2019
Student Research & Creative Activity Fall Poster Forum
Undergraduate, Master’s and Doctoral Student Research and Creative Activity in Poster Presentation Format

Monday, November 4, 2019
Redwood Room, University Union
9:00am–3:00pm
Event Schedule

8:00 am–9:00 am  Check-in for Session 1
9:00 am–11:00 am  Session 1 Poster Presentations

10:30 am–11:00 am  Check-in for Session 2
11:00 am–1:00 pm  Session 2 Poster Presentations

12:30 pm–1:00 pm  Check-in for Session 3
1:00 pm–3:00 pm  Session 3 Poster Presentations

3:00 p.m–3:30 pm  Event Ends
Welcome students, faculty, family and friends!

On behalf of Academic Affairs, the Office of Research, Innovation, and Economic Development, and the Student Research Center, we welcome you to the annual Student Research & Creative Activity Fall Poster Forum.

This campus-wide event highlights and celebrates the research, scholarship, and creative activities of our students and their faculty mentors. At this year’s Fall Forum, we are featuring close to 130 posters from more than 200 students across all seven Colleges.

Thank you for joining us today for this special event. It gives us great pride to present these emerging scholars and their works to you, and we encourage you to share your enthusiasm and appreciation with them throughout the day.

With warm regards,

Dr. Ron Coleman
Director, Student Research Center
Session One, 9:00am–11:00 am

**Smart Campus Police**
Vrajesh Arvindbhai Akabari  
Graduate, Computer Science  
Mentor: Jingwei Yang, PhD

**The Impact of World War I on African Americans in the Struggle for Racial Equality**
Alexander Adiego  
Graduate, History  
Mentor: Mona Siegel, PhD

**Associations between Muscle Composition, Patient-reported Outcomes, and Joint Health in Individuals with Hip Osteoarthritis**
Cheyanne Rainbow, Mary McCarthy, and Alyssa Bird  
Undergraduate, Biological Sciences  
Mentor: Richard Souza, PhD

**The Impact of School Board Leadership on English Learner Access to Higher Education**
Suzie Arlene Dollesin  
Graduate, Education  
Mentor: Robert Wassmer, PhD

**Rise in Pediatric Suicide Attempts and Suicidal Ideation**
Simranjit Kaur and Kayliana VanWinkle  
Undergraduate, Nursing  
Mentor: Bridget Parsh, PhD

**Defensive Decisions in a Biparental Cichlid Fish, the Convict Cichlid (Amatitlania nigrofasciata), When Threatened with a Dimorphic Predatory-pair**
Colleen Moore  
Graduate, Biological Sciences  
Mentor: Ron Coleman, PhD

**The Evolution of Mouthbrooders: Are Mouthbrooder Eggs Different?**
Breann Benitez  
Undergraduate, Biological Sciences  
Mentor: Ron Coleman, PhD
Session One, 9:00am–11:00 am, continued

Capturing Geolocation Data Digitally by Tracing Field Maps
Joseph Donati, Gabriel Aguirre, Evan Brittain, Randall Plant, Ryan Swearingen, and Stanton Carlisle
Undergraduate, Computer Science
Mentor: Ron Coleman, PhD

Phylogeny of Central American Heroine Cichlid Fishes
Leigh Sanders
Undergraduate, Biological Sciences
Mentor: Ron Coleman, PhD

Syntactic Pronominalization of Spanish L2 and English L2 Speakers
Catie Bussey
Undergraduate, English
Mentor: Kendon Kurzer, PhD

The Use of Rhodamine WT for the Characterization of Hydraulic Residence Times in Wetlands
Rachael Dal Porto
Undergraduate, Civil Engineering
Mentor: Cristina Poindexter, PhD

Using a Novel Optical Instrument to Characterize Algal Blooms in the San Francisco Estuary
Ayelet Delascagigas
Graduate, Biological Sciences
Mentor: Ron Coleman, PhD

Community Engagement and Political Participation
Nishay Gordon
Graduate, Sociology
Mentor: Jackie Carrigan, PhD

A Visual Introduction of Machine Learning for High School Students
Siddharth Chittora
Graduate, Computer Science
Mentor: Anna Baynes, PhD

Esports: Influencing eLeadership Skills and Academic Performance
Donna Walters
Undergraduate, Business Administration
Mentors: Ramakrishna Dantu, PhD and Kevin Lovelace, PhD
Session One, 9:00am–11:00 am, continued

**Childhood Apraxia of Speech: Perspectives of Speech-Language Pathologists**
Emily Rexroth and Karen Fittinger
Alumni, Communication Sciences & Disorders
Mentor: Darla Hagge, PhD

**SParkSys: The Smart Parking System**
Andres Estebanez
Graduate, Computer Engineering
Mentor: Praveen Meduri, PhD

**Dynamic Test-bed for Developing Noninvasive, Continuous Bilirubin Detection System for Neonates**
Emmanuel Dupart and Douglas Thomas
Graduate, Electrical and Electronic Engineering
Mentor: Warren Smith, PhD

**Antibiotic Resistance Profiling of Antibiotic Producing Bacteria Found at Sacramento State**
Alexa Harris
Undergraduate, Biological Sciences
Mentor: Enid Gonzalez-Orta, PhD

**The Shape of Poems**
Lamis Maadarani
Undergraduate, Chemistry
Mentor: Sayonita Ghosh Hajra, PhD

**“Hearing Doesn’t Come Back”: A Survey of Awareness, Influencing Factors, and Hearing Conservation Practices at California State University, Sacramento**
Rita Flores
Graduate, Communication Sciences & Disorders
Mentor: Laura Gaeta, PhD

**Link Testing Between the Data Formatter and Second Stage Boards for the Fast Tracker Trigger at CERN**
Christina Pino
Undergraduate, Physics & Astronomy
Mentor: Joshua Moss, PhD

**A Comparison of HEC-RAS and DSS-WISE Lite 2D Hydraulic Models for a Rancho Cielito Dam Breach**
Danielle Salt
Graduate, Civil Engineering
Mentor: Cristina Poindexter, PhD
The Provenance of Acinetobacter baylyi mutagenesis
Cynthia Recendez  
Undergraduate, Biological Sciences  
Mentor: Andrew Reams, PhD

Interviews Reveal Perceptions of Students Participating in a Series of Conceptually Linked Course Based on Undergraduate Research Experiences
Heather Fletcher, Allison Martin, Salem Bitwoded, and Navneet Singh  
Graduate, Biological Sciences  
Mentor: Kelly McDonald, PhD

Pre-Service Teachers’ Conceptions of Area
Yajenny Pacheco Enamorado  
Graduate, Mathematics and Statistics  
Mentor: Sayonita Ghosh Hajra, PhD

Analysis and Optimization of Energy Performance for a Building in CSUS Campus
Haider Al Habibi  
Graduate, Mechanical Engineering  
Mentor: Farshid Zabihian, PhD

Impact of Water Movement on Fragmentation of Algae in San Francisco Bay
Sarah Albright  
Graduate, Biological Sciences  
Mentor: Timothy Davidson, PhD

Optimization of the VAST Imaging System for High-throughput Morphological Characterization of Autism Spectrum Disorder Phenotypes in Zebrafish
Alejandra Quezada, Kaechandra Weyenberg, Emily Jao, and Jose Uribe Salazar  
Undergraduate, Biological Sciences  
Mentors: Megan Y. Dennis, PhD and Alexandra Colon-Rodriguez, PhD

Identifying Marine Snails and Slugs from the Maldives with Barcoding
Macy Petrula  
Undergraduate, Biological Sciences  
Mentor: Ron Coleman, PhD

Cognitive-Communication Connection Student Research, Service Learning, & Pre-Clinical Experience
Hannah Smith, Jessica Newman, Maram Abed, Anastasiya Kiriyak, Lauren Winters, Hailey Elias, Gabey Ruiz, Lauren Trzaska, Kelly Horning, Karishma Kumar, and Summer Khaleq  
Undergraduate, Communication Sciences & Disorders  
Mentor: Lisa D’Angelo, PhD
Session One, 9:00am–11:00 am, continued

Developmental Exposure to Bisphenol-A Causes Axon Outgrowth and Neural Stem Cell Proliferation Defects in Drosophila melanogaster
Brendan Tinsley, Yomira Palacios, Alex Ceballos, Daniel Chu, Jacqueline Stein, and Chloe Welch
Graduate, Biological Sciences
Mentor: Kimberly Mulligan, PhD

Exploring How Affinity toward Engineering Increases in Underserved Youth After Summer Physical Computing Workshop
Azizi Jones Penn
Graduate, Computer Science
Mentor: Anna Baynes, PhD

Development and Validation of camera methods for quantifying wing shape of flying squirrels during active glides
Cyrrus Espino
Undergraduate, Biological Sciences
Mentor: Joseph Bahlman, PhD

Can Diene-Enones Undergo Diradical Cyclization Similar to Enediynes?
Matthew Rocha
Undergraduate, Chemistry
Mentor: John D. Spence, PhD

Synthesis and Cyclization of an Imidazole-Substituted Enyne-Enone
Amanda Smith
Undergraduate, Chemistry
Mentor: John D. Spence, PhD

Ni-salen Catalysis of Electrochemical Coupling
Melissa Horner
Undergraduate, Chemistry
Mentor: James Miranda, PhD

Investigating Electronic Effects in Photo-Bergman Cyclization of Enediynes
Ashley Manisap
Undergraduate, Chemistry
Mentor: John D. Spence, PhD
Session One, 9:00am–11:00 am, continued

Characterization of Antibiotic-Producing Bacteria Isolated from the Sacramento State Campus
Alessandra Rodriguez
Undergraduate, Biological Sciences
Mentor: Enid Gonzalez-Orta, PhD

Determining if Bluecheese (bchs) disrupts axon outgrowth in Drosophila melanogaster
Aliyah Penn, Lilian Murphy, Yomira Palacios, and Daniel Chu
Undergraduate, Biological Sciences
Mentor: Kimberly Mulligan, PhD

Student Use of Internet Resources in Undergraduate Mathematics Homework and Study Time
Jessamyn Minners
Undergraduate, Mathematics and Statistics
Mentor: Abigail Higgins, PhD

Sphingosine-1-Phosphate May Protect Against the Brain Endothelial Cell Damage Observed in Alzheimer’s Disease
Matthew Martinez
Undergraduate, Biological Sciences
Mentor: Robin Altman, PhD

Studies of Biomass Torrefaction and Carbonization Using Rotary Gasifier System
An Nguyen
Graduate, Mechanical Engineering
Mentor: Farshid Zabihian, PhD

Numerical Methods to Approximate Roots of Functions Inside δ- Neighborhoods
Andrew Flores
Undergraduate, Mathematics and Statistics
Mentors: Jay Cummings, PhD and John Ingram, PhD

-End of Session-
Session Two, 11:00am–1:00pm

“My Whole Life, My Whole Soul, My Whole Spirit is to Blow That Horn”
Peter Eden
Graduate, History
Mentor: Mona Siegel, PhD

Stereotype Threat and Its Effects on Female Students in Math Confidence
Lillie Wong
Graduate, Education
Mentor: Sherrie Carinci, PhD

Do Tomales Bay Pacific Herring (Clupea harengus pallasii) Prefer Eelgrass for Spawning?
Hali Rederer
Graduate, Biological Sciences
Mentor: Ron Coleman, PhD

Parental Investment Decision Making in the House Mouse, Mus musculus
Kelsey Montgomery
Graduate, Biological Sciences
Mentor: Ron Coleman, PhD

Additive Manufacturing of Carbon Composite Panels for Increased Through-Hole Strength
Edward Clark
Graduate, Mechanical Engineering
Mentor: Troy Topping, PhD and Patrick Homen, PhD

Rheological Methods of Soft Condensed Matter
Christopher Carnahan
Undergraduate, Physics & Astronomy
Mentor: Eliza Morris, PhD and Mikkel Jensen, PhD

Determining the Neurodevelopmental Consequences of bisphenol F Exposure Using Drosophila melanogaster as a Model for Autism
Heather Larson, Erin Widman, and Johnathan Newman
Graduate, Biological Sciences
Mentor: Kimberly Mulligan, PhD
Session Two, 11:00am–1:00 pm, continued

Biogas to Vehicle Fuel
Hunter Adrian
Graduate, Mechanical Engineering
Mentor: Farshid Zabihian, PhD

Handwriting Recognition Through the Use of a Neural Network
Giovanni Smith
Undergraduate, Mathematics and Statistics
Mentor: David Hunter, PhD

Temperature Calibration of Siderastrea siderea Coral from the Flower Garden Banks National Marine Sanctuary
Alyssa Gorenflo, Kristine DeLong, and Niall Slowey
Undergraduate, Physics & Astronomy
Mentor: Amy Wagner, PhD

The Gene-Environment Interaction of Fragile Mental Retardation X and Developmental BPA Exposure in Drosophila melanogaster
Uyen Nguyen and Kevin Nzenkue
Graduate, Biological Sciences
Mentor: Kimberly Mulligan, PhD

Language Disorder or Language Difference Hearing Children of Deaf Parents
Nely Munoz
Undergraduate, Communication Science & Disorders
Mentor: Leah Zarchy, PhD

Decentralized Artificial Intelligence with Data Privacy Protection
Anand Surendra Masurkar
Graduate, Computer Science
Mentor: Xiaoyan Sun, PhD

A Moral Right or a National Wrong?: An Ideological Analysis of America’s Debate on the League Of Nations
Kelly Cullity
Graduate, History
Mentor: Mona Siegel, PhD

Developmental Exposure to the Environmental Neurotoxicant Polychlorinated Biphenyl-95 Phenocopies a Common Autism Risk Gene in Drosophila melanogaster
Chloe Welch, Johnathan Newman, and Erin Widman
Graduate, Biological Sciences
Mentor: Kimberly Mulligan, PhD
Session Two, 11:00am–1:00 pm, continued

**Why is the Luminosity Function of Short Gamma-Ray Bursts a Broken Power Law?**
Nicholas Sanders
Undergraduate, Physics & Astronomy
Mentor: Barniol Duran, PhD

**Low Temperature Strain on Polyactic Acid**
Joseph Moore
Undergraduate, Physics & Astronomy
Mentor: Michael Ray, PhD

**The Role of CHD8 in Gastrointestinal Structure and Function Via Enteric Neuromuscular Development in Drosophila**
Angelo Niosi, Nguyen Vo, and Takhmina Rukhsar Amin-Rahbar
Graduate, Biological Sciences
Mentor: Kimberly Mulligan, PhD

**Off Axis Short Gamma-Ray Bursts and Their Afterglow Properties**
Herminio Carrillo
Undergraduate, Physics & Astronomy
Mentor: Barniol Duran, PhD

**The Impact of Increased Physical Activity Opportunities on Overall Academic Achievement**
Stephen Lenz
Graduate, Kinesiology
Mentors: Lindy Valdez, PhD and Daryl Parker, PhD

**Temperature Effects on Predatory Behavior and Interspecific Competition of Sacramento Pikeminnow and Largemouth Bass**
Chad Hirano
Graduate, Biological Sciences
Mentor: Ron Coleman, PhD

**Juvenile Recidivism’s Link to Literacy**
Rachael Davis
Graduate, Education
Mentor: Katrina Pimentel, PhD
Session Two, 11:00am–1:00 pm, continued

**International Volunteering: A Week Within Global Medical Brigades**
Adam Goodwin, Austin Goodwin, Edgar Garcia, Jasmine Moreno, Juan Rivera, Nhi Nguyen, Thien Nguyen, and Rogelio Diaz
Graduate, Kinesiology
Mentor: Jennifer Park, PhD

**LoRa Based Localization Based on Deep Learning**
Jait Nitinkumar Purohit
Graduate, Computer Science
Mentor: Xuyu Wang, PhD

**CROSSBASE - An Open Source Database Data Migrator**
Vamsi Krishna Myalapalli
Graduate, Computer Science
Mentors: Jingwei Yang, PhD and Bill Mitchell, PhD

**An Efficient Framework for Single Image Super-Resolution**
Harshill Shah
Graduate, Computer Science
Mentor: Haiquan Chen, PhD

**From Starvation Thrives Anarchy and Chaos: Herbert Hoover’s Humanitarian Efforts During and After World War I**
Corinne Lethco
Graduate, History
Mentor: Mona Siegel, PhD

**Are CUREs the CURE? Comparing Student Perceptions of Course-Based Undergraduate Research to Other Laboratory Experiences**
Navneet Singh, Allison Martin, Salem Bitwoded, and Heather Fletcher
Undergraduate, Public Health
Mentor: Kelly McDonald, PhD

**Performance Optimization for OFDM in Physical Layer Using Deep Learning**
Mansi Nandlal Patel and Neha Vij
Graduate, Computer Science
Mentor: Xuyu Wang, PhD
Session Two, 11:00am–1:00 pm, continued

Mindfulness and Rehabilitation: Opportunities to Bridge Physical Therapy Treatment into Community Based Activities
Danielle Castrence
Graduate, Kinesiology
Mentor: Jennifer Park, PT, DPT

Multi-worker Task Scheduling in Spatial Crowdsourcing Using Intelligent Algorithms
Prachi Shevate
Graduate, Computer Science
Mentor: Haiquan Chen, PhD

Structure-Reactivity Studies on Light-Activated Quinoxalenediynes
Julia Shuluk
Undergraduate, Chemistry
Mentor: John Spence, PhD

Groundwater Responses to Precipitation in the English Meadow, Middle Fork, Yuba River, CA
Samuel Grandy
Undergraduate, Geology
Mentor: Kevin Cornwell, PhD

The Effects of a Parental Disengagement Manipulation on the Sexual Risk-Taking Projections of Women
Raquel Medeiros, Cole Lancaster, Thalia Sullivan, Lynn Hawley, and Sophie Sinclair
Graduate, Psychology
Mentor: Lisa Bohon, PhD

Egg Size Determines Fry Size in Cichlid Fishes
Anessa Forshey, Haya Akkad, Ashlie Avila, McKenzie Bell, Breann Benitez, David Bui, Lourdes Calisa, David Cao, Miguel Caracheo, Sierra Cavallaro, Erik Christiansen, Nathan Creswell, Garrett Crowley, Summer DeRobertis, Shy Difuntorum, Hailey Donaldson, Rafi Feroz, Kristine Giordano, Laura Givens, Emily Hadjes, George Harse, Edward Huynh, Matt Imel, Aman Jagait, Julia Konner, Allison Krebs, Saeed Latifi, Nang Lo, Natalie Miraglia, Pedro Moakhar, Riad Morrar, Nataliya Mudrik, Joyce O’Connor, Gurvir Pannu, Macy Petrula, Jerene Pfeiffer, Mahwish Qureshi, Johnny Richardson, Sam Rodger, Lai Saechao, Leigh Sanders, Shawn Simkins, Sanjot Singh, Andrew Stilleke, Kimmy Swafford, Hannah Tjitradjaja, Alan Toscano, Raiyna Villasenor, and Bear Waymire
Undergraduate, Biological Sciences
Mentor: Ron Coleman, PhD
Session Two, 11:00 am–1:00 pm, continued

Metacognition and Mathematics Education: Implications for Equity
Justin Dunton
Undergraduate, Mathematics and Statistics
Mentor: Abigail Higgins, PhD

Exploring The Mechanisms of Mutagenesis in Acinetobacter baylyi
Kelly Faeth
Undergraduate, Biological Sciences
Mentor: Andrew Reams, PhD

Developing a Co-Culture Cell Model of the Blood-Brain Barrier to Investigate Alterations of Barrier Function in Alzheimer’s Disease
Sabina Khan and Joseph Zales
Undergraduate, Family & Consumer Sciences
Mentor: Robin Altman, PhD

Fervid Eloquence and Downright Earnestness: A Rhetorical Analysis of Frederick Douglass’s Address at the Seneca Falls Convention
Emily Berry and Ildelisa Mora
Undergraduate, Communication Studies
Mentor: Elizabeth Earle, PhD

An Analysis of Treatment Integrity Reporting in Behavior Analysis in Practice: Preliminary Findings (2015-2017)
Deborah Richardson, Galan Falakfarsa, Erik Godinez, Lea Jones, and Colin Wills
Undergraduate, Psychology
Mentor: Denys Brand, PhD

Variation in excitability of leech mechanosensory P-cells
Thomas McDougal, Camielle Payan, Jonathon Ammari, Victoria Pasmurtsev, and Tobias Austin
Undergraduate, Biological Sciences
Mentor: Michael Wright, PhD

Variation in the properties of the leech mechanosensory N-cell
Thomas McDougal, Camielle Payan, Jonathon Ammari, Victoria Pasmurtsev, and Tobias Gomez
Undergraduate, Biological Sciences
Mentor: Michael Wright, PhD

Measuring Input-Output Parameters in Identified Leech Neurons
Thomas McDougal, Camielle Payan, Jonathon Ammari, Victoria Pasmurtsev, and Tobias Gomez
Undergraduate, Biological Sciences
Mentor: Michael Wright, PhD

-End of Session-
Session Three, 1:00pm–3:00 pm

University-Based Student-Run Interprofessional Clinics
Karishma Kumar and Alyssa Colbert
Undergraduate, Communication Sciences & Disorders
Mentors: Darla Hagge, PhD and Nassrine Nouressdine, PhD

Investigating the Behavioral Egg-Laying Preferences of the Adult House Fly (Diptera: Muscidae) in Insecticide-Contaminated Media
Angela Mihalas
Undergraduate, Biological Sciences
Mentor: Jimmy Pitzer, PhD

Genetic Analysis of Population Connectivity of a Vulnerable mesocarnivore, the Ringtail (Bassariscus astutus) in Northern California
Kristyn Schulte
Graduate, Biological Sciences
Mentor: Ron Coleman, PhD

Study of Anadromous Salmonid Emigration Using Environmental DNA (eDNA) Methods
Jason Peters and Dave Thomas
Graduate, Biological Sciences
Mentor: Lani Gleason, PhD

Burrow Microhabitats Created by an Ecosystem Engineer Improve Survivorship of Intertidal Invertebrates
Ethan Roberts
Undergraduate, Biological Sciences
Mentor: Tim Davidson, PhD

Detecting Gamma-Rays from Misaligned Jets in Gamma-Ray Bursts
Alejandro Reyes Borunda
Undergraduate, Physics & Astronomy
Mentor: Rodolfo Barniol Duran, PhD

Evaluating Punch Through Uncertainties for High Energy Particle Jets in the ATLAS Experiment at CERN
Alejandro Reyes Borunda
Undergraduate, Physics & Astronomy
Mentor: Joshua Moss, PhD
Session Three, 1:00pm–3:00 pm, continued

Nurse-Led, Interprofessional, University-Based Clinics
Bradley Kilgore
Second Bachelor, Communication Sciences & Disorders
Mentors: Darla Hagge, PhD, CCC-SLP, Nassrine Noureddine, RN, MSN, Ed.D

Native American Women, Gender, Sexuality, and the Lack of Representation in Higher Education
Nia Gregory
Graduate, Education
Mentor: Heidy Sarabia, PhD

Orbital Forcing of Tropical Precipitation during the late Paleozoic Ice Age revealed by Conodont Oxygen Isotope Composition
Kari Larsen, Isabel Montañez, and Peter Holterhoff
Undergraduate, Geology
Mentor: Julie Griffin, PhD

The Effect of School Climate on the Academic Achievement of Marginalized Students
Thomas Herman
Graduate, Education
Mentor: Robert Wassmer, PhD

Differences in sleep patterns affect longevity and lead to alterations in triacylglycerides and glucose levels in the fruit fly D. melanogaster
Jacqueline B. Thompson
Undergraduate, Chemistry
Mentor: Johannes H. Bauer, PhD

Developing Laser-tweezers and Software for Passive and Active Microrheology
Jeffery Cavanaugh and Francisco Casteneda
Undergraduate, Physics & Astronomy
Mentors: Mikkel Jensen, PhD and Eliza Morris, PhD

Investigating the Relationship Between the Gut Microbiome and Host Thermal Tolerance in the Economically Important Red Abalone Haliotis rufescens
Emalee Ousley, Carissa Romero, Danielle Nestler, and Jessica Sepulveda
Graduate, Biological Sciences
Mentor: Lani Gleason, PhD
Session Three, 1:00pm–3:00 pm, continued

Displacement of Children within Mixed-Status Families
Wendy Martinez and Jacob Benitez
Undergraduate, Political Science
Mentor: Kristina Victor, PhD

California Community College Success, What Policy Variables Matter?
Meredith Galloway
Graduate, Education
Mentor: Robert Wassmer, PhD

Characterization of Circuit Board Base Materials in High Temperature Applications
Nima Fariborzi and Matthew LaBar
Undergraduate, Mechanical Engineering
Mentor: Troy D. Topping, PhD

Online Opinion Spam Detection at Business Level Based on Semantic Embeddings
Praveen Kumar Reddy Hande
Graduate, Computer Science
Mentor: Haiquan Chen, PhD

A Culture of Frustration: Academic Demands in the Elementary Grades
Noelle DeMarco, Lauren Morelli, James Vergara, and Gagan Shergill
Graduate, Education
Mentor: Melissa Holland, PhD

Measuring the Porosity of 3D Printed Materials
Kevin Coan
Undergraduate, Physics & Astronomy
Mentor: Michael Ray, PhD

Examining how Bisphenol-A Affects Synapse Formation in a Drosophila Model of Autism
Angelina Tupikova, Jomari Gabriel, Roy Mashburn, Shelly Sauter, and Aurwinder Sangha
Graduate, Biological Sciences
Mentor: Kimberly Mulligan, PhD

Working with Children with Disabilities: Participating in an Innovative Therapy Center in Bosnia
Ediba Fific
Undergraduate, Kinesiology
Mentor: Jennifer Park, PhD
Session Three, 1:00pm–3:00 pm, continued

**Optical Traps: Using Lasers to Study the Physics Behind Biology**
Francisco Castaneda  
Undergraduate, Physics & Astronomy  
Mentor: Mikkel Jensen, PhD

**Using Awareness Training to Decrease College Student’s Speech Disfluencies During Public Speaking**
Elizabeth Morales, Christina Montes, and Mario Guendulain  
Undergraduate, Psychology  
Mentor: Megan Heinicke, PhD

**Photochemical Reactivity of Electron Rich Enediynes**
Michelle Moua  
Undergraduate, Chemistry  
Mentor: John Spence, PhD

**Pond Farm Pottery: Community and Identity in the California Redwoods**
Anjelica Hall  
Graduate, History  
Mentor: Anne Lindsay, PhD

**Optimization of an assay to investigate gene amplification mutations in Acinetobacter baylyi**
Tesa Winters and Lamrot Tulu  
Graduate, Biological Sciences  
Mentor: Andrew Reams, PhD

**Smart Goniometer**
Ehsan Halterman, Aaron Atwell, Andrew Robertson, and Bryan Thompson  
Undergraduate, Computer Science  
Mentor: Suresh Vadhva, PhD

**The Role of Leadership in Addressing Microaggressions Against Women in the Workplace**
Sonya Stinson and Khanh Dinh  
Graduate, Education  
Mentor: Carlos Nevarez, PhD

**Role of Steric Hindrance on Light-Activated Quinoxalenediyne Pro-Drugs**
Jeselle Atengco  
Undergraduate, Chemistry  
Mentor: John D. Spence, PhD
Station-Graph: Spatial Temporal Graph Networks for Bike Demand Prediction
Darshit Atulkumar Pandya
Graduate, Computer Science
Mentor: Haiquan Chen, PhD

Youth Anxiety in the Schools
Noelle DeMarco, Victoria Morales, Cristina Torres, Lidiya Badalyan, Gagan Shergill, and James Vergara
Graduate, Education
Mentor: Melissa Holland, PhD

Sleep and Academic Demands: Preliminary Research in Grades 3-6
Gagan Shergill, Melissa Hernandez, and Diana Lujano
Graduate, Education
Mentor: Melissa Holland, PhD

Charcoal Indicators of Native American Fire Use in Yosemite National Park’s Crane Flat Meadow Complex
Erika Ornouski
Undergraduate, Geography
Mentor: Anna Klimazewski-Patterson, PhD

“Everyone Assumes We’re All Sissy Bottoms”: Drag Queens Experiences With Hegemonic Masculinity In The Gay Community
Owen Young
Graduate, Sociology
Mentor: Todd Migliaccio, PhD

Student Perceptions of Research Authenticity in Introductory versus Advanced Biology Laboratory Courses
Bailey Rowe and Heather Fletcher
Graduate, Biological Sciences
Mentor: Kelly McDonald, PhD

Genetic Diversity and Population Structure of the Central American cichlid, Amatitlania septemfasciata
Alexandra Watkins
Graduate, Biological Sciences
Mentor: Ron Coleman, PhD
Session Three, 1:00pm–3:00 pm, continued

Transcriptome-wide Gene and Protein Expression Differences in the Intertidal Mussel Mytilus californianus Exposed to Field and Lab Treatments
Florian Fekete, Richelle Tanner, and Wes Dowd
Undergraduate, Biological Sciences
Mentor: Lani Gleason, PhD

-End of Session-
Acknowledgments

This event would not be possible without the guidance and support of our faculty mentors and staff. We would like to thank the following:

<table>
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<tr>
<th>Faculty Mentors</th>
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<td>Dr. Jingwei Yang</td>
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<td>Dr. Laura Gaeta</td>
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<td>Dr. Katrina Pimentel</td>
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<td>Dr. Xuyu Wang</td>
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<td>Dr. Bill Mitchell</td>
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<td>Dr. Haiquen Chen</td>
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<td>Dr. Denys Brand</td>
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<td>Dr. Michael Wright</td>
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<td>Dr. Johannes H. Bauer</td>
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<td>Dr. Kristina Victor</td>
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<td>Dr. Anne Lindsay</td>
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<td>Dr. Suresh Vadhva</td>
<td>Dr. Anna Klimazewski-Patterson</td>
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Sacramento State
Student Research Symposium

Monday, March 9, 2020
The Student Research Symposium is a campus-wide event to celebrate and recognize the outstanding scholarly accomplishments of our Sacramento State students.

» Open to all students in all disciplines
» Monetary awards for top student participants and their faculty mentors
» Oral presentations and poster presentations welcome
» Up to 10 students will be selected to represent Sacramento State at the 34th Annual CSU Student Research Competition.
SHARE YOUR RESEARCH

STRENGTHEN YOUR PRESENTATION SKILLS

ENHANCE YOUR RESUME

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student.research@csus.edu