9th Annual Undergraduate Research Symposium

Oral Presentation Winners

Category: Basic Sciences

**First Place:** Joubin Jebelli  
Project Title: “Assessing the Therapeutic Potential of Novel Marine Products and Very Low Dose Radiation in Prostate Cancer”  
FAU Mentor: Lyndon West  
College: Charles E. Schmidt College of Science

**Second Place:** Deborah Thomas  
Project Title: “Synthesis and Characterization of Novel Fluorescent Probes for Visualization of Biological Membranes”  
FAU Mentor: Maciej Stawikowski  
College: Charles E. Schmidt College of Science

Category: Behavioral, Educational & Social Sciences I

**First Place:** Jeffrey Coltman-Cormier  
Project Title: “Desperate Times Call for Desperate Measures: How Border Fortification Intensifies Transnational Insurgents’ Violence Against Civilians”  
FAU Mentor: Angela Nichols  
College: Dorothy F. Schmidt College of Arts and Letters

**Second Place:** Cassidy Brydon, Aubrey Jones and Elizabeth Lanzon  
Project Title: “Online or Offline: Expressive Writing Administration Preferences for Non-Treatment-Seeking College Students”  
FAU Mentor: Laura Vernon  
College: Harriet L. Wilkes Honors College

Category: Behavioral, Educational & Social Sciences II

**First Place:** Abbey Peterman  
Project Title: “Uncovering Methods of Coercion through the Rhetorical Criticism of the Communist Manifesto”  
FAU Mentor: Andrew Tinker  
College: Dorothy F. Schmidt College of Arts and Letters

**Second Place:** Alexandria Remillard  
Project Title: “Defining Hate: A Content Analysis of the Nation’s Hate Crime Laws”  
FAU Mentor: Seth Fallik  
College: College for Design and Social Inquiry
First Place: **Alejandra Rodriguez and Anthony Vultaggio**  
Project Title: “Political Divide and its Influence on Civic Engagement”  
FAU Mentor: Monica Escaleras  
College: College of Business

Second Place: **Laura Bautista and Julia Gaglio**  
Project Title: “Do Americans Feel Comfortable with the Advancements In Self-Driving Car Technology?”  
FAU Mentor: Monica Escaleras  
College: College of Business

First Place: **Genevieve Kunkel and Rosa Walls**  
Project Title: “Carbon Dioxide and Ethanolamine Injection for Enhanced Oil Recovery”  
FAU Mentor: Myeongsub Kim  
College: College of Engineering and Computer Science

Second Place: **Daniel Carvalho**  
Project Title: “Micro-particle Laser Trapping for Optical Tweezers”  
FAU Mentor: Grigoriy Kreymerman  
College: Charles E. Schmidt College of Science

First Place: **Vithulan Suthakaran**  
Project Title: “Developing a Biologically Based Artificial Leaf to Filter and Transform Carbon Dioxide Emissions into Oxygen via Photosynthesis”  
FAU Mentor: Peng Yi  
College: College of Engineering and Computer Science

Second Place: **Matthew Trask, Kristian Murphy and Art Rozenbaum**  
Project Title: “Pi VizuWall: A Low-cost, Parallel Compute Cluster”  
FAU Mentor: Elan Barenholtz  
College: Charles E. Schmidt College of Science

First Place: **Kaitlin Grell**  
Project Title: “The Effect of High Nest Temperatures on the Growth Rates of Loggerhead Sea Turtle (Caretta caretta) Embryos and Hatchlings”  
FAU Mentor: Sarah Milton  
College: Charles E. Schmidt College of Science

Second Place: **Brian Lages and Alexander Shaw**  
Project Title: “Nickel Nanoparticles-assisted Monoethanolamine for Carbon Capture”  
FAU Mentor: Myeongsub Kim  
College: College of Engineering and Computer Science
Category: Health and Medical Sciences

**First Place:** Mary Minore  
Project Title: “Synthesis of Glycosylated Amino Acids Bearing Tumor-Associated Carbohydrate Antigen”  
FAU Mentor: Mare Cudic  
College: Charles E. Schmidt College of Science

**Second Place:** Michael Correa  
Project Title: “Effects of Resistance and Aerobic Training on Growth Factor Expression and B-amyloid in a Murine Model of Alzheimer’s Disease”  
FAU Mentor: Michael Whitehurst  
College: College of Education

Category: Music, Art, Literature, Theater, History and Philosophy I

**First Place:** Elizabeth Siwica  
Project Title: “Abdul Ghaffar Khan and the Partition of India”  
FAU Mentor: Douglas McGetchin  
College: Dorothy F. Schmidt College of Arts and Letters

**Second Place:** Nicholas Weid  
Project Title: “Autobiographical Video Games: Essayistic, Independent, and Empathetic”  
FAU Mentor: Stephen Charbonneau  
College: Dorothy F. Schmidt College of Arts and Letters

Category: Music, Art, Literature, Theater, History and Philosophy II

**First Place:** Yuri Sachnowski  
Project Title: “The Place of the Body in Vladimir Solovyov’s The Meaning of Love”  
FAU Mentor: Richard Shusterman  
College: Dorothy F. Schmidt College of Arts and Letters

**Second Place:** Hannah Garcia  
Project Title: “Zen and American Pragmatism: Western Individualist Misperceptions of Zen-Buddhist Ritual”  
FAU Mentor: Kenneth Holloway  
College: Charles E. Schmidt College of Science
9th Annual Undergraduate Research Symposium

Poster Presentation Winners

Category: Basic Sciences I

First Place: Dalia Soueid
Project Title: “Engineering of Novel Matriptase Inhibitors Based on Eglin C Core Structure”
FAU Mentor: Maciej Stawikowski
College: Charles E. Schmidt College of Science

Second Place: John Pearl, Peter Ramdhan
Project Title: “Inhibition of Matriptase at the Cell Surface: Modeling and Synthesis of Membrane-anchored Matriptase Inhibitors”
FAU Mentor: Maciej Stawikowski
College: Charles E. Schmidt College of Science

Category: Basic Sciences II

First Place: Lana Ilazarova, Luis Campos, Merna Mankarious, Julie Yassa
Project Title: “Identification of Amphid Neurons Where Autophagy Acts to Control C. elegans Development”
FAU Mentor: Kailiang Jia
College: Charles E. Schmidt College of Science

Second Place: Alexis Martin
Project Title: “Optimized Protocols for Extraction of Microbial Natural Products”
FAU Mentor: Diane Baronas-Lowell
College: Charles E. Schmidt College of Science

Category: Basic Sciences III

First Place: Daniella Ospina
Project Title: “Immigration, Education and Cognitive Performance in Elderly Bilingual Adults Who Are Cognitively Normal, MCI and Dementia”
FAU Mentor: Monica Rosselli
College: Charles E. Schmidt College of Science

Second Place: Maria Fernandez
Project Title: “Quantifying Genetic Differentiation Among Gopherus Polyphemus Populations in South Florida to Guide Translocation Efforts”
FAU Mentor: Evelyn Frazier
College: Charles E. Schmidt College of Science
**Category: Behavioral, Educational & Social Sciences I**

**First Place:** Nicole Fitzgerald, Kayla Burd  
Project Title: “Examining Affective Exchanges in Therapy Sessions with Substance Abuse Clients”  
FAU Mentor: Paul Peluso  
College: Charles E. Schmidt College of Science

**Second Place:** Kelly Thomas  
Project Title: “The Relevance of Cultural Commonality Based Relationships Developed Between Teachers and Students with Emotional and Behavioral Disorders”  
FAU Mentor: Lisa Finnegan  
College: College of Education

**Category: Behavioral, Educational & Social Sciences II**

**First Place:** Alyssa Alvarez, Nikole Holness  
Project Title: “What is the Public’s Perception of Welfare in America?”  
FAU Mentor: Monica Escaleras  
College: College of Business

**Second Place:** Kimarah Lamothe  
Project Title: “Interactions of the Nucleus Reuniens of the Thalamus and Hippocampus in Elapsed Time”  
FAU Mentor: Robert Vertes  
College: Charles E. Schmidt College of Science

**Category: Behavioral, Educational & Social Sciences III**

**First Place:** Nadine Akin  
Project Title: “EEG and FMRI Data Analysis”  
FAU Mentor: Emanuelle Tognoli  
College: Charles E. Schmidt College of Science

**Second Place:** Stefani Moccia  
Project Title: “AI-based Feedback for Prevention of Body-focused Repetitive Behaviors”  
FAU Mentor: Elan Barenholtz  
College: Charles E. Schmidt College of Science

**Category: Business, Marketing, Finance and Public Administration**

**First Place:** Sydney Elney  
Project Title: “The Effects of Infrastructure Service Disruptions and Socio-Economic Vulnerability on Hurricane Recovery”  
FAU Mentor: Monica Escaleras  
College: College of Business

**Second Place:** Daphnie Dilus, Jazmin Velasco  
Project Title: “Social Media’s Affect on Self-Esteem”  
FAU Mentor: Monica Escaleras  
College: College of Business
**Category: Classroom Research Project/Assignment**

**First Place:**  
*Austin Silverstein*  
Project Title: “Effect of Student Dissatisfaction of On-Campus Food Services Causing Students to Prefer Eating Off-Campus”  
FAU Mentor: Pradeep Korgaonkar  
College: College of Business

**Second Place:**  
*Lee M. Sanchez Lucas*  
Project Title: “Rapid Method for Human Health Risk Assessment in the Swash Zone (Wet Beach Sand) of South Florida Beaches”  
FAU Mentor: Esiobu Nwadiuto  
College: Charles E. Schmidt College of Science

**Category: Cross Disciplinary Projects**

**First Place:**  
*Kristen Crawford*  
Project Title: “All Ears: Can Ear Recognition Software be a Solution for Mobile Phone Security?”  
FAU Mentor: William Hahn  
College: Charles E. Schmidt College of Science

**Second Place:**  
*Christopher Tepetitlan, Tracey Tobkin*  
Project Title: “The State of Hummingbirds: The Wingbeats the World Should Know”  
FAU Mentor: Dorotha Lemeh  
College: Harriet L. Wilkes Honors College

**Category: Engineering**

**First Place:**  
*Holly Schlichting, Harrison Rudd, Andreas Noel-Williams, Renata Rigueira*  
Project Title: “Algae Neutralizing Cleaning Hybrid Ocean Robot (A.N.C.H.O.R)”  
FAU Mentor: Pak Cheung Edgar An  
College: College of Engineering and Computer Science

**Second Place:**  
*Mary Rasura*  
Project Title: “Recognizing the Boiling of Liquids Using CNNs”  
FAU Mentor: William Hahn  
College: Charles E. Schmidt College of Science
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<thead>
<tr>
<th>Category: Environmental, Ecological &amp; Marine Sciences I</th>
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<tbody>
<tr>
<td><strong>First Place:</strong> Lisa Nguyen</td>
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<td>Project Title: “Water Quality Analysis to Assess Nutrient Loading and Algae Bloom Potential”</td>
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<td>FAU Mentor: William Louda</td>
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<th>Second Place: Zachary Hollendonner, Lovenie Talien</th>
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<td>Project Title: “Using a High-Throughput System to Manipulate Biotic Signaling and Physicochemical Parameters While Screening for Bioactive Molecules”</td>
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<td><strong>First Place:</strong> Lauren Melanson</td>
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<td>Project Title: “A Survey of the Arthropod Species Present in Gopherus Polyphemus Burrows at the FAU Preserve”</td>
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<td>FAU Mentor: Evelyn Frazier</td>
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<td><strong>First Place:</strong> Laurent Lorquet</td>
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<tr>
<td>Project Title: “Rapid Detection G. zonatum in Palm Trees Using qPCR”</td>
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<td>FAU Mentor: Nwadiuto Esiobu</td>
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<th>Second Place: Andrew Balsamo, Tahoe Albergo, Mohamed Abutineh, Milove Jeannot, Amanda Lam, Nicholas Nifakos, Nicholas Pizzo</th>
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<td>Project Title: “Expression of Tardigrade Damage Suppressing Protein (Dsup) Gene in Tobacco Plants”</td>
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<td>FAU Mentor: Xing-Hai Zhang</td>
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<td><strong>First Place:</strong> Aaron McFarlane</td>
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<td>Project Title: “Transport of a Collagen-Derived Fluorogenic Substrate Across an In Vitro Model of the Blood-Brain Barrier”</td>
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<td>FAU Mentor: Gregg Fields</td>
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<td>Project Title: “Assessing the Efficacy of Bureaucratic Caring Theory as a Framework for Evaluating Long-Term Care Administrators Description of their Roles and Challenges”</td>
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<td>FAU Mentor: Rose Sherman</td>
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<td>College: Christine E. Lynn College of Nursing</td>
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Category: Health & Medical Sciences II

**First Place:** Sarvika Bommakanti  
Project Title: “The Role of Human Polynucleotide Phosphorylase (hPNPase) in Downregulating Oxidized RNA”  
FAU Mentor: Zhongwei Li  
College: Charles E. Schmidt College of Science

**Second Place:** Isabella Velasquez Botero  
Project Title: “Action Research to Benefit Those Who Suffered Loss: Refining a Therapeutic Walking Intervention in a Japanese Garden and Identifying Relevant Outcomes”  
FAU Mentor: Patricia Liehr  
College: Christine E. Lynn College of Nursing

Category: Health & Medical Sciences III

**First Place:** Rida Altaf  
Project Title: “Irradiation Augmentation of Genistein-Induced Apoptosis in Androgen-Independent DU-145 Prostate Cancer Cells in Vitro”  
FAU Mentor: James Kumi-Diaka  
College: Charles E. Schmidt College of Science

**Second Place:** Giselle Shim, Rama Abdin  
Project Title: “Effects of Bath Salts on the Activation of Cortical Neurons Associated with Excited Delirium”  
FAU Mentor: Rui Tao  
College: Charles E. Schmidt College of Science

Category: Music, Art, Literature, Theater, History & Philosophy

**First Place:** Izabella Hernandez  
Project Title: “Interactions Between Humans and The Public Built Environment: Creating Extensions of the Body Through Bacterial Exchange (A Sculptural Installation)”  
FAU Mentor: Julie Ward  
College: Dorothy F. Schmidt College of Arts and Letters

**Second Place:** Jessica Cassandra Young  
Project Title: “Strange Frequencies: Development of a Post-Human Narrative”  
FAU Mentor: Rachel Luria  
College: Harriet L. Wilkes Honors College