38th Annual Central California Research Symposium



Tuesday, April 18, 2017
Wednesday, April 19, 2017
University Business Center
California State University, Fresno

Judges for Undergraduate and Graduate Oral and Poster Presentations

Dr. Jason Bush California State University, Fresno Dr. Alejandro Calderon-Urrea California State University, Fresno Dr. Carmen Caprau California State University, Fresno Mr. Doug Carey California State University, Fresno Dr. Steve Chung California State University, Fresno Dr. Collin Closek Stanford's Center for Ocean Solutions Dr. Paul Crosbie California State University, Fresno Dr. Kathleen Dyer California State University, Fresno California State University, Fresno Dr. Qin Fan Ms. Marie Fisk California State University, Fresno Dr. Tamas Forgacs California State University, Fresno Dr.Joseph Gandler California State University, Fresno Dr. Joy Goto California State University, Fresno Dr. Raymond Hall California State University, Fresno California State University, Fresno Dr. Howard Hendrix California State University, Fresno Dr. Alam Hasson Dr. Donna Hudson University of California, San Francisco University of California, San Francisco Ms. Susan Hughes Ms. Lisa Husak University of California, San Francisco Dr. Marat Markin California State University, Fresno Dr. Justin Matthews California State University, Monterey Bay Dr. Hubert Muchalski California State University, Fresno Dr. Beng Ong California State University, Fresno

Dr. Melissa Rhea WestCare Foundation

Dr. Elvia Rodriguez

California State University, Fresno

University of California, San Francisco

Moderators for Oral Presentations

Mr. Doug Carey
Ms. Becky Etheridge
Mr. Rodrigo Gomez
Mr. Chuck Radke
Mrs. Melissa Rowe

California State University, Fresno
California State University, Fresno
California State University, Fresno
California State University, Fresno

Event and Proceedings Coordinators

Millie C. Byers & Gayle Sherwood

California State University, Fresno

38th ANNUAL RESEARCH SYMPOSIUM Coordinating Committee

California State University, Fresno

Jason Bush, PhD Department of Biology

Alejandro Calderon-Urrea, PhD
Department of Biology

Brian Tsukimura, PhD Department of Biology

Saeed Attar, PhD
Department of Chemistry

Alam Hasson, PhD Department of Chemistry

Beng Ong, PhD
Department of Marketing

Steve Chung, PhD
Department of Mathematics

Tamas Forgacs, PhD
Department of Mathematics

Adnan Sabuwala, PhD
Department of Mathematics

Sharon Benes, PhD Department of Plant Science

Karl Oswald, PhD Department of Psychology

Doug Carey, MA
Division of Research and Graduate Studies

Maral Kismetian, CRA
Division of Research and Graduate Studies

James Marshall, PhD
Division of Research and Graduate Studies

Ramakrishna Nunna, PhD Lyles College of Engineering

UCSF Fresno Medical Education Program

Loren Alving, MD Department of Neurology

Donna Hudson, PhD Academic Research and Technology

Lisa Husak, MPH, CCRP Department of Orthopaedic Surgery

> Paul Mills, PhD Professor

Michael Peterson, MD Department of Internal Medicine

> Kent Yamaguchi, MD Department of Surgery

California State University, Monterey Bay

Justin L. Matthews, PhD Department of Psychology

Fresno City College Amanda Henry, MS Department of Chemistry

Carl Johansson, MS Department of Life Science

Rick Stewart, MS Department of Biology



April 18, 2017 Oral Presentations

Concurrent S	ession A	University Business Center
		Auditorium 191
9:00 AM	FUNCTIONAL SURFACE TARGET AS CONTROL AND VALID SCANNER POINT CLOUD	DATION OF 3-D LASER
	Ayad Ahmed, Scott Peterson	
9:15 AM	DEVELOPING A TRANSIT DAILY DEMAND PROFILE FOR FR GEOGRAPHY, TIME AND TRANSPORTATION MODES	RESNO: IMPACTS OF
	David Johnson, Aly Tawfik	
9:30 AM	Simulating groundwater flow at Fresno's Leaky Acres r	echarge facility
	Jeet Basa, Bijay K C	
9:45 AM	Kalman Filter Based Z-source Inverters in Photovoltaic	(PV) applications
	Abhishek Gubbi Basavaraj, Woonki Na	· · · · · · · · · · · · · · · · · · ·

Concurrent Session B		University Business Center
		UBC192
9:00 AM	A Categorical Model of Virtual Singular Braids Sarah McGahan	
9:15 AM	Symmetry of the power sum polynomials Nicholas Newsome, Maria Nogin and Adnan Sabuwala	
9:30 AM	On Contractive and Expansive Mappings in Compact N Edward Sichel	Metric Spaces
9:45 AM	Modeling Conditional Variance in Financial Times Series Jalen Harris	s using Bayesian Methods
10:00 AM	A Grim Presentation Samuel Barretto, Matthew Miyake	
10:15 AM	On a Spectral Gap Characterization for Scalar Type Spectral Markin	ectral Operators

Concurrent Session C	University Business Center
	UBC 194

9:00 AM REDESIGNING A PHYSICAL SCIENCE COURSE FOR ENHANCED PRE-SERVICE TEACHER UNDERSTANDING

Anthony Hinde, Dermot Donnelly

9:15 AM The Atmospheric Chemistry of Thirdhand Smoke

Divine Yang, Alam Hasson, Krish Krishnan, Jason Bush, Erik Rangel, Justin Vang, and Tanner Melton

9:30 AM Dielectric Constant of a Solvent Mixture: A Major Determinant of the Keto-Enol Tautomerization Equilibrium in Acetylacetone

Candice Cortney, Krish Krishnan

9:45 AM Diarylpentadienones as chemotherapeutics for prostate cancer: Structure-activity relationship

Manee Patanapongpibul, Xiaojie Zhang, Guanglin Chen, German Ruiz Peres, and Qiao-Hong Chen

10:00 AM Measurements of Organics in Ambient PM 2.5 in Fresno California

James Baroi, Alam Hasson

11:45 AM Shooters: Psychological Characteristics in Shoot/No-Shoot Decisions

Matthew Sharps, Schuyler Liao, Jana L. Price-Sharps

Concurrent Session D		University Business Center
		Auditorium 191
10:30 AM	Understanding Travel Behavior Using Data Fusion Metho	ds
	Swapnil Kendale	
10:45 AM	Automatic Indoor Lighting System.	
	Sagnik Mitra	
11:00 AM	Search for signatures of Littlest Higgs with T-parity in dijet detector	t final states with ATLAS
	Marijus Brazickas, Harinder Singh Bawa	
11:15 AM	Metaprogramming In A Functional-Programming Based	Web Framework
	Jeevjyot Singh Chhabda	
11:30 AM	Schwinger Effect for Non-Abelian Gauge Bosnons	
	Michael Ragsdale	

Concurrent S	Session E University Business Center
	UBC 192
10:30 AM	Analysis of Thermal Properties of Nd-doped PrOs4Sb12 via Measurements of Specific Heat
	Shoji Hishida, Jesus Velasquez, Taylor McCullough-Hunter, Pei-Chun Ho, Tatsuya Yanagisawa, Brian Maple
10:45 AM	Web Based Machine Learning Tool and Interface
	Gregory Dzhezyan, Ming Li
11:00 AM	SUBSIDENCE DETERMINATION ALONG NORTH-SOUTH CROSS-SECTION LINE IN
	CENTRAL VALLEY, CALIFORNIA
	Marcelo Romero, Mike Mustafa Berber
11:15 AM	An Efficient Deterministic Edge Traffic Distribution Network-on-chip Routing Algorithm Design
	Eric Muller, Nan Wang
11:30 AM	Developing A Functioning Tabletop Model of Traffic-Actuated Signalized Intersection
	Tranice' Warner, Aly Tawfik

TRANSPORTATION ART: FROM AESTHETIC VALUES TO OPERATIONAL FUNCTIONS

Tahrima Alam, Tahrima Alam, Aly M. Tawfik

11:45 AM

Concurrent Session F University Business Center

UBC 194

10:30 AM Do perceptions change when the police are to blame? Examining perceptions of monetary compensation for exonerees

Samantha Luna, Jenna Kieckhaefer, Daphne Brito, Jessica Cameron, Alyssa Diaz, Kelly George, Ryan Juan, Vanessa Lopez, Yarelli Mercado-Gonzalez, Mutsumi Ogaki, Jessica Sanchez De La Cruz

10:45 AM Pornography and Public Acceptance: A Step Toward Effective Regulation

Mutsumi Ogaki

11:15 AM How do police build rapport? Examining officer stated verbal techniques and their effectiveness

Ryan Juan

11:30 AM PAHs and Black carbons emitted from cooking activities

Jimmy Hou, Simrat Aulakh

Plenary Session University Business Center

Auditorium 191

12:15 PM Opening Remarks and Welcome

Dr. James E. Marshall, California State University, Fresno

Dr. Donna Hudson, UCSF - Fresno

12:25 PM Public Perceptions of Exonerees from the Criminal Justice System

Shelby Elia, Jenna Kieckhaefer

12:40 PM The Effects of Water Use on Economic Growth: Investigating California's Surface

and Ground Water Use

Christopher Andresen

12:55 PM Are All Cities Created Equal? The Truth is Not Self-Evident

Chris Hensley, Jennie MacFarland, Rachel Morrow, Madhusudan Katti

Concurrent S	ession G University Business Center
	Auditorium 191
1:30 PM	EVALUATIONS OF "THICK" WOMEN MODEL WHEN CONSUMERS ARE (NOT) EXPOSED TO IMAGE OF THIN MODEL OR PLUS-SIZE MODEL
	Ashley Contreras, Beng Soo Ong
1:45 PM	The Influence of Differing Work Schedules Among Cohabitating and Dual Earning Couples on Relationship, Job, and Life Satisfaction
	Kristina Hollenbeck
2:00 PM	Donor Perceptions on Terminology Used for the Sector and Its Effects on the Resulting Interactions between Individuals and CBOs
	Navmit Dhesi
2:15 PM	The Impact of Product Attributes, Purchase Involvement, and Delivery Time on the Concept of "Transaction Gratification" in Online Purchases
	Caden Jones , Beng Ong
0.20 D.4	
2:30 PM	School Finance Reform, Student Success, and Educational Equity: School District- Level Analysis of California's New School Funding Formula
	Brandon Sepulveda
2:45 PM	The Effects of Motivation on Financial Literacy of College Students
2.40170	Amy Tang, Janice Peterson
	Anny rang, sameer crosser
3:00 PM	The Economic Value of a Degree: Measuring Rates of Return by Major at California State University, Fresno
	William Trickett

University Business Center

Concurrent Session H

	UBC 192
1:30 PM	The Americanization of Fresno, California 1914-1930 Savonna Greer
1:45 PM	You Gotta Have Faith: Communication Privacy Management in Exclusivist Christian Families Regarding a Significant Change in Religious Belief Braedon Worman
2:00 PM	Taking Responsibility: How White Student Affairs Professionals Engage with Students on Whiteness and White Privilege Jessica Adams
2:15 PM	RELATIVE RECRUITMENT OF THE VASTUS LATERALIS AND GLUTEUS MAXIMUS DURING FRONT SQUATS IN OLYMPIC WEIGHTLIFTERS John Sheeter, Jacobo Morales
2:30 PM	Using Mental Skills Training to Help Cadets Prepare for the Army Physical Fitness Test Miguel Vera, Jenelle N. Gilbert, Boyce R. Buckner
2:45 PM	Bigger, Faster, Stronger Safer? The Use of Self-Talk Interventions on Barbell Back Squat Kinematics Ivan Macias, Luke Pryor, Mark Baldis

1:30 PM	Protein Expression and Structural Characterization of Lunasin: An Anti-Cancer Peptide
	Jaideep Singh, Cory L. Brooks

1:45 PM Fluorescence Microscopy Demonstrates Neutralization of Listeria monocytogenes by Camelid Variable Domain Heavy Chain Antibodies (VHH)

Moeko Toride, Cory L. Brooks

2:00 PM Investigating the Nature of Science Understanding of Pre-Service Elementary Teachers in an Integrated Science Course

Ryan Umar, Dr. Dermot Donnelly

2:15 PM Spatial Variation in the Carrying Capacity of Juvenile Chinook Salmon Among Sites along the San Joaquin River

Karen Boortz, Steve Blumenshine

2:30 PM Genetic analysis of Persister cell formation in respiratory pathogen; Pseudomonas aeruginosa

Saika Esani, Erik Arteaga

2:45 PM Evaluation of Naturally Occurring and Inoculated Microorganisms on Stone Fruit Sizer Carriers

Kelli Williamson, Steven Pao, Erin Dormedy

Concurrent	Session J University Business Center
	Auditorium 191
3:30 PM	Characterizing the fecal microbiome and resistome of American Crows in Fresno, CA and Davis, CA.
	Rachel Nelson, Michael Castro, Jonathan Eisen, Madhusudan Katti, Tricia Van Laar
3:45 PM	Effects of thermal stress on vitellogenin levels in the hemolymph of the anomuran crab Petrolisthes cinctipes.
	Hailey Salas, Nathan Sayavong, Alex Gunderson, Jonathon Stillman, Brian Tsukimura
4:00 PM	Synorgistic offset of Organic Chalcones on C. plagans and M. incognita
4.00 F/M	Synergistic effect of Organic Chalcones on C. elegans and M. incognita Shantanu Shinde, Sosse Kendoyan, Alejandro Calderón-Urrea
4:15 PM	Gastrointestinal Endoparasite Prevalence in the San Joaquin Kit Fox (Vulpes macrotis mutica)
	Jessica Wilson, Paul R. Crosbie, Brian Cypher, Alyssa Anrig, Jessi Doshier, Marissa Montez, Antonio Guerra
4:30 PM	THE IMPACT OF DIFFERENT INSTRUCTIONAL STRATEGIES ON STUDENTS' UNDERSTANDING ABOUT THE CELL CYCLE IN A GENERAL EDUCATION BIOLOGY COURSE
	Sanjana Krishnamurthy, Emily Walter
1.15 DA 4	Monitoring Soil Saliniby in Alfalfa and (loss) bull who alexage fields weign 544, 20 soil
4:45 PM	Monitoring Soil Salinity in Alfalfa and 'Jose' tall wheatgrass fields using EM-38 soil Surveys and Developing Input Data for a Transient Hydro-salinity Computer Model

Aminder Singh, Sharon E. Benes, Nigel Quinn, Florence Cassel Sharma

Concurrent Se	ession K University Business Center
	UBC 192
3:30 PM	New Silibinin Derivatives Exhibit Potential in Suppressing Prostate Cancer Cell Proliferation
	Andre Vignau, Bao Vue, Guanglin Chen, and Qiao-Hong Chen
3:45 PM	Synthesis towards 7-O-substituted-3,3',4'-O-trimethylfisetins for the exploration of their Anti-cancer potential
	Kevin Muthima
4:00 PM	3-O-Aminoalkyl-3',4',5'-Trimethoxyflavonols as Anti-Prostate Cancer Agents
	Maizie Lee, Xiang Li, Guanglin Chen, and Qiao-Hong Chen
4:15 PM	Towards Understanding of Peroxidation of Mammalian Sterols: Microwave- Assisted Synthesis of 7-Dehydrocholesterol Isomers
	Amanda Olvera, Juan Ramos Flores, and Hubert Muchalski
4:30 PM	Looking Beyond a 'Lack of Resources': Exploring the influence of institutional
4.50170	environments and structures on individual teaching practices in STEM
	Ivan Ceballos Madrigal, Emily Walter
4:45 PM	Is What They Say What They Do?: Comparing Observed and Self-Reported Teaching Practices of Faculty in STEM
	Mireya Lemus, Evelin Munoz

University Business Center

Concurrent Session L

	UBC 194
3:30 PM	Yo No Cruze La Frontera, La Frontera Me Cruzo Heriberto Zavala
3:45 PM	From Caution to College: The Effects on Veterans with Self-Reported Trauma Symptoms and Sharing their Experiences with The Campus Community Jemerson Diaz, Elena Klaw
4:00 PM	When Trust is a Must: Priming Attachment Security Increases Trust in Doctors Vianey Vazquez-Guerrero, Nicole Jones
4:15 PM	Particulate matters emitted from different cooking methods Simrat Aulakh, Jaymin Kwon
4:30 PM	The use of B-flow imaging versus current standard techniques to detect severe fetal anemia Tara Brah, Heather Vasquez
4:45 PM	A Comparison of TUNEL and Sperm Chromatin Dispersion for Testing for Sperm DNA Fragmentation in Infertile Males Mai Tran, Mo, Lihong M.D; Flores, Cassiana M.Sc.; Kelly, Eduardo M.D; Sueldo, Carlos M.D

Concluding Remarks University Business Center

Auditorium 191

5:15 PM Concluding Address

Provost Lynnette Zelezny, California State University, Fresno

Breaking Bad in California and Its Impact on Health Care

Manjit Singh

5:45 PM Award Ceremony and Reception



Poster Presentations

Poster Session I 9:00 AM until 10:30 AM University Business Center
Gottschalks Gallery

Authors will be available for questions from 9:00 AM until 10:30 AM.

1 Understanding the mechanism by which organic chalcones kill Caenorhabditis elegans nematodes

Jessica Aguilar, Alejandro Calderon-Urrea

2 Kinetics and Thermodynamics of Polar Aprotic Solvent-Driven Thiol Oxidation Reactions by Nuclear Magnetic Resonance Spectroscopy.

Angham Ahmed, Jaideep Singh

3 Development of Pichia pastoris as a Model System for Myosin x-induced Filopodia Formation

Pablo Guaman Tipan, Karine Gousset

4 Improving cognitive decline associated with Alzheimer's disease in a Drosophila melanogaster Tau model using dietary caffeine

Ashley Her, Haley Chapman, April Booth, Baylee Dias, and David D Lent

5 Alzheimer's Disease: Measuring Amyloid Beta Formation Induced by Exposure to Environmental Neurotoxin β-methylamino-L-alanine (BMAA)

Jazmin Arias, Celina Ortega-Gonzalez, Ellen Douglass

6 Examining Biomarkers in Aggressive Tumor Types of Thyroid Cancer

Jazmin Cheatham

7 Comparing the suction flow of bladderwort across species to explore the effect of trap morphology

Fatima Hidalgo, Otto Berg, Ulrike Müller

Poster Session I 9:00 AM until 10:30 AM University Business Center
Gottschalks Gallery

8 Study of the structure-function relationship of Bax using a conformation-specific ELISA

Jorje Beserra, Laurent Dejean, J.B Urtecho, Jordan Friedlein

9 C. briggsae hybrid developmental delay is caused by mitochondrial-nuclear mismatch

Morgan Montelongo, Emeline Pano, Joel Rodriguez, Christopher Jorgensen

10 Interaction of Human Serum Albumin(HSA) and its specific nanobody

Shuchi Kakkad, Moeko Toride

11 Investigating the genetic basis of glyphosate resistance in the San Joaquin Valley agricultural weed hairy fleabane (Erigeron bonariensis)

Rigoberto Molina, Ankit Pathak, Katherine Waselkov

12 The Debilitating Effects from Environmental Neurotoxins on a Fruit Fly Model of ALS-PDC

Richard Moua, Catherine Mueller, Harmala Singh

13 The Nematicidal Activity of CED-4 Peptides on Caenorhabditis elegans

Shoghig Stanboulian, Alejandro Calderon-Urrea

14 The Effect of Chalcone 17, Chlacone 25 and mix on different soil and non-soil microorganisms

Sosse Kendoyan, Shantanu Shinde

15 Comparative analysis of five CRP-like protein homologs

Alisa Manzula, Dongkuk An, Joel Curiel, and Hwan Youn

Poster Session I 9:00 AM until 10:30 AM University Business Center
Gottschalks Gallery

16 Field imaging reveals perceptual and navigational strategies of wood ants in naturalistic environments

Erik Arevalo, Reina Warnert, Austin Mendoza, David D Lent

17 Variation in Juvenile Chinook Salmon Diets Across Populations

Akusha Kaur, Steve Blumenshine

18 Developing a Nanobody Based ELISA for the Detection of Listeria monocytogenes.

Akhilesh Shenai, Cory Brooks

19 The Interactions of Myosin-X with mRNP complexes

Puneet Sran

20 Assessing Mitochondrial Function in Experimental Caenorhabditis briggsae Hybrids

Emma Johnson

21 Establishing absorption of organic chalcones in Caenorhabditis elegans by monitoring the absorption of DAPI and Hoechst Dyes

Sieham Nassrallah, Tamar Melkonian

22 Screening of transgenic Dunaliella primolecta for wastewater treatment and accumulation of neural fatty acid

Kristie Major, Yadira Andrade, Chirag Vazirani

23 The metabolite profile of human neural progenitor cells post-irradiation

Maria Mendoza, Jason Bush

Poster Session I 9:00 AM until 10:30 AM University Business Center
Gottschalks Gallery

24 Fitness cost of glyphosate resistance in hairy fleabane (Erigeron bonariensis) under drought conditions

Ankit Pathak, Rigoberto Molina, and Katherine Waselkov

25 Chloropicrin and methyl iodide degradation facilitated by Rhodanobacter and Bacillus species - Identifying the mihA gene and its sequence

Gary Smalz

26 Evaluation of miRNAs regulating stem cell markers in Gemcitabine-resistant pancreatic cancer cells.

Karamjot Kaur Vander, Karla Jimenez

27 Are bladderwort near the lower size limit for capturing prey with suction feeding?

Mohammed Shaik, Otto Berg, Ulrike Muller

Poster Session II 11:00 AM until 12:30 PM University Business Center
Gottschalks Gallery

Authors will be available for questions from 11:00 AM until 12:30 PM.

Does subspecific variation correspond to cytotypic variation in the widespread taxon Phlox speciosa (Polemoniaceae)?

Estefania Aguilar-Gutierrez, Katherine Waselkov

2 Generating Classical Multiplier Sequences

Summer Al-Hamdani, Alexandra Leon

3 Characterization of zinc effect on YdeH, a diguanylate cyclase, and its zinc-site mutant

Christian Montiel, Yue Zhou, Shristi Chand, Giancarlo Sulca and Hwan Youn

4 Active-metal mediated cluster growth of Au25PET18 nanoclusters

Randy Espinoza, Jai-Pil Choi

5 Glutathione affects virulence potential of Pseudomonas aeruginosa

Tyler Birges, Saika Esani, Jason Thomas, Bethany Hazen, Amorette Guzman, Justin Okonkwo, Mamta Rawat

6 EFFECT OF Tn GLYCOSYLATION ON THE BIOACTIVE EPITOPE CONFORMATION OF MUC1

Naveen Gokanapudi, Jaideep Singh, Cheenou Her, Krish Krishnan, Cory L. Brooks

7 Effects of divalent metal ions on BMAA and its carbamate adducts

Pedro Diaz-parga, Joy Goto, V.V. Krishnan

Poster Session II
11:00 AM until 12:30 PM

University Business Center

Gottschalks Gallery

- 8 Digital Elevation Modeling of Agricultural Fields for Irrigation Management
 Huy Le, Balaji Sethuramasamyraja
- 9 Flying Above Limitations: Measuring the Effects of BMAA on Fruit Fly Activity
 Lemuel Vince Rivera, Joy J. Goto
- 10 Synthesis of Solution Stable Sulfenic Acids

Quang Le, Hubert Muchalski, Ryan Watters

11 5-O-Substituted-2,3-Dehydrosilibinins Exhibit Greater Anti-Proliferative Potency Than Silibinin in Three Prostate Cancer Cell Models

Timmy Lee, Xiaojie Zhang, Bao Vue, Guanglin Chen, Qiao-Hong Chen

12 Study of the Effect of Bcl-2 Overexpression on Oxamate-induced cytotoxicity in Prolymphocytes

Lucineh Kasnakjian, Rebecca Alves

13 Quantifying and characterizing the Criegee Intermediates formed in Alkene Ozonolysis by using a Scavenger

Vinay Kumar, David Flores, Alam Hasson

14 The Practical Synthetic Approach to 3-O-alkylamino-5,7,20-O-trimethyl-2,3-dehydrosilibinins

William Diaz, Bao Vue, Vignau, Qiao-Hong Chen

15 Synthesis towards Hydnocarpin and Its Analogs as Anti-Prostate Cancer Agents

Leyla Farshidpour

Poster Session II 11:00 AM until 12:30 PM

University Business Center

Gottschalks Gallery

- The Effects of Logging and Prescribed Fire on Seed Production of Sierran Conifers
 Cynthia Vang, Gurjap Dhaliwal and Tom Lor
- 17 The Role of Disturbance on San Joaquin River Macroinvertebrate Assemblages; Implications for Chinook Salmon Survival and Growth

Emily Ramirez, Steve Blumenshine

18 Cloning Strategies for the Expression of Myosin-X in Yeast

Rekha Rangan, Karine Gousset

19 Hand-held Laser-based Chemical Sensors for Absorption and Fluorescence Spectrometry: Application in Chlorophyll Measurements

Jackson Wagner, Nelson Ayala, Kin Ng

20 Analysis of Water Samples for Perfluorooctanoic Acid and Perfluorooctanesulfonic Acid by LC-MS in the Clovis Metropolitan Area

Jameson Krauthammer, Jaskiran Ghuman, Brenna Flynn, Demi Fujino

- 21 Simulation of scene perception, navigation and information storage in wood ants

 Austin Mendoza, Austin Mendoza, David D Lent
- 22 Impact of Atmoshperic Oxidation on the Cellular Toxicity of Cigarette Smoke
 Tanner Melton, Alam Hasson, Jason Bush, Arjun Mann, Robyn Verhalen,
- 23 Electronic Cigarette Solution and Vapor Analysis with GC-MS and LC-MS

 Michael Lazernik. Martin Jones. Preston Cole

Poster Session II 11:00 AM until 12:30 PM University Business Center
Gottschalks Gallery

24 Investigating Hydrogen Peroxide Production In Particulate Matter

Ryan Brost

Three dimensional structure of antifreeze glycoproteins (AFGP) in dimethyl sulfoxide (DMSO) by high-resolution nuclear magnetic resonance (NMR) spectroscopy

Cheenou Her, Yin Yeh and Krish Krishnan

26 Determination of the Effects of Particulate Matter Aerosols on ROS Production in Alveolar Macrophage Cells

Joel Castillo, Anthony Waterston, Micah Olivas

27 Characterization of the Interloop Disulfide Bond in High Affinity Binding of Camel VHH to Listeria monocytogenes

Matthew Mendoza, Moeko Toride, Teresa Brooks, Cory L. Brooks

Poster Session III

1:30 PM until 3:00 PM

University Business Center

Gottschalks Gallery

Authors will be available for questions from 1:30 PM until 3:00 PM.

1 The Effects of Peer Leadership Participation on Student Veterans' Ideas about Self and Others

Sophia Alcala-Cabrera

2 U.S. Participation in Global Climate Change Resolutions: Analysis of the Kyoto Protocol

Rashmeen Kaur

3 Effects of Secondary Trauma in Military Families

Soultana Mpoulkoura

4 The Effects of Anger and Happiness on Opposite Valence Racial Stereotypes

Diego Gomez

5 Patient Satisfaction with Ketamine for Pain Management in the Emergency Department

Iris Price, Karen Pelham, Chathurika Goonawardena, Akashdeep Dhillon, Jaspreet Nakai, Boris Pavic, Brian Anders, Matthew Hendrickson, David Claypool

6 Reducing Stigma-Driven Health Disparities in People Living with HIV (PLWH): A Literature Review

Stephanie Dizon, Constance Hill, William Armaline

7 PESTICIDE EVALUATION OF MITOCHONDRIAL DYSNFUCNTION IN HUMAN NEURAL STEM CELLS

Jose Vera

Poster Session III

1:30 PM until 3:00 PM

University Business Center

Gottschalks Gallery

8 Elimination of Sliding Scale Insulin In a Nursing Home Setting

Paulette Ginier, Lisa Adams, Odarius Pouncil, Jerk San Mateo, Thuhai Phamle

9 Comparison of HbA1c as a screening tool for GDM in first trimester pregnant women

Zev Tovian, Erica Delsman, Todd McCauley, Susan Hughes, Ivan Gomez

10 Intracranial Vascular Steal as a Mechanism for Symptoms Ipsilateral to a High-Grade Carotid Stenosis

Sameer Sundrani, Philippe Vanderschelden, Amir Khan, Armen Choulakian

11 Examining Team Cultures of Success in High Performance Field Hockey Through Self- Determination Theory

Jeffrey Ruser, Jenelle Gilbert, Jamie Robbins, Wade Gilbert

12 THE 'YIPS' IN DIVISION I COLLEGIATE SPORTS: PREVALENCE, CONDITIONS, AND FACTORS

Kei Sato

13 The Effect of Hydration on Landing Error Scoring System Scores in Dehydrated, Hyperthemic, and Fatigued Males

Alexandria Gregory

14 Electronic Conduction of Solid State Thick Films of Alkanethiolate Capped Ag Nanoparticles

Logan Wood, Xiong, Der

Poster Session III University Business Center

1:30 PM until 3:00 PM Gottschalks Gallery

15 Study of Invertase Catalyzed Sucrose Hydrolysis in the presence of Sucralose by Blood Glucometer and Nuclear Magnetic Resonance Spectroscopy

Justin Vang, Cheenou her, Jaideep Singh

16 Analysis of Prey Variation of Juvenile Chinook Salmon by Stable Isotope Analysis

Daniel Whittington, Michael Bravo

17 ANALYSIS OF COLOR OF "CRIMSON SEEDLESS" GRAPES TREATED WITH ORO 151

Diep Le, Geoffrey Dervishian, Eric Person, Sonet van Zyl

18 InO-Epoxy-Graphene Electro-active Composites

Sanjeev Kumar, Walker Tuff

19 HIV-1 protease inhibitors from marine brown algae derived compounds: a literature review

Eric Nunez Aguilar

20 Optimal sensitivity of x-ray fluorescence detection of arsenic in skin phantoms using an x-ray optics system

Benjamin Avila, Mihai Gherase

21 A Primer on Life Cycle Analysis of Cementious Composites with a Focus on Embodied Energy and Emissions

Roshanak Farshidpour, Lamia Tahsin

Poster Session III University Business Center

1:30 PM until 3:00 PM Gottschalks Gallery

Water purification using plasma micro-discharge towards development a hybrid water treatment system

Daniel Apuan, Nicholas James Marshall, Adithya Keshav Mohan, Emma J Van Fossen, Bagrad Oganyan

23 InO-Epoxy-Graphene Electro-active Composites

Diego Ruggiero, Walker Tuff

24 Chemical Recycling of Si PV Panels

Nikesh Pradhan, Garrett Bader

25 A Sustainable Approach to Assess the Resilience of Perforated Wood Shear Walls

Elizabeth Berry, B. Shadravan, and F.M. Tehrani

26 Force applied by any surface

Daniel Hooker

Poster Session IV 3:30 PM until 5:00 PM University Business Center
Gottschalks Gallery

Authors will be available for questions from 1:30 PM until 3:00 PM.

1 Stochastic Simulation for the Future of California Blueberry Production

Madeline Loftus, Serhat Asci

2 Analytics for SmartFarming (Soil Library for Sensors)

Arthish Bhaskar, Balaji Sethuramasamyraja, Chandra Krintz, Rich Wolski and Bo Liu

3 The Effects of Various Levels of Protein, Lysine, Fat, and Fiber on Swine Growth and Pork Quality

Hannah Price, Amanda McKeith

- 4 Family-Based Workshops Associated with an Increase in Vegetable Consumption
 Sara Rima, Maribel Barragan
- 6 COMPARING THE EFFICACY OF PICTURE CARD STIMULI TO STORYBOOK STIMULI IN TEACHING MORPHOLOGIC STRUCTURES TO CHILDREN WITH EXPRESSIVE LANGUAGE DISORDERS

Samantha Ramirez, Christine Maul

7 "IT'S OUR NORMAL" – A FOLLOW-UP STUDY ON ADAPTATIONS FAMILIES MAKE FOR OLDER CHILDREN WITH DEVELOPMENTAL DISABILITIES

Jennifer Ortiz, Christine A. Maul

8 A Multidimensional Rehabilitation Program for a 69 Year-Old Male with a Fear of Falls: A Case Report

Nicholas Oifoh

Poster Session IV
3:30 PM until 5:00 PM

University Business Center

Gottschalks Gallery

9 Identification of potential oomycete plant pathogens from natural waterways in Fresno County to irrigation reservoirs at the University Agricultural Laboratory

Jessie Brazil, Holly Deniston-Sheets, John T. Bushoven, and Margaret L. Ellis

10 OPTIMIZING NUTRIENT MEDIUM ION CONCENTRATION FOR LABORATORY-CULTURED AQUATIC UTRICULARIA PLANTS

Eshan Bhardwaj, Benjamin Arax, Otto Berg, Ulrike K. Müller, John T. Bushoven

11 Effect of Walnut and Pistachio Sap on Spore Germination and Mycelial Growth of : Neofusicoccum mediterraneum, Neofusicoccum parvum, Phomopsis (Nomelini spp.), and Diaporthe neothicola (Phomopsis neotheicola)

Alexis Jackson, Themis Michailides

12 The Effect of a Six-Week Family-Based Healthy Eating program for Latino Children on their Consumption of Sugar-Sweetened Beverages, Fast Foods, and Sweets

William Evans, William Evans, Alma Garcia, Amber Hammons

13 EVALUATING THE EFFECTS OF HIGH-PROBABILITY/LOW-PROBABILITY SEQUENCES ON A MEASURE OF INTERROGATIVE SUGGESTIBILITY

Grecia Mendoza, Marianne Jackson

14 Thesis

Catherine Nakato, Peter English

15 Changing Reduction Sequences of Obsidian from the Grandad Site, Central Sierra

Felicia Avendano, Mika Woods, Shay Perryman

Poster Session IV 3:30 PM until 5:00 PM University Business Center
Gottschalks Gallery

16 Mobile application implementation of biologically inspired visual scene perception

Deepti Shashidharaiah, Deepti Shashidharaiah, Sri Ramya Nimmagadda, Jeevjyot Chhabda, David D Lent

17 Testing and Testable Design of Digital System using Industry-Verified Electronics Design Automation Tools

Vidya Sagar Reddy Gopala, Reza Raeisi

18 Fabrication and Characterization of Barium Titanate based Flexible Two-Phase Lead-Free Piezoelectric Composites

Walker Tuff, Jalen Harris, Jaspreet Badhesha, Yerli Cervantes

19 Improving lead detectability in plaster-of-Paris bone phantoms using a grazingangle geometry x-ray fluorescence measurement

Danielle Tanielian, Summer Al-Hamdani

20 Subsidence in the Central Valley

Andy Magdaleno, Lalita Oka

21 Inst thin films grown by pulsed electrodeposition method to be used in solar cells

Gustavo Silva Hernandez, Adithya Mohan

22 Fabrication of novel lead free methyl ammonium-iodide based perovskite solar cells

David Martinez, Randy Martinez, Fahad Al Sadhaan, Luis Nava, Zachary White-Steele

Poster Session IV 3:30 PM until 5:00 PM University Business Center
Gottschalks Gallery

24 Modeling and control of the prosthetic leg

Xinli Wang

25 Micro-plasma based surface modification of flexible InO-Epoxy-Carbon nanotube composites

Sandeep Mohan, Adithya Katakam, Walker Tuff, Emma J Van Fossen

26 Hands-on Learning with Mechanically Stabilized Earth Sandbox

Eric Gudiño, Adrian Velazquez



April 19, 2017 Oral Presentations

Concurrent Session A

University Business Center

Auditorium 191

9:00 AM RESILIENT DOCTORAL STUDENTS IN CALIFORNIA: A REFLECTIVE STUDY OF THE RELATION BETWEEN CHILDHOOD CHALLENGES AND ACADEMIC SUCCESS

Randy Bessey

9:15 AM The Effects of Linked Learning on Teacher Motivation, Deficit Thinking and Teacher

Burnout Across Low, Mid, and High Poverty Linked Learning School Settings

Chantel Cox, Susan Tracz, Ken Magdaleno, Jared Stallones

9:30 AM PERCEIVED SELF EFFICACY OF PRINCIPALS IN OVER AND UNDERACHIEVING

SCHOOLS

Scott Dille

9:45 AM TESTING AN ONLINE INTERVENTION TO DEVELOP PURPOSE AND HOPE IN FIRST YEAR

COLLEGE STUDENTS AT A MINORITY SERVING INSTITUTION

Rosie Hernandez, Christian A. Wandeler

10:00 AM A QUALITATIVE STUDY OF AFRICAN AMERICAN MALE PRINCIPALS IN CENTRAL

CALIFORNIA: UNDERSTANDING THE FACTORS IMPACTING THEIR PROFESSIONAL

DEVELOPMENT AND SUCCESS

Daren Miller

Concurrent Session B

University Business Center

UBC 192

9:00 AM Fresno Solar Cell: The proposed low-cost high efficient solar cell from non-toxic and earth abundant semiconductors

Ajith Weerasinghe, Gustavo Silva, Luis Nava

9:30 AM Seismic Performance of Unbonded Post-Tensioned Rocking Walls: Shaking Table Experiments

Maryam Nazari, Sri Sritharan

Concurrent Session C

University Business Center

UBC 194

9:00 AM FORMULATION AND EVALUATION OF POLYMERIC MIXED MICELLES FOR DELIVERY OF QUERCETIN TO BREAST CANCER

Arjun Patra, Swaha Satpathy, Anitha K. Shenoy, Jason A. Bush, Muhammad Delwar Hussain

9:15 AM Structure-Activity Relationship Studies of Silibinin as Anti-Prostate Cancer Agents

Bao Vue, Sheng Zhang, Xiaojie Zhang, Andre Vignau, Michael Huang, Timmy Lee, Guanglin Chen, and Qiao-Hong Chen

9:30 AM Chemical-kinetic rate laws applied to predator-prey population dynamics

Otto Berg, Rayhan Kabir, Ulrike K. Müller

Concurrent Session D University Business Center

Auditorium 191

10:45 AM Effects of Mental Illness Stigma Dimensions on Treatment Attitudes

Shauna Dauderman, Christine Edmondson

11:00 AM Care of persons aging with Autism and Intellectual Disability

Funmilola Alli

11:15 AM The Relationship among CBCL (Child Behavior Checklist), EQ-C (Empathy Quotient), SQ-C (Systemizing Quotient), and AQ-C (Autism Quotient)

Janet Saenz, Gerianne M. Alexander

Concurrent Session E

University Business Center

UBC 192

10:30 AM Aligning Leadership Qualities of Special Education Teachers with

Teacher/Paraeducator Collaboration

Jennifer Rivera

10:45 AM AI: The Effects of Using Appreciative Inquiry as a Professional Learning Change

Agent and California Community Colleges

Sara Couch

11:00 AM Leadership Practices In A Linked Learning Environment Focused On Equitable

Practices Of Language Minority Students

Diane Lira

11:15 AM DOES A SHAME RESILIENT WISE INTERVENTION (SWRI) PROMOTE A SENSE OF

BELONGING AND ADDITIONAL NON COGNITIVE SKILLS SUCH AS GRIT, MINDSET, AND HOPE IN FIRST GENERATION STUDENTS NEWLY ADMITTED TO HIGHER

EDUCATION?

Felipe Mercado

11:30 AM THE IMPACT of service-learning on engagement and degree completion for

undergraduate students

Kathleen Schock

Concurrent Session F University Business Center

UBC 194

10:30 AM Wokou in the 16th & 17th Century

Cameron Scott

10:45 AM Una mosca vivaracha: Los límites de la ciencia ante lo fantástico / A lively fly: the

limits of science to the fantastic

Jorge Ceballos Madrigal

11:00 AM Student SELF-EFFICACY (PERSONAL AGENCY) AND MOTIVATION IN LOW, MID, AND

HIGH POVERTY LINKED LEARNING SCHOOL SETTINGS

Cherie Solian

11:15 AM A Narrative Research Study of Cultural Capital, Social Identity, and Self-Efficacy

Impact on the Academic Achievement of Professional Hmong Women

Mai Soua Lee-Cha



April 19, 2017 Poster Presentations

Poster Session I 8:30 AM until 10:00 AM University Business Center
Gottschalks Gallery

Authors will be available for questions from 8:30 AM until 10:00 AM.

- 1 How trap morphology changes with trap size for the carnivorous plant bladderwort Andrea Aparicio Ramirez, Ronnie I. Odia, Otto Berg, Ulrike K. Muller
- 2 Exploring Evolution Acceptance Profiles Among Non-Science Majors
 Ephiram Bosse, Emily Walter
- 3 Family Mealtimes: Clearing the Path to the Prevention of Childhood Obesity in Hispanic Children

Danae Dubberke, Sara Rima, Maribel Barragan, Amber Hammons

- 4 How Conditions Play a Role in the Adoption of Voter ID Laws in State Legislatures

 Alexandra Gallo
- The Effects of High School Involvement on Levels of Servant Leadership of Fresno State Agriculture Students

Taylor Helton, Steven Rocca, Avery Culbertson

6 Identifying protein expression changes in zoledronic acid-treated metastatic breast cancer cell spheroids

Megan Kalomiris, William Whalen, Jason Bush

7 Reactive Oxygen Species and Developmental Delay in Caenorhabditis briggsae

Marisol Lauri, Joseph Ross

Poster Session I 8:30 AM until 10:00 AM University Business Center
Gottschalks Gallery

8 Optimization of silicon nanocrystal synthesis via plasma-enhanced chemical vapor deposition

Matthew Metcalf, Daging Zhang

9 Experimental Evaluation of Dynamic Characteristics of Structural Systems

Zachary Peacock, Maryam Nazari

10 MRF cone type knee brake

Kyle Renberg, Henry Rigdon, Noe Hernandez, Victor Arevalo

Determination of Imidacloprid in Central California Honey and the Decline of the Bee Population

Emmanuelle Issa, Marie Barr-Ramsey, Elia Manzo, Dominic Smith, Megan Tjuanta, Ivan Cisneros-Rodriquez, Josh Comes, Nathaniel Whitaker

12 Analysis of the effects of Bcl-2 family proteins on carbohydrate metabolism of prolymphocytes

Ali Abed, Catalina Olea, Bushra Mahmood, Rhaul Llanos, Nawras Samaan, Preet Kaur, Krish Krishnan

13 Implementing Image Compression Technique using TSIHT algorithm

Jyotsna Yallapragada, Sravya Bolla

14 Vibration Energy Harvesting and Biomedical Application

Abbie Sandquist, Sreekanth Varma Rudraraju

15 Type II Diabetes Education for the Indian Population

Puvandeep Sran

Poster Session I 8:30 AM until 10:00 AM University Business Center
Gottschalks Gallery

16 The Critical Role of Glycine at Position 184 in the Transcriptional Activation Function of the cAMP Receptor Protein

Pegah Mosharaf, Navjot Sangha, Carlos Flores

17 Development of a Content Valid Interview Questionnaire for Hard of Hearing Adults and Their Communication Partners

Stephen Roberts, Nancy A. Delich, Cydney Danisi

18 APIGENIN-LOADED PLURONIC MIXED MICELLES FOR BREAST CANCER THERAPY

Swaha Satpathy, Arjun Patra, Anitha K. Shenoy, Jason A. Bush,

Bharti Ahirwar, Muhammad Delwar Hussain

Poster Session II 10:30 AM until 12:00 PM University Business Center
Gottschalks Gallery

Authors will be available for questions from 10:30 AM until 12:00 PM.

1 Acute-Care Physical Therapy Proves Beneficial for a 73 y.o. male S/P CABG with Medical Complexity

Kris Haycock

2 Case Report – Conservative Management of Nerve Traction for a Construction Worker who had a Wrist Injury due to a Fall on an Outstretched Hand.

Suneth Attygalle

3 Computerized Dynamic Posturography Comparing the Bertec Balance AdvantageTM and NeurocomR Equitest in Assessing Postural Stability in Healthy Adults

Carolyn Bentley, Monica Rivera, Nancy Wubenhorst

4 Effects of a Multidimensional Program to Address the Fall Risks in a Community Dwelling Older Adult: A Case Report

Kayla Brass

A Multi-Faceted Physical Therapy Intervention for a Chronic Stroke in a Middle Aged Male: A Case Report

Steven Cabrales

6 Physical Therapy Interventions for an Elderly Male with a Chronic Multifactorial Balance Problem: A Case Report

John Cardinale, Toni Tyner

7 The Effects of Therapeutic and Vestibular Exercises on Cervicogenic Dizziness and Pain: A Case Report.

Katelyn Cartwright

Poster Session II 10:30 AM until 12:00 PM University Business Center
Gottschalks Gallery

8 A COMPREHENSIVE PHYSICAL THERAPY APPROACH IN A YOUNG ADULT WITH SEVERE MUSCLE WEAKNESS FOLLOWING ORIF OF AN INTERTROCHANTERIC HIP FRACTURE

Ashley Christiansen, Jennifer Adame-Walker

9 PHYSICAL THERAPY TRAINING S/P SPINAL FUSION AND PARIETAL MENINGIOMA EXCISION: A CASE REPORT

Carolyn Collins

10 Acute Physical Therapy Interventions Improves Functional Endurance for an Elderly Male with COPD: A Case Report

Megan Comparan, Jennifer Roos

11 Conservative Treatment for a Torn Medial Meniscus Using the Movement System Impairment Approach: A Case Report

Jacqueline Cortez

12 PHYSICAL THERAPY STATUS POST TOTAL HIP ARTHROPLASTY SECONDARY TO FEMORAL NECK FRACTURE IN AN ELDERLY PATIENT WITH DEMENTIA: A CASE REPORT

Amy DeBorba

A Conservative Intervention Program for an Obese 83-Year-Old Female with Severe Ankle Osteoarthritis: A Case Report

Sean Goetzl

14 The Effectiveness of Multi-Dimensional Interventions to Improve Mobility for a 59 y.o. female with Multiple Sclerosis: A Case Report

Stephanie Gomez, Jennifer Roos

Poster Session II 10:30 AM until 12:00 PM University Business Center
Gottschalks Gallery

15 A Comprehensive Physical Therapy Approach to Treating a Non-Compliant Patient Following Subacromial Decompression Surgery: A Case Report

Ryan Hastie

Physical Therapy Intervention for AMBRI Shoulder Instability Prior to Surgical Intervention: A Case Report

Kelly Hosey

17 Acute Care Physical Therapy Management for a Multi-System Elderly Female with Osteoarthritis: A Case Report

Melissa Hu, Jennifer Roos

Posteriolateral Fusion: A Case Report

- 18 A Cupping Intervention For a Patient with Upper Extremity Neuropraxia: A Case Report
- 19 Sub-Acute Physical Therapy Intervention for a 92-year-old Female Following a C2

Robbie Martin

Mike Lopes

20 Improving Mobility in an Orthopedic Trauma Patient with Pulmonary and Cardiac Complications in an Acute Setting: A Case Report

Yalda Mendoza

21 Return to Weight Loss: Successful Interventions for an Overweight Patient with Low Back Pain - A Case Report

Theodore Oliver

Poster Session II University Business Center 10:30 AM until 12:00 PM Gottschalks Gallery 22 Physical Therapy Interventions for an Elderly Female S/P LE ORIF: A Case Report Punam Patel 23 Interventions Associated With Recovery of Strength and Function Following ATL Surgery in an Adult Male with Muscular Dystrophy: A Case Report Jennifer Ray 24 Acute Care Physical Therapy Management for a Medically Frail Elderly Female S/P AKA: A Case Report Maranda Smith 25 Physical Therapy Interventions for Functional Mobility Recovery of a Deconditioned 47 y.o Female Diagnosed with Lupus Nephritis: A Case Report Jacklyn Taylor 26 Acute Rehabilitation of a 27-y.o. Male with Failure to Thrive - A Case Report Joseph Terrill 27 Utilizing Diaphragmatic Breathing in a 71-year-old Female Suffering Chronic Low Back Pain: a case report

Cole Thornton

Poster Session II 10:30 AM until 12:00 PM University Business Center
Gottschalks Gallery

28 Physical Therapy Intervention Develops Locus of Control During Prosthetic Training Post Unilateral Below Knee Amputation: A Case Report

Kelley Urionaguena

29 Physical Therapy Intervention Program for a 67-Year-Old Female Status Post Total Hip Replacement with Peripheral Vascular Disease: A Case Report

Nicholas Ward

30 Multi-Systems Approach to Therapeutic Treatment and Interventions Post Distal Tibia Fracture Reduction and Distal Fibula Fracture in the Acute Care Setting: A Case Report Poster

Taryn Yamagami, Toni Tyner