UNLV Student Union

UNLV Office of Undergraduate Research

Summer 2019 Undergraduate Research Symposium

In Proud Collaboration with UNLV Honors College & UNLV CSUN

Wednesday August 7, 2019
11:30 AM to 2:00 PM
10:30 - 11:30 AM  Check-in

11:30 - 12:15 PM  Opening Remarks & Lunch

Dr. Mary Croughan, Vice President for Research and Economic Development

Dr. Lisa Menegatos, Associate Dean of the Honors College

12:15 - 1:45 PM  Presentation Sessions

Room 207: Hospitality and Sciences Lightning Talks

Room 209: Business, Liberal Arts, and Urban Affairs Lightning Talks

Room 208: All Poster Presentations

1:45 - 2:00 PM  Closing Remarks

Dr. Levent Atici, Executive Director of Undergraduate Research
SESSION A: HOSPITALITY AND SCIENCES LIGHTNING TALK PRESENTATIONS (ROOM 207)

1 "Anxiolytic Effects of Diphenhydramine Injected Mice"
Jorge Carrera, School of Life Sciences
Faculty Mentor: Dustin Hines, Ph.D.

2 "Building a Better Hospitality Robot"
Thuon Chen, William F. Harrah College of Hospitality
Faculty Mentors: Robert Rippee, Ph.D. & Mehmet Erdem, Ph.D.

3 "Esports Environment"
Rolando Corley Melton, William F. Harrah College of Hospitality
Faculty Mentor: Brett Abarbanel

4 "Assessing Morphology as a Method for Identifying Three Springsnails Endemic to Southern Nevada"
Cody Cris, School of Life Sciences
Faculty Mentor: Jef Jaeger, Ph.D.

5 "Microwave Optimization for Testing Solid Content in WasteWater Facilities"
Emily Gelbart, Department of Geoscience
Faculty Mentor: Gabriel Judkins, Ph.D.

6 "EEG Assessment of the Role of Terpenes in the Entourage Effect"
Matthew Khumnark, School of Life Sciences
Faculty Mentor: Dustin Hines, Ph.D.

7 "Ubiquitin-Dependent Proteolysis is a Novel Hibernator"
Naidelin Maldonado, Department of Chemistry and Biochemistry
Faculty Mentor: Frank van Breukelen, Ph.D.

8 "Altered Fine Motor Coordination as a Hallmark for Disrupted Developmental Processes"
Ye Eun Nam, School of Life Sciences
Faculty Mentor: Dustin Hines, Ph.D.

9 "Adsorption of Methylene Blue and In-Situ Reactivation of Granular Activated Carbon (GAC) with Ozone"
Christina Obra, Department of Chemistry and Biochemistry
Faculty Mentor: Erica Marti, Ph.D.

10 "Water-Rock Interactions on Mars: Production of H 2 and Other Valuable Resources"
Richard Panduro-Allanson, Department of Geoscience
Faculty Mentor: Elisabeth Hausrath, Ph.D.
SESSION B: BUSINESS, LIBERAL ARTS, AND URBAN AFFAIRS LIGHTNING TALK PRESENTATIONS (ROOM 209)

1 "Characterization of the Head Twitch Response (HTR) after Administration of 5-HT 2A Receptor Agonist 25I-NBOH"
April Contreras, Department of Psychology
Faculty Mentor: Rochelle Hines, Ph.D.

2 "TSPO Ligands Attenuate Depressive-like Behavior Responses in Major Depressive Disorder"
Maria Davila Uzcategui, Department of Psychology
Faculty Mentor: Dustin Hines, Ph.D.

3 "Effects of Early Natal Tactile Stimulation on Synapses"
Genesis Duarte Padilla, Department of Psychology
Faculty Mentor: Dustin Hines, Ph.D.

4 "The Price of Legal Cannabis and Other Industry Policies"
Peter Grema, Department of Economics
Faculty Mentors: Caitlin J. Saladino & William E. Brown Jr.

5 "Transiency and Elementary School Performance: Evidence from Clark County, Nevada"
Ei Myint, Department of Economics
Faculty Mentor: Bradley S. Wimmer, Ph.D.

6 "Automation and Artificial Intelligence in Las Vegas"
Ember Smith, Department of Economics
Faculty Mentors: Caitlin J. Saladino & William E. Brown Jr.

7 "P.I.V.O.T. - Place Based Research of Offender Networks"
Kaitlyn Swanberg, Department of Criminal Justice & Department of Psychology
Faculty Mentor: Tamara Herold, Ph.D.

8 "State and Local Per Pupil Funding for Higher Education in the Mountain West States"
Eshaan Vakil, Ed. W. Clark High School
Faculty Mentors: Caitlin J. Saladino & William E. Brown Jr.

9 "My Gender That Resists: Hélène Cixous and Psychoanalysis in 2019"
Alexander Valle, Department of English & Department of World Languages and Cultures
Faculty Mentor: Jarret Keene, Ph.D.

10 "A Reading from the Upcoming Novel: Banshee"
Samantha Goodman, Department of English
Faculty Mentor: Jarret Keene, Ph.D.
SESSION C: EDUCATION, ENGINEERING, FINE ARTS, HEALTH SCIENCES, AND PUBLIC HEALTH POSTER PRESENTATIONS (ROOM 208)

1 "Effect of Different Warm-up Techniques on Back Tuck Performance"
Shaun Andersen, Department of Kinesiology and Nutrition Sciences; Edward Dakay, School of Life Sciences
Faculty Mentor: John Mercer, Ph.D.

2 "High Duty Rover"
Itzel Becerril, Department of Electrical and Computer Engineering
Faculty Mentor: Venkatesan Muthukumar, Ph.D.

3 "Machine Learning to Detect Walking Flies"
Ameera Essaqi, Department of Electrical and Computer Engineering
Faculty Mentor: Sarah Harris, Ph.D.

4 "Monitoring Galena Creek Bridge"
Elizabeth Martinez, Department of Civil and Environmental Engineering and Construction
Faculty Mentor: Jee Woong Park, Ph.D.

5 "Naruto, Anime, and Counter-Narratives: Diverse Ways to Enrich Educational Experience of Secondary Students and Preservice Teachers"
Mina Raeisi, Department of Teaching and Learning
Faculty Mentor: Katrina Liu, Ph.D.

6 "Utilizing Spray Aeration for Removal of Trihalomethanes in Disinfected Water"
David Rouhani, Department of Mechanical Engineering
Faculty Mentor: Erica Marti, Ph.D.

7 "Route Navigation of Autonomous Ground Vehicle in a Simulated Clustered Environment for Radiation Source Localization and Mapping Research"
Giovanny Vazquez, Department of Mechanical Engineering
Faculty Mentor: Woosoon Yim, Ph.D.

8 "Suicide Disparities Among School-aged Minority Children and Young Adults in the United States, 2008-2017"
Eddy Virgen, School of Public Health
Faculty Mentor: Sanae El Ibrahimi, Ph.D.

9 "American Classical Music?"
Marlee Witt, School of Music
Faculty Mentor: Zane Douglass, Ph.D.

10 "Measuring Dynamic Canine Hip Laxity through High Speed Biplane Radiography"
Zachary Wogee, School of Life Sciences & Department of Kinesiology and Nutrition Sciences
Faculty Mentor: David Lee, Ph.D.
SESSION D: HOSPITALITY, LIBERAL ARTS, AND URBAN AFFAIRS POSTER PRESENTATIONS (ROOM 208)

1 "Axon Initial Segment Morphology in Neurodevelopmental Disorders"
Cass Andreas, Department of Psychology
Faculty Mentor: Rochelle Hines, Ph.D.

2 "From Seclusion to Success: A Historical Review of Japan’s Economic Policies"
Kyle Joshua Catarata, Department of Philosophy
Faculty Mentor: Constancio R. Arnaldo Jr., Ph.D.

3 "Does Neurodevelopmental Diagnosis Effect Baseline Testing for Sport Concussion?"
Sarah Flood, Department of Psychology
Faculty Mentor: Daniel Allen, Ph.D.

4 "All Men are Created Equal? Racial Discrimination and its Impact on Hospitality Career Satisfaction"
Jaimi Garlington, William F. Harrah College of Hospitality
Faculty Mentor: Wai San (Cass) Shum, Ph.D.

5 "A Big Picture of Criminal Arrests in Southern Nevada"
Elia Solano-Patricio, School of Public Policy and Leadership
Faculty Mentor: Caitlin Saladino

6 "Effects of Transcranial Magnetic Stimulation (TMS) Following Traumatic Brain Injury (TBI)"
Marisa Woytek, Department of Psychology
Faculty Mentor: Dustin Hines, Ph.D.
SESSION E: SCIENCES POSTER PRESENTATIONS (ROOM 208)

1 "Investigating the Varying Behaviors of Tin Oxalate Under Extreme Conditions"
Kevin Ayala Pineda, Department of Physics and Astronomy & Department of Mathematical Sciences
Faculty Mentor: Micheal Pravica, Ph.D.

2 "Loihi Seamount: The Rosetta Stone of the Hawaiian Plume"
Clarisa Del Toro Contreras, Department of Geoscience
Faculty Mentor: Shichun Huang, Ph.D.

3 "Excavation and Preparation of a Columbian Mammoth from Amargosa Valley, Nevada"
Esmeralda Elsrouji, Department of Geoscience
Faculty Mentor: Stephen Rowland, Ph.D.

4 "The Effect of mfd on Three Paraquat-tolerance Genes During Disulfide Stress in Bacillus subtilis"
Kaiden Lee, The College of Idaho
Faculty Mentor: Eduardo Robleto, Ph.D.

5 "Ubiquitin-Dependent Proteolysis is a Novel Hibernator"
Naidelin Maldonado, Department of Chemistry and Biochemistry
Faculty Mentor: Frank van Breukelen, Ph.D.

6 "Studying the Role of V-ATPase in Eye Regeneration"
Iris Nava, Department of Chemistry and Biochemistry
Faculty Mentor: Kelly Tseng, Ph.D.

7 "Identifying the Genomic Impact of Obesity in Starvation-selected Drosophila"
Tyler Peters, Fort Valley State University
Faculty Mentor: Allen Gibbs, Ph.D.

8 "Using Transcranial Magnetic Stimulation to Increase Recovery After Stroke"
Haley Strong, University of California, Los Angeles
Faculty Mentor: Dustin Hines, Ph.D.

9 "Accelerating Materials Discovery Through Machine Learning and Optimization Methods"
David Zagaceta, Department of Physics and Astronomy
Faculty Mentor: Qiang Zhu, Ph.D.
SESSION F: LIFE SCIENCES POSTER PRESENTATIONS (ROOM 208)

1 "Metabolism of Tenrec ecaudatus Under Extreme Conditions"
Mark Austin Adriatico, School of Life Sciences
Faculty Mentor: Frank van Breukelen, Ph.D.

2 "Variation in Leaf Vein Architecture Across Elevation within the Hyper-variable Woody Genus Metrosideros on O‘ahu"
Morgan Arias, School of Life Sciences
Faculty Mentor: Elizabeth Stacy, Ph.D.

3 "Evolution of Homologous Inter-Domain Linkers in Proteins"
Dylan Barth, School of Life Sciences; Adrian Alberto, Department of Computer Science
Faculty Mentor: Mira Han, Ph.D.

4 "Increased TSPO Expression and Decreased Dendritic Spine Density in Ultra-Mild Chronic Stress Mouse Models"
Temerity Bauer, University of Oregon
Faculty Mentor: Dustin Hines, Ph.D.

5 "Synthesis and Characterization of Novel Room-temperature Banana-shaped Liquid Crystal Compounds"
Si L. Chen, School of Life Sciences
Faculty Mentor: Pradip K. Bhowmik, Ph.D.

6 "EFTUD2 Splice Site Protein Haploinsufficiency Leads to Mandibular Facial Dysostosis with Microcephaly and Abnormal Neuronal Development"
Aaron Cheng, School of Life Sciences
Faculty Mentor: Edwin Oh, Ph.D.

7 "An Examination of Alzheimer’s Disease Pathology: Neuroinflammation in GABA Knockout Mouse Models"
Roberto Chuapoco, School of Life Sciences & Department of Kinesiology and Nutrition Sciences
Faculty Mentor: Jefferson Kinney, Ph.D.

8 "Screening for Rosickyite Production in Chemolithotrophic Isolates from Badwater Basin (Death Valley, CA)"
Hunter Clark, School of Life Sciences
Faculty Mentor: Brian P. Hedlund, Ph.D.
1 "Probing the Metabolism of "Planoflexus"
Jonathan Covington, School of Life Sciences
Faculty Mentor: Brian P. Hedlund, Ph.D.

2 "Landscape Genetics of Orthopoxvirus vector, Apodemus"
Tomiko Dor, University of California, Davis
Faculty Mentor: Sean Neiswenter, Ph.D.

3 "Cluster A1 and Cluster J Mycobacteriophages with Putative Beta-Lactamase Domain Proteins and Putative Superinfection Immunity Repressors"
Ryan Doss, School of Life Sciences
Faculty Mentors: Philipos Tsourkas, Ph.D., Kurt Regner, Ph.D., & Christy Strong, Ph.D.

4 "Insights into the Type III Secretion System in Shigella Flexneri: An Investigation of how Mxie, an Activator of Type III Secretion System Effector Proteins, is Transcriptionally Regulated"
Taylor Gerson, School of Life Sciences
Faculty Mentor: Helen Wing, Ph.D.

5 "The Role of Mfd on Stress Response Genes During Oxidative Stress in Bacillus subtilis"
Jason Gonzales, West Career and Technical Academy
Faculty Mentor: Eduardo Robleto, Ph.D.

6 "Examining Alterations of GABA B Receptors in Hyperglycemia and Alzheimer’s Disease Related Pathology"
Christian Guese, School of Life Sciences
Faculty Mentor: Jefferson Kinney, Ph.D.

7 "Thymosin Beta-4 augments 5-Flourouracil anti-proliferative effects in the DU145 Human Prostate Cancer Cell Line"
Alexandra Hird, School of Life Sciences
Faculty Mentor: Bryan L. Spangelo, Ph.D.

8 "Transposon Expression Levels Associated with Age-Related Macular Degeneration"
Gina Kersey, Rochester Institute of Technology
Faculty Mentor: Mira Han, Ph.D.

9 "Effects of Diphenhydramine on Open Field Behavior in Gabra2-1 Mice"
Tori Long, School of Life Sciences
Faculty Mentor: Rochelle Hines, Ph.D.
SESSION H: LIFE SCIENCES POSTER PRESENTATIONS (ROOM 208)

1 "Purification, Amplification, and DNA Extraction of Aloha702 Using the Host Mycobacterium smegmatis"
   Astha Mehta, School of Life Sciences
   Faculty Mentor: Philippos Tsourkas, Ph.D.

2 "Method for Detecting Emerging Contaminants in the Environment"
   Joshua Monk, School of Life Sciences
   Faculty Mentor: Douglas Sims, Ph.D.

3 "The Role of Iron Sulfide Minerals in Organic Carbon Preservation"
   Nader Nabeh, School of Life Sciences & Department of Sociology
   Faculty Mentor: Aude A. Picard, Ph.D.

4 "Synthesis of Cisplatin Analog as Antineoplastic Drug for Cancer Cell Treatment"
   Omar Noori, School of Life Sciences
   Faculty Mentor: Haesook Han, Ph.D.

5 "Examination of Alzheimer’s Disease-related Pathology as a Result of Hyperglycemia in Young Versus Aged Mice"
   Michelle Perez, School of Life Sciences
   Faculty Mentor: Jefferson Kinney, Ph.D.

6 "Characterizing the Burkholderia thailandensis biofilm exopolysaccharides"
   Daniela Rodriguez, School of Life Sciences
   Faculty Mentor: Boo Shan Tseng, Ph.D.

7 "Testing the Limitations of the Spacing Between the VirB and H-NS Binding Regions Required for the Regulation of the icsP Promoter in Shigella flexneri"
   Juniper Rosen, School of Life Sciences
   Faculty Mentor: Helen J. Wing, Ph.D.

8 "The Role of mfd in Biofilm Formation and DNA Repair in Pseudomonas aeruginosa"
   Sunny Sneed, Rensselaer Polytechnic Institute
   Faculty Mentors: Edurado Robleto, Ph.D. & Boo Shan Tseng, Ph.D.

9 "Investigating the Effects of Post-Translational Modification on Virulence Gene Regulation in the Bacterial Pathogen Shigella flexneri"
   Justin Willer, School of Life Sciences
   Faculty Mentor: Helen J. Wing, Ph.D.
We would like to thank everyone who contributed to this event. Without your contributions, recognition of the efforts of undergraduate researchers would not have been possible.

The Office of Senator Jacky Rosen
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