2021 Southern California Conference for Undergraduate Research

Oral Presentations | Poster Presentations | Creative Art Exhibits & Performances

Hosted by: California State University, San Bernardino
Southern California Conference for Undergraduate Research

November 20th, 2021

Hosted by

CALIFORNIA STATE UNIVERSITY
SAN BERNARDINO
Office of Student Research
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Agenda

Southern California Conference for Undergraduate Research (SCCUR)
Saturday, November 20th, 2021

Welcome
8:00 AM – 8:45 AM

Poster Presentations
9:00 AM – 3:00 PM

Oral Presentations Session I
9:00 AM – 12:00 PM

Graduate Fair
10:00 AM – 12:00 PM

Research in Action: A Keynote Roundtable
12:00 PM – 1:30 PM

SCCUR Board Information Session
1:00 PM - 2:00 PM

Oral Presentations Session II
1:30 PM – 4:30 PM
Research in Action: A Keynote Roundtable
Guest Speakers

Brian Levin, J.D.
Department of Criminal Justice
California State University, San Bernardino

*The Role of Data Analysis in Public Policy: Hate Crime*

Julie Taylor, Ph.D.
Department of Communications
California State University, San Bernardino

*Hidden Organizing of Human Trafficking: Enacting Policy Communication*

Laura Newcomb, Ph.D.
Department of Biology
California State University, San Bernardino

*Viruses: The Good, the Bad, and the Ugly*

Stepfanie Alfonso
Mellon Mays Fellow and Sally Casanova Scholar
California State University, San Bernardino
Undergraduate

Student Moderator
We would like to extend our deepest gratitude to our faculty moderators for their time and support of SCCUR 2021.

Dr. Steve Adolph
Dr. Bailey Benedict
Dr. Brittany Bloodhart
Dr. Cheryl L. Brandt
Dr. Jacqueline Brooks
  Dr. Sara Callori
  Dr. Emily Carian
  Dr. Kerry Cato
Dr. Esteban Córdoba
Dr. Kim Cousins
Dr. Winny Dong
Dr. Sarah Dunn
Dr. Frank Gomez
Dr. Manji Gunawardana
Dr. Christopher Hallenbrook
Dr. Essia Hamouda
Dr. Christina Hassija
Dr. John Hernandez
  Dr. Peter Hung
  Dr. Xiaoxu Jiang

Dr. Rajrani Kalra
Dr. April Karlinsky
Dr. Michael Karp
Dr. Ryan Keating
  Dr. Yawen Li
  Dr. Caroline Lim
  Dr. Lisa Looney
Dr. David Maynard
Dr. Sastry Pantula
  Dr. Joyce Pham
  Dr. Maria Santos
  Dr. Lynn Scow
  Dr. Kate Simonian
  Dr. Becky Talyn
  Dr. Binod Tiwari
  Dr. Jackie Trischman
  Dr. Paloma Villegas
  Dr. King-To Yeung
  Dr. Renwu John Zhang
We would like to extend our deepest gratitude to the CSUSB faculty and staff that assisted in planning this year’s SCCUR meeting and whose contributions helped make this event possible.

Dr. Nicole Bournias-Vardiabasis, Professor of Biology
Dr. Sara Callori, Associate Professor of Physics
Dr. Sarah Dunn, Associate Professor of Kinesiology
Dr. Christina Hassija, Professor of Psychology
Dr. Ryan Keating, Director, Office of Student Research and Professor of History
Mrs. Megan Kinnally, Student Services Professional, Office of Graduate Studies
Ms. April Lane, Graduate Student Resource Specialist, Office of Graduate Studies
Dr. Fadi Muheidat, Assistant Professor of Computer Science and Engineering
Ms. Auvenida Pena, Events Specialist, Special Events & Guest Services
Ms. Julia Ruiz, Student Assistant, Office of Student Research
Dr. Becky Talyn, Lecturer, Department of Biology
Ms. Sara Valdez, Program Coordinator, Office of Student Research
Dr. Eric Vogelsang, Associate Professor of Sociology
Ms. Shontel Zamora, Budget Analyst, Parking and Transportation Services
Graduate Fair Participants

UMass Chan Medical School
Morningside Graduate School of Biomedical Sciences

Chaminade University of Honolulu

KGI Keck Graduate Institute

Portland State

California State University Bakersfield
Graduate Student Center

CSUSB
Poster Presenters

**College of Business & Public Administration**

Cameron Stevens, Sarah Simionas & Dr. Michael Fortner  
Claremont McKenna College  
*Attitudes Towards Police Reform Across Race and Class: Making Sense of the NYC Democratic Mayor Primary Race*

**College of Arts & Letters**

Alexia Ferguson & Dr. Julieanna Frost  
Siena Heights University  
*The Black Lives Matter Movement: A Case Study for Human Rights*

Ananna Tasnum Ahamed  
University of California, Riverside  
*Child Abuse in Textual and Visual Greek Mythology and Greek Poleis*

Blanca Rojas  
California State Polytechnic University, Pomona  
*Hair as a Symbol for Race-Making in Alice Walker’s Meridian*

Christian Grevin  
Chapman University  
*The Rise of Social media and the Fall of Internal Peace: How do Media Influence Fear of Mass Shootings?*

Dayquan Moeller  
Whittier College  
*LA Swan Songs: Site-Specific Theatre in the Gentrifying City*

**College of Education**

Denice Blanco, Hanna Thetford, Pouya Bahrami, Dr. Li Ye & Dr. Julia Chan  
California State University, Fullerton  
*Studying Students’ Perceptions on Group Work and Achievement in Online and In-Person First Year Chemistry Courses*

Evelyn Pohle, Dr. Alison Marzocchi, Christine Gamez & Carolynn Cao  
Evelyn Pohle  
*The TEAM TOOL*

Harmony Nguyen, Brooke Jones, Alyssa Jurkevics, Chenna Hu, Jonathan Aguilar, Talia Fernandez, Deanna Barrios, Natalia Perez, Dr. Juliana Fuqua, Dr. Jessica Perez, Dr. Faye Wachs & Dr. Paul Nissenson  
California Polytechnic State University, Pomona  
*Exploring Student and Faculty Attitudes on the Innovative Hyflex Instructional Modality*
Harmony Nguyen, Brooke Jones, Deanna Barrios, Dr. Jessica Perez & Dr. Faye Wachs
California Polytechnic State University, Pomona
Implementing Technology-Assisted Supplemental Instruction (TASI) to Reduce Achievement Disparities for Underrepresented Minority Students in STEM

Isabella Cantu
California State University, San Bernardino
Analysis of Education in the Inland Empire During the COVID-19 Pandemic

Jenny Mai & Dr. Yuying Tsong
California State University, Fullerton
Social Media, Physical Activities, Disordered Eating, and Body Image of Asian American Female College Students

Jezzabella Jimenez
Cal Poly Pomona
Transitional Bilingual Education versus Dual Language Immersion: Students’ Views on their Preparedness for College

Joachim Kavalakatt, Natalie Traan, James Park, Tung Nguyen, Dr. Allyson Fry-Petit & Dr. Julia Chan
California State University, Fullerton
The Effect of Growth Mindset Intervention on Students’ Perceptions of Self Efficacy in a First-year General Education Science Course

Kaia Ralston & Antonio Martinez
San Diego State University
Addressing difficult situations in the classroom: How do you take your stance in this environment?

Mai Narasaki-Jara, Michihito Ichihara & Alexis Sedano
California State Polytechnic University, Pomona
Exploring students’ attitudes towards people with disability through online service-learning

Philip Vieira, A. Camarillo, S. Zamora & M. De La Torre
California State University, Dominguez Hills
Supporting First-Year Student Success through a Combination of High Impact Educational Practices

Viviana Zapien, Stephanie Valdivia & Gavin Tierney
California State University, Fullerton
Student Codesign: Disrupting Educational hierarchies and empowering students

College of Natural Sciences

Aaliyah Tyson, William Richards & Valery Fokin
Loyola Marymount University
Maleic Acid Acts as a Michael Acceptor in the Presence of Glutathione

Aaron Manansala, Victoria Ayala, Salina Singh, Melissa Chavez & Dr. Lua Lopez
California State University San Bernardino
Using genetic knockouts of the model species Arabidopsis thaliana to investigate the link between genotype and phenotype.

Aaron Nguyen, Andy Nguyen, Stephanie Casillas, Justin Castillo-Ceja & Jaya Dofe
California State University, Fullerton
Analyzing Different Advanced Encryption Standard Implementations for IoT Devices

Aaryona Adams, Juliette Arteaga, Bryanna Castillo, Deanna Solorzano, Dr. Adriane Jones & Dr. Diane Kim
Mount Saint Mary’s University, Los Angeles
Marine copepod zooplankton does not effectively control a simulated Isochrysis sp algal bloom.
Aerin Mellott & Dr. Jeff Cannon
Occidental College
Stereoselective reduction of carbonyls via photoredox catalysis

Akira Yamamoto & Lindsey Gebhardt
Aspiring Scholars Directed Research Program
Analyzing contamination level of Heavy Metals using portable X-Ray Fluorescence (XRF) in community garden soil

Aldo Trejos, Dr. Stefan Schulze & Dr. Mechthild Pohlschroder
California State University, Los Angeles
A System-Wide Approach to Identify Glycoproteins and their Functions in Pseudomonas aeruginosa

Alicia Mercado, Xun Wang, Boyoung Shin, Tom Sidwell & Ellen Rothenberg
California Institute of Technology
CRISPR Interference Interrogation of Key Genes and Regulatory Genomic Elements in Early T-Cell Development

Allen Wong, Sakshi Bhatt, Nicholas Brinkley, Brianna Baeza, Ejiptsha Bowen, Jizelle Sevilla, Natasha Brinkley, William Ota & Dr. Kurt Anderson
University of California, Riverside
The diet of largemouth bass in the urban headwaters of the Santa Ana River

Amanda Tabb, Courtney Kitch, Grace Marquis & Dr. Rosalee Hellberg
Chapman University
Use of DNA Barcoding to Identify Species of Raw Ready-To-Eat Seafood Products Sold in Orange County, CA

Andrea Matias, Nhan Nguyen, Timothy Siu, Jacob Brannon, M.S. & Dr. Alex John
California State Polytechnic University, Pomona
Synthesis of Asymmetric Ligands via Reductive Amination

Andy Nguyen, Aaron Nguyen & Dr. Jaya Dofe
California State University, Fullerton
Securing the Internet of Thing (IoT) Devices against Power Analysis Attack

Angel (Yiting) Xie
Irvine Valley College
Barriers to women joining STEM: Looking at the role of mathematical self-concept and self-efficacy

Angelez Becerra, Andrea Hughes & Dr. Sarah Dunn
California State University, San Bernardino - Palm Desert Campus
College Student Self-Efficacy for Exercise in Relation to Reported Physical Activity Levels during COVID-19 Pandemic

Ania Baghoomian
Glendale Community College
The Effect of Intersectionality on the Treatment of Women’s Health

Anthony Naranjo, William Ota & Dr. Kurt Anderson
University of California, Riverside
Assessment of Diversity in the Santa Ana River

Armaan Jamal, Dr. Sebastian Markert & Dr. Shigeki Watanabe
Johns Hopkins University
Investigating the role of Synaptotagmin-1 at ribbon synapses
Arriel Alvarez, Daniella Roscelli-Valer & Dr. Phillip Gedalanga
California State University of Fullerton
Detecting fecal indicator HF183 in wastewater effluent using propidium monoazide qPCR to measure the public health risk of water contamination

Arsh Mundi & Dr. Hanoz Santoke
California State University, Bakersfield
Photodegradation of Tylosin Tartrate by Advanced Oxidation Processes

Audra Lane & Dr. Catherine McFadden
Harvey Mudd College
DNA Barcodes Identify Octocoral Specimens and Investigate Xeniid and Alcyoniid Species Richness in the Philippines

Avalon Surratt & Dr. Nathaniel Jue
California State University, Monterey Bay
Bioremediation of pesticides: Applying molecular genomic techniques to uncover efficient, eco-friendly methods of cleaning toxic agricultural waste

Benjamin Dao & Dr. Fangyuan Tian
California State University, Long Beach
Exploring the formation of Zeolitic Imidazolate Framework-8 films on gold surfaces via self-assembled monolayers

Bingjie Alex Yuan & Dr. Kelly Young
California State University, Long Beach
Genes involved in RA pathway are expressed differentially during testicular regression and spontaneous recrudescence in Siberian hamsters (Phodopus sungorus)

Brandon Lyons, Vanessa Wong, Melvin Soriano, Laura Carmona, Kamille Romero, Miranda Escobedo & Dr. James Harber
University of California, Los Angeles
A Cardiothread Tissue Culture Kit (CTKC) Capable of Remote Deployment to Produce Contractile Tissue-coated Suture

Bryan Rodriguez & Dr. Hope Johnson
California State University, Fullerton
Purification of the manganese oxidizing protein, MopA, found in marine bacterium Erythrobacter sp. SD-21

Camille Abeyta, Riddhima Kumar, Ambria Pogue, Dr. Paul Larsen & Gregory Barding, Jr.
California State Polytechnic University, Pomona
Exploring the Effect of Aluminum Toxicity on Plant Metabolism

Carlos De La Sancha & Dr. Pratanu Ghosh
California State University, Fullerton
Effective Methodology for Reduction of Carbon Emission in Concrete Mixtures

Casey Truong, Dr. Jessica Jaynes & Jose Toledo Luna
University of California, Los Angeles
ggDoE: An R Package for Experimental Design with an application to Prostate Cancer Drugs

Cassandra Olvera, Dr. Thomas Osberger & Luis Rangel
California State Polytechnic University, Pomona
Methods for Synthesis of Amino cyclobutanes and (Methylamino) cyclobutan Derivatives with Potential use in CNS Drugs

Chevon Jordan, Miranda Miranda, Calin Harris & Dr. Rosalee Hellberg
Chapman University
DNA Barcoding of Ayurvedic Herbal Supplements used for Alleged Treatment of SARS-CoV-2

Brandon Castillo
California State University, San Bernardino
On the Classification of Belted Sum Decomposition of Nested Links
Cheyenne Greer-Potts, F. Armando Santos Ponce & Matthew Verbyla
San Diego State University
Building-level wastewater surveillance for COVID-19: Lessons learned about sample collection

Chi Duong
California State University, San Bernardino
Ferroelectric crystal growing

Chloe Levine & Dr. Dustin VanOverbeke
University of Redlands
Gathering Baseline Data of Pollinator and Ground-Dwelling Arthropod Populations in Redlands Gateway Ranch

Christian Barker, Luis Cruz Ocana, Tonny Kasih & Dr. Sara Callori
California State University, San Bernardino
Growth and Characterization of Nanometer-scale Barium Titanate Thin Films

Christanne Yapor & Dr. Gabriel Davidov-Pardo
California State Polytechnic University, Pomona
Physical Changes of Avocados Over the Ripening Process

Christopher Vega & Desiree Harvell
California State University, San Bernardino
Testing Ferroelectric Properties at Various Temperatures

Claire Luethe & Dr. Jeffrey Cannon
Occidental College
Unnatural Amino Acid Synthesis via Alkylation of α-tert-Butanesulfinamide Auxiliary-Bound Enolates

Clinton Cunha, Aditi Thanekar, Anusha Chittari, Anika Aeka, Aditi Shankar, Ujwala Nettam & Celina Mao
Aspiring Scholars Directed Research Program
Understanding the effects of Dasatinib, a selective tyrosine kinase receptor inhibitor, in the context of HT29 Colorectal Cancer Cells

Cristina García, Esther Arriaza & Jailene Cerezo
Mount Saint Mary’s University
Warmer temperatures increase the growth rate of the phytoplankton, Tetraselmis sp, and the grazing rate of the zooplankton Rotifera

Dani Rodríguez, Kimchou Lao & Dr. Thomas Osberger
California Polytechnic University, Pomona
The Stereocontrolled Synthesis of Cyclobutane-based Fragment Library

Daniella Valer, Arriel Alvarez & Dr. Phillip Gedalanga
California State University Fullerton
Differentiation of live and dead sources using PMA-qPCR for the HF183 genetic marker to determine human fecal contamination in coastal water environments

Danielle Hjerpe & Nicole Bouvier-Brown
Loyola Marymount University
Environmental Justice in General Chemistry

David Hernandez & Igor Pak
University of California, San Diego
On the Exit Probability Distribution of a Lattice Random Walk on a Ladder Graph

David Murillo & Dr. Renwu John Zhang
California State University San Bernardino
Formulating polymer composite of Croconic acid and Polyvinylidene difluoride (PVDF)

David Weed, Daniel Bustamante & W. Riley Casper
California State University, Fullerton
Title: Chebyshev-type Orthogonal Matrix Polynomials
Deanna Solorzano & Dr. Adriane Jones
Mount Saint Mary's University of Los Angeles
Maps made using portable air sensors in and around Erwin “Magic” Johnson Park suggest that the park can buffer particulate (PM2.5) air pollution

Deanna Tuong & Dr. Parvin Shahrestani
California State University, Fullerton
Establishing the feasibility of Drosophila melanogaster as a model system to study Acinetobacter baumannii infection

Diana Morales & Dr. Jennifer Switkes
California State Polytechnic University Pomona
Analysis on the Efficiency of the Simplex Algorithm: Assignment Problems

Dr. Ava Hedayatipour & Elleni Bekele
California State University Long Beach
Multi-modal portable petri dish for remote cell growth monitoring

Dr. Cecilia Zurita-Lopez, Sidney Briski, Tiffany Lubrino & Alex Meza
Chapman University
Using HPLC to analyze Methylated Arginine Derivatives in Myelin Basic Protein, a protein Implicated in Multiple Sclerosis

Dr. Cooker Storm, Jordy Cass, Taylor McSpadden & Dr. Hunter Paris
Pepperdine University
The Anatomy of Differences: diversity in human anatomy curriculum

Dr. Hyuna Lee, Alexis Grant, Grace Thieke, Stephanie Sun & Andrew Shin
Biola University
Behavioral response to acute ethanol exposure in adult zebrafish following chronic embryonic alcohol treatment

Dr. Joya Cooley & Linh Nguyen
California State University Fullerton
Solid State Synthesis of Cu2–xCoxP2O7 for Cool Pigment Applications

Dr. Lei Lani Stelle, Amber Francis, Karena Wold, Hanna Parker & Michelle Koopman
University of Redlands
Human Impacts on Marine Mammal Behavior in Southern California

Dr. Michael Hanna, Alexis Perez & Julieanna Rosales
Vanguard University
High-intensity, short-term exercise protects against 6-OHDA in an animal model of Parkinson’s Disease

Dr. Rakeshkumar Mahto & Alec Battisti
California State University, Fullerton
FPGA Controlled MPT Algorithm for Reconfigurable Photovoltaic Panel

Dr. Rakeshkumar Mahto & Woo Kim
California State University, Fullerton
CMOS based Adaptable Voltage Regulator for Solar Energy Harvesting Application

Dr. Tian Lang, Catherine Lai, Sunny Zeng, Michelle Chu & Dr. Gang Chen
University of California, Riverside
Graphic User Interface Design for Connected Smart Hospital Enabled by Visible Light Communication
Edward Njoo, Charissa Luk, Xina Wang, Neha Mandava, Emma Le, Udbhav Avadhani, Sarah Su, Jane Wu, Aishi Rao, Shloka Raghavan, Aashi Shah, Priya Chanda, Jeslyn Wu, Darshita Prathap, Anushka Peer, Suhani Babu, Julia Vu, Ananya Anand & Manu Thakur
Aspiring Scholars Directed Research Program
In silico screen and synthesis of a library of carmofur analogs as potential inhibitors of the SARS-CoV-2 main protease and its variants through homology modeling

Edward Njoo, Harsha Rajkumar, Kuvam Bhatnagar, Alice Zhou, Xina Wang, Rosie Chen & Neha Mandava
Aspiring Scholars Directed Research Program
Optimizing conjugation and linker chemistry in the development of a novel photoreleasable antibody drug conjugate technology

Edward Njoo, Kuvam Bhatnagar, Pratyush Singh, Rosie Chen, Meher Jain, Andrew Chen, Natasha Gupta, Srishti Venkatesan, Samantha Wu, Krithikaa Premnath, Samyukta Athreya, Shamita Bhattacharjee & Emily Dai
Aspiring Scholars Directed Research Program
Efforts Towards a Concise Total Synthesis of Psychrophilin E

Edward Njoo, Selin Kocalar, Emma Le, Neha Mandava, Krithikaa Premnath, Aishi Rao, Aishwarya Yuvaraj & Xina Wang
Aspiring Scholars Directed Research Program
Benchtop nuclear magnetic resonance spectroscopy enables the discovery and optimization of novel trifluorinated 2,4-dihydropyrimidine compounds as antiproliferative agents

Aspiring Scholars Directed Research Program
Exploring the Chemical Space of Neuroactive Small Molecules: Synthesis and Biological Activity of Novel Rivastigmine and Vincamine Analogs

Eisa Razzak, Pan Gao & Dr. Xiangmin Xu
University of California, Irvine
Tracing Epilepsy At The Neurocircuit Level

Eli Wiston
University of Pennsylvania
Data Folding for the LIGO Stochastic Directional Analysis Pipeline

Elisa Gonzalez & Dr. Luiza Nogaj
Mount Saint Mary's University
The Effect of Human IAPP and IAPP Variants on Pancreatic Beta Cells

Elise Corwin, Layal Bata, Anna Nefedenkova & Irina Rabkina
Occidental College
Cognitive Modeling of Second-Order Theory of Mind

Elizabeth Murguia, Mackenzie Pylant, Christian Lopezguerra, Ebony Stretch, Dennis Zanesco, Matthew Cope, Uriel Rivera, Anahita Rahimi & Dr. Elinne Becket
California State University San Marcos
Taxonomic and Antibiotic Resistance Changes to Coastal Microbiomes in Response to Rainstorm Run-off
Elvis Garcia Jr. & Gabriel Davidov-Pardo  
California Polytechnic University of California  
*Using consumer feedback to determine the most desired attributes of food products enriched with orange pomace*

Emiliano Gonzalez & Devin McPhillips  
California State Polytechnic University, Pomona  
*Remote Survey of Fragile Geological Features in Oregon and Washington*

Emily Cedeno & Dr. Cizmeciyan  
Mount Saint Mary’s University  
*Enantiomeric Interactions of Tyrosine in Zeolite NaY*

Emily Roman, Seth Kapp, M.S. & Dr. Joan Leong  
California State Polytechnic University, Pomona  
*Impact of kaolin clay and neonicotinoid treatments on honey bee behavior at watermelon flowers*

Erin Tharp & Bhandari Vineet  
University of Southern California  
*Population of Warty Sea Cucumbers (Apostichopus parvimensis) in Big Fisherman’s Cove based on Environmental Factors and Habitat Preference*

Eunice Castro, Ivy Wang, Celine Parker & Dr. Alex John  
California State Polytechnic University, Pomona  
*Molybdenum Catalyzed Alcohol Oxidations*

Fatma Sanli & Dr. Douglas Durrant  
University of California Los Angeles  
*Chemokine-like Receptor-1 Expressing Dendritic Cells and Chemerin Expression in the CNS during WNV Encephalitis*

Fletcher Nickerson, Valentin Lecheval, Elva Robinson & Matina Donaldson-Matasci  
Harvey Mudd College  
*Modeling the effects of search and recruitment behavior on collective foraging in ants*

Gabriela Melchiorre, Dr. Becky Talyn & Dr. Erik Melchiorre  
Sage Oak Charter School  
*Critical period for toxicity of three herbicides in the model animal Drosophila melanogaster*

Gabriel Munoz, Milan Patel, Andres Cuellar & Dr. Niroshika Keppetipola  
California State University, Fullerton  
*Role of Linker 2 Region Phosphorylation in Polypyrimidine Tract Binding Protein 2 Activity*

Aspiring Scholars Directed Research Program  
*An In Silico Study of Polyphenols as Potential Alzheimer’s Treatments*

Gayathri Renganathan, M.Pharm., Archana Satish, Harshita Bathina, Julianna Chang, Shreya Gulati & Sameeksha Ramesh  
Aspiring Scholars Directed Research Program  
*Emerging Potential of Thymoquinone and Piperine Nanostructured Lipid Carriers for Cancer Treatment*
Gilda Castellanos-Von Borstel, Patricia Byrne, Thomas Jensen & Dr. Carlos Luna Lopez
California State University, San Marcos
Metastasis of Breast Cancer Cells through The Chorioallantoic Membrane Vascular Network of the Chick Embryo

Gonzalo Perez & Dr. Kimberly Cousins
California State University, San Bernardino
D-4 and It's Application Toward a Selective Lithium-Ion Detector

Hailey Barrientos
Mount Saint Mary's University
Study of Enantiomeric Interactions of Methionine Adsorbed in Zeolite NaY

Holli Rosas, Andrea Hughes & Dr. Sarah Dunn
California State University, San Bernardino
College Students’ Perceived Stress in Relation to Physical Activity Behaviors During the COVID-19 Pandemic

Hyuna Lee, Atley Shapiro, Stephanie Sun, Andrew Shin, Noah Cline, Angelina Rosalez & Jotham Ho
Biola University
Teratogenic Effects of Ethanol in Monoaminergic Neurogenesis in Zebrafish larvae

India Wesley-Cardwell, Erik Martinez, Janette Dzul & Edith Porter, M.D.
California State University- Los Angeles
Development of a qPCR-based protocol to quantitate M. smegmatis proliferation

Isaac Rodriguez & Tyesen Gordon
University of Redlands
Does the Cell Wall Prevent Human Complement from Killing Gram-Positive Bacteria?

Isabel Zamudio & Dr. Catherine McFadden
Harvey Mudd College
Using DNA Barcoding To Investigate the Biodiversity of Gorgonian Octocorals in the Florida Keys

Isabella Glenn, Hollyn Anderson, Jacob Khuri & Mengxi Zhang
University of Redlands
Refugee Food Insecurity in the United States

Isabelle Namikawa, Bochao Li (PhD candidate) & Dr. Quan Cheng
California Baptist University
Optimization of Bacterial Differentiation by MALDI-MS at Single Cell Level

Isabelle Namikawa, Li Bochao (PhD candidate) & Dr. Cheng Quan
University of California, Riverside
Bacteria Identification on the Single Cellular Level by MALDI-MS

Iva Petrovic, Dr. Huajun Yang & Dr. Pingyun Feng
Cornell University
New Pore Space Partitioning in Metal-Organic Frameworks

Jack Leonard & Dr. Michael Hill
Occidental College
Maintaining Cell Viability during the Electrochemical Reshaping of Cartilage

Jacqueline Diaz & Dr. Pratanu Ghosh
California State University, Fullerton
Deterministic service life model using zeolite based high performance concrete mixture
Jai Radhakrishnan, Martin Collazo, Daniel Uyematsu & Eric Schubert
University of California, Riverside
Bus On-Time Performance Analysis and Prediction

James Blauth, Brighton Okamoto & Andrew Sheble
University of Redlands
Vegetation Mapping and Wildlife Monitoring in Redlands' Open Space Reserves

Jaynia Garcia, Kristen Rivera, Julia Greenwood & Dr. Heather Pinkett
Loyola Marymount University
Computational Docking Study of Substrate Binding Protein (SBP) SapA

Jeremy Carleton, Dr. Tian Lang & Dr. Gang Chen
University of California, Riverside
Microcontroller Design for Connected Smart Hospital Enabled by Visible Light Communication

Jeslyn Wu, Alice Zhou, Tiffany Wang, Jane Wu, Shelley Li, Alice Finkelstein, Charissa Luk, Kara Tran & Edward Njoo
Aspiring Scholars Directed Research Program
19-F NMR enabled metal-catalyzed synthesis, virtual screening, and antiretroviral activity of novel diarylpyrimidine (DAPY) rilpivirine analogs as non-nucleoside reverse transcriptase inhibitors (NNRTIs) for HIV/AIDS treatment

Jillian Weber & Catherine Acosta
Whittier College
SOC quality in coffee systems in Southern California

Joel Cortez
California State University, San Bernardino
A New View on Martian Clouds

Jonathan Cline
MiraCosta College
A New 6th-Species Counterpoint to Fix Schoenberg's Mistake of Dissonant Tonality

Joseph Hatton, Zach Brown, Dr. David Onofrei, Dr. Jeffrey Gustafson & Dr. Gregory Holland
San Diego State University
Biomedical Application of Peptide Stapling

Joseph Shiina
Occidental College
Leaf heat and drought tolerance of C3, CAM, and C3-CAM epiphytic bromeliads occupying distinct elevations of the tropical forest canopy

Joshua Wong, Matthew Hight (PhD candidate) & Dr. Timothy Su
University of California, Riverside
Molecular Conductivity in Silicon Nanoclusters

Julia Arvizu, Maryam Fani & Matthew Verbyla
San Diego State University
Building-level wastewater surveillance for COVID-19: Building a model for predictive epidemiology

Julia Hayano, Christopher Tschumi, Barbara Juarez, Meagan Quinlan & Larry Zweifel
University of Washington
Autism spectrum disorder-related voltage-gated potassium channel mutation Kv7.3 disrupts social novelty preference in mice

Juliette Arteaga & Dr. Luiza Nogaj
Mount Saint Mary's University of Los Angeles
Analyzing the Effect of Varying Concentrations of Pramlintide & Insulin on Pancreatic Beta Cells
Grazing dynamics between copepods, rotifers, and Tetraselmis sp. reveal top-down control on phytoplankton growth.

Methods for Seed Scarification and Combating Drought Stress of Lupinus bicolor and Cressa truxillensis

Sulfur (IV) Click Chemistry

DNA Barcoding of Octocorals to Clarify Species Diversity within Capnella and Rhytisma

Examining the Temperature-dependence of HTLV-1 pro-pol Programmed -1 Ribosomal Frameshifting

Investigating the Role of Base-Triples in the HTLV-1 Pseudoknot

Evaluating the suitability of the pSGDLuc reporter plasmid to measure the HTLV-1 pro-pol frameshift efficiency ex vivo and in vitro

Optimizing small-molecule inhibition of sjIA and MAS biomarker IL-18 via Autodock Vina and Swiss ADME

Enantiomeric Interactions of Amino Acids Isoleucine and Phenylalanine in Zeolite NaY

Identifying potential NES sites in the PTBP1 RRM2 domain

Exploration and optimisation of the synthesis of pyrido[4,3-d]pyrimidin-3(6H)-one, a useful backbone in small-molecule kinase inhibitors

Identifying potential NES sites in the PTBP1 RRM2 domain

The LifeSmile Oral Microbiome in Home Analysis Device Technology for using a CRISPR Guide RNA for identifying Fusobacterium nucleatum
Jacqueline Diaz & Dr. Pratanu Ghosh
California State University, Fullerton
Deterministic service life model using zeolite based high performance concrete mixture

Liam Mauck & Dr. Ertan Salik
California State Polytechnic University, Pomona
Sensor Applications of Hyperbolic Metamaterials

Lindsay (Na Yeon) Park, José Arevalo & George Brooks
University of California, Berkeley
The Comparison of the Metabolic Flexibility Between Skeletal Muscle Cells Derived from the Young and Old Human Donors

Linette Vidauri, Angie Chavez, Daisy Lezo, Ashley Ramirez, Evelyn Khamou & Eric Stemp
Mount Saint Mary’s University, Los Angeles
Inhibition of Oxidative DNA-protein Crosslinking by Blueberry Juice

Lucy Yang, Armine Dingilian & Dr. Andrej Lupták
University of California, Irvine
Elucidation and Quantification of Transcription with Nucleoside Diphosphate Substrates

Madeline Brown, Oscar Calzada, John Zuidema & Micheal Sailor
University of California, San Diego
Hybrid Porous Silicon and Polycaprolactone Drug Delivery System for Revascularization

Maggie Santos & Dr. Becky Talyn
California State University, San Bernardino
Endocrine Disrupting Effects of Glyphosate on Drosophila Melanogaster

Maitri Patel & Dr. Alice Lee
California State University, Fullerton
Does risk of nasopharyngeal cancer differ across racial groups in the United States?

Marie Voskanyan
Glendale Community College
A Plastic Earth: Reducing Plastics Impact on Our Environment

Masroor Sinan Uddin, Sahand Adibnia, Caton Zhu, Ayan Bhatia, Catherine Tan, Aneri Sheth & Nikhil Jagota
Aspiring Scholars Directed Research Program
Analyzing Various Doped Graphene Quantum Dot Bandgaps for Photocatalytic Applications

Matthew Anderson & Dr. Sándor Volkán-Kacsó
Azusa Pacific University
Molecular Dynamics Simulations of F1-ATPase

Max Young, Daniel Essayan, Clarissa Kiyomura & Dr. Jeffrey Cannon
Occidental College
Indolizidine Synthesis from Pyroglutamate Esters Utilizing an Ireland–Claisen Rearrangement and a Final Ring-Closing Metathesis

Md. Sadek Hossain Asif
Notre Dame College, Dhaka
Predicting Potential Anti-viral Drug of Covid-19 by LSTM Based Recurrent Neural Network

Melissa Chavez, Salina Singh, & Dr. Nicole Bournias
Dr. Nicole Bournias
Impact of Repetitive and Single TBI in Female D. melanogaster
Michelle Olson, Kira Adaricheva, Grace Ma & Cat Raanes  
California State University, Fullerton  
The Nested Triangle Property and Impossible Convex Geometries

Michelle Paramo-Reyes, Ignacio Navarrete & Maddelyn Harden  
California State University, Channel Islands  
Effects of Nitrate Concentration and Temperature on Biomass Production in Giant Kelp Gametophyte

Miguel Maldonado, Mario Figueroa, Liam Mauck & Dr. Ertan Salik  
California State Polytechnic University Pomona  
Simulating Surface Plasmon and Bulk Plasmon Resonances Using COMSOL Multiphysics

Miguel Varela, Zakkary Hudson & Dr. Nicole Bourniass-Vardiabasis  
California State University, San Bernardino  
The Effects of Rhodelia Rosea on the healthspan and lifespan of Transgenic Drosophila melanogaster with an AB-42 Pathology

Miguel Yanez, Maritere Uriostegui-Arcos & Dr. Ana Fiszbein  
Whittier College  
Characterizing Alternative First Exons From Stem Cells and Cardiomyocytes

Miles Smith, Clare Spinner & Hannah Stein  
Occidental College  
An Explicit and Analytical Solution to the Stokes Equations on the Half-Space with Initial and Boundary Conditions For Velocity Using Integral Transforms

Miranda Escobedo, Laura Carmona, Wendy Contreras, Kamille Romero, Valerie Solinap, Alicia Romero, Tiffany Sidwell & Dr. James Harber  
Central Coast Biotech Institute  
Assay Development of Fusobacterium nucleatum in the Ocean Microbiome by LAMP, PCR and CRISPR

Mutahir Farhan, Alex Eskandarian, Abigail Bui, Sanaah Syeed, Parash Bhakta & Dr. Kendrick Davis  
University of California, Riverside  
Analysis of the Top Ranking COVID-19 Videos on TikTok

Nameer Ahmed, Raja Adil, Dr. Khuong Vo & Dr. Hung Cao  
Irvine Valley College  
How to improve the effective of HbA1c testing in Diabetes Detection

Natali Mendez & Dr. Bonny Burns-Whitmore  
California Polytechnic State University, Pomona  
The Breakfast Bar Study

Natalie LeBaron, Kellan Colburn & Phillip Lubin  
University of California, Santa Barbara  
Real Time Transient Detection with YOLO Darknet

Neo Marin, Dr. Tian Lang & Dr. Gang Chen  
University of California, Riverside  
Powerline Communication Design for Connected Smart Hospital Enabled by Visible Light Communication
Nicholas Torres & Dr. Joel Abraham  
California State University, Fullerton  
*Exploring the potential interactive effects of nitrogen enrichment and insect herbivory on growth and soil exudates of Foeniculum vulgare*

Nicole Avila & Professor S. Chantal Stieber  
California State Polytechnic University, Pomona  
*Computational study of bidentate N-heterocyclic carbene nickel complexes*

Noelle Roddam, Kalinah Winston & Dr. Becky Talyn  
California State University, San Bernardino  
*What Ingredients are Contributing to the Toxicity of Glyphosate-Based Herbicides?*

Ojasvi Mudda & Ellie Wilson  
Evergreen Valley High School  
*Analysis of Complement System Gene Expression and Outcome across the Subtypes of Glioma*

Omar Ruelas, Cesar De La Torre Castaneda & Nicholas Harding  
California State University, San Bernardino  
*Using Subscale Drones to Test Urban Air Mobility Designs*

Oscar Gonzalez & Dr. Kimberly Cousins  
California State University, San Bernardino  
*Running VASP Calculations to find ferroelectric properties of hydrogen bonded co-crystals*

Priya Bhavsar & Dr. Shehla Pervin  
University of California, Los Angeles  
*An investigation into Pre-angiogenic Factors to Target for Cancer Treatments*

Rachael Wen  
San Marino High School  
*Portable Application for 3D Modeling of Electric Fields, Magnetic Fields, and Electrostatic Induction under 3-Phase Transmission Lines*

Rachel Zhang, Lucien Delgutte & Dr. Jeff Cannon  
Occidental College  
*Photoredox catalysis for forming ketyl radicals*

Rakeshkumar Mahto, Aaron Nguyen & Nate Ruppert  
California State University, Fullerton  
*Quadratic Equation Based Solar Panel Modelling Using MOSFET Transistor*

Ramia Chaudhary & Professor Alex Guenther  
Chaffey College  
*Urban tree cover distributions for biogenic emission modeling*

Robert Downing, Tanish Baranwal, Howard Huang, Udbhav Avadhani, Anya Goyal, Akhil Samavedam, Mihir Kale, Tvisha Nepani, Timothy Hu & Vishak Srikanth  
Aspiring Scholars Directed Research Program  
*Quantitative Definition of Chemical Synthetic Pathway Complexity of Organic Compounds through Gaussian Mixture Models and Autoencoder Approaches*

Rylie Weaver  
University of Redlands  
*Monotonicity Failure in Ranked Choice Voting*

Sabrina Rabaya & Nathan Lanning  
California State University, Los Angeles  
*Analyzing the Impacts of Adenylate Kinases on Lung Adenocarcinoma Viability*
Sam Kilic, Dr. Boniface Fokwa & Diana Luong  
Palomar College  
*Altering Magnetic Interactions Due to Site-Preferred Substitution in Hf$_2$FeRu$_5$-xIr$_x$B$_2$*

Samyukta Athreya, Priya Chanda, Natasha Gupta, Selin Kocalar, Aishi Rao, Kara Tran, Srishti Venkatesan, Tiffany Wang, Jeslyn Wu, Harrison Xu, Aishwarya Yuvaraj, Alice Zhou, & Edward Njoo  
Aspiring Scholars Directed Research Program  
*Rational design, semisynthesis, and quantitative biological mechanistic studies of andrographolide derivatives in efforts to optimize its structure for clinical use.*

Sandra Serrano  
Citrus College, California State University Fullerton  
*Generating Noise Budgets For Cosmic Explorer*

Sara Catalina Carrillo  
California State Polytechnic University, Pomona  
*Effects of Omega-3 Fatty Acid Supplements and Probiotic Supplements on Attention Span in Neurodiverse Adults*

Sarah Su, Emma Le, Meher Jain, Pratyush Singh, Alivia Zhang, Karthikha Sri Indran, Sohie Pal, Aashi Shah & Sanhita Nittala  
Aspiring Scholars Directed Research Program  
*Chemical Synthesis and Ex-Vivo Evaluation of Berberine Analogs as DNA-Binding Singlet Oxygen Photosensitizers*

Shaun Weatherly & Dr. Rebecca Lyons  
University of Redlands  
*Uptake, Transformation, and Amplified Release of Pollutant 4-Nonylphenol by Glaciers – A Comprehensive Mass Balance Model*

Shivam Srivastava, Angel Ruiz & Dr. Fangyuan Tian  
California State University, Long Beach  
*Green Synthesis of Fe-MIL-88B*

Sofia Acosta, Kelli Andrade, Chinelo Okafor, Lauren Quesada, Ivana Small & Emily Sramaty  
Loyola Marymount University  
*Assessing Multiple-Paternity in Broods of the Trapdoor Spider Bothriocyrtum californicum*

Sophia Estrada, Amanda Macias & Dr. Kelly Young  
California State University Long Beach  
*Isoproterenol and gonadotropins positively impact in vitro growth, but not folliculogenesis in photoregressed ovaries*

Summer Jade Brown & Dr. Rebecca Lyons  
University of Redlands  
*Determination of microbial populations and kinetic rates of biodegradation of 4-nonylphenol by Pseudomonas-like bacteria from a Sierra Nevada snowfield and Palisade Glacier*
Suphanat Isarangkoon Na Ayutthaya & Dr. S. Eric Hill
University of Redlands
Development of Pedagogical Approach for the Condensed Matter Physics Advanced Laboratory Class using TeachSpin™ CMP Variable Temperature Cryostat as a Teaching Instrument

Taylor Lehner & Dr. Gretchen Edwalds-Gilbert
Pitzer College
The Function of Lsm5 Protein in S. cerevisiae Mitochondria

Tiffany Tang & David Mbora
Whittier College
Effects of farm size and time since establishment on arthropod diversities on coffee farms

Timmy Nguyen, Nathalie Nalbandian & Dr. Thomas Osberger
California State Polytechnic University, Pomona
Synthesis of Substituted Isatins as Potential Antibacterial Agents

Vanessa Gonzalez, Alma Rocha & Matthew Verbyla
San Diego State University
Building-level wastewater surveillance for COVID-19: Comparison between adsorption-extraction and NanoTrap concentration methods

Viví Ngo & Dr. Sam Behseta
California State University of Fullerton
A Predictive Model for COVID-19 Infection Rate in Orange County, CA

TJ Carson
University of Redlands
Atmospheric Transport of Micro Plastics

Trong Pham, Henry Koelling, Nicholas Liu, Dr. Boyang Fu & Dr. Sriram Sankararaman
California State University, Fullerton
Modeling gene-gene interactions in GWAS data using deep learning and machine learning approaches

Yashaswat Malhotra, Katkar Gajanan & Ghosh Pradipta
The University of California, San Diego
Reprogramming Macrophages to Resist Atherosclerosis using GIV

Vanessa Langarica, Dr. Farhana Abedin & Dr. Junjun Liu
California State Polytechnic University, Pomona
Disinfection and Filtration Capabilities of Nanofiber Membrane Functionalized with Antimicrobial Peptide

William Riddle & Bohdan Schatschneider
California State Polytechnic University, Pomona
A Python Algorithm to Identify CHON Functional Groups from SMILES codes

William Troxel, Jianan Sun & Dr. Chia-en Chang
University of California, Riverside
Analysis of Imatinib’s Efficacy with Multiple Kinases Provides Enhanced Understanding of Differential Binding Affinities and Specificities

Caroline Meyersohn & Dr. Randy Stein
California State Polytechnic University, Pomona
Fakery in Marketing
Dr. Gareth Harris, Alyssa Garbarino, Leighton Ledesma & Krysta Korpontinos
California State University, Channel Islands
Psilocybin as a Treatment for Mood Disorders: ‘Worms as model systems for drug-disease interaction’

Dr. Jacob Jones, Carmen Uribe, Yenny Valenzuela & Dr. Maria Santos
California State University, San Bernardino
Psychosis Predicts Worse Cognitive Performance in Parkinson’s Disease

Dr. Taylor Cruz, Jocelyn Aldape, Allison Brown, Lucy Grams, Ernesta Herrera, Lauren Herrera, Michael Kruger, Keri Nicholson, Brithany Sigala Diaz, Sheridan Smith & Christina Tharpe
California State University, Fullerton
Distrust in Pandemic Response: Perceptions of Science and Government among Diverse Publics

Evelyn Rodarte, Cerena Lee & Dr. Heather Bortfeld
University of California Merced
Known-Word Facilitation Effect for Artificial Speech Segmentation in Spanish-English Bilinguals

Isabelle Swanson
University of California Riverside
A One Health Perspective on Collective Healing and Societal Growth

Jasmin Escalante & Dr. Christina Hassija
California State University, San Bernardino
The Role of Family Relationship Style in the Relationship between Adverse Experiences in Childhood and Psychological Outcomes among Latinx College Students

JoJo Widi
Pomona College
Telework Health Outcomes for Employees at a Rocky Mountain Region State Health Department

Jordan Carroll & Keith Trujillo
California State University, San Marcos
The interplay of reward and aversion implicates increased risk for ketamine abuse in adolescents when compared to adults.

Karisa Andert & Dr. Natalie Graham
California State University, Fullerton
Framing Justice in Community Gardens

Keeshia Kamura, Dr. Raeanne Moore, Dr. Jennalee Wooldridge, Dr. Lisa Eyler & Dr. Matthew Herbert
University of California, San Diego
Association between Social Justice Activities and Compassion/Empathy among Medical Students

Kenya Luna, Dr. Jacob Jones & Rhiannon Rivas
California State University, San Bernardino
Subjective Cognitive Complaint utilization to improve detection of Mild Cognitive Impairment

Lea Hemphill, Yenny Valenzuela & Dr. Jacob Jones
California State University, San Bernardino
Synergistic Effects of Depression and Aging on Cognitive Decline in Early Parkinson’s Disease

Leslie Estrada, Cassidy De Anda Gamboa & Dr. Jen Wenzel
University of San Diego
The effects of adolescent cannabinoid exposure on cocaine reward and reward-related brain systems in adulthood
Makena Pollon, Dr. Erlyana Erlyana & Dr. Yang Lu
California State University, Long Beach
*An Analysis of Depressive Symptoms Among Varying Demographics of the United States During the COVID-19 Pandemic*

Margaret Tajirian, Benjamin Juarez, M.A. & Dr. Tomas Martinez
Pepperdine University
*Developing a Dental Trauma-Anxiety Measure Comparing U.S. and International Care*

Markos Matthew Buhler
Chapman University
*The Rise and Persistence of Islamophobia in the United States Post 9/11*

Paola Alonso Fraire, Dr. Alexandra Main, Dr. Eric Walle & Dr. Rose Scott
University of California, Merced
*Teen Parents’ Mental-State Language and its Impact on Children's Emotional and Social Development*

Patricia Vargas
Oregon State University
*What Best Predicts the Probability of Receiving Public Assistance? Examining the Effect of Family Background and Educational Attainment on Receiving Public Assistance with Multivariate Regression Analysis*

Pau Brunet-Fuertes
Los Angeles City College
*Queer Public Spaces in Los Angeles: A Study About the Functionality of Open to Public Spaces Used by Queer Population.*

Regan Von Cannon
Saddleback College
*Leaving Mormonism: The Motives Behind Leaving Family, Community, and Ideology*

Roxanna Amirazizi
Chapman University
*The Power of “The Wall”*

Sarah Kashani
Chapman University
*The Believers of QAnon: Who are they and What Inspired them?*

Simran Bhatia
California State University, San Bernardino
*Positive Mindset, Growth Mindset, Optimism, Hope and Self-Efficacy: Major Characteristics for Achieving Higher Academic Success for College Students*

Stephanie Norris, Sarah Arain, Stephanie Montero & Irene Price
California State University, Fullerton
*How Perceived Stress Relates to Undergraduate Students' Aspirations for Grad School*

Thaniya Shankar, Tricia Choy & Dr. Katherine Stavropoulos
University of California, Riverside
*Measuring Cute Aggression in Children With and Without Autism Spectrum Disorder*

Vanessa Barragan & Dr. Jennifer Trevitt
Vanessa Barragan
*Title: The Effect of a High Energy Diet on Object Recency Memory*

Viviana Alvarez Rodriguez
California State University, San Bernardino
*Students in the Nicaraguan Revolution*

Yanelli Guzman & Dr. Espinoza Russ
California State University, Fullerton
*Observing Aversive Bias in Court Cases dealing with Defendants Suffering from a Mental Illness*
Session 1

Time: 9:00 AM - 10:30 AM
Category: Behavioral & Social Sciences

9:00 Justin Naidu, Aislinn Beam, M.A., & Dr. Deborah Wiebe
University of California, Merced
Optimizing Support for Type 1 Diabetes Management in Early Emerging Adulthood

9:18 Kate Lingeman, Dulce Zayas, & Dr. Kimmy Kee-Rose
California State University Channel Islands
Why Feelings Matter: A Study of Traits of Autism in University Students

9:36 Alicia Hu
Irvine Valley College
How Social Media Effects Young Women's Body Image and Self-esteem

9:54 Yasaman Nassab
Irvine Valley College
A Comparison Between the Effects of Trauma from Children in El Salvador and Restavek Children in Haiti

Session 2

Time: 9:00 AM - 10:30 AM
Category: Behavioral & Social Sciences

9:00 Malak Elmoh
Georgetown University
The Question of Belonging: Naturalized East Africans in the Washington Metropolitan Area

9:18 Alexa Vega Rivas
California State University, Fullerton
How Do the Effects of Trump's Immigration Policies Influence White and Latino Support for the American Dream?

9:36 Arhelia Figueroa & Dr. Joanna Perez
California State University, Dominguez Hills
Recognizing Our Power: Experiences of Latinx Immigrant Predominantly Spanish Speaking Parents During COVID-19

9:54 Lis Jimenez, Mark Davidson, Loretta Lees, Mareike Ahrens, & Ben Vinson III
Occidental College
How do colonial Mexican castes influence how indigenous Mexican migrants enact gentrification in the U.S?
Session 3

Time: 9:00 AM - 10:30 AM
Category: Behavioral & Social Sciences

9:00  Daniel Miranda & Dr. Tatiana Basanez
California State University, Dominguez Hills
The Role of Socioeconomic Status and COVID-19 Vaccine Usage on Perceived Susceptibility and Job Outcomes in Latinx and African American Young Adults

9:18  Aundreana Rodriguez & Dr. T.L. Brink
Crafton Hills College
COVID Vaccination Rates: a geographical study of demographic predictors of religiosity and education

9:36  Jose Rojas & Dr. Julia Drouin
California State University, Fullerton
Recalibrating Phonetic Boundaries: The Effect of Face Masks on Lexically Guided Perceptual Learning

9:54  Dr. Mario Alberto Obando, Krys Orenday, Stephanie Rivera, & Dr. Amber Orozco
California State University, Fullerton
Archives of Mortality: Listening with Cariño while Researching the Pandemic to Sobrevivir

Session 4

Time: 9:00 AM - 10:30 AM
Category: Biological & Agricultural

9:00  Ann Rogers & Dr. Jay Brewster
Pepperdine University
Activation of Endoplasmic Reticulum Stress Signaling Pathways by Carbon Black Nanoparticles

9:18  Yelissa Fuentes & Dr. Mahmood Nikbakhtzadeh
California State University, San Bernardino
The Effect of Glyphosate Herbicide on the Larval Development of the Southern House Mosquito

9:36  David Guzman
Pepperdine University
Polyethylene Terephthalate Nanoplastic Uptake and Stress Effects on Primary Human Umbilical Vein Endothelial Cells

9:54  Timothy Simmons & Dr. Thomas Vandergon
Lee University
Nanoplastic effects on endothelial cells: A comparison of primary cells (HUVEC) and immortalized cells (hy926) after exposure to polystyrene nanoplastics

10:12  Kyle Osornia
Pepperdine University
Cytotoxic Effects of Polystyrene Nanoplastics with Adsorbed Propranolol
Session 5

Time: 9:00 AM - 10:30 AM  
Category: Biological & Agricultural

9:00  John Guerra & Alvin Alejandrino  
Whittier College  
*Origin and Diversification of the L-amino Oxidase Gene Family and its Presence in the Common Garden Snail (Cornu aspersum)*

9:18  Jose Cedano, Michelle Baez, and Dr. Maria Ramirez  
California State University, Fullerton  
**Title:** Zidebactam enhances sulbactam activity against carbapenem-resistant Acinetobacter baumannii (CRAB) isolates.

9:36  Michelle Baez, Jose Cedano, and Dr. Maria Ramirez  
California State University, Fullerton  
**Title:** Zidebactam enhances sulbactam activity against carbapenem-resistant Acinetobacter baumannii (CRAB) isolates

9:54  Brent Nishimura, Casin Le, Camila Pimental, Dr. Marisel Tuttobene, Dr. Tomas Subils, Dr. German Traglia, Dr. Federico Perez, Dr. Krisztina Papp-Wallace, Dr. Robert Bonomo, Dr. Marcelo Tolmasky, and Dr. Maria Soledad Ramirez  
California State University, Fullerton  
**Title:** Human serum albumin involvement in the expression of β-lactam resistance and competence associated genes

10:12  Sarah Eltiste and Angelica Riestra  
San Diego State University  
**Title:** Investigating the Dynamics and Impact of Trichomonas vaginalis Interactions with Lactobacillus crispatus

Session 6

Time: 9:00 AM - 10:30 AM  
Category: Humanities & Letters I

9:00  Gregory Sanchez  
University of California, Riverside  
**Title:** A Latinx History of the Inland Empire

9:18  Rewanshi Kumar and Dr. Jayson Beaster-Jones  
University of California, Merced  
**Title:** Listening to the Margins of the Valley: Documenting the Oral Histories of California Central Valley’s Punjabi Community

9:36  Fernando Mendez  
California State University, Long Beach  
**Title:** Latino/x Entrepreneurs and the Future: An analysis of the changing entrepreneurial landscape

9:54  Victoria Torres, Brianna Molina and Kaitlin Diaz  
California Polytechnic University, Pomona  
**Title:** The Impact of Peer Mentoring on Underrepresented Minoritized Students

10:12  Keidan Chavez  
Whittier College  
**Title:** Inclusion over Representation
Session 7

Time: 9:00 AM - 10:30 AM
Category: Humanities & Letters II

9:00 James Crawford
Mount Jacinto Community College
Title: Queer Commemoration: The National AIDS Memorial Grove and Historical Memory

9:18 Xavier Resendez
California State University San Bernardino
Title: Race and Labor in Late 19th Century California

9:36 Nathan Akiyoshi
Irvine Valley College
Title: Japanese American Redress: Factors that led to the Civil Liberties Act of 1988

9:54 Rolando Pineda
Mira Costa College
Title: The Oneida Community: From Making Super-babies to Making Your Grandmother’s Silverware

10:12 Esteban Mecka, Martin Kelly, Terry Foster and Paul Kelly
California State University, Long Beach
Title: The History and Influence of the Electric Guitar

Session 8

Time: 9:00 AM - 10:30 AM
Category: Humanities & Letters III

9:00 Andrew Leung
California State University, Dominguez Hills
Title: Resistance of Gender Ideologies in Popular Culture in Cisneros’s “Woman Hollering Creek” and Rich’s “Diving into the Wreck”

9:18 Arlo Sandoval, Talia Bettcher, María Lugones, Oyèrónké Oyèwùmí, Londa Schiebinger, Riley Snorton
Whittier College
Title: Enfleshing Gender: Trans Non-Binary Denial of Gendered Corporeality

9:36 Odelia Zuckerman
Occidental College
Title: The Importance of the Body to Misogyny: Objections to Kate Manne’s Down Girl

9:54 Berret Yuffee and Dr. Julie Prebel
Occidental College
Title: “The Abjection of Fatness Through Social Media: ‘Body Positivity’ and the Contemporary Maintenance of the Racialized, Female Body”
Session 9

**Time:** 9:00 AM - 10:30 AM  
**Category:** Physical or Mathematical Sciences

**9:00** Dr. W.Y. Pong and B.F. Garcia Morales  
California State University, Dominguez Hills  
**Title:** Density of length spectra of natural numbers.

**9:18** Audrey Oliver, Angelica Bloomquist, M.S., and Dr. Naveen Vaidya  
San Diego State University  
**Title:** Modeling pharmacodynamics of antiretroviral therapy for HIV infection in the brain

**9:36** Natanael Alpay, Dr. Paula Cerejeiras, and Dr. Uwe Kahler  
Chapman University  
**Title:** Generalized Fock space using fractional derivatives with Applications to Uniqueness of Sampling and Interpolation Sets

**9:54** Abbey Rosario and Dr. Naveen Vaidya  
San Diego State University  
**Title:** The impact of inter-region mobility on the reproduction numbers of COVID-19 in San Diego County

**10:12** Solomon Huang and Dr. Thomas Murphy  
California State University, Fullerton  
**Title:** Quasi-Einstein Manifolds on Sphere Bundles

Session 10

**Time:** 9:00 AM - 10:30 AM  
**Category:** Physical or Mathematical Sciences

**9:00** Ayla Astudillo, Dr. Jillian Cannons, Ashley Kang and Brandon McConathy  
California State Polytechnic University, Pomona  
**Title:** Optimal Drone Delivery Scheduling for a Fixed Truck Route

**9:18** Omar Almazan, Cesar De La Torre Castaneda and Nicholas Harding  
California State University, San Bernardino  
**Title:** Using Subscale Drones to Test Urban Air Mobility Designs

**9:36** Ximena Elizondo, Miriam Marroquin, Clayton Moore and Dr. Javier Rojo  
California State University Fullerton  
**Title:** Ozone Analysis using Nonparametric Methods

**9:54** Widyadewi Soedarmadji  
West Los Angeles College  
**Title:** Simple Motion Coordination for Objects in Linear Arrangements
Session 11

Time: 9:00 AM - 10:30 AM  
Category: Education

9:00  Anabell Ramos and Dr. Roderick O’Handley  
California State University, San Bernardino  
**Title:** School Psychologists’ Assessment and Intervention Practices in the Delivery of Social Skills Training for Students with Autism Spectrum Disorder

9:18  Sharon Lin and Dr. Gavin Tierney  
California State University, Fullerton  
**Title:** Navigating Moments of Tension and Uncertainty in Co-Design of University Curriculum

9:36  Robert Trujillo, Jennifer Mota, Juan Rosete, Nancy Villegas Sanchez and Dr. Cynthia Wyels  
California State University Channel Islands  
**Title:** Exploring the Effect of Service Learning Courses on Academic Outcomes

9:54  Zane Landin and Dr. Pavitra Kavya  
California State Polytechnic University, Pomona  
**Title:** The power of Disability Cultural Centers (DCCs) to create a supportive and transformational experience for students.

10:12  Harmony Nguyen, Brooke Jones, Alyssa Jurkevics, Chenna Hu, Jonathan Aguilar, Talia Fernandez, Deanna Barrios, Natalia Perez, Dr. Juliana Fuqua, Dr. Faye Wachs and Dr. Paul Nissenson  
California State Polytechnic University, Pomona  
**Title:** Assessing the Impact of Faculty Learning Communities (FLC): Opportunities and Obstacles for Faculty Development

Session 12

Time: 9:00 AM - 10:30 AM  
Category: Engineering & Computer Science

9:00  Evangelyn Balcita, Elston Lewis, Aaron Lum, Benjamin Farinas, Isaac Rodriguez, Jesse Diaz and Dr. Sagil James  
California State University Fullerton  
**Title:** Investigation of Scalable Green Hydrogen Production Methods: Moving Towards a Sustainable Hydrogen Economy in California

9:18  Juan Ramirez, Lauren Martinez and Dr. Ankita Mohapatra  
California State University Fullerton  
**Title:** Optimized Placement of Sensor Nodes Designed for Early WildFire Detection

9:36  Mark Robles, Julio Villegas and Ankita Mohapatra  
California State University Fullerton  
**Title:** Engineering Wildfire Mitigation and Control with Smart Wildfire Sensing Nodes

9:54  Jacob Graves, Soham Shah and Dr. Kandis Leslie Abdul-Aziz  
University of California Riverside  
**Title:** Dual-Functional Perovskite-Based Strontium Catalysts for Carbon Capture and Dry Methane Reforming
Session 13

Time: 9:00 AM - 10:30 AM
Category: Engineering & Computer Science

9:00  Liora Mayats Alpay and Dr. Yuxin Wen
Chapman University
Title: New approach to COVID-19 AI detection

9:18  Kara Lee, Sheng Tan, Omar Mora
California State Polytechnic University, Pomona
Title: Performance Evaluation of Building Facade Reconstruction from UAS Imagery

9:36  Qingquan Sun
California State University San Bernardino
Title: Implementation and Exploration of Image Classification Using Convolutional Neural Networks

9:54  Timothy Trinh, Dr. Stevan Pecic and Dr. Ankita Mohapatra
California State University, Fullerton
Title: Artificial Neural Network Model to Identify and Classify Human Behaviors from Cortisol Profiles

Session 14

Time: 9:00 AM - 10:30 AM
Category: Engineering & Computer Science

9:00  Megan Jacob, Aditya Iyengar, Anusha Chatterjee, Luke Ponssen, Ansh Kharbanda and Allen Chen
Aspiring Scholars Directed Research Program
Title: Using Classification Models to Analyze Bellwether Counties in US Presidential Elections (2000-2020)

9:18  Henry Koelling, Nicholas Liu, Trong Pham, Dr. Boyang Fu and Dr. Sriram Sankararaman
California State University, Fullerton
Title: Modeling Gene-gene Interactions in GWAS Data Using Deep Learning and Machine Learning Approaches

9:36  Ahmad Anees, Alaap Rag, Navneeth Suresh, Syed H. A. Kazmi and Sohail Zaidi
San Jose State University
Title: Predicting the Likelihood of Stroke in Individuals using IBM Watson Machine

9:54  Doina Bein, Kevin Garcia Sarmiento and Sara Sadek
California State University Fullerton
Title: Prediction of Bioactivity of Drugs on HIV-1 Specific Reverse Transcriptase
Session 15

Time: 9:00 AM - 10:30 AM
Category: Health, Nutrition or Clinical Science

9:00  Leeann Shu  
The Webb Schools  
**Title:** The Application of Multi-task Learning in Drug Discovery to Identify PPAR Agonists for Treating Circadian Rhythm Sleep Disorders

9:18  Jordan Lam, Shreya Gupta, Heesun Choi, DO, Dr. Soheil Saadat, Shadi Lahham, MD, MS and Dr. John Fox  
University of California, Irvine  
**Title:** Point-of-care ultrasound to identify methamphetamine-associated heart failure in the emergency department: a case series

9:36  Gloria Greenstein and Dr. Arlene Haffa  
California State University, Monterey Bay  
**Title:** Liver Damage in SARS-CoV-2 Patients Could Be Attributed to Viral Protein Interactions with Cytochrome P450 Oxidoreductase Disrupting Catalytic Activity

9:54  Stefan Eng and Dr. Paul Boutros  
University of California Los Angeles Jonsson Comprehensive Cancer Center  
**Title:** Analyzing Cox Proportional Hazard Assumption Violations in Breast Cancer Patients Using Tumor mRNA Abundance Data

10:12  Harsha Rajkumar  
Aspiring Scholars Directed Research Program  
**Title:** Optimizing conjugation and linker chemistry in the development of a novel photoreleasable antibody drug conjugate technology

Session 16

Time: 9:00 AM - 10:30 AM
Category: Health, Nutrition or Clinical Science

9:00  Jonna Barcelona and Dr. Selena Nguyen-Rodriguez  
California State University, Long Beach  
**Title:** Accessibility and Availability of Mental Health Services for Ethnic Minority Youth with Depression

9:18  Jenna Maree Wong, Dr. Portia Jackson Preston and Delia Sanchez, MPH  
California State University, Fullerton  
**Title:** “It never ends”: The challenges and coping strategies of TRIO and EOP professionals

9:36  Dr. Malik, Dr. Harding and Garcia, A.  
California State University, San Bernardino  
**Title:** How has COVID-19 changed healthcare seeking behaviors among university students attending a minority serving institution?

9:54  Hanna Yazdi and Dr. Sinjini Mitra  
California State University, Fullerton  
**Title:** Mobile Health (mHealth) technology and its impact on personal health
### Session 17

**Time:** 9:00 AM - 10:30 AM  
**Category:** Business, Economics, & Public Administration

**9:00**  
Maria Garcia Guzman, Selina Sanchez and Dr. Craig Seal  
California State University, San Bernardino  
**Title:** Flexible work arrangements and Employee work attitudes: COVID-19

**9:18**  
Yohann Byun  
Irvine Valley College  
**Title:** Labor Supply Depletion: How COVID-19 Transformed the Labor Market

**9:36**  
Elisa Costa and Dena Norouzi  
Irvine Valley College  
**Title:** The Effects of the COVID-19 Pandemic on Single Mothers

**9:54**  
Diana Martinez, Lusine Minasyan and Dr. Christian Teeter  
Mount Saint Mary's University, Los Angeles  
**Title:** COVID-19 and the Acceleration of Food Insecurity: A Southern California Case Study

### Session 18

**Time:** 9:00 AM - 10:30 AM  
**Category:** Interdisciplinary

**9:00**  
Monica Lee  
Irvine Valley College  
**Title:** Artistic Modes: Mainstream Success Dealmaker, and Algorithmically Optimizable?

**9:18**  
Rolando Pineda  
MiraCosta College  
**Title:** The Cinematic Subconscious

**9:36**  
Jacob Hall  
California State University, Fullerton  
**Title:** Music Borrowing in the Film Music of Alfred Schnittke

**9:54**  
Megan Hayes  
California State University San Bernardino  
**Title:** Oops! All Zombies: How an Evolutionary Analysis of The Walking Dead Comic Can Explain and Dismantle The Alt-Right’s Understanding of Gender
Session 19

**Time:** 9:00 AM - 10:30 AM  
**Category:** Interdisciplinary

9:00  **Luis Arrioja, Amanda Bituin and Dr. David Bwambok**  
California State University San Marcos  
**Title:** Tunable ionic fluorescent nanomaterials and evaluation of chemotherapeutic properties using stem cells

9:18  **Rohit Suresh and Madeline Ho**  
Aspiring Scholars Directed Research Program  
**Title:** Novel Functionalization of Chitosan with a 3,4-dihydroxybenzoic Acid Linker to Create a Multifunctional Polymer Scaffold

9:36  **Garett Mustin, Emiliana Merida, Xavier Espinoza, Sally Nguyen and Dr. Benjamin Becerra**  
California State University, San Bernardino  
**Title:** Machine learning models for predicting pediatric sleep apnea

Session 20

**Time:** 9:00 AM - 10:30 AM  
**Category:** Creative Writing & Poetry Showcase

9:00  **Aria Devlin**  
Occidental College  
**Title:** LA Stories: Intertwining the Built and the Natural Environments in Short Fiction

9:18  **Martin, T., RN**  
California State University, Fullerton  
**Title:** Poetry from a Frontlines

9:36  **Martin Soto**  
**Title:** Do You Know Yourself Well Enough to Hate it.

9:54  **Kameron Pyant**  
California State University San, Bernardino  
**Title:** Humane Nature

10:12  **Sarah Babar**  
University of San Diego  
**Title:** Falling Through the Cracks: Black and South Asian Muslim Survival and Solidarity
Session 21

Time: 10:30 AM - 12:00 PM
Category: Behavioral & Social Sciences

10:30 Ellen Wang
Scripps College
Title: Video Games to Live and Learn Better Through COVID-19

10:48 Brystal Nevins and Victoria Karalun
California State University San Bernardino
Title: Romantic Relationship During the COVID-19 Pandemic: A Case Study Based on Knapp’s Relationship Model

11:06 Patricia Reign Sabundayo
Chaffey College
Title: Depression During Pandemic

11:24 Racheal Lapite and Angeli Richard
California State University San Bernardino
Title: COVID-19’s Impacts on the Careers of Working Mothers

Session 22

Time: 10:30 AM - 12:00 PM
Category: Behavioral & Social Sciences

10:30 Simeone Miller
California State University, San Bernardino
Title: Assessing the Diplomatic Deadlock in the Israeli-Palestinian Conflict: The Case of the Kerry 2013-14 Mediation Efforts

10:48 Ash Tandoc
Chaffey College
Title: The Socialized Socialists Against the World

11:06 David Gomez
Whittier College
Title: The America First Conservation Act: A Political Solution to Climate Change

11:24 Connor Mollon
Los Angeles City College
Title: Proposing an Alternative to Armed Police Dispatch in Los Angeles
Session 23

Time: 10:30 AM - 12:00 PM
Category: Biological & Agricultural Sciences

10:30 Caleb Nielebeck, Anthony Adducci II and Dr. Javier Monzon
Pepperdine University
Title: Hungry Like the Wolf: Do Northeastern Coyotes Occupy the Ecological Niche of Extirpated Eastern Wolves?

10:48 Jordyn Regier, Mayra Hernandez, Camille Sicangco, Dr. Stephen Davis and Dr. Helen Holmlund
Pepperdine University
Title: Substrate Type Affects Dehydration Rate and Final Desiccation Tolerance of Fern Gametophytes

11:06 Vanessa Aguayo, Cristina Garcia-Garcia, Emelly Ortiz-Villa, Dr. Adriane Jones and Dr. Diane Kim
Mount Saint Mary's University
Title: Analysis of Macrocystis pyrifera Microbiome Across Blades of Varying Life History Stages

11:24 Charvel Eduardo, Dr. Vanderplank Sula and Dr. Flores-Renteria Lluvia
San Diego State University
Title: Researching the Binational Distribution of the Mountain Desert Sage and the Evolution of its Subspecies

11:42 Mayra Hernandez, Jordyn Regier, Camille Sicangco, Dr. Stephen Davis and Dr. Helen Holmlund
California State University, Dominguez Hills
Title: California Coastal Sage Scrub Density is not Correlated with High Fire Frequency or Vegetation-Type Conversion in Coastal Chaparral

Session 24

Time: 10:30 AM - 12:00 PM
Category: Biological & Agricultural Sciences

10:30 Paul Doyle, Jr.
Saddleback College
Title: Hunting Those Pestiferous Aphids: Which Color Helps Ladybugs Hunt Them Faster?

10:48 Brandon Tsai, Sean Reese and Dr. Diana Rennison
University of California, San Diego
Title: Functional Modularity and Plasticity Influence Correlated Trait Evolution in Threespine Stickleback

11:06 Camille Sicangco, Mayra Hernandez, Jordyn Regier, Dr. Stephen Davis and Dr. Helen Holmlund
University of Florida
Title: Variation in soil respiration with vegetative type conversion and water availability in the Santa Monica Mountains

11:24 Lucian Himes and Dr. Javier Monzon
Pepperdine University
Title: Does Boldness Increase with Urbanization in Coyotes?

11:42 Katie Ann Huy, Dr. Alvin Alejandrino and Dr. Cinzia Fissore
Whittier College
Title: Diversity of Arbuscular Mycorrhizal Fungi (AMF) in California Grown Coffea arabica Varieties
### Session 25

**Time:** 10:30 AM - 12:00 PM  
**Category:** Humanities & Letters I

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker(s) and Affiliation</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:30</td>
<td>Ayza Martinez, Starlina Sanchez and Dr. Pamela Fiber-Ostrow, California State University Fullerton</td>
<td><strong>White Supremacy’s Influence on the Support for the Black Community from the Non-Black Latinx Community in Los Angeles</strong></td>
</tr>
<tr>
<td>10:48</td>
<td>Kamali Clora, Miles Reuben and Kenya Maxey, M.Ed., Wayne State University</td>
<td><strong>Developing a Black Student-Led Support Infrastructure at a Predominantly White Institution</strong></td>
</tr>
<tr>
<td>11:06</td>
<td>Yadeal Asfaw, Sirry Alang, Jacek Romanowski, Nancy Schlossberg, Rémi Boivin and Donald Morton, Los Angeles City College</td>
<td><strong>GHC Students’ Perception of Police Brutality</strong></td>
</tr>
<tr>
<td>11:24</td>
<td>Jenifer Alvarado and Dr. Tanya Golash-Boza, University of California, Merced</td>
<td><strong>The Hidden Conditions in the Washington D.C Projects</strong></td>
</tr>
</tbody>
</table>

### Session 26

**Time:** 10:30 AM - 12:00 PM  
**Category:** Humanities & Letters II

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker(s) and Affiliation</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:30</td>
<td>Regan Von Cannon, Saddleback College</td>
<td><strong>“As Gay as it was Black”: LGBTQ Identity and Literature in the Harlem Renaissance</strong></td>
</tr>
<tr>
<td>10:48</td>
<td>Diego Mesa, University of California, Los Angeles</td>
<td><strong>Queer Inadequacy: Trauma Responses from Homosexual Men in Film</strong></td>
</tr>
<tr>
<td>11:06</td>
<td>Aminah Khan, Irvina Valley College</td>
<td><strong>The Entertainment Industry’s Tokenization of the Hijab and its Islamophobic Implications</strong></td>
</tr>
<tr>
<td>11:24</td>
<td>Bryan Sanchez, Sarah Pierce and Muzaffar Chishti, California Lutheran University</td>
<td><strong>Policies Through Poems: Breaking Through the Wall with Hope</strong></td>
</tr>
</tbody>
</table>
**Session 27**

**Time:** 10:30 AM - 12:00 PM  
**Category:** Humanities & Letters III

10:30 Yasmin Mendoza  
Whittier College  
**Title:** Banning Without Bans

10:48 Leonardo Salvatore  
Soka University of America  
**Title:** Al-Ghazali and Philosophy for Children: Meaningful Parallels for a Meaningful Future

11:06 Isabel Evans  
Scripps College  
**Title:** Reading as Resistance: Representations of Indigeneity in Twentieth Century American Children’s Literature

**Session 28**

**Time:** 10:30 AM - 12:00 PM  
**Category:** Physical or Mathematical Sciences

10:30 Sarah Su and Emma Le  
Aspiring Scholars Directed Research Program  
**Title:** Semisynthesis and Structure Activity Relationship of Novel Berberine Analogs as DNA-Binding Singlet Oxygen Photosensitizers

10:48 Kimchou Lao, Dani Rodriguez and Dr. Thomas Osberger  
California Polytechnic University, Pomona  
**Title:** The Stereocontrolled Synthesis of Cyclobutane-based Fragment Library

11:06 Jeslyn Wu, Tiffany Wang, Edward Njoo  
Aspiring Scholars Directed Research Program  
**Title:** 19-F NMR spectroscopy enables real-time monitoring of Pd-catalyzed Buchwald Hartwig cross couplings of anilines and dichloropyrimidines towards the synthesis of novel rilpivirine analogs as non-nucleoside reverse transcriptase inhibitors (NNRTI’s) in HIV/AIDS Treatment

11:24 Clarissa Kiyomura, Daniel Essayan, Max Young and Dr. Jeffrey Cannon  
Occidental College  
**Title:** Synthesis of Indolizidines from L-pyroglutamic Acid Using the Ireland–Claisen Rearrangement and Ring–Closing Metathesis

11:42 Timothy McClure, Connor Saludares, Gisela Martinez and Dr. Raul Navarro  
Occidental College  
**Title:** Synthesis and Evaluation of Substituted Allylic Esters for the Decarboxylative Allylation of Isobenzofuranones
Session 29

**Time:** 10:30 AM - 12:00 PM  
**Category:** Physical or Mathematical Sciences

10:30  
**Haruka Takenaka and Dr. Alex John**  
California State Polytechnic University, Pomona  
**Title:** A study of ligand and temperature effects on Vanadium catalyzed oxidative cleavage of beta-O-4 aryl ether bonds in lignin model compound

10:48  
**Valentin Acosta, Dr. Asa Toombs and Dr. Joyce Pham**  
California State University, San Bernardino  
**Title:** Mg-based compounds as battery materials using computation to guide experiment

11:06  
**Michelle Huang, Jack Thomas-Colwell, Jack Leonard, Bryan Wong and Dr. Michael Hill**  
Occidental College  
**Title:** Electromechanical Reshaping of Cornea

11:24  
**Kian Shamskhou, Katherine Forbes, Anne Marie Crooke, Yuri Lee, Marc Kawada, and Dr. Jeffrey Cannon**  
Occidental College  
**Title:** Visible Light Photoredox Catalyzed Functionalization of Alkenes with 1,3- Dicarbonyls

Session 30

**Time:** 10:30 AM - 12:00 PM  
**Category:** Physical or Mathematical Sciences

10:30  
**Aishi Rao, Alice Zhou and Edward Njoo**  
Aspiring Scholars Directed Research Program  
**Title:** Rational design, semisynthesis, and quantitative biological mechanistic studies of andrographolide derivatives in efforts to optimize its structure for clinical use.

10:48  
**Jack Thomas-Colwell, Michelle Huang, and Dr. Michael Hill**  
Occidental College  
**Title:** Electromechanical Reshaping of Cornea

11:06  
**Madison Wagner and Dr. Robert Lafe**  
California State University, San Marcos  
**Title:** Microwave-assisted, gold-catalyzed intramolecular etherification of diols to afford benzylic cyclized ethers

11:24  
**Tamara Espinosa, Moncerrat Vargas and Dr. Eric Stemp**  
Mount St. Mary's University- Los Angeles  
**Title:** Effects of Rambutan Extracts on DNA-Protein Crosslinking from Guanine Oxidation
Session 31

Time: 10:30 AM - 12:00 PM
Category: Engineering & Computer Science

10:30 Ana Siddiqui and Jocelyn Shih
California State Polytechnic University, Pomona
Title: Comparing and Improving DFP Models

10:48 Aneri Sheth, Catherine Tan, Nikhil Jagota, Masroor Sinan Uddin, Ayan Bhatia, Sahand Adibnia and Caton Zhu
Mission San Jose High School
Title: Analysis of Nickel Alloy Microparticle and Graphene Quantum Dot-Based Enhanced Microsupercapacitors (MSCs)

11:06 Kara Lee, Sheng Tan and Omar Mora
California State Polytechnic University, Pomona
Title: Assessing the Accuracy of Georeferenced Point Clouds from UAS Imagery

11:24 Benjamin Gubbin, Joseph Hyatt, Dylan Gallinger-Scholz and Dr. Qingquan Sun
California State University, San Bernardino
Title: Audio source separation using non-negative matrix factorization

11:42 Reza Lakeh, Rozina Nalbandian, Lizette Chavez and Mark Rizk
California State Polytechnic University, Pomona
Title: TESuROC

Session 32

Time: 10:30 AM - 12:00 PM
Category: Engineering & Computer Science

10:30 Riya Bhatia, Angela Yuan, Shivam Syal, Komal Keesara and Dr. Dmitri Pavlichin
STEM to SHTEM
Title: Measuring the Efficiency of Pre-Trained English Tokenizers for the Optimization of Natural Language Processing Models

10:48 Arnav Kethana
Dougherty Valley High School(Senior), Diablo Valley College
Title: A Comparison of Language Model Performance vs. Human Performance on Human-Annotated GLUE Tasks

11:06 Patel Smit and Dr. Luis Cueva Parra
University of North Georgia
Title: Performance Analysis of Hyperspectral Image Segmentation Methods

11:24 Tianyao Hua, Taige Huang and Dr. Qingquan Sun
California State University, San Bernardino
Title: Investigation and implementation for handwritten digit recognition using convolutional neural networks
Session 33

Time: 10:30 AM - 12:00 PM
Category: Health, Nutrition or Clinical Science

10:30  Sherry Yun Wang and Annie Kim
Chapman University School of Pharmacy
Title: What Quantifies Good PCP Care?

10:48  Lorena Miss Ozuna, Tessa Ryan, Jillian Bensko, Tanya Laidlaw, and Kathleen Buchheit
University of Michigan Ann Arbor
Title: Dupilumab as an Adjunct to Surgery in Patients with Aspirin-exacerbated Respiratory Disease: A Case Series

11:06  Dianna Solis and Dr. Christina Hassija
Cal State San Bernardino
Title: The Quality of Endometriosis Health Care Treatment Impact on Women’s Quality of Life

11:24  Jacqueline Thach, Haley Lam, Dr. David Edens and Dr. Yao Olive Li
California State Polytechnic University, Pomona
Title: Vegan and Gluten-free Pasta Enriched by Legumes and Transglutaminase Treatment

Session 34

Time: 10:30 AM - 12:00 PM
Category: Business, Economics, & Public Administration

10:30  Mariana Vindigni and Dr. Daoji Li
California State University, Fullerton
Title: MForecast of New Daily COVID-19 Cases in Orange County

10:48  Branden Hopson and Dr. Daoji Li
California State University, Fullerton
Title: How is COVID-19 pandemic affecting the academic performance of Business students?

11:06  Dr. Howard Jean-Denis and Daniel Anderson
Pepperdine University
Title: Motivations and Outcome for Student Entrepreneurs

11:24  Tanish Ramisetty
California State Polytechnic University, Pomona
Title: Stellar (XLM) - Cryptocurrency
Session 35

**Time:** 10:30 AM - 12:00 PM  
**Category:** Interdisciplinary

**10:30**  
Diana Solis  
California State Polytechnic University, Pomona  
**Title:** Healing Circles in Academia: Creating Radical Transformative Self-Care

**10:48**  
Kennah Watts  
Soka University of America  
**Title:** Intersections of Race and Medicine: The Tuskegee Syphilis Study

**11:06**  
Sonny Bianchi I  
California State University, Fullerton  
**Title:** The life of residents in the Central Valley of California: the link between the agricultural industry and the quality of life

**11:24**  
Hasan Jebory  
Irvine Valley College  
**Title:** What Doesn't Kill You Makes You Stronger: The Problem with Teenagers Taking SARMs to Build Muscle

**11:42**  
Mahak Tiwari  
Mount San Jacinto College  
**Title:** Playing God in Mary Shelley's Frankenstein

Session 36

**Time:** 10:30 AM - 12:00 PM  
**Category:** Creative Writing & Poetry Showcase

**10:30**  
Alexis Corine McGowan and James Allen  
California State University, San Bernardino  
**Title:** As I Thinketh

**10:48**  
Sandra Nguyen  
California State University, Fullerton  
**Title:** The Philosophy of the Human Language

**11:06**  
Alijah Jenkins  
California State University, San Bernardino  
**Title:** Pandemic Poem

**11:24**  
Megan Haynes and Jordyn Meyer  
California State University, San Bernardino  
**Title:** Belly Full of Milk and Honey: A Reading of Two Short Stories About the Feminine Experience in America
Oral Presentation Schedule Session II

Session 1

**Time:** 1:30 PM - 3:00 PM  
**Category:** Behavioral & Social Sciences

1:30  **Daisy Santana**  
California State University San Marcos  
**Title:** Latina farmworkers who are mothers: Am I a good mother?

1:48  **Omari Cunningham, Brooke Sasia and Dr. James Li**  
California State Polytechnic University Pomona  
**Title:** Polygenic Scores for ADHD and the Role of Parenting for Black and White Youth

2:06  **Analexis Glaude**  
California State Polytechnic University Pomona  
**Title:** Familial Involvement and its Influence on Women of Color in the Workplace

2:24  **Linda Herrera**  
California State Polytechnic University Pomona  
**Title:** Grocery choices amongst Latino individuals

Session 2

**Time:** 1:30 PM - 3:00 PM  
**Category:** Behavioral & Social Sciences

1:30  **Victoria Torres, Brianna Molina and Kaitlin Diaz**  
California State Polytechnic University Pomona  
**Title:** The Impact of Peer Mentoring on Underrepresented Minoritized Students

1:48  **Jennyfer Ibarra**  
California State University Dominguez Hills  
**Title:** Southern California ESL High School Teachers: Examining Adequate Support with Latinx ESL Students

2:06  **Fernandez Talia, Campos Arisbeb, Felix Michelle and Dr. Mary Kunmi Yu Danico**  
California State Polytechnic University Pomona  
**Title:** Peer Mentoring Programs on Increasing Students’ Success

2:24  **Mariam Hagopian**  
Glendale Community College  
**Title:** Motivation and its Impact Within Leadership Positions
Session 3

Time: 1:30 PM - 3:00 PM
Category: Biological & Agricultural Sciences

1:30 Aaryona Adams and Luiza Nogaj
Mount Saint Mary's University
Title: The Effect of Human IAPP and Raccoon IAPP Variants on the Pancreatic Beta Cells

1:48 Ashlin Amano and Luiza Nogaj
Mount Saint Mary's University
Title: Type 3 Diabetes: The singular and combinative effects of hIAPP & Aβ42 peptide aggregates

2:06 Sara Sandoval, Breanna-Alexis Ramirez, Jon Sparks and Dr. Tomasz Owerkowicz
California State University of San Bernardino
Title: Do crocodilians have an air-conditioning unit in their skulls

2:24 Gordon Ye, Dr. Frederick Varn and Dr. Roel Verhaak
University of California, San Diego
Title: Longitudinal Molecular Characterization of Oligodendrogliomas

2:42 Mehdi Hajmollahmad Naraghi and Rolando Ruiz-Vega
Irvine Valley College
Title: Brain Tumor Detection Using Deep Convolutional Neural Networks (CNN)

Session 4

Time: 1:30 PM - 3:00 PM
Category: Biological & Agricultural Sciences

1:30 Mary Soliman, Leila Robinson, Madison Maille, Carolyn Egekeze, Rebecca Salamon and Kathryn Mouzakis
Loyola Marymount University
Title: Determining How Stem-loop Structure Thermodynamic Stability Influences Frameshift Efficiency at the HTLV-1 gag-pro Frameshift Site

1:48 Sahana Shah, Hannah Stuwe and Dr. Elisar Barbar
Oregon State University
Title: RNA Interactions with the SARS-CoV-2 N protein linker region

2:06 Kimberly Cortez, Jessica Esparza and Eric Stemp
Mount Saint Mary's University, Los Angeles
Title: Testing the ability of ginger to prevent oxidative damage to DNA

2:24 Monika Ransom
Mount Saint Mary's University Los Angeles
Title: Dependence of Oxidative DNA-Protein Crosslinking Upon PH

2:42 Danyun Zhang, Owen Dailey, Daniel Simon, Kamilah Roca-Datzer, Yasaman Jami-Alahmadi, Mikayla Hennen, James Wohlschlegel, Carla Koehler and Deepa Dabir
Loyola Marymount University
Title: Aim32 is a dual-localized 2Fe-2S mitochondrial protein that functions in redox quality control
Session 5

**Time:** 1:30 PM - 3:00 PM  
**Category:** Humanities & Letters I

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1:30  Gaytan, L. and DR. Caballero, M.  
California State Polytechnic University, Pomona  
**Title:** Transcending beyond HIV: From a death sentence to a metaphor of life in Marta Dillon’s Vivir con virus (2016)

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1:48  Bia Pinho  
Occidental College  
**Title:** From Oppression to Depression: How Do We Deal With Pain?

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2:06  Widyardewi Soedarmadji, Saraswati  
Soedarmadji and Dr. Ann Warren  
West Los Angeles College  
**Title:** Narrating Stories from the Pandemic with Interactive Fiction

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2:24  Mary Ambriz  
Occidental College  
**Title:** The Weight of The Pandemic: A Comprehensive Analysis of Fat Activist TikTokers in the U.S.

---

2:42  Cynthia Ray  
California State University, Long Beach  
**Title:** The Impact of Covid-19 on Latinx Immigrant Well-Being: An Analysis of the Literature

Session 6

**Time:** 1:30 PM - 3:00 PM  
**Category:** Humanities & Letters II

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1:30  Cassie Clark Dutton  
Occidental College  
**Title:** Techniques of Exposure: A Developing Ontology of Acting

---

1:48  Remy Sumida-Tate and Dr. Fatima Burney  
University of California, Merced  
**Title:** Echoes In Familiar Spaces: Audio Styling and the Worlds of Limetown and Within The Wires

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2:06  Paz O'Farrell  
Pitzer College  
**Title:** Horror & The Pseudo-documentary

---

2:24  Serenity Chavez  
California State University, San Bernardino  
**Title:** Are We Free?

---

2:42  Ava Lubetkin  
Occidental College  
**Title:** Learning From Fiction: Knowledge and Understanding
Session 7

Time: 1:30 PM - 3:00 PM
Category: Physical or Mathematical Sciences

1:30  Emmanuel Ramirez
California State University, Los Angeles
Title: Paper-Based Aluminum-Air Battery Optimization

1:48  Daisy Achiriloaie, Christopher Currie, Jennifer Ross, Janet Sheung and Rae Robertson-Anderson
Scripps College
Title: Probing Active Systems using Confocal Microscopy

2:06  Mario Figueroa, Miguel Maldonado, Liam Mauck and Dr. Ertan Salik
California State Polytechnic University, Pomona
Title: Optimizing Sensitivity of Hyperbolic Metamaterials

2:24  Shreya Anand and Edward Njoo
Aspiring Scholars Directed Research Program
Title: Chemical Synthesis, Molecular Docking Studies, and Cholinesterase Inhibitor Activity of Novel Rivastigmine Analogs

Session 8

Time: 1:30 PM - 3:00 PM
Category: Physical or Mathematical Sciences

1:30  Nicholas Donnellan
San Diego Mesa College
Title: Hawaii’s two most recent volcanic eruptions: similarities and differences in gas emissions and ground deformation trends.

1:48  Amelia Muscott, Dr. Darren Larsen, Dr. Sarah Crump and Lane Wang
Occidental College
Title: Comparing records of sediment flux from rock glacier and non-glacial catchments during the Holocene using alpine lake sediments in the Teton Mountain Range, WY

2:06  Anna Nefedenkova and Dr. Christopher Oze
Occidental College
Title: Perchlorate Retention and Removal in Martian Regolith
Session 9

1:30 Dev Bhatt  
University of California, Riverside  
**Title:** Vasudhara-1: A Bioreactor Design for Improving Bioprocessing Education and Accessibility

1:48 Moises Hernandez, Shane McGrath, Cesar Robles, Russell Whitman and Dr. Sagil James  
California State University, Fullerton  
**Title:** Study on Hyper-Efficient Electric Vehicles as a means of Sustainable Transportation

2:06 Dawod Rafoka  
San Diego State University  
**Title:** LOTUS 2.0 Power Management Unit

2:24 Emmanuel Acosta, Pranav Palleti, Sanjit Shirol, Anish Thalamati and Sohail Zaidi  
San Jose State University  
**Title:** Leveraging Deep Convolutional Neural Networks for Wound Segmentation to Automate Robotic Arm with a Plasma Device for 2D Wound Scanning

Session 10

1:30 Mark Mateo, Meghana Pavuluri, Shivani Kota and Sohail Zaidi  
San Diego State University  
**Title:** Arduino-based Miniature Helicopter Thrust Stand Design and Operation

1:48 Marco Marrufo and Dr. Sean Kwon  
California State University, Long Beach  
**Title:** Deep Learning for Channel Estimation in MIMO Wireless Communications

2:06 Dr. Mingheng Li, Phuong Le, Elizabeth Monteith and Soc Han Tsan  
California State Polytechnic University, Pomona  
**Title:** Aerosol Transmission and the COVID-19 Pandemic

2:24 Sathvik Tammineedi, Krishnaveni Parvataneni, Raghav Pramod Murthy and Dr. Sohail Zaidi  
Saint Louis University  
**Title:** Investigating Plasma Luminosity and Temperatures along a DBD Plasma Jet Designed for Medical Applications
Session 11

1:30 Dominic Jimenez and Dr. Srdjan Lemez
California State Polytechnic University, Pomona
Title: Should an Entry-Level Doctorate be Mandated for Occupational Therapy? A Systematic Review

1:48 Landen Wong, Katie Lopez, Charisma Byrd, Patric Lee, Sarah Pearce, Dr. Alexandra Auslander, Dr. Lara Killick and Dr. Zakkoyya Lewis
California State Polytechnic University, Pomona
Title: Live Long and Prosper: A Systematic Review of Equipment-Based Training Programs for Older Adults.

2:06 Matin Gagnon, Colby Klaiman, Mya Arellano, Thomas Clobes and Lauren Palmier
California State University, Channel Islands
Title: The Impact of Education on Attitudes Towards Medical Cannabis

2:24 Amber Yado
California State University, Fullerton
Title: Voluntary Stuttering

Session 12

1:30 Hallie Huang, Jeffrey Hsu and Emily Harrison
California State Polytechnic University, Pomona
Title: How Do Consumers Form Their Intentions to Wear a Mask When They Stay in Coffee Shops?

1:48 Joseph Lee, Jade Wu, Mitchell Robertson, Jillian Muñoz and Dr. Jae Min Jung
California State Polytechnic University, Pomona
Title: Individuals’ Espoused Cultural Values and Its Impact on Social Media Behavior

2:06 Andrea Escobar Vara, Patrick Ogaz, Sebastian Hernandez and Claire Son
California State Polytechnic University, Pomona
Title: Impact of Self-construals on Consumers’ Timing of Sharing on Social Media: Mediating Role of Regulatory Foci

2:24 Vivian Graft, Britney Ly and Krystal Serrano
California State Polytechnic University, Pomona
Title: Uncovering the Mechanisms that Shape Women’s Preferences for Realistic Ads and the Moderating Roles of Age and Civic Consciousness
Session 13

Time: 1:30 PM - 3:00 PM
Category: Interdisciplinary

1:30 Alexandra Omel
MiraCosta College
Title: Controlling the Narrative: The Prevalence of This Worldview and the Effect It Has Upon Us

1:48 Starlina Sanchez, Janica Michelle Torres and Dr. Tala Khanmalek
California State University, Fullerton
Title: “The Unspoken Heard”: Decolonizing Oral History In Our Own Words

2:06 Cristian Arduz
California State Polytechnic University, Pomona
Title: On the Compatibility of Physicalism with Panpsychism

Session 14

Time: 1:30 PM - 3:00 PM
Category: Visual & Performance Arts

1:30 Mark Anthony Rivas and Dr. Tanya Golash-Boza
University of California, Merced
Title: Blockbusting in Washington DC: Migration and Home Sale Patterns

California State University, San Bernardino
Title: Motion Graphic Created by CSUSB Students for Allegiant Airlines

2:06 Sophia Frye
Scripps College
Title: Women’s Work with Wool in Fairy Tales: From Renaissance Text to Textile Craft
Session 15

Time: 3:00 PM - 4:30 PM  
Category: Behavioral & Social Sciences

3:00 Madison Wallace, Harut Kejejyan, Madison Burnett, Joseph McGrath and Vivian Chen  
California State University, Fullerton  
Title: Relational, Sexual, and Life Satisfaction

3:18 Bryan Alaniz  
California State University, Dominguez Hills  
Title: A Critical Analysis on the Effects of Pornography

Session 16

Time: 3:00 PM - 4:30 PM  
Category: Behavioral & Social Sciences

3:00 Natalie Castillo and Dr. Robert Espinoza  
California State University, Northridge  
Title: Can Differences in Life-History Strategies Explain the Invasion Success of Brown Widow Spiders in Southern California?

3:18 Autumn Dawn Hampton  
University of California, Riverside  
Title: How the Material Remains and Immaterial Culture of the Abrahamic Monotheistic Religions During Medieval Europe Explain the Variations in Mortuary Beliefs and Practices.

3:36 Briana Franco, Everett Delfel, Yeng Vue, David Guirgus and Dr. William Pedersen  
California State University, Long Beach  
Title: Don’t leave me alone!: Social pain and social distress mediate the relationship between social exclusion and aggression

3:54 Jillian Munoz  
California State Polytechnic University, Pomona  
Title: Are Essential Workers More Aware of Their Mortality Than Non-Essential Workers and the Unemployed?
Session 17

Time: 3:00 PM - 4:30 PM  
Category: Biological & Agricultural Sciences

3:00  Emily N. Frisan  
California State Polytechnic University, Pomona  
Title: A Wicked Problem: Perceptions of Salmon Aquaculture from the West and East Coast of The United States of America

3:18  Paul Faurot, Andrew Sue, Tiffany Luong and Dwayne Roach  
San Diego State University  
Title: Improving Bacteriophage Stability During Long-Term Storage

3:36  Mythili Ketavarapu, Nour Abdulhay, Dr. Colin McNally, Dr. Laura Hsieh, Dr. Geeta Narlikar and Dr. Vijay Ramani  
University of California, Santa Barbara  
Title: Investigating Genome Regulation by the ISWI Chromatin Remodeling Complex through Computational, Biochemical, and Genetic Analyses

3:54  Emma Kinsey, Jade Wong, Sarah Sherts, and Dr. Gretchen Edwalds-Gilbert  
W.M. Keck Science Department  
Title: The Endless Possibilities of Mitochondrial Proteins

4:12  Sang Hyo Kim, Lauren Dedmon, Mark Pangilinan, Jahred Quan and Dr. Javier Monzón  
Pepperdine University  
Title: A Novel Experimental Method Reveals the Effects of Climate on Survivorship and Host-seeking Behavior of Medically Relevant Ticks

Session 18

Time: 3:00 PM - 4:30 PM  
Category: Humanities & Letters I

3:00  Mohammad Abrar  
Los Angeles City College  
Title: Rising Islamophobia in the United States

3:18  Matthew C. Chopp  
Occidental College  
Title: From The Federalist to The Examination: An Overview of Alexander Hamilton’s View of Executive Power

3:36  Liz M. Frissell  
Occidental College  
Title: Political Language Games: A Wittgensteinian Analysis of Political Disagreements

3:54  Ray Corpus  
Occidental College  
Title: Post-Modern Orientalism: American Misreadings and Misconceptions of Chinese Contemporary Art

4:12  Lucas Bugarin and Dr. Rebecca Pozzi  
California State University, Monterey Bay  
Title: Fitting in with Porteños: Case studies of Dialectal Feature Production, Investment, and Identity During Study Abroad
Session 19

Time: 3:00 PM - 4:30 PM
Category: Humanities & Letters II

3:00 Cameron S. Steiner
Chapman University
Title: A Postcolonialist Perspective on Pontecorvo’s Burn! (Queimada!)

3:18 Alex Smith
Occidental College
Title: The Smell of Death and Damnation: Sulphur as an Apocalyptic Element in the Book of Revelation

3:36 Anna Sharudenko
University of California, Los Angeles
Title: Voices of Women Troubadours: Themes of Power, Marital Institutions, Sexuality, and Freedom

3:54 Edgar Lopez Anguiano, Emerald Fennell and Claude Lévis-Strauss
California State University, San Bernardino
Title: A Promising Narrative: A Structuralist Analysis of Emerald Fennell’s Promising Young Woman

4:12 C.J. A. Quion
California State University, Fullerton
Title: A Merrie Mystery: An Exploration of King David Kalakaua of the Hawaiian Islands

Session 20

Time: 3:00 PM - 4:30 PM
Category: Physical or Mathematical Sciences

3:00 Jeffrey Yang and Dr. Janet Scheel
Occidental College
Title: The Dependence of Lyapunov Exponents on Rayleigh Number for Rayleigh-Benard Convection

3:18 Bianca Cervantes, Dr. Gina Passante, Dr. Bethany Wilcox and Dr. Steven Pollock
California State University, Fullerton
Title: An Overview of Quantum Information Science Courses at US Institutions

3:36 Victor Sanchez and Dr. Kristin Kurianski
California State University, Fullerton
Title: Classical Guitar Playing and the Fourier Transform

3:54 Noora Ghadiri and Dr. Matthew Due0z
California State University, Fullerton
Title: Creating a More Realistic Profile for Differentially Rotating Neutron Stars

4:12 Matthew A. Anderson and Dr. Sándor Volkán-Kacsó
Azusa Pacific University
Title: Molecular Dynamics Simulations of F1-ATPase with GPU Supercomputer
Session 21

Time: 3:00 PM - 4:30 PM  
Category: Physical or Mathematical Sciences

3:00  Michael A. Bertagna and Dr. O. Maduka Ogba  
Chapman University  
Title: Why Do Counterions Play a Non-innocent Role in Calcium Catalysis?

3:18  Kuvam Bhatnagar  
Aspiring Scholars Directed Research Program  
Title: Efforts Towards a Concise Total Synthesis of Psychrophilin E

3:36  Lucien Delgutte, Rachel Zhang and Dr. Jeffrey Cannon  
Occidental College  
Title: Generation of ketyl radicals by combined Photoredox and Titanium Catalysis

3:54  Jackeline Shinzato, Katie Ramirez, Kamila Quinones and Dr. Eric Stemp  
Mount Saint Mary's University, Los Angeles  
Title: Selective Oxidation of 8-oxoguanine by Os(Phen)2dppz3+ in DNA via the Flash-Quench Technique

Session 22

Time: 3:00 PM - 4:30 PM  
Category: Engineering & Computer Science

3:00  Rodolfo Callado, Kaustubh Khedkar, M.S. and Dr. Amneet Bhalla  
San Diego State University  
Title: Hydrodynamic Modeling and Control of a Wave Energy Converter Device

3:18  Obaid Alromaithi, Hamad Alromaithi, Roman Michka and Dr. Sagil James  
California State University, Fullerton  
Title: Study of wildfire mitigation using smart drone technology and hexagonal cellular automata model

3:36  Guadalupe Alvarez, Samantha Therese Alfonzo, Magvern By, Emily Chaverry, Robert Casanave, Carolina Corona, Nelson Diep, Noah Emerson, Rene Navarette Garcia, Juliana Gonzalez Lara, Jaime Herrera, Nicole Jimenez, Emmily Lariz, Brittany Mejia, Yesenia Mendoza, and Jazzlyn Pasion-Saflor  
California State Polytechnic University, Pomona  
Title: A Hydrological Analysis of the Ballona Creek Watershed – Striving for Environmental Prosperity

3:54  Subha Lal, Eduardo Ayala, Raghu Bathala, Joshua Guzman and Dr. Sagil James  
California State University, Fullerton  
Title: Study on Wildfire Detection and Monitoring using Multi-sensor CubeSat Technology
Session 23

**Time:** 3:00 PM - 4:30 PM  
**Category:** Engineering & Computer Science

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**3:00** Alexandra Reed  
California State University, Long Beach  
**Title:** Collagen-Based Scaffolds for Muscle Regeneration

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**3:18** Faizan Nomani, Pranav Bellannagari, Sohail Zaidi and Vimal Viswanathan  
San Jose State University  
**Title:** Design Analysis and Development of a Bionic Chair for Knee Rehabilitation Exercise

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**3:36** Justin Ramos, Jas Sharma, Anushka Sha, Alisatir Joseph and Sohail Zaidi  
San Jose State University  
**Title:** Arduino Based Automated Temperature Measurements of a DBD Plasma Jet for Medical Applications

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**3:54** Dae Eun Yim, Juan Zavala and Dr. Qingquan Sun  
California State University, San Bernardino  
**Title:** The Face Recognition System Using Principle Component Analysis

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Session 24

**Time:** 3:00 PM - 4:30 PM  
**Category:** Health, Nutrition or Clinical Science

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**3:00** Andres Garcia and Dr. Kassandra Harding  
California State University, San Bernardino  
**Title:** Applying the Health Action Process Approach to Responsive Feeding

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**3:18** Isabelle Phan  
Orange Coast College  
**Title:** Prenatal Cannabis Exposure And Long-Lasting Effects On Child Development

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**3:36** Joah Lee, Emily Lai, Anoushka Bhat, William Bray, Jodi Chang, Grace Jin, Kara Kim, Hayeon Yang, Matthew Michaelian, Amrutha Srivatsav, Michelle Tran, Richa Vallurupalli, Sofia Uribe, Chanah Park, Dr. Christina Wang, Dr. Brian Nguyen and Dr. Ronald Swerdloff  
The Lundquist Institute  
**Title:** Transdermal Gel As A Potential Male Contraceptive
Session 25

Time: 3:00 PM - 4:30 PM
Category: Business, Economics, & Public Administration

3:00 Desmond Mantle
Claremont McKenna College
Title: A County-level Analysis of California's Concealed Carry Permit System

3:18 Radha Arora
Occidental College
Title: Womens' Work and Low Pay: Testing the Devaluation Hypothesis

3:36 Michelle Le, Audrey Meiman, Austin Covey, Atherv Gole, Measrainsey Meng, Nathaniel Villa, Sydney Litvin and Professor Ranjit Deshmukh
University of California, Santa Barbara
Title: Participation Gap Analysis Among Energy Efficiency Programs in California’s Public Sector

3:54 Kashish Gupta and Anubhav Jhunjhunwala
University of Delhi
Title: Unearthing sustainability in India’s growth prospects A study into the sectoral impact of FDI on environmental pollution in India

Session 26

Time: 3:00 PM - 4:30 PM
Category: Interdisciplinary

3:00 Micah Raimo
California State University, San Bernardino
Title: BDSM and DSM Litigation

3:18 Lisette Gomez
Whittier College
Title: Sterilizations and the US News: How American Media Outlets Frame Coercive Sterilizations in News Coverage

3:36 Lisette Gomez
Whittier College
Title: Forced Sterilization of Latinas: An Issue of Fertility Rights in the United States

3:54 Desmond Mantle, Maya Kurkhill and Miriam Farah
Claremont McKenna College
Title: State and Federal Recognition - Indigenous Tribes in California

4:12 Franz Kieviet
Irvine Valley College
Title: How to Win by Losing: While gerrymandering continues to plague our democracy, the U.S. needs to implement a combination of algorithms and independent councils
Acknowledgements

Presented By

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Office of Student Research

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Samantha Alegria, Social Media Intern, Office of Student Research

Contact Us

CSUSB, Office of Student Research
College of Education, 357
(909) 537-3728
osr@csusb.edu
csusb.edu/student-research