

FALL 2017 UNDERGRADUATE RESEARCH AWARDEES

Student Name	Department and College	Instructor Name and Department	Title
Ryan Alvarez	Kinesiology CHHS	Dr. Nicole Smith Kinesiology	Similarities of Scosche armband heart rate monitors and Polar E600 Chest Strap Monitors
Jasmine De La Torre	Child Development JCAST	Dr. Aimee Rickman Child, Family, and Consumer Services	Examining Young People's Social Media Use
William Diaz	Biology CSM	Dr. Qiao-Hong Chen Chemistry	Synthesis and Biological Evaluation of 3-O-alkylamino-5,7,20-O-trimethyl-2,3-dehydrosilibinins
Lemuel Rivera	Biochemistry CSM	Dr. Joy Goto Chemistry	The role of beta-Methylamino-L-alanine and L-serine on the circadian rhythm of <i>Drosophila melanogaster</i>
Jesus Velasquez	Physics CSM	Dr. Pei-Chun Ho Physics	Measurement of the Seebeck Coefficient for Filled-Skutterudite Compounds
Angham Ahmed	Biochemistry CSM	Dr. Krish Krishnan Chemistry	Investigation of a model nucleoporin peptide (Nup 159) using experimental nuclear Overhauser effect Spectroscopy (NOESY)
Tahrira Alam	Civil & Geomatics Engineering LCOE	Dr. Lalita Oka Civil & Geomatics Engineering	Soil Liquefaction and Counteractive Solutions

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Juan Alejandro	Civil & Geomatics Engineering LCOE	Dr. Aly Tawfik Civil & Geomatics Engineering	Using Isochrone Travel Time Maps to Assess the Impact of HSR on Regional Travel Accessibility in California
Rebecca Alves	Biology CSM	Dr. Laurent Dejean Chemistry	Study of the effects of Bcl-2 overexpression on lactate fermentation using ¹³ C-NMR
Patricia Brito	Chicano Studies COSS	Dr. Maria-Aparecida Lopes Chicano & Latin American Studies	The Environmental Impact of Beef on Brazil's Landscape 1850-1950
Emily Burbulys	Kinesiology CHHS	Dr. Luke Pryor Kinesiology	Effect of Fatigue in a Tournament Setting on Movement Technique in Youth Soccer Athletes
Ariana Cavazos	Mathematics CSM	Dr. Carmen Caprau Mathematics	Invariants of Virtual and Singular Colored Links
Haley Chapman	Biology CSM	Dr. David Lent Biology	Determining the relationship between Alzheimer's disease and aggression in male <i>Drosophila melanogaster</i>
Gustavo Hernandez	Mechanical Engineering LCOE	Dr. Ajith Weerasinghe Mechanical Engineering	Fabrication of low-cost solar cell from non-toxic and earth abundant semiconductors

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Ryan Juan	Criminology COSS	Dr. Jenna Kieckhaefer Criminology	Rapport and witness interviewing: Examining officer stated verbal and nonverbal techniques
Megan Kalomaris	Biology CSM	Dr. Jason Bush Biology	Identifying protein expression changes in zoledronic acid-treated metastatic breast cancer cell spheroids
Lucineh Kasnakjian	Biology CSM	Dr. Laurenr Dejean Chemistry	Cytotoxicity Effects of Oxamic Acid
Parveen Kaur	Biochemistry CSM	Dr. Hubert Muchalski Chemistry	Synthesis and evaluation of saturated gold-NHC catalysts for hydrocarboxylation of internal alkynes
Maizie Lee	Chemistry CSM	Dr. Qiao-Hong Chen Chemistry	Synthesis of 7-O-substitutedflavonols as anti-prostate cancer agents
Linda Lim	Civil & Geomatics Engineering LCOE	Dr. Aly Tawfik Civil & Geomatics Engineering	Estimating Future Travel Cost using Shared Autonomous Vehicle (SAV) Systems
Tanner Melton	Biochemistry CSM	Dr. Alam Hasson College of Science and Math	Third hand smoke
Catherine Mueller	Biochemistry CSM	Dr. Joy Goto Chemistry	Neurotoxic Effects of Non-Protein Amino Acid BMAA and the Impact of NMDA

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			receptor antagonist MK-801 on <i>Drosophila melanogaster</i>
Amanda Olvera	Biology CSM	Dr. Hubert Muchalski Chemistry	Preparation of mesityl-NHC ligands for gold-catalyzed hydrocarboxylation
Diana Onofre	Plant Science JCAST	Dr. Anil Shrestha Plant Science	Drought and salinity stress tolerance of Mexican sprangletop (<i>Leptochloa fusca</i> ssp. <i>Uninervia</i>) seeds during germination and glyphosate tolerance of seedlings
Shyam Patel	Biology CSM	Dr. Jason Bush Biology	Evaluating the Impact of E-Cigarette Vapor Elements and Cytotoxicity
Isidro Perez	Civil & Geomatics Engineering LCOE	Dr. Maryam Nazari Civil & Geomatics Engineering	Analytical Study of the Structural Response to Near-Field Earthquakes
Carly Robinson	Biochemistry CSM	Dr. Kalyani Maitra Chemistry	Synthesis and Characterization of Ferrocenyl-peptidomimetics
Jaklin Rowley	Civil & Geomatics Engineering LCOE	Dr. Wei Wu Construction Management	Exploration of Optimized Materials and Structural Forms for Low-Cost Homeless Shelter using 3-D Printing
Melissa Sanchez	Chemistry CSM	Dr. Hubert Muchalski Chemistry	Synthesis of Precursors to Electron-Deficient Oxazolidine-Based Sulfenic Acids

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Harmala Singh	Biology CSM	Dr. Joy Goto Chemistry	Novel NMDA Receptor-Specific Desensitization/Inactivation Produced By Ingestion of the Neurotoxins BOAA or BMAA
Abu Tahir Taha	Biology CSM	Dr. David Lent Biology	Characterization of Symptoms Associated with Expression of Alpha-synuclein in Entire Nervous System of Drosophila and Effects of Dietary Caffeine Affiliated
Maineng Thao	Animal Sciences JCAST	Dr. David Lent Biology	Analyzing the effects of Coenzyme Q10 on Parkinson's Disease model Drosophila Melanogaster
Milagros Verduzco	Civil & Geomatics Engineering LCOE	Dr. Arezoo Sadrinezhad Civil & Geomatics Engineering	The Effects of Seismic Activity on Dome Homes
Reina Warnet	Biology CSM	Dr. David Lent Biology	A Study of Navigational Mechanisms in Wood Ants
Ryan Watters	Chemistry CSM	Dr. Hubert Muchalski Chemistry	Synthesis of precursors to substituted quinoline sulfenic acids
Matthew Mendoza	Biochemistry CSM	Dr. Cory Brooks Chemistry	Characterization of the Interloop Disulfide Bond and a Hydrophobic Cluster in High Affinity Binding of Camel VHH to <i>Listeria monocytogenes</i>

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Matthew Lansman	Biochemistry CSM	Dr. Qiao-Hong Chen Chemistry	5-O-Substituted-3,3',4',7-Otetramethylquercetins as anti-prostate cancer agents
Janay Mommer	Biochemistry CSM	Dr. Hubert Muchalski Chemistry	Preparation of bulky Ipr-NHC ligands for gold-catalyzed hydrocarboxylation
Max Aguiniga	Mechanical Engineering LCOE	Dr. Deify Law Mechanical Engineering	Drag Force Study of Airflow over Several Physical Objects in a Wind Tunnel: Experiments and Simulations
Demi Ayala	Biochemistry CSM	Dr. Cory Brooks Chemistry	Production of 1.2TR Protein from MUC16
Tyler Caffee	History COSS	Dr. Romeo Guzman History	The History of San Joaquin Valley Soccer: Archive Project
Joel Castillo	Chemistry CSM	Dr. Laurent Dejean Chemistry	Determination of the Effects of Particulate Matter on ROS Production in Alveolar Macrophage Cells Using Flow Cytometry
Christian Cunningham	Biology CSM	Dr. Tricia Van Laar Biology	Analysis of chaperone protein spy in Klebsiella pneumoniae and its relation to antibiotic tolerance within the biofilm
Katlyn Grootendorst	Biology CSM	Dr. David Lent Biology	Beta-amyloid's effect on the sleep/wake cycle in Drosophila melanogaster

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Ravinder Kang	Chemistry CSM	Dr. Kalyani Maitra Chemistry	Waste Water Quality Improvement by Algae Treatment
Prathana Kumar	Biology CSM	Dr. Santanu Maitra Chemistry	Synthesis of ApoE Down Regulation Molecules for Alzheimer's Disease Drug Therapy
Itzel Lopez	Biology CSM	Dr. Laurent Dejean Chemistry	Identification of complex proteins and their interaction with Bax
Pravien Rajaram	Biochemistry CSM	Dr. Qiao-Hong Chen Chemistry	Studies on the potential of 3-O-substituted-Quercetins as Anti-prostate cancer agent
Emily Ramirez	Biology CSM	Dr. Steve Blumenshine Biology	The Role of Disturbance on San Joaquin River Macroinvertebrate Assemblages; Implication for Chinook Salmon Survival and Growth
Victor Rasgado	Geomatics Engineering LCOE	Dr. Scott Peterson Civil & Geomatics Engineering	Relative comparison of Drone Photogrammetry and LiDAR 3D Point Cloud
Scott Thompson	Chemistry CSM	Dr. Santanu Maitra Chemistry	Amide Bond Modulation: Manipulating Energy Landscapes for Conformational Preferences
Pedro Valencia	Computer Engineering LCOE	Dr. Hovannes Kulhandjian	Binary Communication using the Visible Light Spectrum

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		Electrical & Computer Engineering	
Der Xiong	Chemistry CSM	Dr. Jai-Pil Choi Chemistry	Electron hopping of alkylthiolated silver nanoparticles
Elaine Youssef	Biology CSM	Dr. Laurent Dejean Chemistry	Study of the effects of Bcl-2 overexpression on the efficiency of pro-lymphocyte mitochondrial oxidative phosphorylation
Shoji Hishida	Physics CSM	Dr. Pei-Chun Ho Physics	Characterization of Normal-State Thermal Properties of Filled-Skutterudite Samples
Scott Harbour	Mathematics CSM	Dr. Steve Chung Mathematics	Fantasy Football Points Prediction Using Bayesian Statistics
Timmy Lee	Chemistry CSM	Dr. Qiao-Hong Chen Chemistry	Synthesis of 5-O-substituted-2,3-dehydrosilibinins as anti-prostate cancer agents
Ruby Martinez	Biochemistry CSM	Dr. Joy Goto Chemistry	Spotted Wing Drosophila and the Effects of Cyt P450
Brandi Mason	Biochemistry CSM	Dr. Santanu Maitra Chemistry	Directing Electrons Around the Amide Bond to Regulate Conformation
Shelby Moshier	Biology CSM	Dr. Joshua Reece Biology	The phylogenetic distribution of climate change vulnerability in California's birds

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Vanna Nauk	History COSS	Dr. Romeo Guzman History	Visibility, Liberation and Integreation of Fresno LGBTQ Millennials
Micah Olivas	Biochemistry CSM	Dr. Laurent Dejean Chemistry	Determining the Effects of PM 2.5 Species on ROS Production in Alveolar Macrophage Cells
Michael Castro	Biology CSM	Dr. Tricia Van Laar Biology	Characterizing the Microbiome of the Avian Nest
Cynthia Sanchez	Biology CSM	Dr. Kalyani Maitra Chemistry	Applying Algae as an Alternative to Fossil Fuels
Daniel Ashley	Biology CSM	Dr. Jason Bush Biology	Relationship Between E-Cigarette Vapor Elements and Cytotoxicity
Jasdeep Sangha	Civil & Geomatics Engineering LCOE	Dr. Arezoo Sadrinezhad Civil & Geomatics Engineering	Recreating the Modified Proctor for On-The-Field Applications
Dakota Daffron	Mechanical Engineering LCOE	Dr. Ajith Weerasinghe Mechanical Engineering	Binary semiconductors project
Ahmed Mohamed	Biochemistry CSM	Dr. Jai-Pil Choi Chemistry	Recycling of Si PV Solar Panels