

2026 Symposium on Student Research, Creative Activities, and Innovation February 27, 2026



California State University
SAN MARCOS

OFFICE OF GRADUATE
STUDIES AND RESEARCH

Event Schedule



1:50pm: Instructions and Introductions

2:00pm: Oral Presentations

3:15pm: Reception in Markstein Lobby

4:00pm: Awards Ceremony in Markstein 125



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**Thank you to our faculty mentors,
judges, and moderators! We
appreciate your time and support.**



Session 1

Room 101

2:00-2:13 pm

- **Maria Angela Jungers:** *In Her Space Journey: A Qualitative Study Exploring Collective Meaning-Making through Creative Works in a Women-Centered Literary and Arts Journal*

2:15-2:28 pm

- **Charles Taylor:** *Ruin*

2:30-2:43 pm

- **Charlotte Dumbeck:** *Inside Out: An Exploration of Human Separation from the Natural World*

2:45-2:58 pm

- **Katya Frazier:** *LY2444296, a K-Opioid Receptor Antagonist, Selectively Reduces Alcohol Drinking in Male and Female Wistar Rats with a History of Alcohol Dependence*

3:00-3:13 pm

- **Madison Gill:** *Muons Attack Your DNA: Biological Implications of Cosmic-Ray Muons*

Session 2

Room 102

2:00-2:13 pm

- **Maggie Vo:** *A Novel Age-Related Role for the Developmental Hedgehog Signaling Pathway in Drosophila Hearts*

2:15-2:28 pm

- **Natalie Nosco:** *Non-Invasive Detection of Plant Stress Biomarkers: Using Reverse Iontophoresis for Peroxide Measurement*

2:30-2:43 pm

- **Victoria Naficy:** *Investigating the mechanisms of voltage-gated ion channel biogenesis at the human ER*

2:45-2:58 pm

- **Vincent Gonzalez:** *Time-Course Host and Viral Gene Expression in Response to Ranavirus ambystoma1 Infection*

Session 3

Room 103

2:00-2:13 pm

- **Monica Ambrocio:** *Florescence Imaging of Actin Formations in MCF-7 shMLH1: Implications for Metastasis*

2:15-2:28 pm

- **Casandra Nguyen & Tania Hernandez:** *Triple Negative Breast Cancer Proliferation Reveals the Efficacy of Each Inhibitory Drug Treatment Leading to Molecular Pathway Targets*

2:30-2:43 pm

- **Mikayla Torres & Gabriela Salsameda:** *Cassiopea xamachana: A model organism for observing the effects of warming water temperatures in complex oceanic habitats*

2:45-2:58 pm

- **Alexis Rios & Melissa Chico Brito:** *Milpa increases soil carbon, metabolic capacity, and reduces plant stress, and mutualistically impacts our community*

3:00-3:13 pm

- **Syrita Maria Joe:** *Automated Cell Counting for Immunofluorescent Images in Alopecia Areata*

Session 4

Room 201

2:00-2:13 pm

- **Sarah Wiese & Camryn Nelson:** *Effect of Outdoor Lighting on Nocturnal Insects Visiting Coastal Sage Scrub Plants in San Diego County*

2:15-2:28 pm

- **Zachary Davis:** *Body and hindfoot posture during swimming of salt marsh harvest mice and coexisting rodents in the Suisun Marsh*

2:30-2:43 pm

- **Dregyn Bennett:** *Immunophenotypic Analysis of Alopecia Areata Progression in a C3H/HeJ Mouse Model*

2:45-2:58 pm

- **Harnoor Boparai:** *Bioprinting Hybrid Collagen-PEGDA Scaffolds to Study Differences in Breast Cancer Cell Attachment and Migration*

3:00-3:13 pm

- **Jason San Nicholas:** *Investigating the Role of Trissin Signaling in Drosophila Heart Function*

Session 5

Room 203

2:00-2:13 pm

- **Kyler Pinkowski:** *Ecological Perspectives on Microbial Community Characterization and Implications for Bioremediation*

2:15-2:28 pm

- **Camile Angel Sevilla:** *Developing Mixed-Valence Dicopper Complexes as Models for Biological Copper Sites*

2:30-2:43 pm

- **Valerie Cota-Carrillo:** *Using Flow Cytometry to Discern Functional Subpopulations of Epidermal $\gamma\delta$ T Cells*

2:45-2:58 pm

- **Miguel Kinyon:** *Qualitative research on Calcidiscus leptoporus sexual reproduction*

Session 6

Room 205

2:00-2:13 pm

- **Julian Banuelos Torres:** *Exploring the genetics of performance: morphology, kinematics & genomics of salt marsh harvest mice*

2:15-2:28 pm

- **Jhasmine Valencia:** *Developmental Response of Symbiosis Under High-Temperature Stress on the Upside-down Jellyfish*

2:30-2:43 pm

- **Nashea Lampkins:** *The upregulation of gamma delta T cell genes and their correlation to alopecia areata in mice and humans*

2:45-2:58 pm

- **Hunter Alan:** *Molecular Characterization of the 21L ORF in Ranavirus ambystoma1*

Session 7

Room 208

2:00-2:13 pm

- **Kaitlyn Sung:** *Discrepancy between primary language and neuropsychological testing language affects objective performance but not ultimate diagnosis of Asian participants within the National Alzheimer's Coordinating Center (NACC) dataset*

2:15-2:28 pm

- **Cassandra Stillman:** *How the Creative Arts Build Resilience in Youth Who Have Experienced Trauma: A Literature Review*

2:30-2:43 pm

- **Rachel Soliven:** *Exploring Barriers and Facilitators to Inclusive Early Childhood Education*

2:45-2:58 pm

- **Demi DiSepio:** *Semaglutide's effects on sucrose intake in a rat model of binge eating*

3:00-3:13 pm

- **Joseph Hopper:** *How Does the Dominant Industry of a State Affect Inter-state Migration?*

Session 8

Room 210

2:00-2:13 pm

- **Carmen Tyler:** *When Exposure Becomes Overexposure: Social Media Exposure to Traumatic Content as a Moderator of Daily Social Media Use and Empathy in Emerging Adults*

2:15-2:28 pm

- **Jasmyn Sorapuru & Karina Marquez:** *Running from Anxiety: NACHO's role in running and anxiety-like behaviors*

2:30-2:43 pm

- **Jake Stewart:** *Can Parasocial Relationships Ease Feelings of Loneliness?*

2:45-2:58 pm

- **Aryanna Alarcon:** *Depressive Symptoms Associated with Cannabis Use Disorder among a Two Race Sample of U.S. Young Adults*

Session 9

Room 306

2:00-2:13 pm

- **Dakota Heisel:** *Exploring Chemical, Structural, and Functional Correlations in Porous Materials*

2:15-2:28 pm

- **Brendan Murphy:** *Developing Porous Magnets with Mixed-Valence Fe₂ Nodes*

2:30-2:43 pm

- **Christopher Lambert:** *Synthesis of Pyrene-Based Linker for Porous Magnets*

2:45-2:58 pm

- **Madison Mower:** *The Acute Effects of Backpack Load Carriage on Vascular Stiffness, Pinch Strength, and Finger Edema*

3:00-3:13 pm

- **Juan Levya:** *The Effects of Neoprene Booties on Foot Skin Temperature and Postural Control Following Cold Water Submersion*

Session 10

Room 125

2:00-2:13 pm

- **Justin Devore & Madison Gill:** *Investigating the RC Circuit Behavior of Alumina Colloidal Systems*

2:15-2:28 pm

- **Max Hyman & Madison Gill:** *Solving the Quark Flavor Puzzle With Maximum Democracy*

2:30-2:43 pm

- **Nick Paris:** *Synthesis of NADES-based Ag Nanoparticles for Estradiol Detection in Water*

2:45-2:58 pm

- **Callie Steppat:** *The Very Hungry Caterpillar: Voltage-Gated K⁺ Channel KCNQ1 Regulates Ion Transport in the Malpighian Tubules of Larva Trichoplusia*

Congratulations to our Finalists!



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