

## FALL 2016 UNDERGRADUATE RESEARCH GRANT AWARDEES

Student Name	Instructor Name	Department and College	Title
Tahrima Alam	Dr. Aly Tawfik	Civil Engineering LCOE	Transportation Art: from Aesthetic Values to Operational Functions
Sieham Renee Ansrallah	Dr. Alejandro Calderon-Urrea	Biology CSM	Determining Allelism in Mutated <i>C. elegans</i>
Bhvandip Bajwa	Dr. Santanu Maitra	Biology CSM	ApoE Regulation with Synthesis of Small Organic Tertiary Amines
Michael Bravo	Dr. Steve Blumenshine	Biology CSM	Stable Isotopes Analysis ( <sup>13</sup> C & <sup>15</sup> N) of Juvenile Chinook Salmon
Jessie Brazil	Dr. Margaret Ellis	Plant Science JCAST	Characterization and movement of potential oomycete plant pathogens from Fresno water sources to irrigation reservoirs at the University Agricultural Laboratory
Joel Castillo	Dr. Laurent Dejean	Chemistry CSM	ROS
Khai Chang	Dr. Gregory Kriehn	Computer Engineering LCOE	Hexacopter Swarm Formation System
Hooi Hoong Chong	Dr. Laurent Dejean	Biology CSM	Cytotoxicity Effects of Oxamic Acid

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Maram Cooper	Dr. David Lent	Biochemistry CSM	The effects of a-nuclein on gap crossing deficits in the Parkinson's disease model <i>Drosophila melanogaster</i>
Lincoln Denlinger	Dr. Jacob Wenger	Plant Science JCAST	Determining levels of Etoxazole resistance in Two-Spotted Spider Mite ( <i>Tetranychus urticae</i> ) populations in Stanislaus County
Wynter Erickson	Dr. Christopher Pluhar	Geology CSM	Geologic Investigation of the Turlock Lake Formation Due to Low Water at Millerton Lake, CA
Leyla Farshidpour	Dr. Qiao-Hong Chen	Biochemistry - CSM	Synthesis and Antiproliferative Evaluation of Hydnocarpin-D Derivatives
Michael Hansen	Balaji Sethuramasamyraja	Industrial Technology JCAST	Increase efficiency and reduce power consumption of submersible pumps using composite impellers.
Ashley Her	Dr. David Lent	Biology CSM	The Effects of Caffeine on Learning and Memory of <i>Drosophila Melanogaster</i> at The Early Stages of MAPT Tau Expression
Alexis Jackson	Dr. William Wright	Plant Science JCAST	Evaluation of the Effects of Different Catalysts on the Pyrolysis of Agricultural Waste Plastic
Nisha John	Dr. Santanu Maitra	Biology CSM	ApoE Modulation Using Indole Variants of Small Organic Molecules

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Parveen Kaur	Dr. Hubert Muchalski	Biochemistry CSM	Synthesis 1,3-dithiolane alkyne for gold-catalyzed hydroacetoxylation
Marisol Lauri	Dr. Joseph Ross	Biology CSM	Reactive oxygen species and developmental delay in <i>Caenorhabditis briggsae</i>
Huy Minh Lee	Balaji Sethuramasamyraja	Industrial Technology JCAST	Development of Unmanned Vehicle with Sensing System for Precision Agriculture
Tom Lor	Dr. Qiao-Hong Chen	Biology CSM	Synthetic Approaches to Ether Bonds in the Synthesis of Zampanolide Analogues
Kristie Major	Dr. Alejandro Calderon-Urrea	Biology CSM	Screening of T-DNA mutagenized microalgae to identify strains important for wastewater treatment and biofuel production
Rigoberto Molina	Dr. Katherine Waselkov	Biology CSM	Sequencing Three Candidate Genes for Glyphosate Resistance of the California Agricultural Weed Hairy Fleabane, <i>Conyza bonariensis</i>
Janay Mommer	Dr. Hubert Muchalski	Biochemistry CSM	Green Chemistry Approach to the Synthesis of the Grundmann's Ketone
Kevin Muthima	Dr. Qiao-Hong Chen	Biology CSM	Synthesis and antiproliferative evaluation of 7-O-benzyl-3,3',4'-O-trimethylflavonol

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Joselyn Navarrette	Dr. Karine Gousset	Biology CSM	Mechanism of transfer of HIV-1 Nef via TNTs
Rahul Nunna	Dr. Gregory Kriehn	Computer Engineering LCOE	Design of an Omnidirectional Spherical Mobile Robot
Amanda Olvera	Dr. Hubert Muchalski	Biology CSM	Synthesis and of alkynyl hydroxamates as substrates for gold-catalyzed hydroacetoxylation
Boris Pavic	Dr. Joseph Ross	Biology CSM	Fitness Recovery of Caenorhabditis briggsae Cybrids
Juan Ramos Flores	Dr. Hubert Muchalski	Biochemistry CSM	Silver Nitrate-Assisted Separation of Pyrocholecalciferol and Isopyrocholecalciferol
Kyle Renberg	Dr. The Nguyen	Mechanical Engineering LCOE	Development and optimization of a biomedical prosthetic knee with Magnetorheological Fluid
Raul Salgado	Dr. Young Kim	Electrical Engineering LCOE	Automated Antenna Gain
Patricia Samaniego	Dr. Margaret Ellis	Plant Science JCAST	Stone fruit rootstock evaluation for susceptibility to potential pathogenic species of Phytophthora
Navjot Sangha	Dr. Hwan Youn	Biology	Altering cAMP specificity of the Escherichia coli

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		CSM	cAMP receptor protein to sense cGMP
Cristian Sarabia	Dr. Qiao-Hong Chen	Biochemistry CSM	Synthesis of 7-O-alkyl-3'-4'-O-dimehtylflavonols as a Anti-prostate Cancer Agents
Puneet Sran	Dr. Karine Gousset	Biology CSM	Interactions of Myosin-X with nuclear proteins and mRNP complexes
Shoghig Stanbouljian	Dr. Alejandro Calderon-Urrea	Biology CSM	The effect of CED-4 peptides on C. elegans and human cell lines
Christina Stavropoulos	Dr. Qiao-Hong Chen	Chemistry CSM	Synthesis and Anti-proliferative Evaluation of 3,20-O-dialkyl-2,3-dehydrosilibinins
Kongmeng Thao	Dr. Reza Raeisi	Computer Engineering LCOE	HAS System (Home Automation Security System) Project
Jason Thomas	Dr. Mamta Rawat	Biology CSM	The role of thiol peroxidases in Staphylococcus aureus in the protection against oxidative stress
Pablo Guaman Tipan	Dr. Karine Gousset	Biology CSM	Development of Pichia pastoris as a model system to test the regulation of Myosin
Arnoldo Trevino	Dr. Martha Vungkhanching	Social Work CHHS	Understanding Reasons For Withdrawal Among Undergraduate Students

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Tranice Warner	Dr. Aly Tawfik	Civil Engineering LCOE	Development of a Functioning Tabletop Model of a Traffic-Actuated Signalized Intersection
Daniel Whittington	Dr. Steve Blumenshine	Biology CSM	Use of Stable Isotope Analysis on Fins to Determine the Diet of Chinook Salmon
Jazmin M Arias	Dr. Joy Goto	Chemistry CSM	Measuring amyloid beta formation and neurotoxicity induced by BMAA
Celina Ortega-Gonzalez	Dr. Joy Goto	Chemistry CSM	Interaction of Mint Adaptor Proteins and Amyloid Precursor Protein to Investigate Inhibition of A $\beta$ Peptide in Alzheimer's Disease
Lemuel Vince Rivera	Dr. Joy Goto	Biochemistry CSM	Testing Memory Loss with BMAA-induced fruit flies
Harmala Singh	Dr. Joy Goto	Biology CSM	Novel NMDA Receptor-Specific Desensitization/Inactivation Produced By Ingestion of the Neurotoxins BOAA or BMAA
Estefania Aguilar-Gutierrez	Dr. Katherine Waselkov	Biology CSM	Population Genetics of the Native California Plant Species Phlox speciosa
Rebekah Brechmann	Dr. Aly Tawfik	Civil Engineering LCOE	A GIS-Based Traffic Noise Model for Street Intersections

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Austin Dean	Dr. Hubert Muchalski	Biology CSM	Microwave synthesis of pyrocholecalciferol and isopyrocholecalciferol
Ellen Douglass	Dr. Joy Goto	Biology CSM	Visualizing Oxidative Stress in Human Neurons Exposed to Environmental Neurotoxins
Micheale Easley	Dr. Zhi Wang	Geology CSM	Hydrophobicity of soil after forest fire and sediment transport after forest fire in treated and untreated areas
Crystal Espindola	Dr. Jacob Wenger	Agricultural Ecology JCAST	Pesticide Affects on Microbial Activity in Nectar
Cathleen Fagundes	Dr. Shane Moreman	Communication CAH	Home through communication: An ethnography of Azorean Portuguese
Natsinet Ghebrendrias	Dr. Mamta Rawat	Biology CSM	Identification of Disrupted Genes in Mycobacterium Smegmatis Transposon Mutants
Rodolfo Gonzalez-Rios	Dr. Qiao-Hong Chen	Chemistry CSM	Structure-Activity Relationship Studies of 1,5-bis(1-alkyl-1H-imidazol-2-yl)pentan-3-ones
Shoji Hishida	Dr. Pei-Chun Ho	Physics CSM	Thermal Measurement and Characterization of Filled-Skutterudite Compounds
Samantha Luna	Dr. Jenna Kieckhaefer	Criminology COSS	Public perceptions of the wrongfully convicted: Examining if area of education impacts perceptions of

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Christian Montiel	Dr. Hwan Youn	Biology CSM	Cloning and characterization of the genes involved in cyclic di-GMP production in Escherichia coli
Hannah Price	Dr. Amanda McKeith	Animal Sciences JCAST	Effects of diet and paylen on swine growth and pork quality
Rekha Rangan	Dr. Karine Gousset	Biology CSM	Biochemical analysis of the in vitro regulation of Myosin-X
Henry Rigdon	Dr. Deify Law	Mechanical Engineering LCOE	A Combined Experimental and Numerical Study on the Effect of Control Elements on Airflows over a Flat Plate
Austin Robbins	Dr. Alain Plattner	Geology CSM	Geophysical Methods in Imaging Sub-surface Water Flow in Orchid Park
Andre Vignau	Dr. Qiao-Hong Chen	Biochemistry CSM	Synthesis of the core structure for hybrid molecules of epothilone & zampanolide
Jackson Wagner	Dr. Kin Ng	Chemistry CSM	Simple Systems for Learning Analytical Laser Spectroscopy
Yadira Andrade	Dr. Alejandro Calderon-Urrea	Biology CSM	Analysis of neural fatty acid content of genetically modified Dunaliella primolecta cells
Benjamin Avila	Dr. Mihai R. Gherase	Biomedical	Experimental optimization of arsenic detection in skin



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		Physics CSM	phantom samples
Maribel Barragan	Dr. Amber Hammons	Nutrition/Dietetics JCAST	Abriendo Caminos
Eric Gudino	Dr. Lalita Oka	Civil Engineering LCOE	Liquefaction Analysis of Friant Dam
Maria I Gutierrez Reyes	Dr. Martha Vungkhatching	Social Work CHHS	To examine psychosocial distress, stress, coping strategies, and perceived support among undergraduate social work students
Veronica M Martinez	Dr. Jenna Kieckhaefer	Criminology COSS	Locus of Control: Exploring Population Demographics
Matthew Mendoza	Dr. Cory Brooks	Chemistry CSM	Analysis of the Intricacies of Interloop Disulfide Bonds in Single-Domain Antibodies
Rachel Nieto	Dr. Jason Bush	Biology CSM	Use of HIF-1 alpha inhibitors in the prevention of Zoledronic Acid desensitization for treatment of hypoxic metastatic breast cancer
Mutsumi Ogaki	Dr. Yoshiko Takahashi	Criminology COSS	Effective Governance of Pornography
Eugenia Santiago	Dr. Dvera Saxton	Sociology	NAFTA and its Impact on San Joaquin Valley's Oro

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		COSS	Loma Residents
Weii Yie Soo	Dr. Erin Dormedy	Food & Nutritional Sciences JCAST	Establishing the Incidence of Salmonella in Retail California Almonds
Alyssa Vander Weide	Dr. John V.H. Constable	Biology CSM	Characterizing seasonal variation in the endophytes of <i>Helianthus annuus</i> and <i>Helianthus winteri</i>
Ryan Watters	Dr. Hubert Muchalski	Chemistry CSM	Synthesis of substituted 3,6-dihydropyridazines for modular synthesis of modified fatty acids
Daniel Ryan Apuan	Dr. Sankha Banerjee	Mechanical Engineering LCOE	Water Purification using Plasma Micro-Discharge towards the Development of a Hybrid Water Treatment System
Danae Dubberke	Dr. Amber Hammons	Family Science JCAST	Abriendo Caminos
William Evans	Dr. Amber Hammons	Child Development JCAST	What are the effects of the implementation of the Abriendo Caminos study on the rate and amount of soft drinks consumed by the study group
Mayra Leon Fogg	Dr. Martha Vungkhanching	Social Work CHHS	Barriers to Success Among Hmong Social Work Students
Akusha Kaur	Dr. Steve Blumenshine	Biology	Analyzing Growth Rate Variation among Juvenile Chinook Salmon

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		CSM	Populations
Austin Mendoza	Dr. David Lent	Biology CSM	Simulation of scene perception and visual navigation of wood ants in naturalistic environments
Sara Rima	Dr. Amber Hammons	Nutritional Science JCAST	Abriendo Caminos
Chang Thor	Dr. Athanasios Alexandrou	Industrial Technology JCAST	Automatic Shredder
Christy N Xiong	Dr. Shane Moreman	Communication CAH	Reclaiming Hmongness
Andres Israel Zumba Quezada	Dr. Khang Tran	Physics CSM	Location of the zeros of the sequence of polynomials defined by a four-term recurrence
Jessica Aguilar	Dr. Alejandro Calderon-Urrea	Biology CSM	Screening of nematicidal compounds on <i>C. elegans</i>
Ryan C Jackson	Dr. Riadh Munjy	Geomatics Engineering LCOE	Shedding Some Light on Its Own Distortions
Dylan Michael Manning	Dr. Santanu Maitra	Chemistry CSM	Synthesis, Characterization, and Assessment of Novel Nitrates

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Brandi Mason	Dr. Santanu Maitra	Biochemistry CSM	Synthesis and Analysis of Agrichemicals for Pest-Control
Robert M Ullo	Dr. Anil Shrestha	Plant Science JCAST	Comparison of Subsurface Irrigation to Drip and Micro Sprinkler Systems for the Supression of Weeds in a Vineyard
Brandy R White	Dr. Cory Brooks	Biochemistry CSM	Small Molecule Binding Sites Explored in Camelid Variable Heavy Chain Antibodies
Tyler Wilfong	Dr. Fariborz Tehrani	Civil Engineering LCOE	Shake Tables and the Effects of Seismic Activity on Structures
Samuel Lopez	Dr. James Mullooly	Anthropology COSS	Why College Students Drink
Kylee Pachelbel	Dr. Erin Dormedy	Food & Nutritional Sciences	Identifying Factors that Influence College Student Eating Choices
Roshanak Farshidpour	Dr. Fariborz Tehrani	Civil Engineering LCOE	A Statistical Approach to Analyze Engineering Estimates and Bids
German Ruiz Perez	Dr. Qiao-Hong Chen	Biology CSM	Synthesis and antiproliferative evaluation of 1,5-diheteroarylpentan-3-ones
Prarthana Kumar	Dr. Santanu Maitra	Biology CSM	Tertiary Amines for ApoE4 Down-regulation

