

OURS FALL '23 NEWSLETTER

The latest news and updates on undergraduate research at CSULB

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- Dwight David Eisenhower Transportation Fellowship Program (DDEFTP) Winner -- Robert Valencia
- Learning-Aligned Employment Program (LAEP)

INTRODUCTION TO THE OURS NEWSLETTER

Welcome our Fall 2023 Newsletter!

What is OURS:

The Office of Undergraduate Research Services (OURS), established in 2016, is charged with expanding undergraduate research opportunities to the California State University, Long Beach student body. OURS works in collaboration with staff and faculty in all CSULB Colleges, Divisions, and units to cultivate strong relationships in support of undergraduate research.

OURS Office:

Please stop by our office in SSSC-120 to ask us any questions related to undergraduate research, meeting with a peer advisor, or regarding upcoming undergraduate research workshops.

End of the Fall 2023 Semester

We would like to commend all students, staff, and faculty for the work you do as part of the various undergraduate research programs this academic year. Congratulations and good luck in your future endeavors to the CSULB Class of 2023. For our new and continuing students, we look forward to working with you all this upcoming year as we return to campus for the spring semester.

Elyzza Aparicio, Ph.D.
OURS Director



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UNDERGRADUATE RESEARCH OPPORTUNITY PROGRAM

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What is UROP:

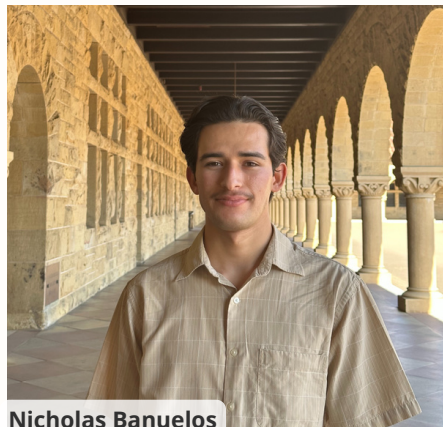
The [Undergraduate Research Opportunity Program \(UROP\)](#) is a one-year program that offers first- and second-year students the chance to participate in the research and creative process with faculty.

Student Spotlights:

- **Edwin Danahy** is a UROP alum who is continuing their research experience with the Building Infrastructure Leading to Diversity (BUILD) Program at CSULB.
- **Nicholas Banuelos** is a UROP alum who worked with Sustainability Undergraduate Research in Geoscience and Engineering (SURGE) at Stanford University in Summer 2023.
- **Amira Muthalip** is a UROP scholar who is currently working on the project “Gait Rehabilitation and Research Lab, Chapman University (AI-Based Fall-Risk Assessment During Daily Activities in Post-Stroke Survivors Using Smartphones)” with Dr. Venilla Krishnan.
 - “My journey as a research assistant in a Gait Laboratory has increased my knowledge of physical therapy techniques as well as engineering responsibilities. I’ve enjoyed being a part of a project that is dedicated to creating ways to prevent fall-risk.” -*Amira Muthalip*



Edwin Danahy



Nicholas Banuelos



Amira Muthalip

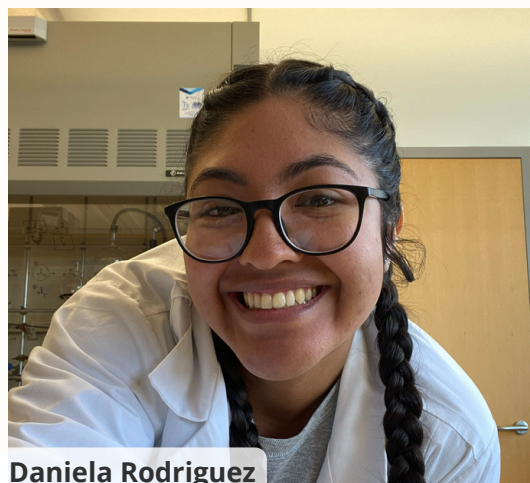
OURS CONNECTS

What is OURS Connects:

[OURS Connects](#) is an undergraduate research experience open to CSULB students of all colleges and disciplines. The semi-structured research program pairs undergraduate students with faculty research mentors so that students may contribute to the advancement of faculty research, scholarly, and creative activities (RSCA). Students will also be paired with a seasoned Peer Advisor who will guide them through the project search process and the overall research experience.

Student Spotlight:

- **Jessica Lim** is a current fourth year working with Dr. Hung on the project titled "Improve Augmentative and Alternative Communication (AAC) Accessibility for People with Aphasia."
 - "People with aphasia can use aided AAC systems (e.g., communication books or high-tech computer devices) to communicate basic needs, deliver information, maintain social closeness, and use social etiquette. My project brings attention to the significance of the aided ACC systems. It's interesting to learn more about aphasia and how it affects many patients, especially bilingual patients." -*Jessica Lim*
- **Daniela Rodriguez** is a current fourth year OURS Connects scholar working in Dr. Julie Wahlman's Lab in her Boronate Allylic Project and Cross Coupling Reactions.
 - "This is my second year in the OURS connects program and I found this program extremely helpful considering that as a first gen student I had no idea on how I could get started on research. The staff and peer mentors there helped me find a research faculty and in writing cover letters as well as putting together a resume."



Daniela Rodriguez

MELLON MAYS UNDERGRADUATE FELLOWSHIP (MMUF)



What is MMUF:

The [Mellon Mays Undergraduate Fellowship program \(MMUF\)](#) is the centerpiece of The Andrew W. Mellon Foundation’s initiatives to increase diversity in the faculty ranks of institutions of higher learning. Established in 1988 by William G. Bowen, then the president of the Foundation, and Mellon program associate Henry Drewry, the MMUF program began with an initial cohort of eight member institutions.

MMUF Spotlights:

- CSULB MMUF attended the 2023 MMUF Western Regional Conference in Long Beach, CA. Nov. 2-5, 2023, at the Downtown Long Beach Courtyard Marriott.
- **Miriam Adhanom** attended the national Society for Ethnomusicology (SEM) in Ottawa, Canada from Oct 19-21. SEM’s Annual Meeting is held in October or November and attracts over 900 participants from around the world. With a wide variety of scholarly presentations, discussions, films, workshops, and concerts, the meeting is a prime occasion to learn about current research in ethnomusicology and to make or renew contacts with others in the field.



MMUF Group Photo



MMUF Fellow Miriam Adhanom

ÁNDALE LATINO RESEARCH TRAINING PROGRAM



What is ÁNDALE:

The [Advancing Nutrition Development through Alliance for Education and Leadership \(ÁNDALE\) Latino Research Training Program](#) aims to train fifty (50) underrepresented undergraduate students in Latino nutrition and disease prevention, enhance their professional development, and engage them in research with a faculty mentor in an effort to better prepare them to enter graduate school or the workforce.

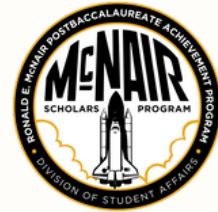
ÁNDALE Spotlights:

- **Valerie Mendoza** is a current ÁNDALE scholar who is working on a MIMIs Sleep Study with Dr. Nguyen-Rodriguez.
 - "Participating in the ÁNDALE program has furthered my interest in Latino health and has encouraged me to pursue a career in the research field post-graduation as a research coordinator. The program connected me to my mentor Dr. Nguyen-Rodriguez who has brought me on as a Research Assistant for her MIMIs Sleep Study and supported me in the development of my first abstract which will be presented at USC DORI in February 2024. Thank you to the ANDALE program and Dr. Nguyen Rodriguez for helping me advance in the research field." -*Valeria Mendoza*



Valeria Mendoza

McNAIR SCHOLARS PROGRAM



What is the McNair Scholars Program:

The [Ronald E. McNair Postbaccalaureate Achievement Program](#) is a TRIO program funded by the U.S. Department of Education and designed to prepare and support underrepresented undergraduate students in their pursuit of doctoral studies.

Spring Highlights

- **Scott Tomlinson** is a McNair Scholar who graduated in Spring 2023

Awards/Fellowships

- **McNair Sally Casanova Scholars:**
 - Dylan Kurz
 - Andee Gonzalez
 - Christian Carrillo
- **University of Michigan Aspiring Fellow:**
 - Makana Woods

Graduate School Visit to the University of California Irvine

- Dylan Kurz
- Darrell White

Graduate School Acceptance

- Anjelica Waight



Scott Tomlinson

McNAIR SCHOLARS PROGRAM



Conference/Presentations

Student Name	Division	Conference
Kimberly Ayala	Biomedical Engineering	Annual Biomedical Research Conference for Minoritized Scientists (AMBRCMS)
August Stine Woods	Psychology	Annual Biomedical Research Conference for Minoritized Scientists (AMBRCMS)
Erick Gutierrez Monje	Chemical Engineering	SoCal Undergraduate Research Symposium at UCI CNSM Symposium at CSULB
Christian Carrillo	Psychology	Worked with Dr. Christopher Monk in the Translational and Developmental Neuroscience Laboratory and investigating/presenting research on how a parent-child relationship could buffer the association between childhood trauma and internalizing disorders at the University of Michigan.
Scott Tomlinson	Business	CSULB First Generation Showcase

New McNair Scholars

- Maylia Brown - Psychology
- Danny Sarmiento - Mechanical Engineering
- Shelly Fonseca - Business Accounting
- Martin Pelayo - Computer Science
- Alejandro Duran - Biochemistry
- Jose Pineda - Physics
- Jacob Nguyen - Psychology
- Natalie Vega - Psychology
- Viviana Hernandez - Communications
- Mika Toyama - Social Work
- Alime Curiel Silva - Marine Biology



2023 McNair Group Photo

RESEARCH INITIATIVE FOR SCIENTIFIC ENHANCEMENT



About RISE

[The Research Initiative for Scientific Enhancement \(RISE\) program](#) is designed to support motivated students interested in developing careers as professional research scientists in biomedical and behavioral science fields. Its goal is to increase the interest, skills, and competitiveness of students pursuing biomedical or behavioral research careers. The program supports the research and career development of undergraduate students starting in their sophomore year.

Highlights

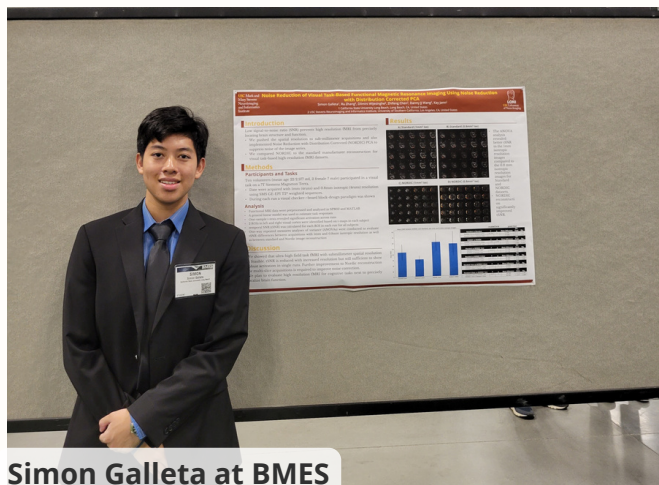
- **Zyrille Abela** presented their poster titled “Investigating the Effects of Innate Immune Protein C1q on Mitochondrial Metabolism in Macrophages” at ABRCMS 2023. Zyrille’s faculty mentor is Dr. Deborah Fraser in the CNSM Department of Biological Sciences.
- **Tayahna Agtarap** presented the research completed at her summer research experience at the Donald Danforth Plant Science Center. Tayahna presented a poster titled “Quantifying the Enhancement of Cas9-Mediated Mutagenesis with an In Vivo RNA-Tethering System”.
- **Ruben Tapia** presented a poster titled “Engineering *Methylovibrio buryatense* for Rapid Growth in Low Methane Concentrations” at ABRCMS 2023. He completed this research over the summer at the University of Washington with his mentor, Dr. Mary Lidstrom.
- **Serena Ocampo** received the SACNAS travel scholarship to attend the meeting.
- **Andrew Harrison Hanson** presented a poster titled “Investigating TET Paralog Gene Expression in *pen1*, *tet3* and *tet8* Mutants” at ABRCMS 2023. Andrew’s faculty mentor is Dr. Judy Brusslan in the CNSM Department of Biological Sciences.

RESEARCH INITIATIVE FOR SCIENTIFIC ENHANCEMENT



Highlights

- **Kassandra Khiev** presented a poster titled "Crosslinking Apolipoprotein AI Suggests Impaired Phospholipid Solubilization Ability" at ABRCMS 2023. Kassandra's faculty mentor is Dr. Vasanthi Narayanaswami in the CNSM Department of Chemistry and Biochemistry.
- **Simon Galleta's** abstract titled "Noise Reduction of Visual Task-Based Functional Magnetic Resonance Imaging using NORDIC" was accepted for the ABRCMS poster session. He completed this research over the summer at the University of Southern California. Simon was also listed as co-author on fellow CSULB student, Jacqueline Mejia's abstract titled "Evaluation of Fibrosis Progression in an Engineered 3D Collagen Model". Simon also presented a poster titled "Evaluation of High-Resolution 7T Task-fMRI Data and NORDIC Image Reconstruction" at the Biomedical Engineering Society (BMES) Annual Meeting, October 11-14, in Seattle, WA. Simon completed this research at USC's summer 2023 program, Jumpstart, in the USC Mark and Mary Stevens Neuroimaging and Informatics Institute.



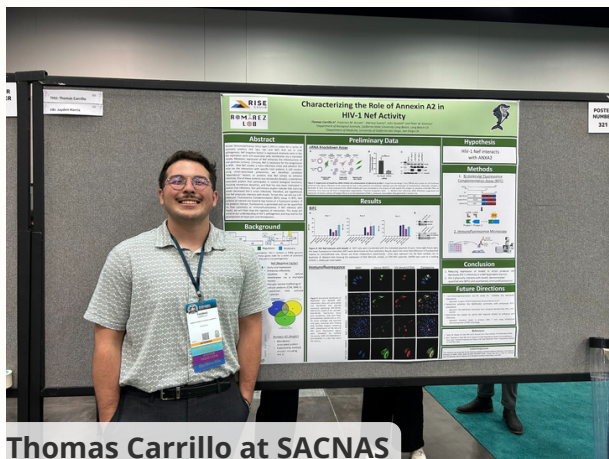
Simon Galleta at BMES

RESEARCH INITIATIVE FOR SCIENTIFIC ENHANCEMENT

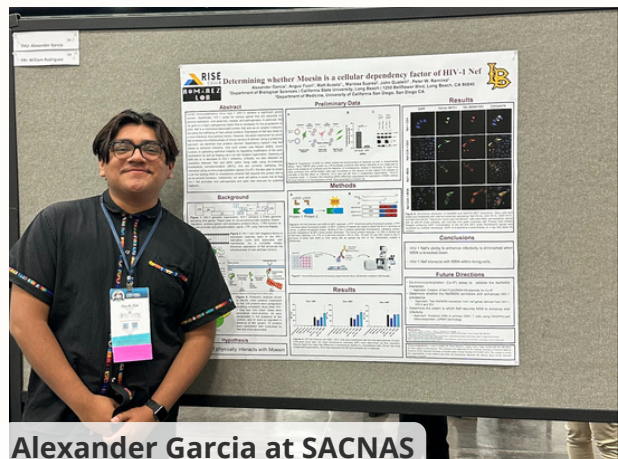


Highlights

- **Thomas Carrillo** received an ABRCMS Travel Award for research completed at his summer research experience at the University of Iowa. Thomas presented his poster titled “Unveiling the Differential Impact of MHV-JHM & MHV-A59 on Virulence and Innate Immune Antagonism” at ABRCMS 2023. Thomas also presented a poster titled “Characterizing the Role of Annexin A2 in HIV-1 Nef Activity” at the SACNAS National Diversity in STEM Conference. This work was completed with faculty mentor, Dr. Peter Ramirez, in the CNSM Department of Biological Sciences.
- **Alexander Garcia** presented a poster titled “Role of HMGB2 Regulation of Exhausted CD8+ T cells During Chronic Viral Infection” at ABRCMS 2023. He completed this research over the summer at UC Irvine with his mentor, Dr. Robert Tinoco. Alexander also presented a poster titled “Determining whether Moesin is a cellular dependency factor of HIV-1 Nef”. This work was completed with faculty mentor, Dr. Peter Ramirez, in the CNSM Department of Biological Sciences.



Thomas Carrillo at SACNAS



Alexander Garcia at SACNAS

UNDERGRADUATE RESEARCH INITIATIVE FOR STUDENT ENHANCEMENT



About RISE

The [Undergraduate RISE Program](#) is funded through a grant from the National Institute of General Medical Sciences (NIGMS) of the National Institutes of Health (NIH). The program aims to increase diversity in future scientific and biomedical research by identifying students interested in pursuing research as a career and by providing training opportunities to be competitive for entering graduate programs. This training includes mentored research, an off-campus summer research experience (8-12 weeks), professional development workshops, graduate school preparation, and conference support.

Highlights

- **Grace Boulos** won a presentation award for her poster titled “CT Based Geometric Analysis of Bicuspid and Tricuspid Aortic Valves in Patients with Aortic Stenosis” at ABRCMS 2023. Grace’s faculty mentor is Dr. Ga-Young Kelly Suh in the COE Department of Biomedical Engineering.
- **Ahira Diaz** presented her poster titled “Understanding the Molecular Mechanisms of Phenotypic Plasticity During Larval Development of *Dendroaster excentricus*” at ABRCMS 2023. Ahira’s faculty mentor is Dr. Douglas Pace in the CNSM Department of Biological Sciences.
- **Aden Gomez** presented his poster titled “Enzymatic Synthesis of Naphthol-Based Unnatural Amino Acids using Tyrosine Phenol Lyase” at ABRCMS 2023. Aden’s faculty mentor is Dr. Jason Schwans in the CNSM Department of Chemistry and Biochemistry.
- **Daniel Lopez** presented his poster titled “Interaction of Human Apolipoprotein A-I with Lipopolysaccharides” at ABRCMS 2023. Daniel’s faculty mentor is Dr. Paul Weers in the CNSM Department of Chemistry and Biochemistry.
- **Aran Multani** presented his poster titled “Synthesis and Biochemical Evaluation of Potential Inhibiting Features of Fmoc-L/D-Leu-OCH₃ Ester Analogues on Butyrylcholinesterase and Acetylcholinesterase for the Treatment of Alzheimer's Disease” at ABRCMS 2023. Aran’s faculty mentor is Dr. Jason Schwans in the CNSM Department of Chemistry and Biochemistry.

LOUIS STOKES ALLIANCE FOR MINORITY PARTICIPATION

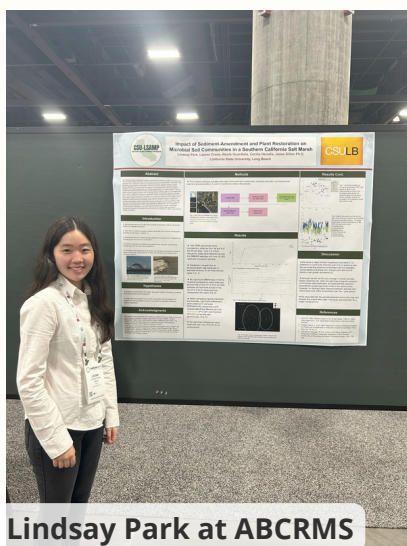


About LSAMP

The Louis Stokes Alliance for Minority Participation (LSAMP) program at California State University Long Beach is part of the statewide effort to enhance the math and science skills of students who have faced or face social, educational, or economic barriers, and are majoring in science, technology, engineering, or mathematics (STEM). For more information on eligibility, applying, or the LSAMP experience, visit the CSULB LSAMP website.

Highlights

Lindsay Park won several awards to present her research at ABRCMS, including the ABRCMS Travel Award; CSU Council on Ocean Affairs, Science and Technology (COAST) Student Travel Award; and the CSULB ASI Student Travel Grant. She presented her abstract titled “Impact of Sediment-Amendment and Plant Restoration on Microbial Soil Communities in a Southern California Salt Marsh”. This work was completed with faculty mentor, Dr. Jesse Dillon, in the CNSM Department of Biological Sciences.



Lindsay Park at ABRMS

BUILDING INFRASTRUCTURE LEADING TO DIVERSITY (BUILD)



What is BUILD:

The [CSULB BUILD Program](#) offers intensive, hands-on research and training opportunities for undergraduate students designed to prepare them to excel in doctoral programs, as well as health-related research careers. It is one of 10 programs in the United States funded by the National Institutes of Health (NIH) BUILD Initiative.

Graduating Seniors -- Fall 2023:

- Shannon Chaffin – Biomedical Engineering
- Vanessa Avila Rios – Molecular Cell Biology and Physiology
- Rachael Gomez - Psychology
- Janice Ko – Kinesiology
- Sophia Manjarrez – Molecular Cell Biology and Physiology



Rachel Gomez



Janice Ko



Shannon Chaffin



Vanessa Avila Rios



Sophia Manjarrez

BUILDING INFRASTRUCTURE LEADING TO DIVERSITY (BUILD)



Awards and Honors

- **Sally Casanova Pre-Doctoral Scholarship Recipient**
 - Congratulations to **Tess Nguyen**, who has received the prestigious Sally Casanova Scholarship for the 2023-2024 academic year! Check out Tess's bio here. Learn more about the Sally Casanova Pre-Doctoral Scholars Program and attend their upcoming virtual workshop on Wednesday, December 6th at 5pm on Zoom (Register here).

Conference Attendance

- **Brooke Diaz** (BUILD Fellow and senior Child Development & Family studies major), **Grace Min** (Year 1 BUILD Scholar and junior Psychology major), and **Madison Roach** (Year 1 BUILD Scholar and junior Psychology major) attended the *SACNAS National Diversity in STEM (NDiSTEM) Conference*, which took place Oct. 25-29 in Portland, OR.
- **Jo Estrada** (BUILD Scholar and junior Microbiology major) and **Kerollos Roufael** (Year 1 BUILD Scholar and junior Biology major) attended the *Annual Biomedical Research Conference for Minoritized Scientists (ABRCMS)*, which took place Nov. 15-19 in Phoenix, AZ.
- **Alina Tran**, Year 2 BUILD Scholar and senior Psychology major attended the Psychonomic Society meeting, which took place Nov. 16-19 in San Francisco, CA.
- **Naomi Ventura**, BUILD Fellow and senior Kinesiology major, attended the *Southwest American College of Sports Medicine (SWACM) Annual Meeting*, which took place Oct. 27-28 in Costa Mesa, CA.

BUILDING INFRASTRUCTURE LEADING TO DIVERSITY (BUILD)



Conference Travel

Conference	BUILD Trainee(s)	Major, Year in School	Presentation Title
<i>Applied Human Factors and Ergonomics (AHFE) Conference</i> July 21-25, San Francisco, CA	Alina Tran , Year 2 BUILD Scholar	Psychology, senior	"Evaluation of Pedometer Interfaces for Mobile Apps" – oral presentation
<i>Southern California Public Health Association</i> Oct. 12, Virtual	Victoria Min , Year 2 BUILD Scholar	Health Science (option in Community Health Education), senior	"Countering Misinformation through Social Media: Virtually Addressing Vaccine Hesitancy" – e-poster presentation
<i>Southwest American College of Sports Medicine (SWACM) Annual Meeting</i> Oct. 27-28, Costa Mesa, CA	Janice Ko , BUILD Fellow	Kinesiology, senior	"Frontal Plane Range of Motion Differences in Unilateral and Bilateral Battle Rope Sets: A Pilot Study" – poster presentation
	Sean Yonemori , BUILD Fellow	Kinesiology, senior	"The Effects of Unilateral and Bilateral Battle Rope Exercise on the Lower Extremity Joint Force: A Pilot Study" - poster presentation
<i>Society for Traumatic Stress Studies (ISTSS)</i> Nov. 1-4, Los Angeles, CA	Maeve Allen , Year 2 BUILD Scholar	Psychology, senior	"How Hope Can Influence the Quality of Life of Intimate Partner Violence Survivors" – poster presentation
<i>Southern California Conference for Undergraduate Research (SCCUR)</i> Nov. 18, Fullerton, CA	Brooke Diaz , BUILD Fellow	Child Development and Family Studies, senior	"Associations between Adverse Childhood Experiences (ACE) and Academic Performance in a Diverse Sample of College Students" – poster presentation

BUILDING INFRASTRUCTURE LEADING TO DIVERSITY (BUILD)



Conference Travel

Conference	BUILD Trainee(s)	Major, Year in School	Presentation Title
<i>Annual Biomedical Research Conference for Minoritized Scientists (ABRCMS) Nov. 15-18, Phoenix, AZ</i>	Alyssa Alfaro , Year 1 BUILD Scholar	Biomedical Engineering, junior	“Effect of Micro-topographical Features within a 3D Model of Fibrosis” – poster presentation
	Vanessa Avila Rios , BUILD Fellow	Molecular Cell Biology and Physiology, senior	“Analyzing ERF54 and ERF53 Interactions in the Bolting-Associated Leaf Senescence Gene Regulatory Network” – poster presentation
	Nicholas Banuelos , Year 2 BUILD Scholar	Environmental Science, senior	“Microbial dynamic associated with environmental factors governing biological hydrogen gas production” – poster presentation
	Carlin Bruce , Year 1 BUILD Scholar	Psychology, junior	“Are You Stressed or Do You Simply Feel Stressed? Stressful Events and Personal Vulnerability as Predictors of Internalizing Symptoms” – poster presentation
	Jadon Buller , BUILD Fellow	Biomedical Engineering, senior	“Automated 3D Path Planning to Simulate Aortic Catheterization” – poster presentation
	Shannon Chaffin , Year 2 BUILD Scholar	Biomedical Engineering, senior	“Bioengineered Collagen Scaffold Promotes Myotube Organization and Maturation” – poster presentation

BUILDING INFRASTRUCTURE LEADING TO DIVERSITY (BUILD)



Conference Travel

Conference	BUILD Trainee(s)	Major, Year in School	Presentation Title
<i>Annual Biomedical Research Conference for Minoritized Scientists (ABRCMS) Nov. 15-18, Phoenix, AZ</i>	Wesley Chen , Year 1 BUILD Scholar	Biomedical Engineering, junior	"Millifluidics enabled particle image velocimetry for ciliary-mediated hydrodynamics of marine organisms" – poster presentation
	Jonathan Contreras , Year 1 BUILD Scholar	Biology, junior	"Effects of Weathered Microplastics Coupled to Heavy Metals on Larval Fish" – poster presentation
	Rachael Gomez , BUILD Fellow	Psychology, senior	"Examining the Impact of Multiple Forms of Violence on PTSD for Survivors of Intimate Partner Violence" – poster presentation
	Katrina Jensen , Year 2 BUILD Scholar	Biochemistry, senior	"Investigating Mitochondrial Dysfunction in Alzheimer's Disease" – oral presentation
	Anais Johnson , Year 2 BUILD Scholar	Biochemistry, senior	"Synthesis of Hydroxy-terminated alkanethiolate-capped Pd nanoclusters for green catalysis in environmentally Benign Organic Solvents" – poster presentation
	Sophia Manjarrez , BUILD Fellow	Molecular Cell Biology and Physiology, senior	"An Exploratory Study on Cancer Research Effort and its Relation to Cancer Disease Burden in 18 European Countries" – poster presentation

BUILDING INFRASTRUCTURE LEADING TO DIVERSITY (BUILD)



Conference Travel

Conference	BUILD Trainee(s)	Major, Year in School	Presentation Title
<i>Annual Biomedical Research Conference for Minoritized Scientists (ABRCMS) Nov. 15-18, Phoenix, AZ</i>	Bryan Navarrete , BUILD Fellow	Molecular Biology & Physiology, senior	"Investigating the Importance of LXR Activation in C1q Modulation of Macrophage Foam Cell Responses" – poster presentation
	Tess Nguyen , Year 2 BUILD Scholar	Psychology, senior	"Association Between Emotion Regulation Difficulties, Parental Behavior, & Posttraumatic Stress Levels in College Students" – poster presentation
	Angelica Sanchez-Gomez , BUILD Fellow	Sociology, senior	"The Role of Depression and Anxiety on Vaccine Hesitancy During COVID-19" - poster presentation
	Alp Tahincioglu , Year 1 BUILD Scholar	Biomedical Engineering, junior	"Enhancing Skeletal Muscle Development on Bioengineered Composite Scaffolds" – poster presentation
	Sofia Uribe , Year 1 BUILD Scholar	Psychology, junior	"When Bigger is Not Better: The Impact of Social Exclusion, Group Size, and Social Distress on Unfairness Appraisal" - poster presentation
	Kailee Yang , Year 1 BUILD Scholar	Psychology, junior	"Aging, Dementia, and Usability: Trends in Assistive Technologies for Cognitive Impairments (1980-2022)" – poster presentation

BUILDING INFRASTRUCTURE LEADING TO DIVERSITY (BUILD)



Conference Travel Photos



BUILD students at ABRCMS



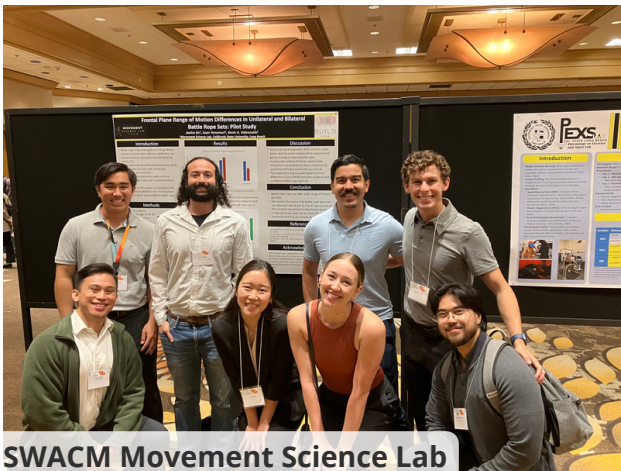
BME Students at ABRCMS



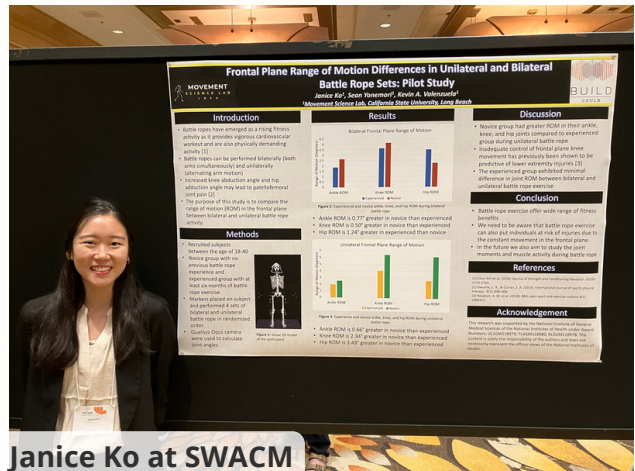
BUILD students at ABRCMS



BUILD students at ABRCMS



SWACM Movement Science Lab



Janice Ko at SWACM

Frontal Plane Range of Motion Differences in Unilateral and Bilateral Battle Rope Sets: Pilot Study
Janice Ko, Scott Roseberry, Kelly A. Anderson, Michael Schone, Lab, California State University, Long Beach

Introduction

- Battle rope training is a high intensity activity as it provides vigorous cardiovascular and core and anaerobic conditioning.
- Battle ropes can be performed bilaterally (both arms simultaneously) and unilaterally (alternating arm motion).
- Increased knee abduction angle and hip abduction angle may lead to patellofemoral joint pain [1].
- The purpose of this study is to compare the difference in ROM of the frontal plane between bilateral and unilateral battle rope sets.

Methods

- Received subjects between the age of 18-30.
- Received 10-15 min warm-up.
- Received group with at least 10 min of battle rope exercise.
- Motion tracked on subject and performed sets of bilateral and unilateral battle rope in randomized order.
- Used Qualtrics Connectors to collect data.
- Used Qualtrics Connectors to collect data.

Results

Bilateral Frontal Plane Range of Motion

Condition	ROM (Degrees)
Unilateral	~120
Bilateral	~130

Unilateral Frontal Plane Range of Motion

Condition	ROM (Degrees)
Unilateral	~120
Bilateral	~130

Discussion

- Battle rope exercise offer wide range of flexion benefits.
- We need to be aware that battle rope exercise can also put individuals at risk of injuries due to the unilateral movement of the frontal plane.
- In the future we also aim to study the joint movements and muscle activity during battle rope.

Conclusion

- Battle rope exercise offer wide range of flexion benefits.
- We need to be aware that battle rope exercise can also put individuals at risk of injuries due to the unilateral movement of the frontal plane.
- In the future we also aim to study the joint movements and muscle activity during battle rope.

References

Acknowledgement

BUILDING INFRASTRUCTURE LEADING TO DIVERSITY (BUILD)



BUILD/U-RISE Application NOW OPEN!

The BUILD application is now open and is due March 3, 2024. We host a joint application with the CSULB Undergraduate Research Initiative for Scientific Enhancement (U-RISE) Program, so when you submit your application, it will be reviewed by both programs! To get started, visit <https://www.csulb.edu/build/apply> to review the application elements checklist.

For more information about the BUILD Program, please visit the CSULB BUILD website: www.csulb.edu/build. Stay tuned for upcoming workshops and info sessions in Spring 2024

And if you have any questions about the application, feel free to email jointapp@csulb.edu!

LEARN MORE
Read more information about the BUILD & U-Rise Research Programs.
[csulb.edu/build/apply](https://www.csulb.edu/build/apply)

RISE CSULB X **BUILD CSULB**

Interested in Health-Related Research or Pursuing a Ph.D.?

Complete the joint application to the BUILD & U-RISE Research Programs.

BUILD/U-RISE Joint Application Now Open for 2024!

Apply Now!
[csulb.edu/build/apply](https://www.csulb.edu/build/apply)

Find a CSULB Research Mentor
[cws.csulb.edu/mentor](https://www.csulb.edu/mentor)

* Application closes March 3, 2024 at 11:59pm (PST)
* Must be a U.S. citizen, legal permanent, or *DACA recipient (*Only eligible for BUILD)
* Must have between 1-2 years remaining at CSULB at the start of the program
* At the start of the program must be a full-time undergraduate student at CSULB.

? Questions about the BUILD/
U-RISE Joint Application?
JointApp@csulb.edu

? QUESTIONS ABOUT BUILD?
BUILD@csulb.edu

? QUESTIONS ABOUT U-RISE?
URISE@csulb.edu

ANNUAL BIOMEDICAL RESEARCH CONFERENCE FOR MINORITIZED SCIENTISTS (ABRCMS)

About ABRCMS

The The Annual Biomedical Research Conference for Minoritized Scientists (ABRCMS) is one of the largest communities of underrepresented minorities in science, technology, engineering and mathematics (STEM). Students attend this conference to present their research, enhance professional development skills, explore graduate schools, and network (<https://www.abrcms.org/>).

The conference included keynote speakers, poster and oral presentations, ePoster sessions, and professional developmental seminars for students planning careers in the biomedical sciences.

This year's conference yielded a total of 5,627 attendees, including undergraduates, graduate students, post-docs, and exhibitors. Over 2,000 abstracts were submitted for poster, oral, and eposter presentations. A panel of judges evaluated all the undergraduate poster and oral presentations and selected the best in various scientific disciplines. 392 awards were given across all the disciplines. From CSULB, 45 students attended the conference, and 41 students presented their research findings from work on campus or from their off-campus summer internships.



ANNUAL BIOMEDICAL RESEARCH CONFERENCE FOR MINORITIZED SCIENTISTS (ABRCMS)

ABRCMS Conference Awards

Biochemistry and Molecular Biology:

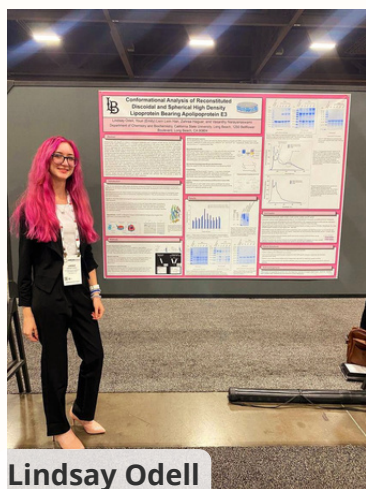
Lindsay Odell – Junior Biochemistry major and Scholar in the NIH T34 Undergraduate Research Training Initiative for Student Enhancement (U-RISE) program – for work titled “Conformational Analysis of Reconstituted Discoidal and Spherical HDL Bearing apolipoprotein E3” in the lab of Dr. Vasanthi Narayanaswami in the Chemistry and Biochemistry Department, CNSM.

Engineering, Physics and Mathematics:

Grace Boulos – Junior Biomedical Engineering major and Scholar in the NIH T34 Undergraduate Research Training Initiative for Student Enhancement (U-RISE) program – for work titled “CT Based Geometric Analysis of Bicuspid and Tricuspid Aortic Valves in Patients with Aortic Stenosis” in the lab of Dr. Ga-Young Kelly Suh in the Department of Biomedical Engineering, COE.

Social and Behavioral Sciences and Public Health:

Kailee Yang – Junior Psychology major and Scholar in the NIH Building Infrastructure Leading to Diversity (BUILD) program – for work titled “Aging, Dementia, and Usability: Trends in Assistive Technologies for Cognitive Impairments (1980-2022)” in Dr. Gabriella Hancock’s Stress & Technology Applied Research (STAR) Laboratory in the Psychology Department, CLA.



Lindsay Odell



Grace Boulos



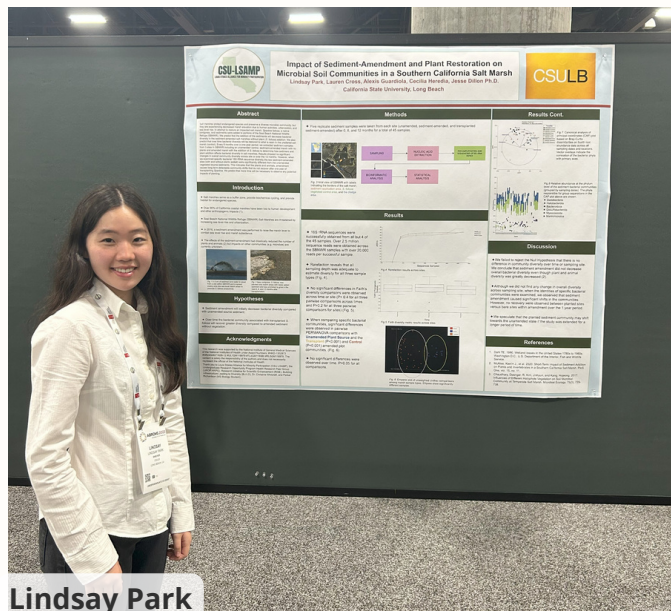
Kailee Yang

ANNUAL BIOMEDICAL RESEARCH CONFERENCE FOR MINORITIZED SCIENTISTS (ABRCMS)

ABRCMS Travel Awards

Thomas Carrillo is a senior NIH RISE Fellow majoring in Microbiology who received an ABRCMS Travel Award for research completed at his summer REU at the University of Iowa. His abstract is titled “Unveiling the Differential Impact of MHV-JHM & MHV-A59 on Virulence and Innate Immune Antagonism” for poster presentation. Thomas’s CSULB faculty mentor is Dr. Peter Ramirez in the Department of Biological Sciences, CNSM.

Lindsay Park is a senior NSF LSAMP Fellow majoring in Molecular Cell Biology and Physiology who received an ABRCMS Travel Award for her abstract titled “Impact of Sediment-Amendment and Plant Restoration on Microbial Soil Communities in a Southern California Salt Marsh” for poster presentation. Lindsay’s faculty research mentor is Dr. Jesse Dillon in the Department of Biological Sciences, CNSM.



Lindsay Park

ANNUAL BIOMEDICAL RESEARCH CONFERENCE FOR MINORITIZED SCIENTISTS (ABRCMS)

ABRCMS Travel Awards

Vanessa Avila Rios is a senior NIH BUILD Fellow majoring in Molecular Cell Biology & Physiology who received an ABRCMS Travel Award for her abstract titled “Analyzing ERF54 and ERF53 Interactions in the Bolting-Associated Leaf Senescence Gene Regulatory Network” for poster presentation. Vanessa’s faculty research mentor is Dr. Judy Brusslan in the Department of Biological Sciences, CNSM.

Sophia Manjarrez is a senior NIH BUILD Fellow majoring in Molecular Cell Biology & Physiology who received an ABRCMS Travel Award for her abstract titled “An Exploratory Study on Cancer Research Effort and its Relation to Cancer Disease Burden in 18 European Countries” for poster presentation. Sophia’s faculty research mentor is Dr. Ashley Carter in the Department of Biological Sciences, CNSM.

Sofia Uribe is a junior NIH BUILD Scholar majoring in Psychology who received an ABRCMS Travel Award for her abstract titled “When Bigger is Not Better: The Impact of Social Exclusion, Group Size, and Social Distress on Unfairness Appraisal” for poster presentation. Sofia’s faculty research mentor is Dr. Bill Pedersen in the Department of Psychology, CLA.



SOUTHERN CALIFORNIA CONFERENCES FOR UNDERGRADUATE RESEARCH (SCCUR)

About SCCUR

The Southern California Conference for Undergraduate Research provides a forum for the presentation of the best research, scholarship, and creative activities of undergraduate students in the region, and encourages communication of innovative achievements across disciplines.

Student Participation

Undergraduate student **Andrea Rodriguez** presented her research titled, Understanding How Interpersonal Social Support Can Alter Perceived Stress and Blood Pressure African American Women. “Collaborating with Dr. Johnson and a fellow team member, I wrote an abstract for the first time and presented our findings at SCCUR. This research focused on understanding how interpersonal support can alter perceived stress and blood pressure among African American women. As a student, I found immense excitement in observing the wide range of research projects from other students, and I had the opportunity to actively engage with the scientific community by disseminating our research findings and study.”



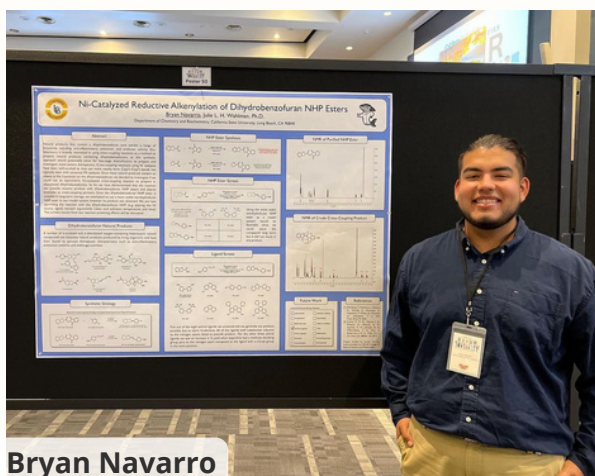
Andrea Rodriguez

SOUTHERN CALIFORNIA CONFERENCES FOR UNDERGRADUATE RESEARCH (SCCUR)

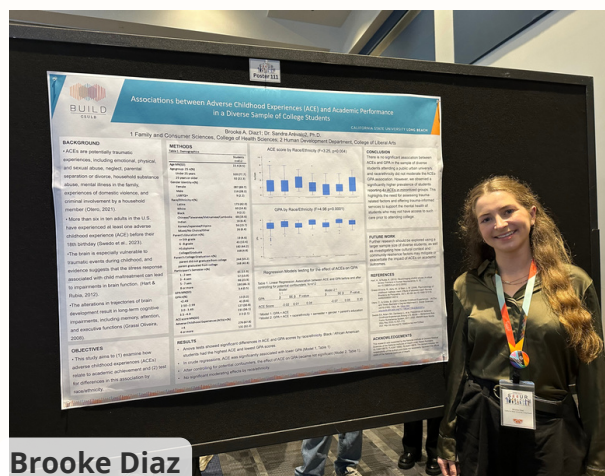
Student Participation

Undergraduate student, **Bryan Navarro**, presented his research titled, “Ni-Catalyzed Reductive Alkenylation of Dihydrobenzofuran NHP Esters.”

BUILD Undergraduate student **Brooke Diaz** presented her research titled, Associations between Adverse Childhood Experience (ACE) and Academic Performance in a Diverse Sample of College Students. “As a research fellow in the BUILD program, I have developed an appreciation for the interdisciplinary and collaborative aspects of research. From my experience in research, I have expanded my desire to understand how exposure to stress embedded in social and structural inequities contributes to developmental dysregulation. Presenting my research at SCCUR was an incredible experience, as it was so valuable to be around so many undergraduates who are passionate about their research!”



Bryan Navarro



Brooke Diaz

NATIONAL CONFERENCE ON UNDERGRADUATE RESEARCH



About NCUR

The [National Conference on Undergraduate Research \(NCUR\)](#) is dedicated to promoting undergraduate research, scholarship and creative activity in all fields of study by sponsoring an annual conference for students. Unlike meetings of academic professional organizations, this gathering of student scholars welcomes presenters from all institutions of higher learning and from all disciplines. Overall, this conference offers a unique environment for the celebration and promotion of undergraduate student achievement; provides models of exemplary research, scholarship, and creative activity; and offers student career readiness development.

Free Membership for all Students, Staff, and Faculty

As a California State University, Long Beach student, staff, or faculty, you are able to register as a member of CUR at no cost to you. CUR memberships are designed to assist students, staff, faculty, and researchers in their efforts to develop, enhance, and support undergraduate research. By being a member of CUR, members are connected to a diverse network of researchers across the nation and around the world.

NCUR 2024

The Council on Undergraduate Research will host the National Convention on Undergraduate Research (NCUR) on April 8-April 10, 2024, at the Long Beach Convention & Entertainment Center.

Become an Event Day Volunteer!

NCUR is looking to recruit a pool of local, dedicated, and enthusiastic volunteers! We are seeking volunteers for multiple shifts over multiple days during the April 8-10, 2024 conference. These volunteer shifts provide a great opportunity to meet influential people, see behind the scenes of an undergraduate research conference, and represent your institution!



36th ANNUAL STUDENT RESEARCH COMPETITION



About SRC

The purpose of the 36th Annual Student Research Competition (SRC) is to showcase excellence in scholarly research, and highlight creative activity conducted by CSULB undergraduate and graduate students. The Student Research Competition will feature oral presentations to an audience of fellow students, university community members, and a jury of distinguished faculty. The proposal submission deadline for the CSULB SRC is February 5, 2024, at 11:59pm. The competition will take place on Friday, March 8, 2024, at the CSULB College of Business (COB). For more information about applying, participating, or attending, please visit the [CSULB SRC Website](#).

Participation Eligibility

Undergraduate or graduate students currently enrolled at CSULB, as well as alumni/alumnae who receive their degrees in Spring, Summer, or Fall 2022, are eligible. Research and/or creative activities presented should be appropriate to the student's discipline and career goals. Proprietary research is excluded.

Rules and Guidelines

The paper summary should not exceed five double-spaced pages in length, not including appendices. Appendices (bibliography, graphs, photographs, or other supplementary materials) should not exceed three pages. File size should not exceed 25mb.

Competition Format

The format is intended to resemble a professional academic meeting and exactly replicates the setting of the statewide competition. Each student will have five minutes to set up their computer for the PowerPoint presentation, eight minutes for an oral presentation and five minutes to respond to questions.

Proposals must be submitted by
Monday, February 5, 2024

WEEK OF RESEARCH, SCHOLARLY, AND CREATIVE ACTIVITY (RSCA) 2024

About Week of RSCA

The Week of Research, Scholarly, and Creative Activity (RSCA) 4th annual event will take place April 15 - 19, 2024. This event will focus on highlighting some of the amazing work currently being done across the CSULB campus by students, staff, and faculty. We hope to show the immense value and importance that the projects have not only on the campus but also within local communities. There will be plenty of opportunities to meet with presenters, have dialogues regarding various scientific and social topics, and network with members from various disciplines across CSULB. This year's event will take place at CSULB and the Week of RSCA encourages everyone to not only engage with the sessions that are related to their own disciplines but also attend and engage with those that are outside of their own disciplines.

If interested in applying, please email AA-Ours@csulb.edu. Registration for the event is now open! We hope to see you there! For more information about Week of RSCA, please visit the [CSULB Week of RSCA Website](#).

RSCA
2024



Undocu CONFERENCE 2024

About the Undocu Conference

The Undocu Conference upholds CSULB vision and commitment to dismantle barriers for our diverse student population. In the 4th Annual Undocu Conference, we hope to highlight the diverse and intersectional Identities of Undocumented people, which are typically neglected and overlooked. The program will facilitate community building and networking through interactive activities, a resource fair, and discussions. It will feature papers, presentations, and roundtables focused on research within, in support of, and conducted by members of the community. Some topics may include undocumented student experiences, building campus support systems, youth resilience & activism, inclusive research opportunities, and access to paid professional development. Our hope is to provide a space for undocumented students and allies of varying disciplines to share their academic research.

For more information, visit the [CSULB Undocu Conference website](https://bit.ly/UndocuConf).



The poster features a purple background with silhouettes of people and several monarch butterflies. The text is arranged as follows:

- Top right: "We invite you to present your research or scholarly work at" in white, followed by "UNDOCU CONFERENCE" in large yellow letters.
- Below that: "Deadline to submit: January 8, 2024 (11:59 p.m. PT)" in white.
- Center: A large QR code in a white rounded square.
- Bottom right: "more information, visit:" in white, followed by "https://bit.ly/UndocuConf" in yellow.
- Bottom left: "Undocu CONFERENCE 2024" in white and yellow, with "PROPOSAL CALLOUT!" in white on a yellow brushstroke background below it.
- Bottom: Logos for Student Affairs, the Dream Success Center, and a mascot.

Dwight David Eisenhower Transportation Fellowship Program

About the Fellowship

The mission of the [Dwight David Eisenhower Transportation Fellowship Program \(DDETFP\)](#) is to attract the nation's brightest minds to the field of transportation and advance transportation workforce development. The DDETFP is managed by Technology Partnership Program, Federal Highway Administration. The DDETFP encompasses all modes of transportation.

2023 Winner

This year's winner of the Dwight David Eisenhower Transportation Fellowship is **Robert Valencia**, an undergraduate student at CSULB.

"The Dwight David Eisenhower Transportation Fellowship Program (DDETFP) gave me an opportunity to actively engage in hands on research within the transportation industry. I authored and submitted my own research paper with the help of my faculty advisor, Shailesh Chandra, titled "Analyzing Emissions with Heavy Duty Vehicle Platooning with Route Deviations – A study with I-710 Freeway" to the Transportation Research Board (TRB) and was selected to present this paper at their annual meeting in Washington DC. This fellowship program has given me an invaluable opportunity to develop as a student and has fueled my passion to contribute to the advancement of the transportation industry as an engineer."



Robert Valencia

Learning-Aligned Employment Program (LAEP)

About the Program

The [Learning-Aligned Employment Program \(LAEP\)](#) provides funds to participating public colleges and universities to offer eligible students opportunities to earn money while gaining career-related experience in their fields of study. LAEP was established in the 2021-22 California State Budget and is administered by the California Student Aid Commission (CSAC); this program will end by 2030-2031.

2023 Showcase

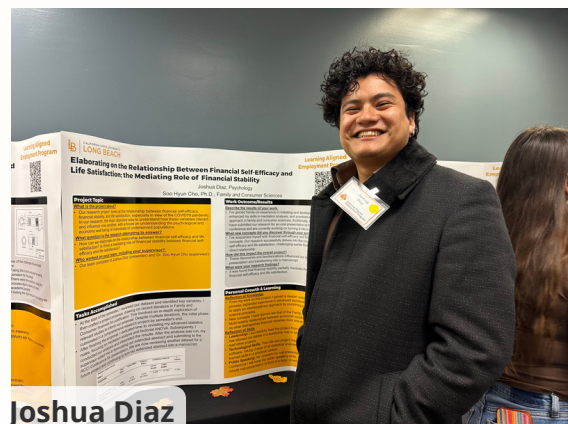
This year, LAEP hosted the Showcase Reception Event on November 29th, 2023, at the Career Development Center. This event honored and celebrated students and supervisors who have participated in the program during Spring and Fall 2023 semesters.

Undergraduate student, **Jhoselyn Quispe**, presented their research titled, "Design and Optimization of an Innovative Plunger for Enhanced Hydraulic Performance."

Undergraduate student, **Joshua Diaz**, presented their research titled, "Elaborating on the Relationship Between Financial Self-Efficacy and Life Satisfaction; the Mediating Role of Financial Stability."



Jhoselyn Quispe



Joshua Diaz

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**THANK YOU
FOR READING THE
OURS FALL '23
NEWSLETTER**

SEE YOU IN SPRING 2024!