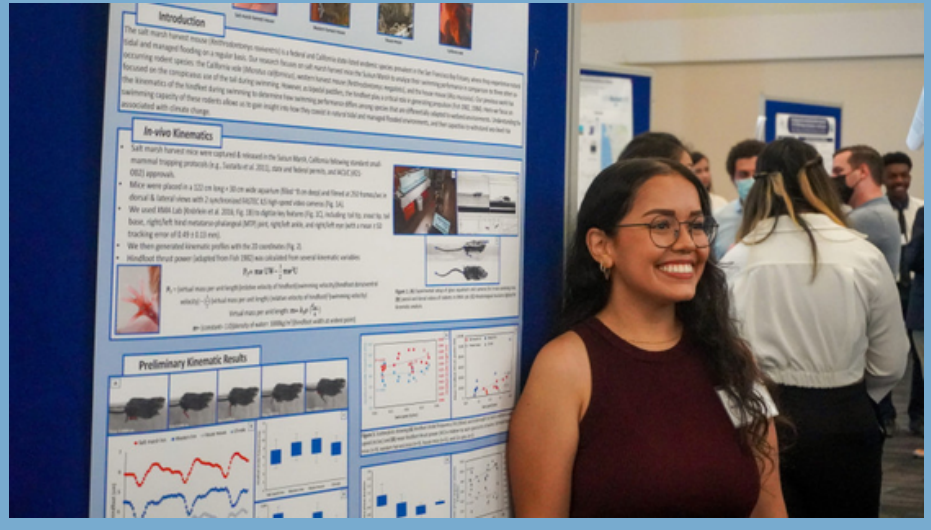
2024 Student Poster Showcase

Promoting Student Research and Creative Activities



December 3rd, 2024, USU Ballroom

Upcoming Campus Research Events

SENIOR EXPERIENCE TRADE SHOW

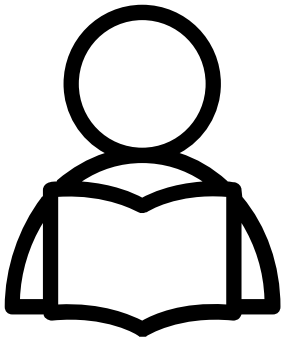
December 10th, 2024 @ USU Ballroom

SYMPOSIUM ON STUDENT RESEARCH, CREATIVE ACTIVITIES & INNOVATION

February 28th, 2025 @ Markstsein Hall

39th ANNUAL CSU STATEWIDE RESEARCH SYMPOSIUM

April 26 -27th, 2025 @ Cal Poly Humboldt



Research Events & Support

Learn more about Research Opportunities

- RESEARCH TRAVEL FUND
- SYMPOSIUM ON STUDENT RESEARCH, CREATIVE ACTIVITIES & INNOVATION
- STUDENT POSTER SHOWCASE
- COMMITTEE ON UNDERGRADUATE RESEARCH (CUGR)

Scan the QR Code to a list of the presenters!

PRESENTERS

PRESENTERS

BUSINESS ADMINISTRATION:

1B: Jehovana Morales, Eva Mendez, Abdullah Al Kharraz, Luna Amador, Ethan Park, Sofia Lemsisanith*

- *Whale: Vape Eco-Bin*

25B: Michelle Letts, Jessica Aguilar, Natalia Gonzalez, Natalia Gutierrez, Savannah Ojeda, and Daniel Ochoa Stone*

- *Shading and Savings: Solar Canopies Over Parking Lot F*

50: Julianna Guel

- *Corporate Social Responsibility (CSR) in Business to Business (B2B) Marketing*

SOCIOLOGY:

17B: Joanna Rodriguez

- Communicating *through crisis: How language barriers impact police interactions*

ECONOMICS:

16B: Jennifer Guzman

- *Bars and Barriers: Examining the Impact of Incarceration Length on Employment*

ENVIRONMENTAL STUDIES:

20B: Brandon Molina, Megan Abeno, Livia Ceballos, Emilin Gutierrez, Gianina Uway*

- *China's Alarming Rate of Urbanization*

29A: Celia Cronin, Sabrina Stadler

- *Evaluating Policy Impacts on Retail Sales of Companion Animals and How This Affects Public and Privately Funded Animal Shelter Operations in the United States*

42A: Riley Millan, Krissa Casao, Sarah Wiese, Felicity Taubken

- *Citizen Science Survey Methods to Support Bat Conservation in a Coastal San Diego County Salt Marsh Lagoon*

CRIMINOLOGY:

19A: Maya Orozco, Lancejeremy Signey, Valeria Lopez-Vasquez, Caitlyn Torres, Jay Patel, Adona Abate*

- *Data Savers*

CHILDHOOD & ADOLESCENT DEVELOPMENT:

13A: True Voigtlander, Leah Cannon

- *Children's perception of the morality of misinformation*

COMPUTER SCIENCE:

19A: Ryan Kian-Zadeh, Eileen Hernandez, Emma Caro, Leslie Gutierrez*

- *Revalue*

21B: Josue Navarrete

- Taxonomic and Functional Analysis of Microbial Communities Across Gradients of Urbanization

APPLIED PHYSICS:

20A: Shane Piovesan

- *Identifying Stellar Activity Cycles using TESS Photometry*

CHEMISTRY:

15B: Kellan Baker, Lily Fitzgerald, Haydn Halquist, Leala Marsteller *

- *Antimicrobial Resistance*

22B: Fabian Arista Mendoza, Jasmine Rose Durkee, Stephanie Gomez, Noe Alvarado *

- *Renewable Power Systems: A Focus on Solar Generators*

23A: Jerrvin Cendana

- *Synthesis of TAME * 3HOTf: Developing Selective Metal Chelates with Molecular Cages for Storage and Separation Applications*

PRESENTERS

BIOCHEMISTRY:

6B: Keilana Danielle Umali, Marley Adgate, Finn Gustafson, Edelyn Leon, Nation Maxwell *

- *Sustainable Turf with a Drainage System*

14A: Chloe Thigpen, Saraha Kim, Don Torres, Jacob Augustin Garcia*

- *Lead Poisoning in Children: How Do We Prevent It?*

17A: Gianna Gutierrez, Alan Pelayo, Abhi Singh, Arianna Araya Chaves*

- *Waste to Power: Anaerobic Digestion of Organic Waste for Battery Energy*

35B: Cassidy Frederick, Emely Tapia, Reina Valdez, Organ Saraphoka*

- *Ocean Pollution and Solution for parts of San Diego*

21A: Sophi Theriault

- *Optimizing Synthesis of an Important Dialdehyde Precursor*

38A: Evelin Carino, Lesley Marquina, Tannin Azpeita, Felipe Vasquez*

- *Chicken Healthcare among low-income farmers*

25A: Isabel Serrano

- *Developing Rigid Mixed-Valent Fe2 Complexes That Facilitate Double-Exchange Magnetic Coupling*

24A: Brooke Bounyavong

- *Developing Chelate Compounds to Extract Heavy Metal Toxins*

BIOLOGICAL SCIENCE:

1A: Jennifer Damacio, Angela Fregoso, Kayali Mathias, Brooklyn Bentley, Brooklyn Ingino, Leyton Becker*

- *Conquering Anxiety: Alternative Methods to Medication*

2B: Julianne Morales, Sophia Puebla, Lorenzo Young, Luis Gutierrez, Zayla Galvan-Moreland, Tahley Conway*

- *Crash's Water Collection Initiative*

PRESENTERS

3A: Izabella Aguila, Julianne Jaen, Natalie Landeros, Aurora Montano, Geneva Nix, Savannah Morrissette

- *PCOS: OC's and Alternative Treatments*

3B: Rory Bailey, Chloe Quezada, Miranda Martin, Bella Contreras, Lauren, Maya Bell, Brianna Luis

- *Cougar Collective: Buy Nothing Group*

4A: Cana Fisher, Sanam Masour, Alanisse Garcia-Arana, Dalylah Cruz, Maya Schlotthauer

- *Cruelty-Free Cosmetics: Makeup Without Suffering Is Possible*

4B: Nathan Nissan, Jayden Vejar, Abby Aguilar, Anthony Torres, Ferin Williams, Hadyn Topmillier, Sabrina Nicolas

- *E-Waste Warriors*

6A: Mark Rusnak

- *Does Cardiac Risk Improve with Cholesterol Medication Use?*

5A: Izaak Christiansen, Kaylee Lee, Rebecca Nguyen, Chanel Ramirez, Lluvy Salazar, Cassandra Solis

- *Eco-Essentials*

7A: Allison Carroll, Amelie Hodgon, Zoe Klein, Thomas Sarmiento, Madeleine Hellgren, Caitlin Stroud, David Flores

- *HomeDoc: Your Emergency Lifeline, Anytime*

8B: Kendall Clay, Rachel Cohen, Mia Petrovic, Mckenna Salas, Meghan Taft

- *Fighting Lung Cancer: Exploring Treatment Options and Side Effects*

11B: Alicia Paulino, Trenton Giddings, Leticia Martinez, Robert Correia

- *Differences between U.S. aned Denmark Healthcare*

12B: Jasmin Benitez, Amaya Soto, Nohelia Hernandez, Coral Molano-Varela

- *Dental through CSUSM*

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BIOLOGICAL SCIENCE:

13B: John-Rey Rayno, Siena Tappen, Madison Ash, Mariah Mondragon, Akua Spencer

- *Protecting Young Minds: An Educational Campaign on Brain Health*

14B: Maya Gutierrez, Cheyenne Dronhet, Elizabeth Polonskiy, Mahdi Sahid, Fatima Qandah, Ashton Clough

- *The Medicinal Benefits of Honey & Turmeric*

15A: Ashley Nguyen, Khyla Cunha, Reef Straley, Daisy Campuzano, Itzel Orozco

- *The Impacts Renewable Energy has on Air Pollution*

18A: Vanessa Varona Barriga, Juliana Escolano, Kelsey Burfield, Ocean Churchill

- *Acquiring Lithium Synthetically*

23B: Mila Lopez, Victoria Dyakova, Angela Workman, Jazalyn Infante, Briana Melara

- *Solar-powered Traffic Lights*

16A: Maya Frappier, Maryam Aydinova, Viani Lam, Isabella Cardona, Sienna Marron, Avianna Ontivero

- *Solar powered battery machines… foundation to student academic success*

24B: London Hall, Alyssa Wolcott, Kalani Otubuah, Natalie Henrotin, Chloe Jones

- *Innovative Solutions for sustainable living: Solar Carports*

26A: Tanvi Rochoti, Amelia Oden, Hyaebin Kim, Malhar Mesina, Luis Macias

- *Coraling In The Bleaching*

34B: Rey Soliven, Delaney Prado, Eric Villa, Isaiah Villegas

- *Project Ocean Migration*

27A: Camila Valderrama-Martinez

- *Comparing the Mobilome of Nearshore Microbial Communities between Exogenous Plastic Marine Substrates and Water Column*

28A: Julian Banuelos Torres

- *Comparison of morphological characteristics affecting hydrodynamics among salt marsh harvest mice and co-occurring rodents*

30A: Daniel Cabarcas, Siyuan Li, Julian Ramiu, Brook Belay

- *Bamboo Fiber Oil Booms: A Sustainable Solution for Marine Oil Spill Containment*

33B: Marisa Mendoza

- *Taxonomic and Functional Profiles of Nearshore Microbial Communities associated with Water and Plastic Marine Substrates*

36B: Jhasmine Valencia, Angela Montoya, Irma Ramirez, Victor Leon

- *Differential Response of Symbiosis Under High Temperature Stress on the Upside-Down Jellyfish.*

31B: Jannah Saber, Evelyn Carbajal, Citlali Aguilar, Mary Jarquin, Jacqueline Pena, Hannah Dudum, Ana Bravo, Elizabeth Camacho

- *Polar Bears on Thin Ice*

32B: Mikaela Speets-Drake, Grace Powell

- *Comparing Spatiotemporal Patterns Between Microbial Communities across Mission Bay*

37A: Alexis Rios, Dawa Sherpa, Joshua Gabriel Liberato

- *Milpa: Indigenous Technology to Maintain Sustainable Agriculture*

37B: Gia Galdamez, Brian Viado, Hector Rosas, Rena Damian, Jordan Cazeau, Sean Faris

- *The Cycle of Ocean Pollution*

38B: Callie Steppat

- *Voltage-gated Potassium Channels Regulate Cell-Specific Ion and Fluid Transport in Malpighian Tubule Epithelium of an Important Agricultural Crop Pest, larval Trichoplusia ni*

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BIOLOGICAL SCIENCE:

39A: Abby Patterson
- *Investigating fatal injuries in San Clemente Loggerhead Shrike prey through microCT*

40A: Sandra Cortez, Tania Hernandez
- *Natural Arachnid Deterrents: Identification of Spider-Repellent Molecules in Ostrich Eggs*

41A: Patricia Byrne, Ciera Garcia, Tony Perez
- *Validation of novel mmqPCR technique to determine relative telomere length of American Flamingo*

44A: Kaden Winspear
- *Reconstructing recent effective population size of fin whales (Balaenoptera physalus).*

48: Jesus Banuelos, Angel Herrera, Sana Sayid, Aqila Mohammadi, Jacob Arroyo
- *Cougar Friends Connect*

51: Hannah Allen, Ariana Chiroy, Sunangel Lopez, April Matthews, Summer Spann, Noah Spence
- *Sustainable needles*

53: Hailey Soto, Abby Keomahavong, Sadaf Ahangar, Danica Labuda, Daniel Vida, Stefany Jumalon, David Vida
- *GaduGlow: A new, more sustainable sunscreen*

55: Nicholas Jimenez, Kelly Vu, Susan Rahman, Nic Jimenez, Kassandra Avalos, Eva Pacheco, Kayleen Farinas, Matthew Trujillo, Raymond Shweid
- *Hero Straps: A Brace for Future*

BIOTECHNOLOGY:

5B: Sienna Tjogas, Amy Flores, Alexa Castellon, Marlen Ochoa, and Victoria Juarez*
- *How can we reduce environmental waste on college campuses?*

31A: Dena Hageb, James Rosas, Marzia Mohammad, Jessica Martinez
- *Cow-culator: Turning Rumen Power into Cellulose*

32A: Justin Conlan, Haley Phea, Griffin Strater, Soraya Guerrero
- *Bioethanol production utilizing purified gene CDJ5-120, extracted from cow rumen.*

33A: Kiara Orozco, Breyada Johnson, Umniyah Jasim, Robyn Lotito
- *Isolation of DNA from cow rumen to encode cellulase protein CDJ5 - ME 8 - His for possible biofuel production.*

34A: Josue Juarez Manzano, Constanza Vasques, Fabiola Morua, Alexis Melgar
- *Milpa: Cow-tastrophe: When Celulase says No to Cellulose*

36A: Kayla Wrathall, Luke Eder, Arayana Ruelas, Kaleah Salustian
- *Exploring Biofuel Potential: Functional Characterization of Cellulase Enzyme 7710-02 from Cow Rumen Microbes*

35A: Diana Lujan-Johnson, Jillian Tiemzon, Sanchit Mahambre, Jonathan Lee
- *Cellulase expressing CJD5-110 plasmid cloned from Cow Rumen Microbiome DNA.*

39B: Ralph Justin Torrijos, Denise Natividad, Francesca Yap, Huy Nguyen
- *Moo-tivation for a Greener Future: Recombinant Cellulase (CJD9-132) from Cow Rumen*

40B: Jose Delgado Rivera, Glena De La Torre, Theresa Martinez Rodriguez, Lillian Michel
- *Grass to green fuel using the recombinant cellulase enzyme, onto greener pastures.*

41B: Pushpita Kar, Faheema Vawoo Abdullah Sahib, Itzel Del Rio, Erubey Martinez
- *Cellulose: From Moo to Biofuels! Investigating Enzyme Efficiency for Sustainable Energy Solutions*

42B: Naia Jarrett, Amity Lozada, Luis Cruz, Christian Perez
- *Cows Turned Green: HowIsolating Glycoside Hydrolase Proteins Innovate Biofuel*

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BIOTECHNOLOGY:

43B: Jiwon Kim, Abigail Rodriguez, Luca Ma, Victoria Ruiz
- *Non-cellulose Digesting Cellulase Enzyme in Cow Rumen Microbiota Identified.*

44B: Rigoberto Reyes, Raquel Yoshinaga, Sarah Sower, Hayden Yingling
- *Novel Cellulase Gene CJD5-110 in Cellulosic Biofuel Production*

PSYCHOLOGY SCIENCES:

10B: Milly Lopez
- *Anxiety and Cannabis Dependence Among Non-Hispanic Black, Non-Hispanic White, and Hispanic U.S. Young Adults*

12A: Elizabeth Keck, Taylor Munro
- *Outcomes, Experiences, and Perceptions of Inclusive Early Childhood Education for Typically Developing Children: A Systematic Review*

22A: Ari Brasso, Brittney Abundis, Anahi Martinez Mendez
- *Museum Exhibit Redesign Promotes Informal Learning and STEM Conversations*

43A: Julia Steinberg, Pauline Huynh
- *Semaglutide decreases food-seeking behavior and body weight cycling in rodents with intermittent access to palatable food.*

18B: Brittney L. Abundis, Taylor Munro
- *Therapist-Driven Adaptations to A Mental Health Intervention for Autism (AIM HI) Delivered via Telehealth*

19B: Taylor Munro
- *Therapist-Reported Adaptations to An Individualized Mental Health Intervention for Autism (AIM HI) Delivered in School-Based Settings*

2A: Jake Stewart
- *Solitude to Sorrow: The Relationship Between Loneliness and Depression*

8A: Alexandria Mulqueen
- *Quality of Life of Autistic Adolescents: Age of Diagnosis*

9A: Hui Rou Lim
- *Cross-Cultural Investigation of Parent-child Gestures: Insights into Deictic and Iconic Gestures in Joint Learning Activities*

9B: Natasha Shaghaghi, Devin Ghidella
- *The Influence of Cannabis Edible Packaging on Young Adult Perceptions of Risk*

10A: Simone Kline, Brittney Abundis, Cory Jordan, Jossilyn Bachman
- *Selective Trust in Toddlers: A Pilot Study of How 2- and 3-Year-Olds Navigate Deception*

KINESIOLOGY:

26B: Alexander MacDonald, Alexander Anderson
- *No Sex Differences in Metabolic Response to Submaximal Exercise*

27B: Christopher Bryant
- *Manual Dexterity Before and After Walking with Backpack Load*

28B: Miranda Haro
- *Effects of Heavy Backpack Load Carriage on Upper Limb Body Water*

29B: Isabella Martinez
- *The Effects of Foot Cold Water Immersion on Muscle Strength and Power*

30B: Melynna Avilez
- *Relationship of Dietary Sodium Consumption with Vascular Stiffness in a Tactical Population*

54: Emma Bauer
- *The Relationship Between Sleep and Blood Pressure in Females*

47: Elizabeth Gomez
- *An Exploratory Analysis of Cardiovascular Risk Factors in Hispanic Women*

45: Natalya Tasevski
- *An Exploratory Analysis of the Presence of Cardiovascular Risk Factors in Females with Anterior or Lateral T-wave Inversion*

52: Cheyenne Morrissey
- *The Relationship Between Vascular Stiffness and Leg Strength In Females*

56: Xandra Martinez
- *FFISHing out Emotions: Exploring the Impact of Health Interventions as a Mechanism for Violence Prevention Among Pittsburgh Youth*

Thank You!

We sincerely thank the faculty advisors who supported, and encouraged, the 2024 Student Poster Showcase participants. Your guidance and encouragement played a vital role in making this event a success.

Thank You

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