



2021 Southern California Conference for Undergraduate Research

Oral Presentations | Poster Presentations | Creative Art Exhibits & Performances



Hosted by: California State University, San Bernardino



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Southern California Conference for Undergraduate Research

November 20th, 2021

Hosted by



 **FORAGER** ONE

Table of Contents

Agenda..... 1

Research in Action: A Keynote Roundtable, Guest Speakers.....2

Faculty Moderators.....3

Planning Committee Acknowledgements.....4

Graduate Fair.....5

Poster Presenters.....6

Oral Presentation Schedule Session I.....24

Oral Presentation Schedule Session II.....42

Acknowledgements.....55





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



Stephanie Alfonso

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

Student Moderator



Faculty Moderators

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



Planning Committee Acknowledgements

CSUSB SCCUR 2021 Planning Committee

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. Auenida 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





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

Kaitlyn Gomez, Alison Nieves & Dr. Edwin Lopez

California State University, Fullerton
Home Away From Home: Examining The Struggle Towards Achieving Racial Equity In Higher Education

Mahika Modi, Soham Garg, Timothy Gao, Sudharsan Gopalakrishnan, Chris Pak & Tanvi Ganapathy

Irvington High School
The Media Portrayal of Gun Violence

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 Castillo

California State University, San Bernardino
On the Classification of Belted Sum Decomposition of Nested Links

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) cyclobutane 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

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

Christianne 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 Rodriguez, 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 Cu_{2-x}CoxP2O7 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

Edward Njoo, Shreya Anand, Shloka Raghavan, Erika Yu, Alivia Zhang, Suhani Babu, Niharika Nambiar, Tvisha Nepani, Elena Brierly-Green, Aishi Rao, Alice Finkelstein, Anushka Peer, Sanhita Nittala & Udbhav Avadhani

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

Gabrieila 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

Gayathri Renganathan, M.Pharm., Alyssa Halvorsen, Isabella Murray, Kavya Anand, Ayush Patel, Varsha Beldona, Kavya Patel, Nandini Mannem, Neha Abraham, Aadya Ponangi, Shreya Nandyala, Harshana Jawahar & Kalyani Srikanth

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. Pratnu 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
¹⁹F-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

Kamila Quiñones, Jessica Velasco, Adriana Robles, Samantha Chajon, Dr. Adriane Jones & Dr. Diane Kim

Mount Saint Mary's University of Los Angeles
Grazing dynamics between copepods, rotifers, and Tetraselmis sp. reveal top-down control on phytoplankton growth.

Kasra Arjomand, Caroline Ehren & Dr. Michelle Lum

Loyola Marymount University
Methods for Seed Scarification and Combatting Drought Stress of Lupinus bicolor and Cressa truxillensis

Katerina Aris, Sam Khasnavis & Dr. Nicholas Ball

Pomona College
Sulfur (IV) Click Chemistry

Kathleen Durkin & Dr. Catherine McFadden

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

Kathryn Mouzakis & Audrey Covington

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

Kathryn Mouzakis & Madison Maille

Loyola Marymount University
Investigating the Role of Base-Triples in the HTLV-1 Pseudoknot

Kathryn Mouzakis, Cole Melton, Erik Hartwick, Audrey Covington & Jeffery Kieft

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

Khushi Kethana

Diablo Valley College/Dougherty Valley High School

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

Kim Kha, Waree Protprommart & Dr. Deniz Cizmeciyan

Mount Saint Mary's University, Los Angeles
Enantiomeric Interactions of Amino Acids Isoleucine and Phenylalanine in Zeolite NaY

Kimberly Vu, Duyen Nguyen & Dr. Niroshika Keppetipola

California State University, Fullerton
Identifying potential NES sites in the PTBP1 RRM2 domain

L. William Schick

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

Laura Abonce, Josephine Rodriguez & Amanda Fisher

California State University, Long Beach
Animal Visitors to Western Hemisphere Justicia (Acanthaceae): What does Community Science tell us?

Laura Carmona, Miranda Escobedo, Melvin Soriano, Rhianna Lee, Jasmine Rosales, Kamille Romero, Raizel Ferrer, Vanessa Wong, Brandon Lyons & Dr. James Harber

Oxnard College
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 Bournias-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-Preferential Substitution in Hf₂FeRu₅-xIrxB₂

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 Pedogical 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 Mbor

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

Timmy Nguyen, Nathalie Nalbandian, Joanna Feng & Dr. Thomas Osberger

California State Polytechnic University, Pomona
Synthesis of a Library of Substituted Isatins as Potential Antibacterial Agents

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

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

Vanessa Langarica, Dr. Farhana Abedin & Dr. Junjun Liu

California State Polytechnic University, Pomona

Disinfection and Filtration Capabilities of Nanofiber Membrane Functionalized with Antimicrobial Peptide

Vivi Ngo & Dr. Sam Behseta

California State University of Fullerton

A Predictive Model for COVID-19 Infection Rate in Orange County, CA

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

Yashaswat Malhotra, Katkar Gajanan & Ghosh Pradipta

The University of California, San Diego

Reprogramming Macrophages to Resist Atherosclerosis using GIV

College of Social & Behavioral Sciences

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. Erylana Erylana & 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

Oral Presentation Schedule Session I

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 Aundrea 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 Superbabies 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 Oyěwùmí, 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 Kavaya
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 Nissenon
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 Ponsen, 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 Arrijoja, 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 Garrett 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

10:30 Ayza Martinez, Starlina Sanchez and Dr. Pamela Fiber-Ostrow

California State University Fullerton

Title: *White Supremacy's Influence on the Support for the Black Community from the Non-Black Latinx Community in Los Angeles*

10:48 Kamali Clora, Miles Reuben and Kenya Maxey, M.Ed.

Wayne State University

Title: *Developing a Black Student-Led Support Infrastructure at a Predominantly White Institution*

11:06 Yadeal Asfaw, Sirry Alang, Jacek Romanowski, Nancy Schlossberg, Rémi Boivin and Donald Morton

Los Angeles City College

Title: *GHC Students' Perception of Police Brutality*

11:24 Jenifer Alvarado and Dr. Tanya Golash-Boza

University of California, Merced

Title: *The Hidden Conditions in the Washington D.C Projects*

11:42 Yadeal Asfaw, Sirry Alang, Ambra Green, Nancy Schlossberg, Rémi Boivin and Jacek Romanowski

Los Angeles City College

Title: *GHC Students' Perception of Police Brutality in the USA*

Session 26

Time: 10:30 AM - 12:00 PM

Category: Humanities & Letters II

10:30 Regan Von Cannon

Saddleback College

Title: *"As Gay as it was Black": LGBTQ Identity and Literature in the Harlem Renaissance*

10:48 Diego Mesa

University of California, Los Angeles

Title: *Queer Inadequacy: Trauma Responses from Homosexual Men in Film*

11:06 Aminah Khan

Irvine Valley College

Title: *The Entertainment Industry's Tokenization of the Hijab and its Islamophobic Implications*

11:24 Bryan Sanchez, Sarah Pierce and Muzaffar Chishti

California Lutheran University

Title: *Policies Through Poems: Breaking Through the Wall with Hope*

**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 Saludaes, 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 SHTM

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 & A β 42 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 Hajmollaahmad 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

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)*

1:48 Bia Pinho

Occidental College

Title: *From Oppression to Depression: How Do We Deal With Pain?*

2:06 Widyadewi Soedarmadji, Saraswati Soedarmadji and Dr. Ann Warren

West Los Angeles College

Title: *Narrating Stories from the Pandemic with Interactive Fiction*

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

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*

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

Time: 1:30 PM - 3:00 PM

Category: Engineering & Computer Science

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

Time: 1:30 PM - 3:00 PM

Category: Engineering & Computer Science

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

Time: 1:30 PM - 3:00 PM

Category: Health, Nutrition or Clinical Science

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

Time: 1:30 PM - 3:00 PM

Category: Business, Economics, & Public Administration

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*

1:48 Aileen Escalante, Alexis Jacques, Amber Murtalla, Angelo Escobal, Benjamin Barajas, Bryan Martinez, Celeste Soto, Chris Berrios, Christian Hernandez, Christopher Hernandez, Desiree Ngo, Donguk Kim, Edwin Alvarez Loza, Gilberto Hernandez, Hannah Shinn, Jose Susanabar, Kemani Montano, Kevin Malalis, Keyana Neal, Martin Munoz, Martin Romero, Myeongeun Eun Son, Nick Godlewski, Phuong Vu, Robert Contreras, Stephen Russel Sian, Warren William Gutierrez, and Zach Herschler

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

3:00 Alexandra Reed

California State University, Long Beach

Title: *Collagen-Based Scaffolds for Muscle Regeneration*

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*

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*

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*

Session 24

Time: 3:00 PM - 4:30 PM

Category: Health, Nutrition or Clinical Science

3:00 Andres Garcia and Dr. Kassandra Harding

California State University, San Bernardino

Title: *Applying the Health Action Process Approach to Responsive Feeding*

3:18 Isabelle Phan

Orange Coast College

Title: *Prenatal Cannabis Exposure And Long-Lasting Effects On Child Development*

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

**California State University, San Bernardino
Office of Student Research**

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