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
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<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>9:15AM-9:35AM</td>
<td><strong>Jack Hanson</strong>, <em>Chemical Engineering</em></td>
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<tr>
<td></td>
<td>Faculty Sponsor: Sara Moghtadernejad</td>
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<tr>
<td></td>
<td>Title: Droplet Behavior Upon Thermally Aged Benoxazine Composite Materials</td>
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<tr>
<td>9:35AM-9:55AM</td>
<td><strong>Ricardo Bazurto</strong>, <em>Electrical Engineering</em></td>
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<td></td>
<td>Faculty Sponsor: Ava Hedayatipour</td>
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<tr>
<td></td>
<td>Title: CMOS PPG Sensor with Correcting Feedback for Effects of Skin Pigmentation</td>
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<tr>
<td>9:55AM-10:15AM</td>
<td><strong>Changhee Song</strong>, <em>Chemical Engineering</em></td>
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<td>Faculty Sponsor: Yu Yang</td>
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<tr>
<td></td>
<td>Title: System Optimization for Solid Oxide Electrolysis Cells</td>
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<tr>
<td>10:15AM-10:35AM</td>
<td><strong>Zachary Johnson</strong>, <em>Chemical Engineering</em></td>
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<td></td>
<td>Faculty Sponsor: Sara Moghtadernejad</td>
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<tr>
<td></td>
<td>Title: Dynamics of Droplet Impact on a Superhydrophobic Disk</td>
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<tr>
<td>10:35AM-10:55AM</td>
<td><strong>Mandy Zhangying He</strong>, <em>Computer Engineering</em></td>
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<td></td>
<td>Faculty Sponsor: Hossein Sayadi</td>
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<tr>
<td></td>
<td>Title: Breakthrough to Adaptive and Cost-Aware Hardware-Assisted Zero-Day Malware Detection: A Reinforcement Learning Based Approach</td>
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<tr>
<td>10:55AM-11:15AM</td>
<td><strong>Richard Nguyen</strong>, <em>Electrical Engineering</em></td>
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<td>Faculty Sponsor: Henry Yeh</td>
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<tr>
<td></td>
<td>Title: Classifying Shark Behaviors using CNN and RNN in Time and Frequency Domain</td>
</tr>
<tr>
<td>11:15AM-11:35AM</td>
<td><strong>Luis Gutierrez</strong>, <em>Biology</em></td>
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<td>Faculty Sponsor: Roger Lo</td>
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<tr>
<td></td>
<td>Title: A Mobile Phone-Based Device for Liquid Viscosity Measurements</td>
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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 Dendraster 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
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<tr>
<th>Time</th>
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<th>Title</th>
<th>Faculty Sponsor</th>
<th>Sponsor</th>
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<tbody>
<tr>
<td>11:15AM-11:35AM</td>
<td>Maeve Allen, Psychology</td>
<td>How Low Hope Impacts the Depressive Symptoms of Trauma Survivors</td>
<td>Courtney Ahrens</td>
<td>Maeve Allen</td>
</tr>
<tr>
<td>11:35AM-11:55AM</td>
<td>Mario Rodriguez Jr., Psychology</td>
<td>The Effects of Alternate Day Fasting on Number of Taste Buds in Female and Male Rats</td>
<td>Yada Treesukosol</td>
<td>Mario Rodriguez Jr.</td>
</tr>
<tr>
<td>12:15PM-12:35PM</td>
<td>Kayleigh Hart, Kinesiology - Sport and Exercise Psychology</td>
<td>The Impact of Learning Styles on Academic and Athletic Motivation in Collegiate Athletes</td>
<td>Leilani Madrigal</td>
<td>Kayleigh Hart</td>
</tr>
<tr>
<td>12:35PM-12:55PM</td>
<td>Kalani Lopez, Criminology &amp; Criminal Justicelogy</td>
<td>Evaluating GUIDES: Results from Officer Focus Group</td>
<td>Christine Scott-Hayward</td>
<td>Kalani Lopez</td>
</tr>
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</table>
Room: COB-112

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

Behavioral and Social Sciences

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<tr>
<th>Time</th>
<th>Presenter</th>
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<tr>
<td>11:35AM-11:55AM</td>
<td>Nick Brewster, Psychological Research</td>
<td>Perceived Family Treatment Stigma Across Latinx, Asian American, and White College Students: Relationship to Attitudes Toward Help-Seeking</td>
<td>Araceli Gonzalez</td>
</tr>
<tr>
<td>12:15 PM-12:35PM</td>
<td>Donald Davis, Psychology/Philosophy</td>
<td>Social Media and Anxiety of Gen Z during the COVID 19 Pandemic</td>
<td>Ann Kim</td>
</tr>
<tr>
<td>12:35 PM-12:55PM</td>
<td>Elizabeth Rangel, Sociology</td>
<td>A Critical Assessment of Mandatory Reporting Policy and Practice</td>
<td>Chantrey Murphey</td>
</tr>
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Room: COB-113

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
### Humanities and Letters

**Room: COB-217**

**Friday, March 10, 2023**

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<tr>
<th>Time</th>
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<th>Speaker</th>
<th>Discipline</th>
<th>Sponsor</th>
<th>Title</th>
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<tr>
<td>9:55AM-10:15AM</td>
<td><strong>Raley Zurcher, Philosophy</strong></td>
<td>Cory Wright</td>
<td>9:55AM-10:15AM</td>
<td>Raley Zurcher</td>
<td>Color as Form: Segmentation as the Primary Role of Color Vision</td>
</tr>
<tr>
<td>10:15AM-10:35AM</td>
<td><strong>Samantha O'Mara-Mezzano, French</strong></td>
<td>Clorinda Donato</td>
<td>10:15AM-10:35AM</td>
<td>Samantha O'Mara-Mezzano</td>
<td>The Adultress and the Skull</td>
</tr>
<tr>
<td>10:35AM-10:55AM</td>
<td><strong>Raya Torres, Journalism</strong></td>
<td>Madeleine Liseblad</td>
<td>10:35AM-10:55AM</td>
<td>Raya Torres</td>
<td>Importance of Radio Journalism During and After the Japanese Attack on Pearl Harbor</td>
</tr>
<tr>
<td>10:55AM-11:15AM</td>
<td><strong>Jessica Halim, French and Fancophone Studies</strong></td>
<td>Clorinda Donato</td>
<td>10:55AM-11:15AM</td>
<td>Jessica Halim</td>
<td>Hypocrisy of Clerics in Marguerite de Navarre's Heptaméron</td>
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<tr>
<td>11:15AM-11:35AM</td>
<td><strong>Yahui Chen, Philosophy</strong></td>
<td>Max Rosenkrantz</td>
<td>11:15AM-11:35AM</td>
<td>Yahui Chen</td>
<td>Aristotle on Goodwill in Friendships</td>
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<tr>
<td>11:35AM-11:55AM</td>
<td><strong>Michelle Rivera, Creative Writing</strong></td>
<td>Stephen Cooper</td>
<td>11:35AM-11:55AM</td>
<td>Michelle Rivera</td>
<td>Ask Camilla: Racial and Ethnic Tensions in John Fante's Ask the Dust</td>
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Room: COB-218

Humanities and Letters

9:15AM-9:35AM

Danny Pham, *French and Fancophone Studies*  
Faculty Sponsor: Clorinda Donato  
Title: The Evolution of Michel de Montaigne's Feminist Thought

9:35AM-9:55AM

Gabriela Mayoral, *French and Fancophone Studies*  
Faculty Sponsor: Clorinda Donato  
Title: The Role of Female Homosociality 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)
### Biological and Agricultural Sciences

<table>
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<tr>
<th>Time</th>
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</table>
| 10:35AM-10:55AM | **Zahraa Haguar**, Molecular Cell Biology and Physiology | Faculty Sponsor: Vasanthy 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: Houng-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