Southern California Conferences for Undergraduate Research

Program
November 23, 2019
Welcome to Cal State San Marcos!

We are honored to be the first university in San Diego County to host the Southern California Conferences for Undergraduate Research.

While I am a relative newcomer to Southern California – I began my tenure at CSUSM on July 1 – I have already been impressed by the remarkable research being done by undergraduate students at our university and other institutions throughout the region.

Students across Southern California are sparking innovation, creativity and discoveries through their work. They are arriving to college ready to solve real-world problems in innovative ways, and they are doing so through an equity lens by identifying the unjust or inequitable and taking action.

The presentations and discussions occurring today represent work critical to our region, our state and higher education throughout the nation. It is clear that these students are the change we need to see in our world.

Thank you for being part of this extraordinary event and for your continued support of undergraduate student research.

Sincerely,
Ellen Neufeldt, Ed.D.
President
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**SCHEDULE OF EVENTS**

**Summary Schedule for Saturday, November 23, 2019**

7:00 – 11:00 A.M.  
Check in & Registration  
Chavez Plaza

7:00 – 10:30 A.M.  
Breakfast  
USU Amphitheater

**7:30 – 8:00 A.M.**  
*Welcome Session*  
USU Amphitheater

8:00 – 11:30 A.M.  
Student Poster Sessions  
USU Ballroom A–D

8:45 A.M. – 1:45 P.M.  
Student Oral Presentations  
Markstein Building Rooms

10:15 A.M. – 11:30 A.M.  
Visual and Performing Arts  
Arts 111

10:30 A.M. – 1:50 P.M.  
Graduate School Fair  
Forum Plaza

11:30 – 12:30 P.M.  
Lunch  
USU Amphitheater

12:00 – 1:15 P.M.  
SCCUR Information Session  
Kellogg 5207

12:30 – 1:45 P.M.  
Creative Writing & Poetry Showcase  
Markstein 308

12:30 – 1:30 P.M.  
Workshops  
ACD 201, Arts 240, and SBSB 1103

**2:00 – 2:45 P.M.**  
*Keynote Address*  
USU Ballroom A–D

3:00 – 3:30 P.M.  
Awards, Opportunity Drawings, and Closing  
USU Ballroom A–D
CSUSM Campus Maps and Parking

Campus Maps: [https://www.csusm.edu/discover-csusm/campus_maps.html](https://www.csusm.edu/discover-csusm/campus_maps.html)
Free Parking: Please park in Parking Structure 1 – Building 103 on the map below 🚗

Upon arrival, please proceed to **Chavez Court 🌟** for registration and breakfast. **Chavez Court** is accessible by crossing the bridge from the top floor of the parking structure to the main campus.
Welcome from the Committee on Undergraduate Research

November 23, 2019

Dear Colleagues and Guests:

Welcome to California State University San Marcos (CSUSM) and to the annual Southern California Conference for Undergraduate Research (SCCUR). We are honored to have you on our campus.

SCCUR promotes awareness of faculty-mentored undergraduate research, scholarship, and creative activities. The conference fosters appreciation of the valuable role these collaborations play in enhancing undergraduate education. SCCUR aims to develop a diverse and multidisciplinary community of researchers, scholars, and artists linked by a common enthusiasm for learning and discovery.

This year’s conference features poster and oral presentations by more than 900 students who were mentored by 100 faculty mentors from 90 different institutions in the Southern California region and other parts of the country. This daylong event promises to be exciting and educational, as research-related ideas are presented and discussed. In addition to student presentations, the conference will feature a keynote address by Dr. John Warner, President and CTO of Warner Babcock Institute for Green Chemistry, faculty-led workshops, and an award ceremony.

CSUSM’s commitment to undergraduate research is demonstrated at the department and university level through numerous campus wide programs. These programs include the Office for Training, Research and Education in the Sciences (OTRES), Ronald E. McNair Post-Baccalaureate Achievement Program, and Pathways to Academic Success & Opportunities (PASO). The Office of Graduate Studies and Research (OGSR) also sponsors programs to celebrate undergraduate research achievements, such as the Symposium on Student Research, Creative Activities, & Innovation, and provides financial assistant to students presenting research as local and national conferences.

We hope that you find this year’s conference to be a rich and dynamic celebration of undergraduate achievement. Thank you for your support of the undergraduate researchers presenting here today. Thank you as well to the faculty mentors who devoted their time and efforts to mentoring these students. We look forward to following the continual achievement of these outstanding students and hope that you enjoy today’s program.

Sincerely,

Robert Iafe, Ph.D.
Undergraduate Research Faculty Fellow

Jacqueline Trischman, Ph.D.
CSUSM SCCUR Board Member

Betsy Read, Ph.D.
2019 SCCUR Organizing Committee, Chair

Wesley Schultz, Ph.D.
Dean, Graduate Studies and Research
John Warner, Ph.D.
President and CTO
Warner Babcock Institute for Green Chemistry

John received his BS in Chemistry from UMASS Boston, and his PhD in Chemistry from Princeton University. After working at the Polaroid Corporation for nearly a decade, he then served as tenured full professor at UMASS Boston and Lowell. In 2007 he founded the Warner Babcock Institute for Green Chemistry, with Jim Babcock, and Beyond Benign with Amy Cannon. His research and publications in synthetic organic chemistry, noncovalent derivatization, polymer photochemistry and low temperature metal oxide semiconductors has provided the foundation for his theories of what he calls “entropic control in materials design.” His inventions and patents in molecular design, pharmaceuticals, cosmetics, adhesives, metals recycling, asphalt pavement and solar energy are the basis for several startup companies and provide the backdrop to his theories on creativity and innovation.

John is one of the founders of the field of Green Chemistry, co-authoring the defining text “Green Chemistry: Theory and Practice” with Paul Anastas. He has published extensively on the application of the 12 principles of green chemistry and the need to incorporate them into product design and the chemistry curriculum. Because of his unique view of the chemical enterprises, formed from over 30 years of experience in industry, academia and entrepreneurship he has been asked to serve on several regional, national and international government initiatives in chemicals policy.

John has received awards as an academic, an industrial chemist, an inventor and a sustainability thought leader. He received the 2004 Presidential Award for Excellence in Science Mentoring (one of the highest awards for US science education), the 2014 Perkin Medal (one of the highest honors in American Industrial Chemistry) and was named a 2016 AAAS-Lemelson Invention Ambassador. He received the American Institute of Chemistry’s Northeast Division’s Distinguished Chemist of the Year for 2002 and the Council of Science Society President’s 2008 Leadership award. Warner was named by ICIS as one of the most influential people impacting the global chemical industries. In 2011 he was elected a Fellow of the American Chemical Society and named one of “25 Visionaries Changing the World” by Utne Reader. In 2017 the German Ministry of Economic Affairs and The Technical University of Berlin announced the naming of “The John Warner Center for Green Chemistry Start-Ups” in his honor.

Learn more about WBI and green chemistry at: https://www.johnwarner.org
Workshops

Workshops will be available to the first students who attend and are limited to the capacity of the room. Once the room reaches maximum capacity, we can no longer accept students into that workshop. Please show up to the workshop on time and be respectful to the facilitator and fellow conference attendees.

**PREPARING FOR THE PROFESSIONAL WORLD: NETWORKING 101**
- Room: Arts 240
- Facilitated by: Dean Katherine Kantardjieff
- Time: 12:45 – 1:30 PM

**GRAD SCHOOL FUNDING**
- Room: Academic Hall (ACD) 201
- Facilitated by: Raymond Malfavon-Borja
- Time: 12:45 – 1:30 PM

**STATEMENT OF PURPOSE**
- Room: SBSB 1103
- Facilitated by: Elisa Silvas & Allysia (icie) Castillo
- Time: 12:45 – 1:30 PM

**DAY OF WORKSHOP NOTES:**
VISUAL AND PERFORMING ARTS

10:15 AM – 10:30 AM
Haydn’s Sonata in E Minor
Monica Alipranti
Ching-Ming Cheng, California State University, San Marcos
Room: Arts 111

10:30 AM – 10:45 AM
The Experimental Dance Project
Lesly Rodriguez, California State University, San Marcos
Erin Atkins, California State University, San Marcos
Caiser Leboss, California State University, San Marcos
Anya Cloud, California State University, San Marcos
Room: Arts 111

10:45 AM – 11:00 AM
This is What Happens Inside of a Washing Machine
Iris Lee, California State University, San Marcos
Lesly Rodriguez, California State University, San Marcos
Karen Schaffman, California State University, San Marcos
Room: Arts 111

CREATIVE WRITING AND POETRY SHOWCASE

12:30 PM – 12:45 PM
Spaces of Religious Co-Existence
Kateri Mouawad
Richard Hannon, Palomar College
Markstein 308

12:45 PM – 1:00 PM
Fate’s Veil
Luz Ortega
Markstein 308

1:00 PM – 1:15 PM
Igniting your inner voice and inspiring compassion through storytelling
Minay Baltazar, California State University, Channel Islands
Claudia Reder, California State University, Channel Islands
Markstein 308

1:15 PM – 1:30 PM
"Witness": A Creative Writing Reading
Emma D. Thompson, CSU Channel Islands
Mary Adler, CSU Channel Islands
Markstein 308

1:30 PM – 1:45 PM
Predator-Prey Dynamics of Blue Crab on the Periwinkle Snail in a Salt Marsh System
Melissa Belen-Gonzalez, San Diego State University
Eric Johnson, University of North Florida
Markstein 308

∞ Empowering Success Through a Culture of Undergraduate Research ∞
Each presentation is allotted 15 minutes including a 5-minute Q&A period. Students will present at their assigned time. Each session has a moderator who is assisted by a student room monitor. Participants and guests are asked to adhere to the Conference Etiquette guidelines and not enter/leave the rooms during presentations.

8:45 AM - ORAL SESSION I

Avoiding spectral interference from antibiotic controls and autofluorescence in antimycobacterial assays
Thuy Tran
Jacqueline A. Trischman, California State University, San Marcos
Room: Markstein 203
8:45 AM - 9:00 AM

Catching Trout
Natalie Maurice, Carleton College
Danielle Sebring, California State University, Fullerton
Jaquelyn Valenzuela, University of California, Santa Barbara
Ronald Yurko, Carnegie Mellon University
Room: Markstein 208
8:45 AM - 9:00 AM

Delta Sets of Geometric Nonminimally Generated Numerical Monoids
Andrea Stine, Occidental College
Daniel Huth, Occidental College
Melissa Gutierrez-Gonzalez, Occidental College
Jay Daigle, Occidental College
Room: Markstein 303
8:45 AM - 9:00 AM

Disentangling the Spirit of Black Individuality through music and film
Citlally Solorzano
Room: Markstein 107
8:45 AM - 9:00 AM

Gendered Surveillance: Queer Ugandans in the China-Africa Digital Relationship
Thomas Robertson, Occidental College
Movindri Reddy, Occidental College
Room: Markstein 211
8:45 AM - 9:00 AM

Incorporation of Antioxidant Luteolin into ApoE3NT and ApoA1 containing HDL Nanodiscs
Kyla Anderson, California State University, Long Beach
Vasanthy Narayanaswami, California State University, Long Beach
Room: Markstein 102
8:45 AM - 9:00 AM

Increase Acupuncture Effect with Targeted Electroacupuncture Treatment
Anh T. Nguyen, University of California, Irvine
Stephanie Tjen-A-Looi, University of California, Irvine
Room: Markstein 308
8:45 AM - 9:00 AM

Increased growth of Human Chordoma Cells When Cultured With Human Adipose Derived Stem Cells In A Microfluidic Device
Rosaline Kumar, California State University, San Marcos
Holly Day, California State University, San Marcos
Carlos Luna Lopez, California State University, San Marcos
Room: Markstein 210
8:45 AM - 9:00 AM

Microwave-Assisted Gold-Catalyzed Reaction of Benzylc Alcohols: Mechanistic and Kinetic Investigations
Araacel A. Alvarez, California State University, San Marcos
Robert G. Iafe Ph.D., California State University, San Marcos
Room: Markstein 205
8:45 AM - 9:00 AM

"Nationalizing a Movement": Assessing the Reach of Moral Mondays
Daniella Camacho, California State University, Fullerton
Valeria Sinclair-Chapman, Purdue University
India Lenea, Purdue University
Room: Markstein 101
8:45 AM - 9:00 AM

Professional Networks: A Mission-Critical Tool for Educators and Students
Daniela Navarro, Mount Saint Mary's University, Los Angeles
Room: Markstein 209
8:45 AM - 9:00 AM

Real-time Diagnostics in Unsteady Flows
Sarah Lucia Barrett, California Institute of Technology
Morgan Hooper, California Institute of Technology
Beverley McKeon, California Institute of Technology
Room: Markstein 105
8:45 AM - 9:00 AM

∞ Empowering Success Through a Culture of Undergraduate Research ∞
8:45 AM - ORAL SESSION I

The Effects Green Marketing and Demarketing on Consumer Product Interaction: A Study of Altruistic Consumer Behavior
Tatum Bottomley, Point Loma Nazarene University
Olivia Miller, Point Loma Nazarene University
Dr. Jeffrey Birdsell, Point Loma Nazarene University
Room: Markstein 301
8:45 AM - 9:00 AM

The Effects of Acculturation on the Relationship Between Prenatal Maternal Anxiety and Emotion Regulation in Infants
Jessica Orea
Kimberly D'Anna-Hernandez, California State University San Marcos
Room: Markstein 306
8:45 AM - 9:00 AM

The Fabled Weaver: Reading Silas Marner as the Real Diary of George Eliot
Anna Katherine Brown, Pepperdine University
Constance Fulmer, Pepperdine University
Room: Markstein 201
8:45 AM - 9:00 AM

Undocumented American Dreams: Stop, Continue, Stop...
Susy Morales
Thao Ha, Miracosta College
Magdalena Zepeda, Miracosta College
Room: Markstein 213
8:45 AM - 9:00 AM

9:00 AM - ORAL SESSION I

3D Microfluidic Paper-based Analytical Devices For Colorimetric Bioassays
Alyssa S. Wong, California State University, Los Angeles
Alyssa Fernandez, California State University, Los Angeles
Natalia M. Neras, California State University, Los Angeles
Dr. Frank A. Gomez
Room: Markstein 203
9:00 AM - 9:15 AM

A Case for Reforming Structural Linguistic Biases: Gender in English
Marmar Tavasol
Room: Markstein 211
9:00 AM - 9:15 AM

Angular Calibration of the BICEP Array receivers using Far Field Beam Map Characterization
Shubh Agrawal, California Institute of Technology
Jamie Bock, California Institute of Technology
Alessandro Schillaci
Room: Markstein 303
9:00 AM - 9:15 AM

Examining the Role of Scaffold Attachment Factor B1 in Triple Negative Breast Cancer Metabolism
Shannon Erhardt, Iowa State University
Jun Hyung Park, Baylor College of Medicine
Kwang Hwa Jung, Baylor College of Medicine
Benny A. Kaipparettu, Baylor College of Medicine
Room: Markstein 210
9:00 AM - 9:15 AM

Individual Differences in Face Recognition Ability and the Disguise Replication Effect
Kendra Paquette, CSU Fullerton
Josselyn Marroquin, CSU Fullerton
Iris Blandón-Gittin Ph.D., CSU Fullerton
Room: Markstein 306
9:00 AM - 9:15 AM

Jordan Peele's Get Out and Us: Analysis of Removing African American Stereotypes in Horror Films
Ji Yoon Kim, Cerritos College
Room: Markstein 107
9:00 AM - 9:15 AM

Mathematically Modeling the Persistence of Red-Legged Frogs
Caroline Wick, Pepperdine University
Courtney Davis, Pepperdine University
Room: Markstein 208
9:00 AM - 9:15 AM

NASA Armstrong Flight Research Center - Microturbine Engine Model using Numerical Propulsion System Simulation (NPSS)
Jonathan Ortiz
Kurt J. Kloesel, NASA Armstrong Flight Research Center
Room: Markstein 105
9:00 AM - 9:15 AM

Next Generation In-Vivo and Addressable Biomedical Devices Operated with 3D Magnetic Field Gradient-Based Localization
Nikhil Poole, California Institute of Technology
Azita Emami, California Institute of Technology
Room: Markstein 308
9:00 AM - 9:15 AM

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9:00 AM - ORAL SESSION I

Oxidation of Alcohols using a novel Molybdenum catalyst
Celine Parker
Alex John, California State Polytechnic University - Pomona
Room: Markstein 205
9:00 AM - 9:15 AM

Spectroscopic and Mass Spectrometric Analysis of ApoAI during HDL Particle Modulation by Arterial Endothelial Cells
Kristina Dela Cruz, California State University, Long Beach
Vasanthy Narayanaswami, CSULB
Room: Markstein 102
9:00 AM - 9:15 AM

The Challenges & Opportunities for the Retail Worker in Higher Education
Josie Debellis, Mount Saint Mary's University, Los Angeles
Room: Markstein 209
9:00 AM - 9:15 AM

“The Rights of Property Itself”: Homes, Society, and the Inevitable in Howards End
Lillian Robles
Claire Phillips, Glendale Community College - Glendale, CA
Room: Markstein 201
9:00 AM - 9:15 AM

Transnationalism, Diaspora, and Identity: Experiences of Ukrainian Immigrants
Helen Balagula, California State Polytechnic University - Pomona
Anjana Narayan, California State Polytechnic University - Pomona
Room: Markstein 213
9:00 AM - 9:15 AM

Why Do Consumers Prefer Locally Produced Products?
Stephanie Munoz, California State Polytechnic University, Pomona
Gary Stahlohofer, California State Polytechnic University, Pomona
Jillian Munoz, California State Polytechnic University, Pomona
Jarrod Griffin, California State Polytechnic University, Pomona
Room: Markstein 301
9:00 AM - 9:15 AM

Why Is the US Ranked Lower than Switzerland in the Human Freedom Index?: A Comparison between Two Democratic Countries
Sofia Nguyen, Irvine Valley College
Joon Kil, Irvine Valley College
Room: Markstein 101
9:00 AM - 9:15 AM

9:15 AM - ORAL SESSION I

Active Learning in the General Chemistry Pathway at Pasadena City College: Towards Increasing Diversity in STEM
Richard Luu, Pasadena City College
Christian Burke, Pasadena City College
Valerie Hsiao, Pasadena City College
Andy Lai, Pasadena City College
Room: Markstein 209
9:15 AM - 9:30 AM

Afro-Latinos in the United States: Their Experience Narrated Through Slam Poetry
Gicela Diaz Maravilla
Room: Markstein 107
9:15 AM - 9:30 AM

Algorithm to Compute the Subdivision Matrix for Tilings and Its Application to Girih Tiles
Saraswati Soedarmadji, West Los Angeles College
Mohamad A. Alwash, West Los Angeles College
Room: Markstein 208
9:15 AM - 9:30 AM

Caves, Offerings, and Bones: A Preliminary Analysis of Ancient Maya Ritual Use of Rio Frio Cave A, Cayo District, Belize
Jessica Garcia
Jon P. Spenard, CSUSB
Ariana J. Yanez, CSUSB, CSUSB
Andres J. Berdeja, CSUSB
Room: Markstein 306
9:15 AM - 9:30 AM

Deformed and undeformed dikes: tools to date extension in the Pioneer metamorphic core complex
Fiona Faith Pedrick, Occidental College
Margi Rusmore, Occidental College
Jim Vogl, University of Florida
Room: Markstein 303
9:15 AM - 9:30 AM

Democracy’s Newest Enemy: Social Media
Erin Lopez, Mt. San Antonio College
Misty Kolchakian, Mt. San Antonio College
Room: Markstein 101
9:15 AM - 9:30 AM
9:15 AM - ORAL SESSION I

Perceived Value of Passive Research Participation and its Effects on Learning Marketing Concepts
Cailin Kuchenbecker, California State Polytechnic University - Pomona
Guillermo Marquez, California State Polytechnic University - Pomona
Mitchell Pickering, California State Polytechnic University - Pomona
Prathista Annapareddi, California State Polytechnic University - Pomona
Room: Markstein 301
9:15 AM - 9:30 AM

Structural and Functional Analysis of Apolipoprotein E3 Modification by a Lipid Peroxidation Product, 4-Hydroxynonenal
Abbas Abdulhasan, CSULB
Muhammad Imam Uddin Abeer, CSULB
Vasanthy Narayanaswami, CSULB
Room: Markstein 102
9:15 AM - 9:30 AM

The structure determination of rhamnocrocin, a novel metabolite from Rhamnus croceae, the spiny redberry plant
Gustavo Gallardo, California State University, San Marcos
Esthela Barriga, California State University, San Marcos
Jenna Heidemann, California State University, San Marcos
Eric Paul, California State University, San Marcos
Room: Markstein 205
9:15 AM - 9:30 AM

Transnational Effects of Colonialism: The Identities of Filipina Caregivers in the U.S.
Ashlee Monton
Room: Markstein 213
9:15 AM - 9:30 AM

Why is Placing Happiness in the hands of LGBTQ Students Alone Not Enough? (A Qualitative Research on Why it is Crucial to Create A More Inclusive Campus Climate)
Varaneek Chinnapong
Sheri-Lynn Kurisu, California State University, San Marcos
Room: Markstein 211
9:15 AM - 9:30 AM

9:30 AM - ORAL SESSION I

Capillary Tube and Thread-Based Electrodes for the Detection of Glucose and Acetylthiocholine
Lauren Duenas
Frank A. Gomez, California State University, Los Angeles
Kathryn Uchida, California State University, Los Angeles
Room: Markstein 203
9:30 AM - 9:45 AM
9:30 AM - ORAL SESSION I

Comparison of Full-Length and Mature Forms of Lysyl Oxidase
Abigail Klein
Karla M. Lopez, CSU Bakersfield
Room: Markstein 102
9:30 AM - 9:45 AM

Dark Matter Detection at the Jefferson Lab Accelerator; Modeling Cosmic Background
Gabe Gregory
Dan Ma, Occidental College
Daniel P. Snowden-Ifft, Occidental College
Room: Markstein 303
9:30 AM - 9:45 AM

Hood Poetry: A Developing Narrative Among the Latinx Population of Los Angeles
Bryant Martinez
Room: Markstein 306
9:30 AM - 9:45 AM

Investigation of the Enhanced Permeability and Retention Effect Using Fluorescent Nanoparticles
Helen Salinas
Room: Markstein 308
9:30 AM - 9:45 AM

Load Forecasting using Wavelet Transforms and Neural Networks
Levi Randall
Ankita Mohapatra Dr.
Raul Mercado
Room: Markstein 105
9:30 AM - 9:45 AM

Microwave-Assisted Gold-Catalyzed Reactions of Benzyl Alcohols with Heteroaromatic Nucleophiles
Brysa Alvarado
Robert G. Iafe, California State University, San Marcos
Room: Markstein 205
9:30 AM - 9:45 AM

Pablo Picasso and Rolando Villazón: Ethnographic Case Studies in Spanish and Latin American Immigration to France
Cayde Newton
Room: Markstein 213
9:30 AM - 9:45 AM

Particle Swarm Optimization-Based Source Seeking with Obstacle Avoidance
Jillian Canons, California State Polytechnic University, Pomona
Jeremy Lin, California State Polytechnic University, Pomona
Thuy Lu, California State Polytechnic University, Pomona
Room: Markstein 208
9:30 AM - 9:45 AM

Social Media and its Influence on Master’s Program Enrollment: A Look at Prospective MPA Students
Christian Eckmann, California State University, Channel Islands
Dana Baker, California State University, Channel Islands
Room: Markstein 301
9:30 AM - 9:45 AM

The Case for Viewing Implicit Biases as Habits
Tara Harbison, Cal Poly Pomona
Alex Madva, Cal Poly Pomona
Room: Markstein 107
9:30 AM - 9:45 AM

The Curiosity of the Rise in Feminism and the Entrance of the Male to the Birthing Room
Victoria Karalun
Room: Markstein 211
9:30 AM - 9:45 AM

The Effects of Ezh2 Mutation on Kras-Driven Adenocarcinoma
Hannah Rattu Mandias, California State University, Long Beach
Lin He, University of California Berkeley
Bin Xue, University of California Berkeley
Suifang Mao, University of California Berkeley
Room: Markstein 210
9:30 AM - 9:45 AM

The Effects of Introductory Philosophy Education on the Critical Thinking Skills of Pre-College Students
Augustus Wachbrit
Brian J. Collins Dr., California Lutheran University
Cynthia De Martino Dr., California Lutheran University
Katie Knapp, California Lutheran University
Room: Markstein 209
9:30 AM - 9:45 AM

The Grotesque in the Grotesque City: An Analysis of West’s The Day of the Locust
Dylan J. Brintwood, Palomar College
Room: Markstein 201
9:30 AM - 9:45 AM

∞ Empowering Success Through a Culture of Undergraduate Research ∞
9:45 AM - ORAL SESSION I

WINNERS AND LOSERS: THE 2020 CENSUS AND CALIFORNIA’S 2021 REDISTRICTING
Elena Castellanos
Andrew Busch, Claremont McKenna College
Rachel Alaynick, Claremont McKenna College
Adhitya Venkatraman, Claremont McKenna College
Room: Markstein 101
9:30 AM - 9:45 AM

“Carne Asada Is Not A Crime:” Chicano and Latinx Loncheros and the ‘Taco Truck Wars’ for Civil Rights, Cultural space, and Socio-economic place in Los Angeles
Cassandra Tanks
Room: Markstein 107
9:45 AM - 10:00 AM

Children of Latinx Immigrants: Music Binding Two Cultures
Rosa Isela Reyna Secaida, University of California, Merced
Jayson Beaster-Jones, University of California, Merced
Room: Markstein 213
9:45 AM - 10:00 AM

Design and synthesis of asymmetric (R)-BINOL derived organocatalysts for stereoselective synthesis
Maribel Clerk
Robert Iafe, California State University, San Marcos
Room: Markstein 205
9:45 AM - 10:00 AM

Investigating Bias Within Demographics Across Occupations
Araav Patel
Arul H. Verma
Austin T. Peng
Karen Li
Room: Markstein 211
9:45 AM - 10:00 AM

Making based outreach for STEM engagement
Bethsy Resendiz, CSUSM
William Braxton Dyke, CSUSM
Edward Price, CSUSM
Charles De Leone, CSUSM
Room: Markstein 209
9:45 AM - 10:00 AM

Motivation, knowledge, and confidence in stock market investing among a diverse college student population
Phuong (Sally) Nguyen, California State University - San Bernardino
Benjamin Joseph Becerra, California State University - San Bernardino
Room: Markstein 301
9:45 AM - 10:00 AM

Recombining Antibody’s CDRs to Create a More Potent HIV-1 Monoclonal Antibody
Adonis Rubio
Peter Kim, Stanford University
Room: Markstein 102
9:45 AM - 10:00 AM

Student Understanding of Ordinary Differential Equations in Physics
Anderson T. Fung, California State University, Fullerton
Michael E. Loverude, California State University, Fullerton
Room: Markstein 208
9:45 AM - 10:00 AM

Students’ Understanding in Matrix Algebra and Eigentheory
Pachi Her
Michael Loverude, California State University, Fullerton
Room: Markstein 306
9:45 AM - 10:00 AM

Synthesis and characterization of 1,2,3-benzotriazole derivatives and their activity against Candida species
Emily Aguilar
Robert Iafe, California State University, San Marcos
Room: Markstein 203
9:45 AM - 10:00 AM

The Effectiveness of Virtual Reality Exposure Therapy for Treatment of Specific Phobias: A Meta-Analysis
Natalie Clark, California State University, Fullerton
Tommi Mayers, California State University, Fullerton
Giovanni Sosa, California State University, Fullerton
Room: Markstein 308
9:45 AM - 10:00 AM

The Golden Gate has Iron Bars: Challenging California’s Progressive Reputation
Broderick Dunlap
Dr. Alicia Gutierrez-Romine, La Sierra University
Room: Markstein 101
9:45 AM - 10:00 AM

∞ Empowering Success Through a Culture of Undergraduate Research ∞
9:45 AM - ORAL SESSION I

Theology and Authority in Mormon Women's Poetry in the Nineteenth and Twenty-First Centuries
Kaitlin Hoelzer
Rachel Cope, Brigham Young University
Room: Markstein 201
9:45 AM - 10:00 AM

Therapeutic Cardiothread production for Heart Therapy with a 3D Printed CAD Assembler Device Which Binds Stem Cells to Suture using Fibrin and Gelatin
Melvin Soriano, Oxnard College
Vanessa Wong, Oxnard College
Brandon Lyons, University of California, Los Angeles
Kamille Romero, Pacifica High School
Room: Markstein 210
9:45 AM - 10:00 AM

Topography and Behavior Based Movement Modeling for Missing Hikers in Land-Wilderness Settings
Madeline Brown, Scripps College
Jose Alanis, San Joaquin Delta College
Jerry Magaña, University of North Georgia
James Kitchens, Warren Wilson College
Room: Markstein 105
9:45 AM - 10:00 AM

Transmission through a Multiple I/O Double-Ring Nanoscale Structure
Joel Stock
Eric Hedin, Biola University
Room: Markstein 303
9:45 AM - 10:00 AM
ORAL PRESENTATIONS – SESSION II

Each presentation is allotted 15 minutes including a 5-minute Q&A period. Students will present at their assigned time. Each session has a moderator who is assisted by a student room monitor. Participants and guests are asked to adhere to the Conference Etiquette guidelines and not enter/leave the rooms during presentations.

10:15 AM - ORAL SESSION II

Advancements in the Synthesis of BINOL-Derived Bisphosphorylimides
Roberto Leon Baxin
Robert Iafe Dr, CSUSM
Amanda Smolin Ms, CSUSM
Room: Markstein 205
10:15 AM - 10:30 AM

C. S. Lewis, Stories, and Postmodernism
Harrison Ruud Ruud
Joan Wines, California Lutheran University
Room: Markstein 209
10:15 AM - 10:30 AM

Colonization and the Israeli-Palestinian Conflict
Raed Good
Jerry Jenkins, Palomar College
Room: Markstein 101
10:15 AM - 10:30 AM

“Educators Working with Undocumented High School Students During the Trump Presidency”
Carolina Lopez
Carolina Valdivia, Harvard University
Josefina Espino, California State University, San Marcos
Marisol Clark-Ibanez, California State University, San Marcos
Room: Markstein 107
10:15 AM - 10:30 AM

Fear of Public Charge
Kristine Holmes
Room: Markstein 306
10:15 AM - 10:30 AM

Getting beneath the surface: a holistic discussion on beauty and the commercialization of perfection.
Doris Vidas, University of California, Los Angeles
Alan Page Fiske, University of California, Los Angeles
Room: Markstein 211
10:15 AM - 10:30 AM

How the Tax Cuts and Jobs Act of 2017 Impacted the American Economy
Juliana Oliveira, Cerritos College
Room: Markstein 301
10:15 AM - 10:30 AM

Monitoring the Growth and Health of Single Daphnia Using Vibrating Tube Sensors
Christopher Rico
Room: Markstein 105
10:15 AM - 10:30 AM

Rehabilitation in United States Prisons
Starlina Sanchez, Cal State University Fullerton
Tala Khanmalek, Cal State University Fullerton
Room: Markstein 303
10:15 AM - 10:30 AM

Sex and Wine in the Islamic Golden Age
Eleanor Barker
Samuel Claussen, California Lutheran University
Room: Markstein 210
10:15 AM - 10:30 AM

Starbound Salvation: Octavia Butler’s Parables and Afrofuturism
Luis Camarillo
Jerry Jenkins, Palomar College
Room: Markstein 201
10:15 AM - 10:30 AM

The Effect of Explicit Instruction on Scientific Reasoning Skills
Tyler Garcia
Homeyra Sadaghiani, California Poly Pomona
Room: Markstein 208
10:15 AM - 10:30 AM

The Effect of Manganese on E.coli Mutation Rates
Charlotte Davis, Mount Saint Mary’s University - Los Angeles
Paul Lee, Mount Saint Mary’s University - Los Angeles
Room: Markstein 102
10:15 AM - 10:30 AM

"Where are you actually from?" Cultural Diversity and Pedagogical Practice
Kayla Lim
Room: Markstein 213
10:15 AM - 10:30 AM

∞ Empowering Success Through a Culture of Undergraduate Research ∞
10:30 AM - ORAL SESSION II

A Data-Centric Approach to Taming the Message
Dissemination in the Internet of Vehicles
Sumanjit Gill, California State University, Fresno
Fletcher Trueblood, California State University, Fresno
Robert Wong, California State University, Fresno
Shahab Tayeb, California State University, Fresno
Room: Markstein 105
10:30 AM - 10:45 AM

A microwave assisted gold-catalyzed substitution reaction of benzylic alcohols with benzimidazole
Emily Lyon, California State University, San Marcos
Robert Ifae, California State University, San Marcos
Room: Markstein 205
10:30 AM - 10:45 AM

A Non-Ideal Critique of Migration Debate
Bernard Granados
Room: Markstein 209
10:30 AM - 10:45 AM

A Quadrotomy for Partial Orders
Stan Warford
Alex Prieger, Pepperdine University
Room: Markstein 208
10:30 AM - 10:45 AM

Enculturation: Resilience to Stereotype Threat?
Charlene Chen
Jaclyn Rodriguez, Occidental College
Room: Markstein 213
10:30 AM - 10:45 AM

How much should I charge for my AirBnB? - Pricing
AirBnB Using Descriptive and Predictive Data Mining
Sonya Zhang, California State Polytechnic University - Pomona
Lei Wang, California State Polytechnic University - Pomona
Ronald Chan, California State Polytechnic University - Pomona
Room: Markstein 301
10:30 AM - 10:45 AM

Interactions in DnAB-DciA complex in Bacterial DNA Replication
Albert Mendoza
Ahammad Chowdhury, City College of New York
Nicholas Gao, City College of New York
David Jeruzalmi, City College of New York
Room: Markstein 102
10:30 AM - 10:45 AM

Latinas' Experiences in Higher Education: Balancing Work and Family Obligations while Prioritizing Academic Responsibilities
Genesis Pia
Lauren McDonald, California State University Northridge
Room: Markstein 107
10:30 AM - 10:45 AM

Marking Time and Making Identity: Rites of Passage Events and Festivals in the Creation of Japanese American Buddhist Community Life in the Incarceration Camps
Carol Beckett
Room: Markstein 210
10:30 AM - 10:45 AM

The Importance of the Physical: Lucille Clifton's Poetry About Bodies
Kaitlin Hoezler, Brigham Young University
Trent Hickman, Brigham Young University
Room: Markstein 201
10:30 AM - 10:45 AM

The Influence Of Stereotype Threat On Performance And Emotion Regulation Among Racial-ethnic Minorities In Competitive Gaming
Miriam Soledad Bautista, California State University, San Marcos
Mark Beeman, Northwestern University
Kyle M. Nolla, Northwestern University
Room: Markstein 303
10:30 AM - 10:45 AM

The Jon Stewart 9/11 Monologue: Unity, Prophetic Dualism, and the Newfound Role of Satire
Carlos Pelayo
Room: Markstein 306
10:30 AM - 10:45 AM

The Silent Voting Bloc: Asian American MilleniGen Political Engagement
Anna Watkins, California State Polytechnic University - Pomona
Yvonne Rivera, California State Polytechnic University - Pomona
Joshua Brown, California State Polytechnic University - Pomona
Avalon Whalen, California State Polytechnic University - Pomona
Room: Markstein 101
10:30 AM - 10:45 AM

Women's Body Image: Hypersexualized Femininity at the Met Gala
Hannah Hernandez, Cerritos College
Daniel Gardner, Cerritos College
Room: Markstein 211
10:30 AM - 10:45 AM
10:45 AM - ORAL SESSION II

A Study of Energetic Sustainability of Routing Protocols in Mobile Ad Hoc Networks (MANETs)
THU VIET SNYDER
Nahid Majd, CSUSM
Room: Markstein 208
10:45 AM - 11:00 AM

DIFFERENCES IN LANGUAGE ACQUISITION AMONG L2 AND HL LEARNERS IN MEDICAL SPANISH
Ileana Perez, California State University, Fullerton
Glenn A. Martinez, The Ohio State University
Room: Markstein 213
10:45 AM - 11:00 AM

Fan Wars! The Online Battle Between K-Pop Fans
Lissette Chavez
Room: Markstein 306
10:45 AM - 11:00 AM

Ghosts and Girls: Voices of the Contemporary American Gothic
Elisa Silvas
Rebecca Lush, California State University, San Marcos
Room: Markstein 201
10:45 AM - 11:00 AM

Impact of Religiosity on Prosocial Behavior
Michael Apostol
Room: Markstein 210
10:45 AM - 11:00 AM

Inhibition of Oxidative DNA Damage in the Presence of Spinach Extract
Daisy Lezo, Mount Saint Mary's University
Ashley Ramirez, Mount Saint Mary's University
Eric Stemp, Mount Saint Mary's University
Room: Markstein 102
10:45 AM - 11:00 AM

Kinetic and mechanistic investigations of gold-catalyzed Friedel–Crafts-like reactions of benzylic alcohols
Amanda Melanese
Robert Iafe, California State University, San Marcos
Room: Markstein 205
10:45 AM - 11:00 AM

Meaning-Making in Organizing Conservative and Non-Conservative Political Events on a College Campus
Mariana Lopez, California State University, Fullerton
Edwin Lopez, California State University, Fullerton
Room: Markstein 101
10:45 AM - 11:00 AM

Multiple Regression Analysis of Predictive Factors Leading to Increased Overdose Rates in America
Taryn Williams
Rebecca Nash, California State University, Long Beach
Room: Markstein 303
10:45 AM - 11:00 AM

Ni Aquí Ni Allá: Pero por Todos Partes
Shysel Granados
Room: Markstein 211
10:45 AM - 11:00 AM

Precious Knowledge: Recentering Injustices in Latin@ Education
Liliana Hernandez, California State University, San Marcos
Michelle A. Holling, California State University, San Marcos
Room: Markstein 107
10:45 AM - 11:00 AM

The Development of Sensitivity to Social Context in Partner Choice
Hang (Heather) T. Do, Oberlin College
Justin W. Martin, Boston College
Katherine McAuliffe, Boston College
Room: Markstein 301
10:45 AM - 11:00 AM

This Is America
Andrea Lujan
Antonio T. De La Garza
Room: Markstein 209
10:45 AM - 11:00 AM

Using Tuning Forks to Analyze Biological Samples
Spencer C. Pak, University of California, Riverside
Heran C. Bhakta, University of California, Riverside
William H. Grover, University of California, Riverside
Room: Markstein 105
10:45 AM - 11:00 AM

11:00 AM - ORAL SESSION II

Bitcoin Bouncing Back? Is it Fractal, Fibonacci, or Freaking Gravity?
Daniel McCluskey
T. L. Brink, Crafton Hills College
Room: Markstein 301
11:00 AM - 11:15 AM

Brownie Mary and Marley: Women as Agents of Change in California's Cannabis Industry
Virginia Gomez
Room: Markstein 211
11:00 AM - 11:15 AM
11:00 AM - ORAL SESSION II

Data and Ethics: On the Ethics of Machine Learning for Suicide Prediction
Jaden Yocom, California State Polytechnic University - Pomona
Michael Rhodes, California State Polytechnic University - Pomona
Room: Markstein 306
11:00 AM - 11:15 AM

ESAC: An Energetic Sustainable Adaptive Clustering Protocol for Heterogenous Wireless Ad Hoc Networks (HANETs)
Michael McDermott
Dr. Nahid Majd, California State University, San Marcos
Room: Markstein 208
11:00 AM - 11:15 AM

Extracting Perspectives on Immigrants and Immigration in Victorian Literature to Help Us Define Our Own
Meagan Toumayan, California Lutheran University
Joan Wines Ph.D., California Lutheran University
Room: Markstein 201
11:00 AM - 11:15 AM

Investigating Fracture Mechanics of 3D Printed Vertebrae Models in a Simulated Environment
Denislav Nikolov, Cal Poly Pomona
Jestin Kiriu-Dela Cruz, Cal Poly Pomona
Emely Ruiz Carrillo, Cal Poly Pomona
Mehrdad Haghi, Cal Poly Pomona
Room: Markstein 105
11:00 AM - 11:15 AM

Multilingualism, Intercultural Competence, and Intercultural Sensitivity: A Quantitative Study
Kiersten Bjerke
Daniel Flores
Yiseal Murillo
Shawn Lepard
Room: Markstein 213
11:00 AM - 11:15 AM

Storytelling and Listening Healing Circles in the Latina(x) Community: A Collaboration with California Latinas for Reproductive Justice
Nancy Bahena, San Diego State University
Irene Lara, San Diego State University
Room: Markstein 107
11:00 AM - 11:15 AM

Synthesis of Novel Bioactive Benzotriazole Derivatives by Gold Catalysis
Kaylee Shoemaker
Robert Iafe, California State University, San Marcos
Room: Markstein 205
11:00 AM - 11:15 AM

Taking Cover: A Comparison of the Prevalence of Gun Violence in the United States and Canadas
Ayat Izz, Irvine Valley College
Joon Kil, Irvine Valley College
Room: Markstein 101
11:00 AM - 11:15 AM

The Names of God
Roda Saor
Steve Barbone, San Diego State University
Room: Markstein 210
11:00 AM - 11:15 AM

The Value of Education in Regards to Quality of Service
Jonathan Flores
Room: Markstein 303
11:00 AM - 11:15 AM

Tunable rhodamine 6G ionic fluorescent nanomaterials and evaluation of chemotherapeutic properties using stem cells
Luis Arrioja, California State University, San Marcos
Dianna Torres, California State University, San Marcos
Amanda Bituin, California State University, San Marcos
Shalise Burch, California State University, San Marcos
Room: Markstein 102
11:00 AM - 11:15 AM

What is Decolonial Philosophy?
Rene Ramirez, California State University, Fullerton
Matthew Calarco, California State University, Fullerton
Room: Markstein 209
11:00 AM - 11:15 AM

11:15 AM - ORAL SESSION II

Beyond Systems Thinking: Science and Technology as Creative Cooperation
Patrick Henning, California State University, Fullerton
Matthew Calarco, California State University, Fullerton
Room: Markstein 209
11:15 AM - 11:30 AM
11:15 AM - ORAL SESSION II

CHS: Cold Hard Stats - Data Analysis on Graduation and Retention Rates Among Students Enrolled in Chicano Studies Courses at CSU Channel Islands

Katherine Lovekin, California State University, Channel Islands
Avery Brunk, California State University, Channel Islands
Andrew Martos, California State University, Channel Islands
Christina Soderlund Ph.D., California State University, Channel Islands

Room: Markstein 107
11:15 AM - 11:30 AM

Improving Democracy in America by Fighting Voter Suppression Through Civic Activism

Saraswati Soedarmadji, West Los Angeles College
Christopher B. Lee, West Los Angeles College

Room: Markstein 101
11:15 AM - 11:30 AM

Living in the Fringes of Narcoculture

Jessica Lombardo, California State University, Fullerton
David Kelman, California State University, Fullerton

Room: Markstein 201
11:15 AM - 11:30 AM

Menstruation practice in Nepal

Aarohee Bhattarai
Debbi Goss MRS, Soka University of America

Room: Markstein 211
11:15 AM - 11:30 AM

Microfluidic valve optimization for agricultural applications

Nicholas C. Higgins, Department of Bioengineering, University of California, Riverside
Heran C. Bhakta, Department of Bioengineering, University of California, Riverside
S. Hollis Woodard, Department of Entomology, University of California, Riverside
Philip Brisk, Department of Computer Science and Engineering, University of California, Riverside

Room: Markstein 105
11:15 AM - 11:30 AM

Relational Complexities between News Media and Their Consumers

Antonio Pequeno

Room: Markstein 301
11:15 AM - 11:30 AM

Religious Resistance and the Rise of Fascism

Aaron Morse
David G. Nelson, California Lutheran University

Room: Markstein 210
11:15 AM - 11:30 AM

Remembering the Salvadoran Civil War as a Child Soldier

Kevin Ramirez

Room: Markstein 213
11:15 AM - 11:30 AM

Stabilization of Tetravalent Oxidation States across the Lanthanide Series

Neusha Kharrati, Francis Parker High School
Mikiyas Assefa, UC Santa Barbara

Room: Markstein 102
11:15 AM - 11:30 AM

Techno Music and Time in France

Amir Lehman
Denis Cerclet, Université Lyon 2

Room: Markstein 306
11:15 AM - 11:30 AM

The Benefits of Ozonated Oils: A Preliminary Chemical Study

Talynn J. Glenn, Mount Saint Mary's University
Daisy Zambrano, Mount Saint Mary's University
Sylvine Deprèle, Mount Saint Mary's University

Room: Markstein 205
11:15 AM - 11:30 AM

The relationship between gratitude and academic satisfaction in college students

Christina Gurdzhyan, Mt San Antonio College
Misty Kolchakian, Mt San Antonio College

Room: Markstein 303
11:15 AM - 11:30 AM

∞ Empowering Success Through a Culture of Undergraduate Research ∞
ORAL PRESENTATIONS – SESSION III

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12:30 PM - ORAL SESSION III

Assessment of Microbial Growth in Reclaimed Water from Cal Poly Pomona’s Distribution System
Ben Clairday, Pasadena City College
Elwin Cheung, UCLA
Jesper Ploysangngam, UCLA
Brittany Repolda, UCSB
Room: Markstein 102
12:30 PM - 12:45 PM

Comparative Analysis of Concentrated Neighborhood Disadvantage in Ventura and San Diego County, California
Kayla Stockton, California State University, Channel Islands
Sahbra DeSantis, California State University, Channel Islands
Room: Markstein 205
12:30 PM - 12:45 PM

Data Fitting and Behavioral Analysis of the Zika Virus
Mohzaib Quraishi, California State University, Fullerton
Christine Deeb, California State University, Fullerton
Victoria Meza, California State University, Fullerton
Anael Verdugo, California State University, Fullerton
Room: Markstein 211
12:30 PM - 12:45 PM

Different stimulation modalities at acupoint ST36 decrease blood pressure differentially: TRPV1
Shaina Wang
Niloofar Motahari
Stephanie C. Tjen-A-Looi, College of Health Sciences, UC Irvine
Room: Markstein 206
12:30 PM - 12:45 PM

Dye Injection System in a Water Channel: Application for Dispersion Experiments
Arthur Bernal, University of California, Riverside
Rebecca Albano, University of California, Riverside
Marko Princevac, University of California, Riverside
Room: Markstein 105
12:30 PM - 12:45 PM

Establishment of Coastal Microbe Culturing, Strain Collection, and Analytical Techniques with the Purpose of Developing a Coastal Microbial Community Standard
Dennis Zanesco
Kellen Baker, California State University, San Marcos
Uriel Rivera, California State University, San Marcos
Matthew Cope
Room: Markstein 205
12:30 PM - 12:45 PM

Hybridization in the Encelia (Asteraceae) family
Mayra Padilla Flores, California State University, Dominguez Hills
Liz Solis, California State University, Dominguez Hills
Sonal Singhal, California State University, Dominguez Hills
Room: Markstein 208
12:30 PM - 12:45 PM

Our Tangled Ocean: California Fisheries, Marine Animal Entanglements and Local Perspectives
Anneke-Victoria Fischle
Kathleen Nadeau, California State University - San Bernardino
Room: Markstein 210
12:30 PM - 12:45 PM

Sensory Comparison of Gluten Free and Glutenous Bread and Pasta Products
Viral Shukla, California State Polytechnic University - Pomona
Yao Olive Li, California State Polytechnic University - Pomona
Gabriel Davidov Pardo, California State Polytechnic University - Pomona
Room: Markstein 213
12:30 PM - 12:45 PM
12:30 PM - ORAL SESSION III

Structural-Reactivity Relationship for Reductive Defluorination of Per-and Polyfluoroalkyl Substances (PFASs) with Hydrated Electrons
Wenxiaoshan Sui, University of California, Riverside
Michael J. Bentel, University of California, Riverside
Yaochun Yu, University of Illinois at Urbana-Champaign
Lihua Xu, University of California, Riverside
Room: Markstein 101
12:30 PM - 12:45 PM

The Dynamics of Intelligence and Creativity and their Relationship to Humor Styles and Tendencies
Omar Alonso Castro, California State University, Channel Islands
Weldon Zane Smith, California State University, Channel Islands
Room: Markstein 203
12:30 PM - 12:45 PM

The Forgotten Students: Women Veterans
Yessenia Leon
Efgenia Ferrer
Helen Balagula
Anjana Narayan
Room: Markstein 301
12:30 PM - 12:45 PM

Transactivation and Mitochondrial Activity are Affected by High Temperature in C. elegans Sperm
Jacqueline Rose McVay, Scripps College
Lisa Petrella, Marquette University
Nicholas Sepulveda, Marquette University
Room: Markstein 209
12:30 PM - 12:45 PM

Virtual Reality and the Future of Horror
Hector Marlon Rodriguez
Joan Wines, California Lutheran University
Room: Markstein 107
12:30 PM - 12:45 PM

Was Violence Always Entertaining?
Jay Knee
Samuel Claussen, California Lutheran University
Room: Markstein 201
12:30 PM - 12:45 PM

12:45 PM - ORAL SESSION III

A study on the formation of e-polylysine and zein nanoparticles to be used as coatings to extend the shelf-life of Hass avocados (Persea americana)
Franciela Garcia, California State Polytechnic University - Pomona
Haley Lam, California State Polytechnic University - Pomona
Hana Lee, California State Polytechnic University - Pomona
Gabriel Davidov-Pardo, California State Polytechnic University - Pomona
Room: Markstein 213
12:45 PM - 1:00 PM

Activation of nucleus accumbens-projecting melanin-concentrating hormone neurons promotes palatable food intake
Rae Lan, University of Southern California
Sarah J. Terrill PhD, University of Southern California
Emily E. Noble PhD, University of Georgia
Scott Kanoski PhD, University of Southern California
Room: Markstein 211
12:45 PM - 1:00 PM

An Effective Lysis and Mobile Element Capture Method to Analyze the Antibiotic Resistome of Coastal Microbial Communities
Leanna Apodaca
Nicole DeNamur, University of California - Berkeley
Erin O'Brien, California State University, San Marcos
Ebony Stretch, California State University, San Marcos
Room: Markstein 205
12:45 PM - 1:00 PM

Biophysical Properties of Alkenone Films
Emmanuel Solis
Areli Jannes Javier, California State University, San Marcos
Carlos Luna, California State University, San Marcos
Anita Ljubic, California State University, San Marcos
Room: Markstein 208
12:45 PM - 1:00 PM

Controlling Contrast Effects in Parent Ratings of Sibling Temperament
Megan Mulvihill, California State University, Channel Islands
HyeSun Lee, California State University, Channel Islands
Room: Markstein 203
12:45 PM - 1:00 PM

Digital Humanities Analysis of Adolescent and Adult Relationships in Orson Scott Card's "Ender's Game"
Kevin Ginosian
Room: Markstein 107
12:45 PM - 1:00 PM
12:45 PM - ORAL SESSION III

Finding Osculating Circles with Rational Center and Radius
Francisco Zepeda, California State University, Fullerton
Christopher Lyons, California State University, Fullerton
Room: Markstein 101
12:45 PM - 1:00 PM

In All Fairness & Unfairness: an Analysis of Colorism in Stanley Ka Dabba
Sraavya Chintalapati, Lebanon Trail High School
Andrew Nelson, University of North Texas
Room: Markstein 201
12:45 PM - 1:00 PM

Plant Glutaredoxin AtGRX660 Controls Root and Shoot Development
Craig Cowling, CSUSM
Sophia Carpinelli, CSUSM
Miguel Rosas, CSUSM
Matthew Escobar, CSUSM
Room: Markstein 103
12:45 PM - 1:00 PM

Pollinator Corridor Design for Native Invertebrates in Southern California
Torrey Hosey
Christina Simokat, Cal State San Marcos
Bailey Young, Cal State San Marcos
Bethany Hadley, Cal State San Marcos
Room: Markstein 210
12:45 PM - 1:00 PM

Purified Water Replenishment Brine Concentration Pilot Project
Alejandro Cerano-Lopez, California Polytechnic State University, Pomona
Chad N. Contreras, California Polytechnic State University, Pomona
Allison Y. Inanoria, California Polytechnic State University, Pomona
Karla I. Duran, California Polytechnic State University, Pomona
Room: Markstein 102
12:45 PM - 1:00 PM

Soothing Relationships in East Asia with Nongovernmental Diplomacy
Shinsaku Takikawa
Room: Markstein 301
12:45 PM - 1:00 PM

Splat! Novice Debugging in Block-Based and Hybrid Environments
John Lopez, Loyola Marymount University
Phoebe Martinez, DePaul University
Fernando Rodriguez, University of Florida
Joseph Wiggins, University of Florida
Room: Markstein 303
12:45 PM - 1:00 PM

Stroke Awareness Knowledge Gap in Women
Naomi Adeline Imbre, University of California, Irvine
Li-Mei Lin, University of California, Irvine
Room: Markstein 306
12:45 PM - 1:00 PM

Thermal-Economic Analysis of Using Reverse Osmosis Concentrate for Thermal Energy Storage
Ega Herlim, California State Polytechnic University - Pomona
Christopher Salerno, California State Polytechnic University - Pomona
Joseph Kiriakos, California State Polytechnic University - Pomona
Andrew Wilson, California State Polytechnic University - Pomona
Room: Markstein 105
12:45 PM - 1:00 PM

Ultrafine Carbon Black Promotes Lysosomal Membrane Permeabilization And Nlrp3 Inflammasome Activation
Jay L. Brewster
Sierra H. Ball
Annie E. Rogers
Room: Markstein 209
12:45 PM - 1:00 PM

1:00 PM - ORAL SESSION III

Aspirin and Its Significant Role in Decreasing Severe Hypertension When Combined with Repetitive Electroacupuncture at ST 36-37
Stuti Agrawal, University of California, Irvine
Tannaz Alavi, University of California, Irvine
Stephanie Tjen-A-Looi, University of California, Irvine
Room: Markstein 306
1:00 PM - 1:15 PM

Characterizing Changes in the Colonic Epithelium of Lrig3 Null Mice
Natalie Pedicino, Scripps College
Janelle Stevenson, University of Oregon
Anne E. Zemper, University of Oregon
Room: Markstein 209
1:00 PM - 1:15 PM

∞ Empowering Success Through a Culture of Undergraduate Research ∞
1:00 PM - ORAL SESSION III

Determining if the K(3) Herbicide Cafenstrole affects Alkenone Biosynthesis in Emiliania huxleyi
Sergio Serrato, California State University, San Marcos
Betsy Read, California State University, San Marcos
Room: Markstein 208
1:00 PM - 1:15 PM

Did You Just Assume My Reality?: Baudrillard's Hyperreality in the Progression of Food Photography
Verin Bang
Michael Hanson, Saddleback College
Gary Luke, Saddleback College
Room: Markstein 201
1:00 PM - 1:15 PM

Food Anticipatory Activity in Steers
Girsha Bharadwaj, California State Polytechnic University - Pomona
Estefania V. Velazquez, California State Polytechnic University - Pomona
Elizabeth S. Scordato, California State Polytechnic University - Pomona
Andrew D. Steele, California State Polytechnic University - Pomona
Room: Markstein 210
1:00 PM - 1:15 PM

From Bed Bugs to Dead Bugs: Exploring Natural Alternatives To Eliminate Bed Bugs, Cimex lectularius with Essential Oils
Felicia Delgadillo, Whittier College
David N. M. Mbora PhD, Whittier College
Room: Markstein 213
1:00 PM - 1:15 PM

Identity Balance of Female and Male Engineering Students
Nancy Karina Moreno, California State University, San Marcos
Ashley Bonilla, California State University, San Marcos
Anna Woodcock, California State University, San Marcos
Wesley Schultz, California State University, San Marcos
Room: Markstein 303
1:00 PM - 1:15 PM

Inhibition of Oxidative DNA-protein Crosslinking Via an Aqueous Extract of Kale
Alyssa Daniele Gallano, Mount Saint Mary's University
Tanya Nguyen, Mount Saint Mary's University
Daisy Lezo, Mount Saint Mary's University
Ashley Ramirez, Mount Saint Mary's University
Room: Markstein 211
1:00 PM - 1:15 PM

Population Genetics, Form, and Function of Loggerhead Shrikes in California
Gwendalyn Wulf, California State University, San Marcos
Diego Sustaita, California State University San Marcos
Arun Sethuraman, California State University, San Marcos
Ken Mey, California State University, San Marcos
Room: Markstein 103
1:00 PM - 1:15 PM

Reconnecting Nature and Humanity: the Environment in Children's Literature
Annika Sial, Irvine Valley College
Lewis Long, Irvine Valley College
Room: Markstein 107
1:00 PM - 1:15 PM

Self-esteem and Emotional Intelligence in Family Communication
Vicky Nguyen
Daniel Smirnov
Celeste Gonzalez
Dean Robles
Room: Markstein 203
1:00 PM - 1:15 PM

US- Saudi Arabian Relations: Factors that created an alliance
Iman Qadir, Irvine Valley College
Joon Kil, Irvine Valley College
Room: Markstein 301
1:00 PM - 1:15 PM

∞ Empowering Success Through a Culture of Undergraduate Research ∞
1:00 PM - ORAL SESSION III

Utilizing a Next-Generation Sequencing Bioinformatics Pipeline to Analyze Antibiotic Resistomes in Coastal Microbial Communities
Erin O'Brien, California State University, San Marcos
Ebony Stretch, California State University, San Marcos
Leanna Apodaca, California State University, San Marcos
Nicole DeNamur, University of California - Berkeley
Room: Markstein 205
1:00 PM - 1:15 PM

Woolsey Fire GIS Land Classification Using Aerial Imagery
Zeinab Aboukhalil, California State Polytechnic University - Pomona
Samuel Hernandez, California State Polytechnic University - Pomona
Victor Castellanos, California State Polytechnic University - Pomona
Omar Mora, California State Polytechnic University - Pomona
Room: Markstein 102
1:00 PM - 1:15 PM

A Mouse Model for investigating MMP-9 inhibition on cellular and behavior deficits associated with Fragile X Syndrome.
Walker Woodard
Room: Markstein 210
1:15 PM - 1:30 PM

Discoursive Conceptualizing of TBI Recovery Through Self-Narrative
Michelle R. Gatewood, Cal Poly Pomona
Olga Griswold, Cal Poly Pomona
Room: Markstein 303
1:15 PM - 1:30 PM

Ecology of Xantusia vigilis: Modeling the Climatic Niche of a Desert Lizard
Daniel Furman, University of Pennsylvania
Stephen Adolph, Harvey Mudd College
Sarah Halvorsen, Harvey Mudd College
Room: Markstein 213
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Effect of Cold Atmospheric Plasma on Immune Cells
Clarissa Garcia, California State University, San Marcos
Eduardo M. Sotomayor, The George Washington University
Fengdong Cheng, The George Washington University
Dayun Yan, The George Washington University
Room: Markstein 306
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Gendered Motivations, Self-Confidence, and Successful Outcomes for Online Social Dating
Gini Martinez
Misty Kolchakian, Mount San Antonio College
Room: Markstein 203
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Gravitinos as SUSY Dark Matter and KK Particles, given Gravitinos are Majorana Particles, for a Mirror Symmetric Universe
Luis Valencia
Room: Markstein 101
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Helen Lundeborg and the Disparate Landscape
Cooper Stiglitz, California State University, Fullerton
Room: Markstein 201
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Hero to Zero
Christian Johan Garcia
Edgar Muniz, Mount San Antonio College
Room: Markstein 107
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Hybridization in the Encelia (Asteraceae) family
Liz Solis, California State University, Dominguez Hills
Mayra Flores, California State University, Dominguez Hills
Room: Markstein 209
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Modeling and Measurements of Flow Around A Model City Block
Rebecca R. Albano, University of California, Riverside
Arthur Bernal, University of California, Riverside
Joseph Redenius, University of California, Riverside
Deng Pan, University of California, Riverside
Room: Markstein 102
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Optimization of a MIMO-CSAR Array through a Genetic Algorithm
Tyler Chang, University of California - San Diego
Enson Chang, Azusa Pacific University
Room: Markstein 105
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Photosynthetic Response of Dryopteris arguta to Extended Drought
Brandon R. Grinovich, Pepperdine University
Stephen D. Davis, Pepperdine University
Room: Markstein 211
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Privateers of the Caribbean
Alex Barr
Room: Markstein 301
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Red Light-Blue Light: Alkenone Production in Isochrysis galbana Is Enhanced by Red Light, while Growth is Optimized under Blue Light
Thi Huynh, CSU San Marcos, CA
Stacey Comstock, CSU San Marcos, CA
Nicole Read, Lowell High School, San Francisco, CA
Betsy Read, CSU San Marcos, CA
Room: Markstein 208
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Retrieving Novel Digestive Genes from an Uncultured Bacterial Phylum Found in the Human Oral Microbiome Found in Association with Periodontitis
Matthew Cope
Cleber Ouverney, San Jose State University
Jordan Maldonado, San Jose State University
Manasa Rapuru, San Jose State University
Room: Markstein 205
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Seedling and Resprout Survival of Three Chaparral Species Following Woolsey Wildfire
Karagan L. Smith, Pepperdine University
Stephen D. Davis, Pepperdine University
Room: Markstein 103
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Application of Text Mining to Determine the Overall Sentimental Value and Word Frequencies of Abstracts Related to Traffic Safety
Edward Clay
Wen Cheng, Department of Civil Engineering, California Polytechnic University of Pomona
Room: Markstein 105
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Connecting Artist and Audience: Analyzing the Impact of BTS's Musical Writing on Youth Audiences Worldwide
Danielle R. Narciso, California State University, Fullerton
Franz Mueller PhD, California State University, Fullerton
Room: Markstein 201
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Effects of Astrocytic Ephrin-B1 on Synapse Formation in Developing Hippocampus
Iryna Ethell PhD, University of California, Riverside
Amanda Nguyen, University of California, Riverside
Karen Mina, University of California, Riverside
Room: Markstein 210
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Evaluation of E. coli and Total Coliforms in Rivers near Informal Settlements in Belo Horizonte, Brazil
Anaís Gaunin, San Diego State University
Matthew Verbyla, San Diego State University
Cesar Mota, UFMG
Natalie Mladenov Dr., San Diego State University
Room: Markstein 213
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Far More than 'Fantastic': The Power of Curatorial Approaches in Latin American Art exhibitions
Jacqueline Pina
Catha Paquette, California State University, Long Beach
Room: Markstein 107
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Finland’s NATO Problem: Neutrality in a Polarized Europe
Mikael Smith, Irvine Valley College
Lewis Long, Irvine Valley College
Room: Markstein 301
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Is Epigenetics Involved in the Regulation of Biomineralization in Emiliania huxleyi
Christopher Smith
Betsy Read, California State University, San Marcos
Room: Markstein 205
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Long-lasting and Short-Lasting Effects of Moxibustion at ST 36 on Sustained Hypertension
Perry Lim, University of California, Irvine
Stephanie Tjen-A-Looi, University of California, Irvine
Room: Markstein 306
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Testing of Thermal Energy Storage using Reverse Osmosis Concentrate
Andrew Wilson, California State Polytechnic University - Pomona
Gerardo Maldonado, California State Polytechnic University - Pomona
Aaron Narag, California State Polytechnic University - Pomona
Nicole Garcia, California State Polytechnic University - Pomona
Room: Markstein 102
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1:30 PM - ORAL SESSION III

The Cone Snail Strikes Back: A Biomechanical Study of an Ultrafast Prey Capture
Ian Jan, Occidental College
Joseph R. Schulz, Occidental College
Gurleen Sangha, Occidental College
Room: Markstein 208
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The Rationale Behind Aging Anxiety
Sofia Boiajian
Michael C. Harnett
Room: Markstein 303
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The role of independence and self-reliance on parenting stress in Mexican-American emerging and young adults
Jennifer M. Figueroa
Kimberly D'Anna-Hernandez
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A Study on Salicylic Acid Poly(Anhydride Ester)
Coating for Controlling Magnesium Degradation and
Improving Bone Regeneration
Lawrence Sun
Dongwei Sun, University of California, Riverside
Thomas Dugger, University of California, Riverside
Kathryn Uhrich, University of California, Riverside
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A Tali of Two Tombs: Calculating MNI and Bone
Calcination in Commingled Remains from Two Bronze
Age Tombs in the UAE
Rachel A. Heil, California State University, Fullerton
Alyssa McGrath, University of Notre Dame
Lesley A. Gregoricka, University of South Alabama
Jaime M. Ullinger, Quinnipiac University
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Activation of Biologically Relevant Organic Acids
Cynthia Ayedian, Glendale Community College - Glendale, CA
Yuan Hao Chang, Glendale Community College - Glendale, CA
Armenuhi Sahakyan, Glendale Community College - Glendale, CA
Michael Pirjanloo, University of California, Los Angeles
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Kaoru Toyokawa
Steve Boyer, California State University, Long Beach
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Coral Reefs
Sarah Frey
Joseph Russo, University of California, Riverside
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Ishchal Gonzalez Trujillo
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An Investigation of the Relationship Between Ethanol Exposure and Epilepsy in the Developing Brain
Taylor Yoshida, Occidental College
Kerry Thompson, Occidental College
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Marvin Pena, California State University San Marcos
Jeff Jaureguy, California State University San Marcos
Daniel Zaragoza, California State University San Marcos
Amber Puha, California State University San Marcos
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Alondra Montejano, CSUSM
Karno Ng, CSUSM
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Maria Diaz
Brandon Tomich, California State University Fullerton
Allyson Fry-Petit PhD, California State University, Fullerton
Sam Behseta, California State University, Fullerton
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Brandon Tomich, California State University Fullerton
Maria De Los Angeles Diaz, California State University Fullerton
Sam Behseta, California State University Fullerton
Allyson Fry-Petit PhD, California State University Fullerton
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Valerie Poynor, California State University Fullerton
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Pablo La Roche
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Heather Carlton, UCLA
Kate Wolitzky-Taylor, UCLA
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Cristian Franco
John L. Haan, California State University, Fullerton
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Kevin M. Schilling Mr., University of California, Santa Cruz
Tufa E. Assafa Dr., University of California, Santa Cruz
Glenn L. Millhauser Dr., University of California, Santa Cruz
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Characterization of Sensors employed in an automated Knee Brace for Leg Muscle Rehabilitation
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Characterizing the role of G-proteins in mediating repulsive cue-dependent food leaving.
Koreenna Estes, California State University Channel Islands
Natalie Shink, California State University Channel Islands
Kelly Stolp, California State University Channel Islands
Gareth Harris, gareth.harris@csuci.edu
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Natalie Shink, California State University, Channel Islands
Austin Barradas, California State University, Channel Islands
Gareth Harris, California State University, Channel Islands
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Trevor Reynafarje, San Diego Mesa College
Scott Suarez, San Diego Mesa College
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Comparing the effect of in-vitro versus in-vivo fertilization on horse (Equus ferus caballus) gestation lengths
Kacie Lacey, California State Polytechnic University - Pomona
Holly M. Greene, California State Polytechnic University - Pomona
Cord M. Brundage, California State Polytechnic University - Pomona
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Quynh Nguyen Wong
Jacqueline A. Trischman, California State University San Marcos
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Dee Cappelli, Santa Monica College
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Sanjay Satyaakunuri Koka, The University of Toledo
Gwendal Loarer, The University of Toledo
Donald R. Ronning Dr., The University of Toledo
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Ruben Santana
James H. Miller
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Density-based screening of medicinal tablets in paramagnetic ionic liquids using magnetic levitation
Sophia Uriostigue, California State University San Marcos
Alma Avila, California State University San Marcos
David Bwambok, California State University San Marcos
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Shivam Singh, San Jose State University
Khushboo Singh, IntelliScience Training Institute
Bhavya Bellannagari, IntelliScience Training Institute
Sania Bhella, IntelliScience Training Institute

Determination of the growth curve for the fish pathogen Mycobacterium marinum grown in dark versus light conditions
Thuy Tran, California State University San Marcos
Jacqueline A. Trischman, California State University San Marcos

Determination of Theobromine in Various Cocoa Products Using a Triple Quadrupole Mass Spectrometer
Nicholas Klein, California State University San Marcos
Robyn Araiza, California State University San Marcos
Jacqueline A. Trischman, California State University San Marcos

Determination how Stem-loop Structure Thermodynamic Stability Influences Frameshift Efficiency at the HTLV-1 gag-pro Frameshift Site
Leila Robinson
Carolyn Egekeze, Loyola Marymount University
Mary Soliman, Loyola Marymount University
Kathryn Mouzakis, Loyola Marymount University

Determination Lung Obstruction Using Forced Oscillation Technique and Machine Learning
Jensen Xi, Martin Luther King High School
Mohamed Talaat, California Baptist University
Cristian Garcia, California Baptist University
April Si, California Baptist University

Development of a simple and streamlined bioinformatics pipeline to extract custom database sequences from next-generation sequencing data
Ebony Stretch, California State University San Marcos
Erin Obrien, California State University San Marcos
Leanna Apodaca, California State University San Marcos
Nicole DeNamur, University of California – Berkeley
Elinne Becket, California State University San Marcos

Development of Aqueous pH-Neutral Flow Batteries
Allyson Dizon
Ashar Ali, California State University, Los Angeles
Sevag Rezian, California State University, Los Angeles
John Christopher Bachman, California State University, Los Angeles

Diastereoselective Synthesis of Unnatural Amino Acids Using Imine Electrophiles
Sophia Yang, Occidental College
Jeff Scott Cannon, Occidental College

Discovering the Link Between Childhood Disrespect, Self-Deprecating World Views, and Tolerance of Partner Maltreatment
Varvara Gulina
Katie Brown
Coreen Viezian
Carina Villalba

“Dissecting the mechanisms underlying attraction to catnip oil: Who doesn’t like catnip?”
Brianna A. Ramos, California State University, Channel Islands

Do bulky ligands induce surface traps on semiconductor nanocrystals?
Jackie Gamez, California State University - San Bernardino
Nathan Coddington, Biola University
Ming Lee Tang, University of California, Riverside

Does Audio Feedback Impact the Postural Stability in Response to Virtual Visual Stimuli?
Shelby Maldonado
Maya Saulino
Jill Peterson
Jenefer Sandoval

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Shima Gholizadeh, UCLA
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Workers Students
Vanessa Prieto
Crystal Chavez
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invasive species, Procambarus clarkii
Dani Rizzo
Brett K. Muramoto, Pepperdine University
David Addison, Pepperdine University
Audrey Fontes, Pepperdine University
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on volume regulation and the volume-sensitive anion
channel
Andrea N. Gomez, California State Polytechnic University - Pomona
Monica M. Inouye, California State University, Fullerton
Nargiza A. Tsiferova, National University of Uzbekistan Institute of
Biophysics and Biochemistry
Dier D. Fayziev, National University of Uzbekistan Institute of
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Courtney Malone
Kimberly D’Anna-Hernandez, California State University, San
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Jessah Goldner
Kimberly D’Anna-Hernandez, California State University San
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Leah Fleming, Yale University
Jane Taylor, Yale University
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Justin M. Choi, Occidental College
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My Linh Arevalo, California State University, Fullerton
Cameron L. Moore, California State University, Fullerton
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Calvin Foss, Loyola Marymount University
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Dr. Ertan Salik, California State Polytechnic University - Pomona
Dr. Erkan Ozkaya, California State Polytechnic University - Pomona
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Theresa E. Rogers Ph.D, California Lutheran University
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Anthony Sacco, Del Lago Academy of Applied Science
Julio Martinez-Coronado, California State University, San Marcos
Kimberly D'Anna-Hernandez, California State University San Marcos
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Nikolas Gaugler, East Los Angeles College
Evelyn Guerra, East Los Angeles College
Rene Mendez, East Los Angeles College
Errol V. Mathias, East Los Angeles College

Pharmacological treatments of a fruit fly model of muscular dystrophy
Misty B. Perez, Whittier College
Lori L. Wallrath PhD, University of Iowa
Margaret R. Ketterer, University of Iowa

Physical Response of Post-fire Soil in Urban and Mediterranean Watersheds
Rey David Becerra, San Diego State University
Alicia M. Kinoshita, San Diego State University

Novel Detection of Biomarkers of Pancreatic Cancer
Using Microfluidics and Nonlinear Multi-Photon Laser Wave-Mixing Detector
Vanessa Frausto, San Diego State University
Nino Shatirishvili, San Diego State University
James Suprarto, San Diego State University
William Tong, San Diego State University

Point Mutations in Surface-Exposed Tyrosines on the Adeno-Associated Virus DJ Capsid to Improve Transduction Efficiency In Vivo
Cynthia Flores, Mount Saint Mary's University
Ellie Smith, Connecticut College
Beatriz Ferran Perez, Boston University
Michael Markus Bachschmid, Boston University

On k-th Roots of Partial Order-preserving Injections
Tuan A. Hoang, California State University, Fullerton
Scott Annin, California State University, Fullerton

Open your eyes, save our home
Naomi Schaefer

Optimizing the Carbonization of Agricultural Waste to Micro- and Mesoporous Carbon Materials
Marissa Moreno
Mark Gale, University of California, Riverside
Kandis Leslie Abdul-Aziz, University of California, Riverside

Projections from the paraventricular nucleus of the thalamus to the striatum can evoke dopamine transients
Sean Hernandez
Michael Authement, NIAAA
Veronica Alvarez, NIAAA

Purification and Crystallography of Ribofuranosylaminobenzene 5’phosphate (RFAP) Synthase for Future Studies of Inhibition of Biological Methane Production
Anna Pham, California State University, Fullerton
Madeline Rache, California State University, Fullerton

Putative Host Defense Peptides from Snakes and Wallaby Inhibit Human Influenza Viruses In Vitro
Nikita Mullick, Emory University
Jessica Ruby Shartouny, Emory University
Joshy Jacob PhD, Emory University

Oxidative Modification of Apolipoprotein E3 by Myeloperoxidase
Joseph Pedregon
Vasanthy Narayanaswami, California State University, Long Beach

Quotients of Matrix Spaces
William Terry
Matthew Rathbun, California State University, Fullerton

Paper-Based Enzymatic Assay using Benign Indium Phosphide Quantum Dots
Abby Acoba, CSUSB
Theresa Mai, CSUSB
Vivian Nguyen, CSUSB
Mckenna Owens, CSUSB

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Red, Blue, and Green: Acceptance of Lobbying Money Prevalent on Both Sides of the Aisle
Zachary Johnson Johnson
Jamie Love Mr., Citrus College
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Relative Anti-Inflammatory Properties of Cayenne Pepper
Agnes Cosico, California High School
Jocelyn Saldana, Whittier College
Yolanda Lopez, California High School
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Marlena Ramanis, University of Redlands
Aditi Bhatnagar, University of Redlands
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Rescue of Canine XL-MTM MicroRNA Transcriptome via Gene Transfer
Nicholas Duncan, California State University, Los Angeles
Jean-Baptiste Dupont, Biotherapies Institute
David L. Mack, University of Washington - Seattle Campus
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Risk and Resilience: Overcoming Neighborhood Disadvantage
Laura F. Reyes Lopez, California Lutheran University
Molly George, California Lutheran University
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Role of nodC and nodD genes in Paraburkholderia tuberum
Nicole Ann Villa, Loyola Marymount University
Michelle Lum, Loyola Marymount University
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Screening for Multiferroics Using the CCDC
Carolina Escobar
Kimberley Cousins, California State University - San Bernardino
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Screening the effects of brain targeting compounds on sensory behavior and decision-making in C. elegans
Chase R. Khedmatgozar, CSU Channel Islands
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Ciara Sanders, CSU San Bernardino
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Madison Panzino, California State University, Fullerton
Evelyn Bond, California State University, Fullerton
Kristy Forsgren, California State University, Fullerton
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Site-directed mutagenesis of key breast cancer residues in lysyl oxidase
Carmen Meza
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Haoceng Liang, California Polytechnic State University, Pomona
Ronaldo A. Leandro, California Polytechnic State University, Pomona
Zaw Naing, California Polytechnic State University, Pomona
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Social Competition at a food source between two overlapping species may lead to modified foraging behavior.
Katie Elliot
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Study on Increasing Energy Harvesting in Hybrid Smart Suspension System for Personal Automobiles
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Samir Mulgaonkar, California State University, Fullerton
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Roger Vuong, California State University, Fullerton
Peter de Lijsen, CSUF
Nilay Patel, CSUF
Febronia Gouda, CSUF
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8:00–8:45 A.M. Odd-numbered Posters Presenting USU Ballroom A–D

Synthesis of Ethynylcobaltocenium for Electrochemical Biocatalysis with Cytochrome P450 Enzymes
Zachary D. Schuman, Occidental College
Ayanna Lynch, Occidental College
Andrew K. Udit, Occidental College
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Synthesis of Magnetic Nanoparticles for Cardiovascular Applications
Gilberto Luis Peraza-Martinez, University of California, Riverside
Wayne Fook Leu, University of California, Riverside
Huinan Liu, University of California, Riverside
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Synthesis, Characterization, and Antibiotic Efficacy of Pterin-based Inhibitors of Dihydropteroate Synthase
Kimberly-Claire S. Huang, Aspiring Scholars Directed Research Program
Vigasini Rajaram, Aspiring Scholars Directed Research Program
Anirudh Valliveru, Aspiring Scholars Directed Research Program
Warren Chang, Aspiring Scholars Directed Research Program
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The Contribution of Hops Oil Extracts on Colon Cancer Cell Growth
Alexander Gonzales
Meishan Chen, CSU Bakersfield
Donna Rotella, CSU Bakersfield
Garrett Webster, CSU Bakersfield
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The Deposition of β-Amyloid Proteins 1-40 & 1-42 in the Myocardium of Alzheimer's and Type 2 Diabetes
Stephanie Canev, Pitzer College
Alexis Sotelo, Boston University
Shawn Nirody, Boston University
Chloe Amsterdams, Cornell University
187

The Great Drought of 1877-80: Politics, or Lack Thereof
Leonardo Salvatore
Ian Read, Soka University of America
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The Influence of the Spanish Language on Latinx Voter Turnout in Presidential Campaigns
Isabelle S. Marín, Loyola Marymount University
Claudia Sandoval Ph.D., Loyola Marymount University
3

The Nuances of Supporting Students With ADHD in Elementary Schools
Jacqueline Kerth
Debby Goss MRS, Soka University of America
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The Pharmacogenetics of Cytochrome P450 2D6 and its Effects on Antidepressant Response Across Multiple Ethnic Backgrounds
Norelle Nysenbaum
Kristine Arquero, MiraCosta College
255

The significant different between Western and Eastern drawing technique and possible reasons lead to it.
Qihan Sun
James Miller
131

The Unspoken Impacts of President Trump's Travel Ban
Eisa Razzak
Misty Kolchakian, Mt. San Antonio College
5

Topological Insulators: Surface Interactions of Bismuth Selenide Exposure to Iodine
Ariel Chang, University of California, Riverside
Jory Yarmoff, University of California, Riverside
Varrick Suezaki, University of California, Riverside
John Lee, University of California, Riverside
233

Using Reverse Engineering and Functional Analysis to Improve Ergonomics of Handheld Sports Equipment
Scott Barksdale, California State University, Fullerton
Bryan Vazquez, California State University, Fullerton
Sagil James, California State University, Fullerton
Samir Mulgaonkar, California State University, Fullerton
149

Utilizing DNA Barcoding to Create Wildlife Corridors
Susanne T. Green, Palomar College
Annika R. Green, Palomar College
Henry Cen, Palomar College
Jim Gilardi, Palomar College
33

Where do the Ants go Marching? How Food Preferences of Tapinoma Sessile may Help Manage Ant Home Invasion
Riki Bertoldi
Peter Nonacs Dr., UCLA
77
Which restaurant to choose? - Exploring topics and sentiments of Yelp restaurant reviews

Christian Amaya
Linda Chan Ly, Cal Poly Pomona
Norman ach, Cal Poly Pomona
Sonya Zhang, Cal Poly Pomona

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8:45–9:30 A.M. Even-numbered Posters Presenting
USU Ballroom A–D

A molecular dynamics study on pH-low insertion
peptides at different charge states in varying membrane
compositions
Brandon Bogart
Afra Panahi
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A γδ T cell-focused analysis of published RNA-seq data
from skin biopsies of Alopecia Areata patients
Matilde Macedo
86

Accounting for Type 2 Error in the Judgment of
Significance of Effects in a Two-level Factorial Design
Michael Strand, Golden West College
Jessica Jaynes PhD, California State University, Fullerton
224

Acculturative Stress and Alcohol Use among Latinx
College Students: Associations Examined by Means of
Combinatorial Optimization
Kayla Osman
Brian Armenta, University of Missouri
Jordan Stevens, University of Missouri
Ashley L. Watts, University of Missouri
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Addiction to Social Platforms
Feiyang Fang
James Miller, CSUSM
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Aggregation of HEK 293 Tumorigenic Cell Line Using
Sound Waves of Varying Frequencies
Karen Ngo, California State University, San Marcos
Alex Block, California State University, San Marcos
Carlos Luna Lopez, California State University, San Marcos
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An Amino Acid Switch Increases the Promiscuity of a
Carbon-Carbon Bond Forming Biocatalyst
Zhengfeiyue Pan, Department of Biomedical and Pharmaceutical
Sciences, Chapman University School of Pharmacy (CUSP), Irvine,
California
Ahmed R. Aoun, Department of Biomedical and Pharmaceutical
Sciences, Chapman University School of Pharmacy (CUSP), Irvine,
California
Nagaraju Mupparapu, Department of Biomedical and Pharmaceutical
Sciences, Chapman University School of Pharmacy (CUSP), Irvine,
California
Tae Ho Kim, Department of Biomedical and Pharmaceutical
Sciences, Chapman University School of Pharmacy (CUSP), Irvine,
California
206

An analysis of phthalate exposure and female infertility
using the National Health and Nutrition Examination
Survey (NHANES)
Vanessa Eata, California State University, Fullerton
Alice Lee, California State University, Fullerton
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An Optimization Method for Viable/Non-Viable
Differentiation by PMA-qPCR Targeting HF183 in
Environmental Water Matrices
Gretchen Alviar, California State University, Fullerton
Jessica Bernabe, California State University, Fullerton
Phillip Gedalanga PhD, California State University, Fullerton
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Analog Front-End for Imaging with Underwater
Ultrasound Phased Array
Tejus Rao, Harvey Mudd College
Matthew Spencer, Harvey Mudd College
176

Analysis of Access to Western Medicine and Insurance
System of Women in Rajasthan, India.
Estela Delgado
186

Analyzing Host-Microbe Relationships in
Experimentally Evolved Drosophila melanogaster
Populations
Robert Courville, California State University, Fullerton
Linette Tang, Mt. San Antonio College
Parvin Shahrestani Ph.D., California State University, Fullerton
84
Analyzing the Water Quality of Thompson Creek in Claremont, California
Danielle Whitfield, California State Polytechnic University - Pomona
Stephen G. Osborn, California State Polytechnic University - Pomona
244

Antibiotic Resistance in Gonorrhea
Becca Walker
Ryan Eugenio
180

Asymmetric Cobaltocinium Molecules for Mediated Electrochemical Biocatalysis with Cytochrome P450
Morgan Crotta, Occidental College
Warren Zhang, Occidental College
Andrew K. Udit, Occidental College
Parag Kalay
248

Benchtop Synthesis of N-heterocyclic Carbene Complexes with First Row Transition Metals
Adrian Torres
Sabine C. Stieber, Cal Poly Pomona
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California’s 2017 Wildfires Effects on Air Quality
Arriel Alvarez, California State University, Fullerton
Robyn Phan, California State University, Fullerton
Bo Park, California State University, Fullerton
194

Changes in gene expression of oncogenes and tumor suppressor genes
Vicky Lu, Scripps College
Tram Bui, Scripps College
Phuongngan Thi Bui, Scripps College
Frances Wang, Scripps College
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Characterizing the Role of Linker 2 Region in the Splicing Activity of an RNA Binding Protein
Maria Mungua
Niroshika Keppetipola Dr., California State University, Fullerton
Basma Jibrael, California State University, Fullerton
Anthony Truong, California State University, Fullerton
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Civilian Attitudes towards Police Contacts
Tanya Estrada Gomez
Nayan G. Ramirez PhD, CSUN
40

Classification analyses of fMRI data can predict perceived color
Naiti S. Bhatt, Scripps College
Katherine E.M. Tregillus, University of Minnesota - Twin Cities
Stephen A. Engel, University of Minnesota - Twin Cities
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Comparison of Fluorogenic Cytidine Nucleosides: Developing a New Analogue to Test Structure and Properties
Casey Heaney, San Diego State University
Byron W. Purse Dr., San Diego State University
Paolo Aligada, San Diego State University
George Samaan, San Diego State University
120

Controlling the Growth of Thin Film MoS2 with Computer Software
Prabhjot Singh
158

Copper/CNT based Hybrid Power Distribution Network
Jimena Murillo, California State University, Fullerton
Rakeshkumar Mahto, California State University, Fullerton
172

Cycles Embedded in Linear Time
Brandon larma
130

Data Stacks – Experiments in Art and Science
Kodie Gerritsen, California State University, San Marcos
Jennifer Funderberg, California State University, San Marcos
Caleb Rabdan, California State University, San Marcos
Lucy HG Solomon, California State University, San Marcos
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Delivering copper from hemopexin to mammary epithelial and hepatic cells
Hoang Tran, Cal State Fullerton
Maria Linder, Cal State Fullerton
Theodros Kidane, Cal State Fullerton
Joshua Martinez, Cal State Fullerton
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Design, Fabrication and Testing of Miniature Satellite - TechEDSat
Sagil James, California State University, Fullerton
Kirin George, California State University, Fullerton
Brandon Sam, California State University, Fullerton
Neeraj Patel, California State University, Fullerton
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8:45–9:30 A.M. Even-numbered Posters Presenting
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Designing an Adjustable Suspension for Oscillating Mass Payloads in Legged Robotics
Alyssa Giedd, University of Washington - Seattle Campus
Keely Hall, University of Washington - Seattle Campus
Joseph Sullivan, University of Washington - Seattle Campus
Raghav Duddala, University of Washington - Seattle Campus

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Destruction of forests
Haosiang Xu
James H. Miller

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Development of an Alternative Food Source for Farm-Raised Fish by Selective Breeding of the Unicellular Green Alga Chlamydomonas
Veronica Battalones, California State University, Fullerton
Eric Fung, California State University, Fullerton
Amybeth Cohen, California State University, Fullerton

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Development of MATLAB Codes for Meta-Analysis Applicable to Medical Research Data
Shivam Singh, San Jose State University
Khushboo Singh, IntelliScience Training Institute
Uma Maveli, IntelliScience Training Institute
Syed Zaidi, San Jose State University

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Direct Detection of WIMP Dark Matter with Ultra-Pure Xenon in LUX-ZEPLIN
Bryan Orozco, California State University - San Bernardino
Daniel Akerib, Stanford University

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Disordered Eating: Capitalism, Patriarchy, & Food
Jennifer Grum
Darbra Williams, CSUSM

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Domain Knowledge and Fake News Susceptibility
Pooya Punjabi, CSUSM
Alexis Avina, CSUSM
Dustin Calillo, CSUSM

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Early Life Stress and Habitual Responses in Instrumental Learning Task
Henri de Guzman, University of California, Los Angeles
Stephanie Thai, University of California, Los Angeles
Isabel Gutierrez, University of California, Los Angeles
Alexander Gordon, University of California, Los Angeles

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Education Reform
Emily Austin

144

Effect of ligand steric on N-heterocyclic carbene nickel nitrosyl complexes
Briana Arreaga
Evan F. Bonnand, Cal Poly Pomona
Sabine C. Stieber, California Polytechnic State University, Pomona

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Effects of avalanches on rodent populations
Giselle Sandoval

90

Effects of optogenetics stimulation of Thalamus and GPe on behavior in rats
Sofia A. Krylova, University of California, Los Angeles (UCLA)
Ashin Paydar, University of California, Los Angeles (UCLA)
Martin M. Monti, University of California, Los Angeles (UCLA)
Neil G. Harris, University of California, Los Angeles (UCLA)

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Environmental protection technology
Jun Fang
James H. Miller

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Examining a Functional Interaction Between Chd1 and Histone H1 in Drosophila Melanogaster
Breanna Kim

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Examining Methods to Improve Cognitive Reflection Test Performance
Danielle Crum, California State University, San Marcos
Jonathan Bratton, California State University, San Marcos
Dustin Calillo PhD, California State University, San Marcos

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Extraction of dye contaminants from water using a valine-based hydrophobic ionic liquid
Kelsi Vreeman
Vanessa Marta, CSUSM
Stephanie Smith, CSUSM
David Bwambok, CSUSM

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Extraction of per- and polyfluoroalkyl pollutants from water using paramagnetic ionic liquids
Joshua Doney, California State University, San Marcos
Marion Peralta, California State University, San Marcos
Jolynn Woodtle, California State University, San Marcos
David Bwambok, California State University, San Marcos

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8:45–9:30 A.M. Even-numbered Posters Presenting
USU Ballroom A–D

Femtosecond Infrared Laser Spectroscopy: An Approach to the Characterization of Bioconjugated Gold Nanoparticles
Valerie Hsiao, Pasadena City College
Juan Guerrero, Pasadena City College
Keileen Lee, Pasadena City College
Marciam Koloian, Pasadena City College
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Free Port: A New Perspective on the Colonial Narrative
Jiarui Song, Scripps College
Siena Hinshelwood, Scripps College
Corey Tazzara, Scripps College
198

From Sequence to Activity: Synthetic Neuroexcitatory Peptides from Fish-Hunting Cone Snails
JP Flores
Mark Gad
Elizabeth Bushong
Joseph Schulz PhD, Occidental College
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Gene Expression Profiling Across Life History Stages of Hippodemia convergens
alexander rothenberg
Roxane Saisho, California State University, San Marcos
Ryan Cartmill, California State University San Marcos
Christy Grenier, California State University, San Marcos
76

Gene flow dynamics and phylogenetics of Zostera marina atam
Ashlyn Farris
William Andrew C. Roseberry, Cochise College
Rafael Jose Torres, Cochise College
Thor Gavin, Cochise College
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Generating Influenza A Virus with NP-FLAG epitope tag to facilitate NP interaction studies
Raquel Rodriguez
Joselyn Berumen
Laura L. Newcomb
116

Genetic and Molecular Basis of Social Behavior
Nazaret Rafael Montejano, California State University - San Bernardino
Philip Washbourne, University of Oregon
Denver Neube, University of Oregon
Sarah Stednitz, University of Oregon
202

Get the labels straight: The fluidity of crowd identifications among LGBTQIA+ emerging adults in college
Zachary D. Schuman, Occidental College
Shannon Donelan, Occidental College
Ellen Malmon-Andrews, Occidental College
Annabel Reay, Occidental College
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Identification and Characterization of a Minimal Functional Splicing Regulatory Protein
Luis Hernandez
Robert Ontiveros, CSU Fullerton
Enoch Kim, CSU Fullerton
Adrian Hernandez, CSU Fullerton
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Increased concentrations in bacteria, nutrients and dissolved organic carbon during storm events in urban rivers
Alex Kinney, SDSU
Natalie Mladenov, SDSU
Alicia Kinoshita, SDSU
Elizabeth Winterton, SDSU
152

Increasing Student Success in Stem Using a Flipped Class Pedagogy
Arpine Oguntsyan
Jared Ashcroft, Pasadena City College
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Individual Differences in Visual, Auditory, and Multisensory Perception
Kristine Lee, Occidental College
Cassia Harrison, Occidental College
Alexandra Lang, Occidental College
Aleksandra Sherman, Occidental College
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Individual Variability of Consonant Acquisition Between 12-36 Months of Age: A Quantitative Case Study of Two Children
Deborah V. Hernandez, California Baptist University
Namhee Kim, California Baptist University
184

Insect community Composition at the Whittier College Campus and Earthworks Community Organic Farm
Mai Quesada, Whittier College
Erika Velasquez, Whittier College
David Mbora, Whittier College
Felicia Delgadillo, Whittier College
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∞ Empowering Success Through a Culture of Undergraduate Research ∞
8:45–9:30 A.M. Even-numbered Posters Presenting
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Intergenerational Ambivalence of Adult Children Who
Provide Care for their Aging Parents: Suggestion for
Christian Faith Based Educational Programs
Alec Bondietti, California State University, San Marcos
Veronica Gonzalez, California State University, San Marcos
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Investigating Racial Differences in Stage Shift for Lung Cancer After the Introduction of Screening Guidelines
Paris Offor, San Diego State University
Chelsea Obrougha, San Diego State University
Benjamin Schumacher, San Diego State University
Caroline Thompson, San Diego State University
182

Investigating Significant Factors of Student Attributes that Predict Engagement in Lifelong Learning
Nathan Castaneda
Wen Cheng, Cal Poly Pomona
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Investigating the Binding of Spire/Myosin-V Binding in Drosophila melanogaster
Andy T. Nguyen, UCLA
Michelle Panzica, UCLA
Margot E. Quinlan, UCLA
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Investigation of Microbial Interactions between Cigarette and Soil Microbiomes
Josue Romero
Phillip Gedalanga, California State University, Fullerton
Cindy Puga, California State University, Fullerton
Priyanka Taneja, California State University, Fullerton
200

Lack of Access to Healthcare in Rural India
Martha Alejandro Gonzalez Gomez
Lia Roberts, Mount Saint Mary’s University
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LGBTQ+ Experiences of Community Engagement and Acceptance within Fandom
Mark Ortiz-Payne, CSULB
Danielle Kohfeldt, CSULB
30

Macro and Micro Perspectives of a Plant
Victoria I. Rios
Lucy HG Solomon, California State University, San Marcos
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Macrophage Morphology in Progesterone Regulation of Cervix Ripening at Term and with Preterm Birth
Olivia Beck, University of Redlands
Michael Kirby, Loma Linda University
Steven Yellon, Loma Linda University
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Magnetic Heat Capacity Characterization of Magnetite
Silvia Sherman, California State University San Marcos
Stephen Tsui, California State University San Marcos
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Mutations of Cysteine Residues in Lysyl Oxidase
Dulce Sepulveda
Karlos M. Lopez, CSU Bakersfield
50

Novel Computational Method to Infer Interkingdom Horizontal Gene Transfer
Chinnay Kalluraya, University of California - San Diego
Matthew Daugherty, University of California - San Diego
Alexander Weitzel, University of California - San Diego
Brian Vay Tsu, University of California - San Diego
74

Numerical Semigroups: Analysis of Element Factorizations of the same Length
Jose Antonio Parra, San Diego State University
Christopher O’Neill, San Diego State University
Dewayani Aditya Windy, San Diego State University
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Optimizing Copper Phthalocyanine Thin Films By Altering Spin Coating Parameters
Mary Usufzy
Thomas Gredig Dr., California State University, Long Beach
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Oxidative Cleavage Lignin Using Vanadium Metal Complex
Tristhan Tran
240

Particle Internet of Things Air Monitoring System
Margaret McCormick, Los Angeles City College
Collin Reyes, Los Angeles City College
Ranjiba Nehrin, Los Angeles City College
Jayesh Bhakta Ph.D., Los Angeles City College
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Personalized Information Visualization Through the Use of Adaptive Overlays
Patriz Elaine Daroy
Ben Steichen, Cal Poly Pomona
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Photosynthetic Response of Dryopteris argutula to
Extended Drought
Brandon R. Grinovich, Pepperdine University
Stephen D. Davis, Pepperdine University
98

Positive Change
Brooke Bannon
132

Potential for ferroelectric and pieoelectric properties in
Melamine
Austen Ploudre, California State University - San Bernardino
Sara Callori, California State University - San Bernardino
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Pregnancy Outcomes in Farm Working Women
Yvonne Guzman, CSUCI
Madison Totushek, CSUCI
LaSonya Davis, CSUCI
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Project micro-meddy: doubly-diffusive laboratory
experiments with heated vortices
Margarita Sanz, California State University, San Marcos
Michael Burin Dr., California State University, San Marcos
Andrew Gonzales, California State University, San Marcos
Kodie Gerritson, California State University, San Marcos
250

Protectionist to Collectivist Familia Structures:
Reimagining Chicano Barrio Masculinity in La Mission
Angelica Peña
26

Proximity Induced Ferromagnetic Behavior in Bismuth
Telluride/CGT Heterostructures
Austin Jew, University of California - San Diego
Jing Shi, University of California, Riverside
Mark Lohmann, University of California, Riverside
212

Quantification of Particulate matter exposed to women
while cooking over an open fire in Udaipur, Rajasthan, India
Talyynn J. Glenn, Mount Saint Mary's University
Adrianne Jones, Mount Saint Mary's University
188

Reducing UCR Scope-3 Greenhouse Gas Emissions
through an Innovative Eco-Routing Program
Crystal Dominguez, University of California, Riverside
Matthew Barth, University of California, Riverside
Ji Luo, University of California, Riverside
242

Relationship Between Fear of Heights and Visual
Dependence on Childhood Interaction With Heights
Shawn Reinoso, Loyola Marymount University
Sonia Lee, Loyola Marymount University
Megan Thorp, Loyola Marymount University
Chela Willey, Loyola Marymount University
10

Removing the antibiotic resistance gene from Wanner-
generated MntH knockout.
Manpreet Parmar, Mount Saint Mary's University, Los Angeles
Verenis Lucas, Mount Saint Mary's University, Los Angeles
62

Representative Public Administration and Prospective
Students from Marginalized Cultural Backgrounds
Jessica Clay, California State University, Channel Islands
Dana Baker, California State University, Channel Islands
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Role of CITED2 in Human Adipogenesis
Lun Tan, Cal Poly Pomona
Ampro Trujillo
Esra Ibilii, Cal Poly Pomona
Lin Tran, Cal Poly Pomona
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Rural Reliance on Ground Water in Udaipur, Rajasthan, India
Giclee Sotelo, Mount Saint Mary's University
Glenda Castro, Mount Saint Mary's University
Adrianne Jones, Mount Saint Mary's University
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Salton Sea and The Toxic Dust
Alanna Butler
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Service Life Modeling of Reinforced Concrete
Structures with Zeolite Based Cementitious Materials
Alejandro Alfaro
Pratanu Ghosh, California State University, Fullerton
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Sex differences in detection of and arousal to snakes
Sarah Massie
Cody Jensen, California State University, San Marcos
Nancy Caine
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Silver Acetate as an Anti-Microbial Agent for
 Managing Water Quality
Lindzee Figarola, California State Polytechnic University, Pomona
Zyta Ziora, The University of Queensland
106

Simple Subknots
Lamson Nguyen
Matthew Rathbun, CSU Fullerton
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Species Diversity of Insects at Whittier College and
Earthworks Community Organic Farm
Felicia Delgadillo, Whittier College
Samantha Maldonado
Analisa Ayers
David N. M. Mbora, Whittier College
70

Sports Participation and Visual Field Dependence
Sabrina Benjamin, Loyola Marymount University
Michelle Chernikova, Loyola Marymount University
Samuel Hebert, Loyola Marymount University
Noor Jahanshahi, Loyola Marymount University
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Stress Biology of Brewing Strains
Elise Munoz, CSUCI
Nikolas Burkevic, CSUCI
Hugo Tapia, CSUCI
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Study of Thermal Stratification in Reservoirs and Algae
Blooms
Martin S. Hoecker-Martinez, University of Redlands
Andrew Isaac, University of Redlands
252

Study on the Application of Generative Design Process
and 3D Printing on Personal Transportation Devices
Sagil James, California State University, Fullerton
Jacob Koerberlein, California State University, Fullerton
Cameron Schnupp, California State University, Fullerton
Samir Mulgaonkar, California State University, Fullerton
166

Supporting Multilingual Users Through Personalized
Multilingual Search
Carla Castillo, Cal Poly Pomona
Kevin Scroggins, Cal Poly Pomona
Ben Steichen, Cal Poly Pomona
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Synthesis of reduced bidentate $N$-heterocyclic carbene
iron complexes
Emily Thompson
Chantal E. Stieber, California State Polytechnic University -
Pomona
236

Testing Tunable Silicon-Based Single Electron Devices:
Double Quantum Dot Regime
Leticia Damian
Steven Davis, California State University, San Marcos
Francisco Coronado, California State University, San Marcos
Aruna N. Ramanayaka, National Institute of Standards and
Technology, Gaithersburg, Maryland 20899-8423, USA
210

The Compromise for Women’s Autonomy in Rural
India
Angelica Crispin-Segovia, Mount Saint Mary’s University
Lia Roberts, Mount Saint Mary’s University
32

The determination of significant factors that contribute
to the chemical cell disruption of the microalgal species,
Nannochloropsis oculata
Mariko Domyo, Miracosta College
Dominique Ingato, Miracosta College
Yesenia Leon, Miracosta College
Shirley Huynh, Miracosta College
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The Effect of Nitrogen on the Growth Rate of the
Invasive Species Barassica nigra
Charlton Rodriguez, California State University, San Marcos
George Vourilits, California State University, San Marcos
100

The Effect of Nucleozin on Influenza A Nucleoprotein
Interactions
Kimberly Morales, California State University - San Bernardino
Sarah Sayers, California State University - San Bernardino
Laura Newcomb, California State University - San Bernardino
94

The Effects of Career Locus of Control on Planfulness
among Emerging Adults
Stephanie Truong, California State University, San Marcos
Teru Toyokawa, California State University, San Marcos
6

The Identification and Analysis of Immune Cells
Present in Canine Carcinomas
Christian Bustillos
Jessica Correa, Oxnard College
Chad Barber, California Lutheran University
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∞ Empowering Success Through a Culture of Undergraduate Research ∞
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The impact of climate heterogeneity in niche evolution and diversification of Encelia in Western North America
Natalya Cardona, California State University, Dominguez Hills
66

The Metabolic Cost and Energy Budget of Ultra-Fast Mites
Matthias Shifferaw Hapte-Selassie, Pomona College
Shan Ming Gao, Pomona College
Jonathan Charles Wright, Pomona College
114

The Relation Between Childhood Family Environment and Internalizing Symptoms During Adolescence
Jenna J. Chapton, California State University, Fullerton
Michelle C. Ramos, California State University, Fullerton
Netasha K. Pizano, California State University, Fullerton
44

The Role of Memory in Language Processing: Oscillatory Evidence
Beverly Teresa Cotter, California State Polytechnic University - Pomona
Eleonora Rossi Ph.D, University of Florida
22

The Self-Reference Effect and the Formation of True and False Memories
Allison Shelton
Madison Keeler
Dustin Calvillo, CSUSM
20

The Tunability of a Simple Geometric SED to a Single Dot Regime
Steven Davis II, California State University, San Marcos
Justin K. Perron, California State University, San Marcos
Leticia Damian, California State University, San Marcos
Francisco Coronado, California State University, San Marcos
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Timing of Deformation Along the Borrego Springs Shear Zone
Jeremy Torres
Sinan Akciz, California State University, Fullerton
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Titan Providence
Emilio Correa, California State University, Fullerton
Tanis Yusco-Suarez, California State University, Fullerton
Marcos Reyes, California State University, Fullerton
Yu Bai, California State University, Fullerton
174

Transposon mutagenesis to identify genes involved in manganese oxidation
Johnny Samawi
Vanessa Silva, CSUF
David Hsu, CSUF
Hope Johnson Dr.
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Tree Swallow defense behaviors against competitor House Sparrow species
Darrah Jones
108

Twelve Ventura County Ocean Microbiomes Reveal Normal and Harmful Microorganisms Present During Harmful Algae Blooms
Wendy Contreras
Kamille Romero
Tiffany Sidwell
Alicia Romero
48

Undergraduate Leaders for STEM Mobile Making at Middle Schools
Mhealyssah Bustria, CSUSM
Amanda Bituin, CSUSM
Charles De Leone, CSUSM
Emmanuel Morales, CSUSM
146

Understanding Behaviors: Post-Chemotherapy Cognitive Impairment and Stress Among Black Women Breast Cancer Survivors
Kimberly Hardaway
28

Unmanned Ground Vehicle for Water Leaking Detection
Ricky Yan
Yang Quan Chen, UC Merced
168

Using Comparative Genomics To Control The Spread Of Arboviruses And Malaria
Allison S. Hommel, University of California, Irvine
Spiros D. Dimitratos, Fullerton College
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Using the BioID Approach to Identify Proteins Interacting with the P0 Protein from Turnip Yellows Virus
Kellen Henning, California State University, Fullerton
Mansour Dughbaj, California State University, Fullerton
Jordan Shoemaker, California State University, Fullerton
Melanie Sacco, California State University, Fullerton

Vibration Control of Euler-Bernoulli Beams
Tianbo Yang
Xiaosong Li

Virtually Constrained Dancing: Encoding Language in Movement and Sound
Devon Frost, Scripps College
Shannon Steele, Claremont McKenna College
Lucas Bang, Harvey Mudd College

Water Quality in Montane Meadows
Dustin Ferguson
Hillary Jenkins

Zero-Emission Smart Bathing Apparatus to Improve General Health and Hygiene
Sagil James, California State University, Fullerton
Mia Elias-Hicks, California State University, Fullerton
Rafi Novan, California State University, Fullerton
Ngan Phung, California State University, Fullerton

Water Quality in Montane Meadows
Dustin Ferguson
Hillary Jenkins

Zero-Emission Smart Bathing Apparatus to Improve General Health and Hygiene
Sagil James, California State University, Fullerton
Mia Elias-Hicks, California State University, Fullerton
Rafi Novan, California State University, Fullerton
Ngan Phung, California State University, Fullerton

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Kelly A. Young, Department of Biological Sciences, California State University Long Beach, Long Beach, CA 90840 USA
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Samy Ravikumar, Scripps College
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Kristen Phillips M.A., California State University, Fullerton
Barbara Cherry Ph.D., California State University, Fullerton
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Jennifer I. Ibarra, California State University, Fullerton
Taylor E. Naquin, California State University, Fullerton
Mayra A. Silva, California State University, Fullerton

Self-Efficacy as a Predictor of Educational Aspirations
Trang Le, California State University, Fullerton
Dawn R. Person, California State University, Fullerton

Sentinel - Security and Delivery Drone
Francisco Arevalo, California State University, Fullerton
James Samawi, California State University, Fullerton
John Gawlik, California State University, Fullerton
Yu Bai Dr., California State University, Fullerton

Shortest Remaining Processing Time Queues and the Fréchet Distribution
Michelle Guervarra, California State University, San Marcos
Michelle Kang, California State University, San Marcos
Amber L. Puha, California State University, San Marcos

Smart High-Efficiency Wind Turbine for Freeways
Sagil James, California State University, Fullerton
Fawaz Alshammary, California State University, Fullerton
Nicholas Sewani, California State University, Fullerton
Sarah Almuhaelej, California State University, Fullerton

Smart Skimmer to Efficiently Clean Oil Spills and Improve Environment Health
Sagil James, California State University, Fullerton
Nicholas Lortz, California State University, Fullerton
James Barnett, California State University, Fullerton
Anthony Gociu, California State University, Fullerton

“Social Class, Learning Disabilities and other Factors Impacting Working-Class Latino Males’ Educational Outcomes – A Literature Review”
Juan Duran, California State University, San Marcos
Morisol Clark-Ibanez, California State University, San Marcos
Stephen Quintana, University of Wisconsin-Madison

Solids Analysis of a UASB-HRAP Wastewater Treatment System in Brazil
 Lorena Bennett
 Lucas Vassalle, Universidade Federal de Minas Gerais
 Matthew Verbyla, San Diego State University
 Monica Palomo, California Polytechnic State University, Pomona

Spatial analysis of particulate matter (PM 2.5) air pollutants from in-situ portable air sensors in Udaipur, Rajasthan, India
Emely Ortiz-Villa, Mount Saint Mary’s University of Los Angeles
Adriane Jones, Mount Saint Mary’s University of Los Angeles

Sports a Mind Game
Justin Vogt
James Miller, California State University San Marcos

Study on Sustainability of 3D Printing Technologies
Vanessa Morales, California State University, Fullerton
Samir Mulgaonkar, California State University, Fullerton
Sagil James, California State University, Fullerton

Study on the American Crow
Ashley Testado, California State University, Channel Islands
Francisco Magdaleno, California State University, Channel Islands

Successful extraction of DNA from California land snail (*Helminthoglyptidae*) shells: tapping into museum collections for species identification and phylogenetic analyses.
Reni Sahakian, Glendale Community College - Glendale, CA
Jana E. Vendetti PhD., Natural History Museum of Los Angeles County and Glendale Community College - Glendale, CA

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Jonathan Caballero
Izabella Latrach
Alison Lee
Danna Pineda

Synthesis and Assembly of Shape-Deformable Magnetic Responsive Photonic Structures
Shannon Bivens, California Baptist University
Chaolumen Wu, University of California, Riverside
Yadong Yin, University of California, Riverside

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Kichang Jung, University of California, Riverside
Taehoon Lim Dr., University of California, Riverside
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WESTERN AND EASTERN CULTURE
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CEHHS – College of Education, Health & Human Services
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CSM – College of Science & Mathematics
SofA – School of Arts

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