



**CALIFORNIA STATE UNIVERSITY,
LONG BEACH**

35th ANNUAL STUDENT RESEARCH COMPETITION

Showcasing excellence in scholarly
research, and highlighting creative
activity

Friday, March 10, 2023 | 9 am - 1:15 pm
Held In-Person



Room Overview

Please go to your designated room in the College of Business (COB). Rooms are separated by discipline. Please refer to the CSULB Map at the end of the program.

COB 110: Engineering & Computer Science

COB 114: Behavioral & Social Sciences

COB 112: Behavioral & Social Sciences

COB 113: Health, Nutrition, and Clinical Sciences

COB 217: Physical & Mathematical Sciences

COB 228: Education

COB 217: Humanities & Letters

COB 218: Humanities & Letters

COB 111: Biological & Agricultural Sciences

COB 113: Creative Arts & Design

COB 228: Business, Economics, and Public Administration

Room: COB-110

Friday, March 10, 2023

Engineering and Computer Science

9:15AM-9:35AM

Jack Hanson, *Chemical Engineering*
Faculty Sponsor: Sara Moghtadernejad
Title: Droplet Behavior Upon Thermally Aged Benzoxazine Composite Materials

9:35AM-9:55AM

Ricardo Bazarro, *Electrical Engineering*
Faculty Sponsor: Ava Hedayatipour
Title: CMOS PPG Sensor with Correcting Feedback for Effects of Skin Pigmentation

9:55AM-10:15AM

Changhee Song, *Chemical Engineering*
Faculty Sponsor: Yu Yang
Title: System Optimization for Solid Oxide Electrolysis Cells

10:15AM-10:35AM

Zachary Johnson, *Chemical Engineering*
Faculty Sponsor: Sara Moghtadernejad
Title: Dynamics of Droplet Impact on a Superhydrophobic Disk

10:35AM-10:55AM

Mandy Zhangying He, *Computer Engineering*
Faculty Sponsor: Hossein Sayadi
Title: Breakthrough to Adaptive and Cost-Aware Hardware-Assisted Zero-Day Malware Detection: A Reinforcement Learning Based Approach

10:55AM-11:15AM

Richard Nguyen, *Electrical Engineering*
Faculty Sponsor: Henry Yeh
Title: Classifying Shark Behaviors using CNN and RNN in Time and Frequency Domain

11:15AM-11:35AM

Luis Gutierrez, *Biology*
Faculty Sponsor: Roger Lo
Title: A Mobile Phone-Based Device for Liquid Viscosity Measurements

Room: COB-110

Friday, March 10, 2023

Engineering and Computer Science

11:35AM-11:55AM

Moses Villeda, *Biomedical Engineering*

Faculty Sponsor: Siavash Ahrar

Title: Milifluidic Platforms for Cultivation and Biomechanics Studies of Dendroaster Eccentricus

11:55AM-12:15PM

Gabriela Murrieta, *Biomedical Engineering*

Faculty Sponsor: Ga-Young Kelly Suh

Title: Expandable Catheter-Deployable Impeller for Computational Fluid Dynamics Simulation

12:15PM-12:35PM

Chelsea William Fernandes, *Computer Science*

Faculty Sponsor: Hossein Sayadi

Title: A Machine Learning-Based Approach for Personalized and Adaptive Learning Experience

12:35PM-12:55PM

Shilpa Divakara, *Mechanical & Aerospace Engineering*

Faculty Sponsor: Navdeep Dhillon

Title: Heat Transfer Performance Enhancements Using Fundamental Studies of Liquid Drops and Vapor Bubbles in High Electric Fields

12:55PM-1:15PM

Elizabeth Cotto, *Aerospace Engineering*

Faculty Sponsor: Adeline Schmitz

Title: Permeability Testing on LMPAEK

Room: COB-114

Friday, March 10, 2023

Behavioral and Social Sciences

9:15AM-9:35AM

Blake Krawl, *Psychology*

Faculty Sponsor: James Binnall

Title: Confusion in the Golden State: Californians with a Felony Conviction Contemplate Their Newfound Juror Eligibility

9:35AM-9:55AM

Isabella Di Lauro, *Psychological Research*

Faculty Sponsor: Bill Pedersen

Title: Upset Over the Threat of Climate Change: Worry and Anger Mediate the Relationship Between Fear and Collective Action Intentions

9:55AM-10:15AM

Maya Shankar, *Psychology, Psychological Research*

Faculty Sponsor: Bill Pedersen

Title: Love Thy Neighbor and Not Thy Group: State Anger and Perceptions of Target Hostility Mediate the Relationship Between Collective Narcissism and Aggression

10:15AM-10:35AM

Genecy Chopin, *Criminal Justice/Criminology*

Faculty Sponsor: Connie Ireland

Title: A Qualitative Study: The Impact of Homelessness Criminalization on Individuals Experiencing Homelessness in Los Angeles

10:35AM-10:55AM

Francisco Hernandez, *Psychological Research*

Faculty Sponsor: Bill Pedersen

Title: Two is Trouble, Six is Worse: The moderating Effect of Temporal Distance, Social Exclusion, and Group Size on Anger

10:55AM-11:15AM

Alina Tran, *Psychology*

Faculty Sponsor: Kim Vu

Title: Evaluation of Pedometer Interfaces for Mobile Apps

Room: COB-114

Friday, March 10, 2023

Behavioral and Social Sciences

11:15AM-11:35AM

Maeve Allen, *Psychology*

Faculty Sponsor: Courtney Ahrens

Title: How Low Hope Impacts the Depressive Symptoms of Trauma Survivors

11:35AM-11:55AM

Mario Rodriguez Jr., *Psychology*

Faculty Sponsor: Yada Treesukosol

Title: The Effects of Alternate Day Fasting on Number of Taste Buds in Female and Male Rats

11:55AM-12:15PM

Julia Jensen, *Human Development*

Faculty Sponsor: Kristy Shih

Title: Shifting Religious Ideologies: Exploring the Impacts of Childhood Family Dynamics on Adulthood Religious Change and Mental Health Outcomes

12:15PM-12:35PM

Kayleigh Hart, *Kinesiology - Sport and Exercise Psychology*

Faculty Sponsor: Leilani Madrigal

Title: The Impact of Learning Styles on Academic and Athletic Motivation in Collegiate Athletes

12:35PM-12:55PM

Kalani Lopez, *Criminology & Criminal Justice*

Faculty Sponsor: Christine Scott-Hayward

Title: Evaluating GUIDES: Results from Officer Focus Group

Room: COB-112

Friday, March 10, 2023

Behavioral and Social Sciences

9:15AM-9:35AM

Rozaaluwi Neak, *Social Work*

Faculty Sponsor: Janaki Santhiveeran

Title: Interaction Effect of Heart Disease and Psychological Distress

9:35AM-9:55AM

Camryn McInerney, *Social Work*

Faculty Sponsor: Janaki Santhiveeran

Title: Impact of Sociodemographic Disadvantages on a Cross Ethnoracial Sample of Adolescents

9:55AM-10:15AM

Leah Keen, *Social Work*

Faculty Sponsor: Janaki Santhiveeran

Title: Stress Among Healthcare Workers in California During the COVID-19 Pandemic

10:15AM-10:35AM

Victoria Min, *Health Science-Community Health Education*

Faculty Sponsor: Virginia Gray

Title: The Impact of COVID on Nutrition Educators' Efforts on Maintaining Rigor & Grace

10:35AM-10:55AM

Sharon Tran, *Social Work*

Faculty Sponsor: Janaki Santhiveeran

Title: Gender-Based Healthcare Disparities Among Asians During the COVID-19 Pandemic

10:55AM-11:15AM

Diana Than, *Psychology*

Faculty Sponsor: Courtney Ahrens

Title: Reasons Why IPV Survivors' Request Restraining Orders and the Complications Encountered

11:15AM-11:35AM

Julie Nguyen, *Social Work*

Faculty Sponsor: Janaki Santhiveeran

Title: Prevalence and Determinants of Depression among Diversity Asian American Women during COVID-19

Room: COB-112

Friday, March 10, 2023

Behavioral and Social Sciences

11:35AM-11:55AM

Nick Brewster, *Psychological Research*

Faculty Sponsor: Araceli Gonzalez

Title: Perceived Family Treatment Stigma Across Latinx, Asian American, and White College Students: Relationship to Attitudes Toward Help-Seeking

12:15 PM-12:35PM

Donald Davis, *Psychology/Philosophy*

Faculty Sponsor: Ann Kim

Title: Social Media and Anxiety of Gen Z during the COVID 19 Pandemic

12:35 PM-12:55PM

Elizabeth Rangel, *Sociology*

Faculty Sponsor: Chantrey Murphey

Title: A Critical Assessment of Mandatory Reporting Policy and Practice

Room: COB-113

Friday, March 10, 2023

Health, Nutrition, and Clinical Sciences

9:15AM-9:35AM

Cecilia Flores, *Physical Education - Teacher Education*
Faculty Sponsor: Melissa Bittner
Title: Nutrition Intervention at a Summer Camp for Children with Disabilities

9:35AM-9:55AM

Madeleine Phan, *Biochemistry*
Faculty Sponsor: Jackie Dawson
Title: Examining Levels of Behavioral Support in a Mobile Health (mHealth) Exercise Intervention for Cardiometabolic Disease Based on Participant Exercise Adherence

9:55AM-10:15AM

Daniela Martinez, *Nutrition & Dietetics*
Faculty Sponsor: Michelle Barrack
Title: Drive for Muscularity and Dietary Supplement Use Among a Multiethnic Sample of University Students

10:15AM-10:35AM

Elizabeth Avila, *Kinesiology Exercise Science*
Faculty Sponsor: Jennifer Bagwell
Title: Kinematics, Kinetics, and Muscle Activation During and After Pregnancy While Running Compared to Nulligravida Females

10:35AM-10:55AM

Tammy Nguyen, *Psychology*
Faculty Sponsor: Arturo Zavala
Title: Pretreatment with Liraglutide Attenuates the Acquisition of Methamphetamine Preference in Female Adolescent Rats

10:55AM-11:15AM

Emma Rosas, *Health Care Administration*
Faculty Sponsor: Young-Hee Cho
Title: The Effectiveness of Dual-Task Training in Improving Balance, Strength, and Executive Function of Community Dwelling Older Adults

Room: COB-217

Physical and Mathematical Sciences

12:15PM-12:35PM

Lauren Tran, *Applied Statistics*

Faculty Sponsor: Hojin Moon

Title: Identification and Validation of Prognostic Genomic
Predictive Signature for Lung Cancer Patients in
Personalized Medicine

Room: COB-228

Friday, March 10, 2023

Education

9:15AM-9:35AM

Brenda Avalos, *School Psychology*

Faculty Sponsor: Kristin Powers

Title: Covid 19 Impact on Social Emotional Wellness in Latinx Students

9:35AM-9:55AM

Tuyet-Suong Sabrina Nguyen, *Counseling*

Faculty Sponsor: Paul Ratanasiripong

Title: Asian American and Pacific Islander Social Justice Attitudes

Room: COB-217

Friday, March 10, 2023

Humanities and Letters

9:35AM-9:55AM

Shane Jacobson, *Journalism*

Faculty Sponsor: Madeleine Liseblad

Title: "The Father of Baseball:" - Henry Chadwick,
Baseball's First Promoter

9:55AM-10:15AM

Raley Zurcher, *Philosophy*

Faculty Sponsor: Cory Wright

Title: Color as Form: Segmentation as the Primary Role
of Color Vision

10:15AM-10:35AM

Samantha O'Mara-Mezzano, *French*

Faculty Sponsor: Clorinda Donato

Title: The Adulteress and the Skull

10:35AM-10:55AM

Raya Torres, *Journalism*

Faculty Sponsor: Madeleine Liseblad

Title: Importance of Radio Journalism During and
After the Japanese Attack on Pearl Harbor

10:55AM-11:15AM

Jassica Halim, *French and Francophone Studies*

Faculty Sponsor: Clorinda Donato

Title: Hypocrisy of Clerics in Marguerite de Navarre's
Heptaméron

11:15AM-11:35AM

Yahui Chen, *Philosophy*

Faculty Sponsor: Max Rosenkrantz

Title: Aristotle on Goodwill in Friendships

11:35AM-11:55AM

Michelle Rivera, *Creative Writing*

Faculty Sponsor: Stephen Cooper

Title: Ask Camilla: Racial and Ethic Tensions in John
Fante's Ask the Dust

Room: COB-218

Friday, March 10, 2023

Humanities and Letters

9:15AM-9:35AM

Danny Pham, *French and Francophone Studies*

Faculty Sponsor: Clorinda Donato

Title: The Evolution of Michel de Montaigne's Feminist Thought

9:35AM-9:55AM

Gabriela Mayoral, *French and Francophone Studies*

Faculty Sponsor: Clorinda Donato

Title: The Role of Female Homosexuality in the Deconstruction of Virile Honor: Female Bonds in the Eighth Novella of Marguerite de Navarre's Heptameron

9:55AM-10:15AM

Cody Spjut, *Philosophy*

Faculty Sponsor: Cory Wright

Title: The Complexity of Meaning in the Philosophy of Language

10:15AM-10:35AM

Peden Sager, *Philosophy*

Faculty Sponsor: Patrick Dieveney

Title: An Expansion of Instrumental Value

10:35AM-10:55AM

Toko Dougherty, *Philosophy*

Faculty Sponsor: Cory Wright

Title: Brute Facts and Understanding

10:55AM-11:15AM

Mikayla Winfrey, *History*

Faculty Sponsor: Keith Claybrook

Title: Exploring the Practice of Anti-Black Colorism in Anime - A Case Study

11:35AM-11:55AM

Chavva Olander, *Philosophy*

Faculty Sponsor: Marie Jayasekera

Title: Deciding Under the Influence: The Relevance of Perceived Access to Influential Factors on Our Decisions

11:55AM-12:15PM

Evelyn Ortiz Soto, *Political Science*

Faculty Sponsor: Kathryn Perkins

Title: Binary by Law: Sexism and the Legal Construction of Gender and Sexuality in *Bostock v. Clayton Co. (2020)*

Room: COB-111

Biological and Agricultural Sciences

10:35AM-10:55AM

Zahraa Hagar, *Molecular Cell Biology and Physiology*
Faculty Sponsor: Vasanthi Narayanaswami
Title: Structure-Function Relationship in Apolipoproteins and Application of Nanolipoproteins in Targeted Drug Delivery

10:55AM-11:15AM

Alexandra Bland, *Biology*
Faculty Sponsor: Raisa Hernández-Pacheco
Title: Multiple Levels of Density Regulation in a Social Primate

11:15AM-11:35AM

Megan Dinh, *Molecular Cell Biology & Physiology*
Faculty Sponsor: Yuan Yu Lee
Title: Identification of Species-Specific Bisphenol A Binding Sites on Estrogen Receptor Beta By Computer Simulation

11:35AM-11:55AM

Sean Ono, *Marine Biology*
Faculty Sponsor: Benjamin Perlman
Title: Urobatis Halleri Strikes Back!: 3D Tail Kinematics of the Round Stingray

11:55AM-12:15PM

Katrina Jensen, *Biochemistry*
Faculty Sponsor: Jason Schwans
Title: The Synthesis and Inhibition of Fmoc-Lys(CH₃)₂-O- in Butyrylcholinesterase and Acetylcholinesterase

12:15PM-12:35PM

Jacob Sobol, *Marine Biology*
Faculty Sponsor: Benjamin Perlman
Title: Watch Your Step! Stingray Sting Prevention

12:35PM-12:55PM

Adren Blanco, *Psychology*
Faculty Sponsor: Houg-Wei Tsai
Title: Effects of Androgen Receptor on Sexual Dimorphism in Mouse Behavior

12:55PM-1:15PM

Joyce Choi, *Cell and Molecular Biology/Physiology*
Faculty Sponsor: Yuan Yu Lee
Title: DIY - A Low Cost 3D Printed Molecular Biology Grade Electrophoresis Device

Room: COB-113

Friday, March 10, 2023

Creative Arts & Design

11:35AM-11:55AM

Alvaro Caceres Munoz, *Music Composition*

Faculty Sponsor: Martin Herman

Title: Living Coding in Western Classical Music

11:55AM-12:15PM

Mary Catherine Wilbur, *Animation*

Faculty Sponsor: Soyeon Kim

Title: Production of Across the DMZ: The Land
we Lost and Found

Room: COB-228

Friday, March 10, 2023

Business, Economics, & Public Administration

12:15PM-12:35PM

Jakob Madsen, *Finance*

Faculty Sponsor: Laura Gonzalez

Title: How a US Central Bank Backed Digital Dollar Can Facilitate a Better Economy and Society

12:35PM-12:55PM

Justin Gamoras, *Business Economics*

Faculty Sponsor: Yutian Chen

Title: Application of Economic Game Theory and Nash-Q Reinforcement Learning in Studying Data Preservation Sensor Nodes



Special Thanks

Committee

Natasha Amanda, Elyzza Aparicio, Ammarah Bashir, Miranda Bates, Jody Cormack, Mae DeBruin, Emily Doffing, April Estrada, Penelope Gaibor, Andee Gonzalez, Simon Kim, Pauline Menchavez, Odalis Perez, Daniela Martinez, Tanya Nguyen, Michelle Phan, Giovanni Quevedo, Michelle Ramirez, Kim Scatton

Partners

Academic Affairs, Graduate Center, Office of the Provost, Office of Research and Economic Development (ORED), Office of Undergraduate Research Services (OURS), Undergraduate Research Opportunity Program (UROP)

Moderators

Natasha Amanda, Ammarah Bashir, Omar Hussein, Pauline Menchavez, Andie Niederecker, Ellyssa Paik, Paola Plascencia, Erica Snelgrove

Jurors

Juror names are not revealed, they are sent a special thanks and signed certificate from Associate Vice President of Office of Research and Economic Development of Dr. Simon Kim

A B C D E F G H



LEGEND

- Building
- CSULB Campus Shuttle Stop
- Long Beach Transit Bus Stop
- Metro Stop
- Parking Pay Station
- University Police
- Amazon @ The Beach

PARKING

- Student/General Parking
- Short-Term Parking
- Resident Parking
- Employee/Restricted Parking
- Lot 10A Permit Parking
- 15-Min Loading Zone
- Motorcycle Praking

