



CAL STATE LA

OFFICE OF RESEARCH, SCHOLARSHIP, AND CREATIVE ACTIVITIES

28th Annual Student Symposium on Research, Scholarship, & Creative Activities

1st Overall Oral Presentation

Phi Kappa Phi

Pratvush Muthukumar

B.S. Computer Science, B.S. Mathematics

A Stochastic Time-Series Model for Predicting Financial Trends with NLP

Faculty Mentor: Dr. Jie Zhong

2nd Overall Oral Presentation

Phi Kappa Phi

Laura Dickinson-Turner

M.F.A. Television, Film, and Theatre, Acting Option

Using Performance to Examine Performative Social Constructs: THRESHOLD

Faculty Mentor: Tanya Kane-Parry

3rd Overall Oral Presentation

Phi Kappa Phi

Maya Horii

B.S. Mechanical Engineering

Solid-State Li-Ion Battery Modeling in Python

Faculty Mentor: Dr. John Christopher Bachman

Cal State University, Los Angeles State Delegates for the
34rd CSU Student Research Virtual Competition hosted by CSU East Bay on April 24, 2020

Campus Delegates

Behavioral and Social Sciences

Jason Sanchez (Participated in the virtual competition)

M.S. Social Work

Biological Father vs. Father Figure Involvement: Mental Health Implications

Faculty Mentor: Dr. Anh-Luu Huynh-Hohnbaum

Tatev Sarkissyan (First Place in Behavioral and Social Sciences in the virtual competition)

M.A. Psychology

Perceptions of Victims of Childhood Physical and Sexual Abuse

Faculty Mentor: Dr. Heidi R. Riggio

Meralis Cordova

B.A. Sociology

Civic Engagement Disparities of Undocumented Students

Faculty Mentor: Dr. William E. Rosales

Biological Sciences**Brent Beadell** (Participated in the virtual competition)

M.S Biology

Inhibition of Biofilm Formation of Pseudomonas aeruginosa by Human β -Defensin 2 and Cholesteryl Linoleate is Accompanied by Ultrastructural Lesions of the Bacterial Surface

Faculty Mentors: Dr. Edith Porter and Dr. Yixian Wang

John English (Participated in the virtual competition)

M.S in Biology

Effect of Urban Temperature Gradients on Grassland Microclimate Amelioration and Diversity

Faculty Mentor: Dr. Alexandra Wright

Creative Arts**Laura Dickinson-Turner**

M.F.A. Television, Film, and Theatre, Acting Option

Using Performance to Examine Performative Social Constructs: THRESHOLD

Faculty Mentor: Tanya Kane-Parry

Engineering and Computer Sciences**Pratyush Muthukumar** (Participated in the virtual competition)

B.S. Computer Science, B.S. Mathematics

A Stochastic Time-Series Model for Predicting Financial Trends with NLP

Faculty Mentor: Dr. Jie Zhong

Maya Horii (Participated in the virtual competition)

B.S. Mechanical Engineering

Solid-State Li-Ion Battery Modeling in Python

Faculty Mentor: Dr. John Christopher Bachman

Humanities and Letters**Arielle Steimer-Barragan** (Second Place in Humanities and Letters in the virtual competition)

M.A. Latin American Studies

“Las viudas de las letras: Women Printers in Colonial Mexico”

Faculty Mentor: Dr. M. Kittiya Lee

Physical and Mathematical Sciences**Edgar Papazyan**

B.S. Biochemistry

Investigation of the Photocatalytic Activity of a Tin Doped Porphyrinic Metal Organic Framework in the Detoxification of a Mustard Gas Simulant

Faculty Mentor: Dr. Yangyang Liu

The following students received an outstanding presentation award at the
28th Annual Student Symposium on Research, Scholarship, and Creative Activities
Oral Presentations

Behavioral and Social Sciences I

Jason Sanchez

M.S. Social Work

Biological Father vs. Father Figure Involvement: Mental Health Implications

Faculty Mentor: Dr. Anh-Luu Huynh-Hohnbaum

Karina Quiroz

B.S. Public Health

Combination Effect of Depressive Symptoms and Tobacco Use on Oral Health

Faculty Mentor: Melanie D. Sabado-Liwag

Behavioral and Social Sciences II

Meralis Cordova

B.A. Sociology

Civic Engagement Disparities of Undocumented Students

Faculty Mentor: Dr. William E. Rosales

Nancy Perez

M.A. Sociology

*Understanding the Intersectional Lived Realities of 1.5 and 2-Generation Immigrants
Navigating Higher Education*

Faculty Member: Dr. William E. Rosales

Biological Sciences I

Brent Beadell

M.S Biology

*Inhibition of Biofilm Formation of *Pseudomonas aeruginosa* by Human β -Defensin 2 and
Cholesteryl Linoleate is Accompanied by Ultrastructural Lesions of the Bacterial Surface*

Faculty Mentors: Dr. Edith Porter and Dr. Yixian Wang

Vinh Ngo

B.S. Biological Science

Structural Analysis of the DYW Deaminase C-to-U RNA Editing Domain.

Faculty Mentor: Dr. Michael L. Hayes

Biological Sciences II

John English

M.S Biology

Effect of Urban Temperature Gradients on Grassland Microclimate Amelioration and Diversity

Faculty Mentor: Dr. Alexandra Wright

Creative Arts

Laura Dickinson-Turner

M.F.A. Television, Film, and Theatre, Acting Option

Using Performance to Examine Performative Social Constructs: THRESHOLD

Faculty Mentor: Tanya Kane-Parry

Engineering and Computer Sciences I

Pratyush Muthukumar

B.S. Computer Science, B.S. Mathematics

A Stochastic Time-Series Model for Predicting Financial Trends with NLP

Faculty Mentor: Dr. Jie Zhong

Engineering and Computer Science II

Maya Horii

B.S. Mechanical Engineering

Solid-State Li-Ion Battery Modeling in Python

Faculty Mentor: Dr. John Christopher Bachman

Cody Ising

M.S. Mechanical Engineering

Computational design of sensitized combustion chemistry experiments

Faculty Mentor: Dr. Jeffrey Santner

Health, Nutrition, and Clinical Sciences

Aaron Matthews

M.S. Kinesiology

High-intensity interval exercise while wearing a sauna suit increases Energy Expenditure

Faculty Mentor: Dr. Ailish Sheard

Mayra Zamora

B.S. Public Health

Mental Health and Polycystic Ovary Syndrome (PCOS): Examining Information Shared to Women of Color by Health Care Providers

Faculty Mentor: Dr. Melanie Sabado-Liwag

Humanities and Letters I

Abigal Calderon Garcia

B.A. History

Eradicating History or Embracing Change

Faculty Mentor: Dr. Mark Wild

Humanities and Letters II

Rebecca Galvan

B.A. History

A History of Environment in Latin American Ports

Faculty Mentor: Dr. Angela Vergara

Arielle Steimer-Barragan

M.A. Latin American Studies

“Las viudas de las letras: Women Printers in Colonial Mexico”

Faculty Mentor: Dr. M. Kittiya Lee

Physical and Mathematical Sciences I

Alexandra Hernandez

M.S. Chemistry

Chemistry of Singlet Oxygen with Metal-Sulfur Nanoclusters Physical Quenching versus Chemical Reaction

Faculty Mentor: Dr. Matthias Selke

Edgar Papazyan

B.S. Biochemistry

Investigation of the Photocatalytic Activity of a Tin Doped Porphyrinic Metal Organic Framework in the Detoxification of a Mustard Gas Simulant

Faculty Mentor: Dr. Yangyang Liu

Physical and Mathematical Sciences II

Brandon Hilliard

M.S. Physics

Unveiling the Origins of Dust Gaps and Ring Structure in Protoplanetary Disks

Faculty Mentors: Dr. Yasuhiro Hasegawa and Dr. Susan Terebey

Mason Shurman

B.S. Mathematics

Optimal Radio k -labeling of Trees

Faculty Mentor: Dr. Daphne Liu

The following students received an outstanding presentation award at the
28th Annual Student Symposium on Research, Scholarship, and Creative Activities
Poster Presentations

Behavioral and Social Sciences

Raghad Albadah

B.A. Communicative Disorders

Semantic category sorting and verbal fluency tasks in bilingual adults

Faculty Mentory: Dr. Gabriela Simon-Cerejido

Jaxson D. Haug

M.A. Anthropology-Forensic Track

Gendered Faces: Male-to-Female Transgender Facial Feminization Surgeries as Applied to Sex Estimation in Forensic Anthropology

Faculty Mentor: Dr. Beth Baker-Cristales

Jennifer Vazquez and Alexis Borja

B.A. Child Development

The Role of Sense of Belonging in Student Usage of Campus Resources

Faculty Mentor: Dr. Claudia Kouyoumdjian

Monica Montiel Moreno and Jordan Williams

B.S. Public Health; B.S. Public Health

Gender differences in awareness, perceptions, and acceptance of Human Papillomavirus (HPV) vaccine among U.S. college students: A review of literature

Faculty Mentor: Dr. Martin Nan

Tyler Enriquez, Estefany Gomez, Cristian Corral, and Dalia Hernandez

B.S. Criminal Justice

Police Use Of Facebook

Faculty Mentor: Nicole Smolter

Christopher Aono

M.S. Public Health

Community Organizing and Advocacy Clean Air: A Look at Purple Air Sensors

Faculty Mentors: Dr. Melanie Sabado-Liwag and Dr. Kimberly Kisler-Pisca

Biological Sciences**Aimee Anguiano**

B.S. Biochemistry

Fabrication and Characterization of Carbon Nanoelectrodes

Faculty Mentor: Dr. Yixian Wang

Brittney Hua and Paula Banuelos

B.S. Microbiology, B.S. Microbiology, Minor Public Health

Immunohistochemistry Method Development for Ki67 as a Proliferation Marker in the Human Small Intestine

Faculty Mentor: Dr. Edith Porter

Monserrat Orozco

B.S. Biochemistry

Testing for a Recovery of Leaf Vein Embolism in Two Diverse Species

Faculty Mentor: Dr. Christine Scoffoni

Bliss Tafolla-Aguirre and Charlotte Monsour

B.S. Biochemistry; B.S. Biochemistry

Reaction of Phenolic Antioxidants with Singlet Oxygen

Faculty Mentor: Dr. Matthias Selke

Amanda Tran, Le Tam, and Nicholas Duncan

B.S. Biochemistry; B.S. Microbiology; B.S. Microbiology & Biophysics

*Elucidating the function of RNA-binding protein 2 (Rbp2) in circadian regulation in *Synechococcus elongatus**

Faculty Mentor: Dr. Susan Cohen

Cindy Toscano

M.S. Biological Sciences

Manipulating the Antimicrobial Effector Molecule Response of Alveolar Type II Cells through Pro-inflammatory Cytokines

Faculty Mentor: Dr. Edith Porter

Engineering and Computer Science

Eduardo Martinez

M.S. Civil Engineering

Binary adsorption of nitrate and phosphate on iron hydroxide minerals for wastewater treatment

Faculty Mentor: Dr. Arezoo Khodayari and Dr. Laura M. Barge

Omar Cojulun and Arnaldo Rendon

B.S. Electrical Engineering, B.S. Mechanical Engineering

Design of a Steady-State Centrifugation (SSC) Unsaturated Flow Apparatus for hydrological studies in porous media

Faculty Mentor: Dr. Gustavo Menezes

Nikita Aggarwal, Gabriela Alvarado, David San, and Justine West

B.S. Computer Science

Capturing Celestial Morphologies

Faculty Mentor: Dr. Jiang Guo

Physical and Mathematical Sciences

Jacob Parres-Gold and Andy Chieng

B.S. Biochemistry; B.S. Chemistry

Real-Time Monitoring of α -Synuclein-Induced Cell Membrane Disruption in Parkinson's Disease

Faculty Mentor: Dr. Yixian Wang

Joshua Sosa and Frank Castro

M.S. Chemistry; B.S. Biochemistry

Terpyridine-Ruthenium based Metal Organic Frameworks and their Application in Photovoltaic Cells

Faculty Mentor: Dr. Yangyang Li

Joyce Quon

B.S. Mathematics

Density and Kappa Value of Integral Sequences with Missing Differences in a Forbidden Set

Faculty Mentor: Dr. Daphne Liu

Edgar Chavez

B.S. Civil Engineering

Generating Climate Scenarios Using the Advanced Weather Generator (AWE-GEN)

Faculty Mentor: Dr. Sonya Lopez

Steve Peralta and Donis Alvarado

B.S. Biochemistry

Computational Prediction of the Thermodynamic Stability of Solid CO₂

Faculty Mentor: Dr. Olaseni Sode