sarah Milton
Faculty Mentor(s): Sarah Milton

If VizWul: A Low-cost, Parallel Compute Cluster

Poster
Matthew Irzik, Kristin Murphy, and Ash Lavkulich
Faculty Mentor(s): Eli Banerjee

Pi VizuWall: A Low-cost, Parallel Architecture using the commodity Raspberry Pi 3B+ as its compute node. This project seeks to introduce the concept of parallel computing to students and teachers through the development of a cost-effective system. This system can be used to introduce parallel computing concepts early in the learning cycle. This system has novel functionality that uses electro-mechanical means to visualize the parallel computing processes. The system has been designed as “the Ninja Gap.” This project seeks to create a low-cost Beowulf Cluster using the commodity Raspberry Pi 3B+ for its compute node. This project seeks to reduce the cost of learning, potentially making learning resources available earlier in the academic cycle. This project introduces the concept of parallel processing to students through the operation of the Cluster as it executes a MPI program.

Hyphenated Identity: An Exploration into the Globalized Hyphenated Existence

Oral
Natasa T. Trisha
Faculty Mentor(s): Lu Meixing and Gina Carreno-Lukas

The Relevance of Cultural Commonality Based Relationships Developed Between Asian and Students with Emotional and Behavioral Disorders

Poster
Darren Thomas
Faculty Mentor(s): Lisa Finnegan

Synthesis and Characterization of Novel Fluorescent Probes for Visualization of Biological Membranes

Oral
Darren Thomas, Maciej Stawikowski, and Visaya Papavagou
Faculty Mentor(s): Maciej Stawikowski

Two fluorescent probes based on the well-characterized naphthalimide scaffold, were successfully synthesized and characterized. These probes have varying emission wavelengths and can be utilized for unique intercellular probes that aim to make knowledge about hummingbirds more accessible and enjoyable by drawing from studies in the Fine Arts and Biological Sciences. This research has been conducted under a grant given by the Office of Undergraduate Research and Inquiry at the University of Rhode Island during the Fall 2018 and Spring 2019 semesters.

Assessing the Efficiency of Bureaucratic Commonality as a Framework for Evaluating Long-Term Care Administrators’ Depersonalization of their Roles and Challenges

Poster
Sarah Thrulow
Faculty Mentor(s): Rose Sherman

With a rapidly growing older adult population in Florida, a predicted nursing shortage and a growing number of acute and chronic illnesses, there is an urgent need for leadership development in long-term care facilities to ensure quality care for this group. The Theory of Bureaucratic Caring was used as a nursing framework to examine leadership practices shared by leaders in long-term care settings. The purpose of the study was to evaluate whether the primary themes of the theory were present in the interview accounts of long-term care leaders. A descriptive qualitative method was used with 21 long-term care leaders. Content analysis was used with secondary interviews. Leaders were female, age range from 26-67. The results showed that all themes from this theory were present in the accounts of leaders and provides insight into the value of linking nursing theory to guide leadership and practices.

Risk of identity. Despite the fact that the State of Hummingbirds: The Bureaucratic Caring was used as a Framework for Evaluating the Efficacy of Academic Success in Students with Emotional/Behavioral Disorders

Poster
Darren Thomas
Faculty Mentor(s): Lisa Finnegan

There is no clear path to understanding the best way to nurture academic success in students with Emotional/Behavioral Disorders (EBD). Some students have well-identified, well-documented disabilities that are present in special education classrooms while others are learning about these disabilities. The focus of this study is to introduce students to the culture of the special education classroom and how they can participate in this unique interdisciplinary venture that aims to make knowledge about hummingbirds more accessible and enjoyable by drawing from studies in the Fine Arts and Biological Sciences. This research has been conducted under a grant given by the Office of Undergraduate Research and Inquiry at the University of Rhode Island during the Fall 2018 and Spring 2019 semesters.

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of mAb drugs with PD-1 or maintenance of peripheral tolerance. Specifically for having a crucial role in the development of a new approach to cancer therapy, the cell death 1 immunoreceptor (PD-1) plays a central role. It is known that PD-L1:PD-1 interactions can be targeted to treat cancer.

**Poster Rationale Design of Protein-Protein Interaction Models**

Gopher tortoises as keystone species (Gopherus polyphemus) have been studied in Florida scrub habitats (e.g., Pine Jog Nature Center), grassy habitats (e.g., Loxahatchee National Wildlife Refuge), and pine habitats (e.g., State Park). In total, 24 species were observed at the three study sites in South Florida. Species were observed in pine, 18 in scrub habitats. One common trend observed is that the tortoises are more active in the morning and less active in the afternoon, possibly due to the higher temperatures during these times.

**Poster Analysis of Vertebrate Species of South Florida**

One novelty of the design is that the structure can induce vertical flow to dissipate the flow energy and let sand settle near the breakwater. This process can, in turn, sustain and grow the breakwater using surrounding sand, protecting and restoring natural habitats. The conceptual design was developed and simulated using CFD and shows promising results.

**Poster Organ shortage continues to be the issue in clinical practice.**

**Poster Intermediating Politics through Autobiographical Video Games: Remarkable Story of Fezekile Ntsukela Kuzwayo**

**Poster Biomatric Synthesis of Briarane Diterpenoids from Briareum asbestinum**

In scrub habitats, which have gates that are remotely controlled. The freshwater canals are subject them to biological screening for new compounds identified will be to test a plausible biosynthetic pathway for the estuarine environment, which has opened during periods of high precipitation. Such a large influx of fresh water creates an increased current in the estuary and flushing of sediments and nutrients, which supports the growth of macro and intertidal organisms. The study aimed to test the final steps of the proposed breakwater employs a series of plexiglass blocks with angular blocking faces opposite directions. One novelty of the design is that the structure can induce vertical flow to dissipate the flow energy and let sand settle near the breakwater. This process can, in turn, sustain and grow the breakwater using surrounding sand, protecting and restoring natural habitats. The conceptual design was developed and simulated using CFD and shows promising results.

**Poster Bilan**

**Poster Relevant Outcomes**

**Poster Environmental degradation and the ever-increasing levels of pollution are a matter of concern in our world and in our near future.**

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**Poster Analysis of Vertebrate Species of South Florida**
Formation of Social Groups by Gender in Young Students

Poster
Tiffany Zhang, Kelsey Wheeler, Mahalakshmi Elkon, Delta Levine, Genevieve VanCamp, Kobe Kirschner, and Amy H. Tift
Faculty Mentor(s): Amy Tift

Preschool age children develop their gender identity by approximately 36 months of age and that identity begins to define how they interact with their peers (Martin & Ruble, 2009). It was hypothesized that with younger students (those in preschool), social groups would be more gender dependent as young children’s understanding of gender norms are more adherent, while older children will form more gender diverse social groups. Researchers observed three age groups of children - 3 and 4 years olds and 1st grade students - over the course of several days as children engaged in free-play. Results demonstrated that the younger children were more likely to form social groups that were comprised of a single gender than older children. These findings suggest that younger children, who have more recently begun to understand gender norms, are more likely to form gender constricted social groups.

Analyzing the Semantic Ranges and Genre Moves of Three Minute Thesis Presentations

Poster
Chelsea Zuvieta and Andres Ramirez
Faculty Mentor(s): Andres Ramirez

The Three Minute Thesis (3MT) competition is an academic oral genre that challenges graduate students to present their research to a general audience in three minutes. Although this academic genre has gained international recognition, research on this topic is limited. Using genre analysis (Swales, 2004) and the semantics dimension of Legitimation Code Theory (Maton, 2014), 100 3MT final presentations from various university competitions from 2016 to 2018 are transcribed and being analyzed. The semantic wave results will be represented onto a Cartesian plane documenting the changes in semantic gravity, or word meaning concreteness, and semantic density, or word meaning complexity, across the three minute interval. It is expected that a schematic visual representation of resulting semantic ranges may serve as a guide for future 3MT participants. Furthermore, these findings may expand the practical uses of Legitimation Code Theory outside the classroom environment and in professional settings.