



Undergraduate Research Reception and Poster Session
October 5, 2017

Mark Samuel Abbott and Dr. Joshua Moss – Physics and Astronomy

Investigating the self-coupling of the Higgs boson in semi-leptonic decays at the ATLAS experiment at CERN

Samuel Cabral and Dr. Andrew Reams – Biological Sciences

*Gene amplification verification and gene knockouts in *Acinetobacter baylyi**

Shannon Clayton and Dr. Andrew Reams – Biological Sciences

*Progress in the investigation of the role of *ruvC* and *yqgF* on spontaneous gene amplification in *Acinetobacter baylyi**

Andrew Fruneaux and Dr. Jerome Buerki – Physics and Astronomy

Exploration of nanowire structures using a simulated annealing algorithm

Laura Givens, Christopher Keys and Dr. Ron Coleman - Biological Sciences

and **Dr. Troy Topping** Department of Mechanical Engineering

*Study of *Saprolegnia* water mold infection of convict cichlid fish eggs*

Kelly Haas, Jeffrey Blanchard, Raja Sivamani, and Dr. Robert Crawford - Biological Sciences

Kineothrix alysoides*, gen. nov., sp. nov., a saccharolytic butyrate-producer within the family *lachnospiraceae

Robin Hankins and Dr. David Shimabukuro – Geology

Geobarometry of granitoids and field analysis of overlying sedimentary cover in the Northern Salinian Block, California

Mark Hedlund and Dr. Robin Datel – Geography

Geographic impacts of Sacramento's fruit and vegetable canneries

Michaela R. Jacobs and Dr. John Spence – Chemistry

Investigation of diradical forming cyclizations of enyne-enones as potential DNA cleaving agents

Terell Keel and Dr. Benjamin Gherman – Chemistry

Using electronics and sterics to affect the cyclization of angularly benzannelated enediynes

Anireeta Kumar, Mimi Tran, Abhilasha Malhotra and Dr. Thomas Savage – Chemistry

His-tag cleavage of purified pinene synthase using different human enterokinase enzymes

Ashlie Lopez, Rafael Corona, Jessica Randhawa and Dr. Jennifer Lundmark - Biological Sciences

Investigating the consequences of drawing for students learning molecular cell Biology

Ashlie Lopez, Rafael Corona, To Hien Doan, Angelina Tupikova and Dr. Kimberly Mulligan - Biological Sciences

Analysis of synapse formation to identify chemicals that converge with Fmr1 mutations to confer risk of Autism.

Morgan Mitchell and Dr. Jay Cummings – Mathematics and Statistics

How to facilitate math magic

Lillian Murphy, Kimberly Nguyen, Kristina Ghenta, Brandon Stryder and Dr. Kimberly Mulligan - Biological Sciences

The developmental neurotoxicant PCB-95 causes Axon-Pathfinding defects in Drosophila melanogaster

Chau Nguyen and Dr. Linda Roberts – Chemistry

Reversibility and nucleation potential of acid-induced aggregation in Apolipoprotein A-I

Jessica Navarro and Dr. Jimmy Pitzer - Biological Sciences

Assessing the effects of commercially-available adult house fly (diptera: muscidae) baits on larval development under laboratory conditions

Gloria Nguyen, Thao Manh-Yu, Roslyn Isseroff, and Dr. Robert Crawford

Biological Sciences

Catecholamine-mediated modulation of growth and biofilm by wound associated bacteria

Patrick Owen and Dr. Amy Wagner – Geology

Diatom Concentrations in offshore sediment cores and their relation to past and future oceanic upwelling along California's coastline.

Angelita Preciado, Brandon Ferrell, and Dr. Ruth Ballard - Biological Sciences

Utilization of Flow-FISH in separating male and female epithelial cells from sexual assault mixtures.

David Pritchett, Nathan Layne, and Dr. Ruth Ballard - Biological Sciences

Recovery of DNA from socks and shoes

Delaney Rice, Waqas Burney, Raja Sivamani, and Dr. Robert Crawford

Biological Sciences

Differential regulation of lipid synthesis in the pilosebaceous gland by resident skin microbiota

Ethan Roberts and Dr. Timothy Davidson - Biological Sciences

It's not the heat, it's the humidity: burrow microhabitats created by a rock-boring crustacean ameliorate stressful environmental conditions in the intertidal.

Tomas Rojo-Castro, Alan Alex, Rosalyn Isseroff and Dr. Thomas Peavy - Biological Sciences

Vascularization within diabetic wounds after treatment with mesenchymal stem cells.

Nestor Samiylenko and Dr. Jamie Kneitel - Biological Sciences

Characterization of evolved TEV proteases for use in FLARE

Juan Solorio and Dr. Joshua Moss – Physics and Astronomy

Integration of the fast tracker trigger at the ATLAS Experiment at CERN

Hila Swindell and Dr. Mikkel Jensen and Dr. Eliza Morris – Physics and Astronomy

The In Vitro motility assay analysis: manual vs automated methodology

Alexander Stafford and Dr. Joshua Moss – Physics and Astronomy
Performance and operation of the diamond beam monitor at the ATLAS experiment at CERN

John Stevenson, Riad Morrarr, and Elma Zuhric and Dr. Jennifer Lundmark
Biological Sciences
Concept mapping in Peer-Assisted Learning classrooms for upper division biology students

Aleksandar Tadic and Dr. Michael Ray – Physics and Astronomy
Development of a new pressure measuring technique for examining pressure gradients in solids.

Danielle Tartar, Daniel Yoon, Roslyn Isseroff, and Dr. Robert Crawford - Biological Sciences
Immune modulatory and antimicrobial effects of fluoxetine treatment improve wound healing in mouse and human models of diabetes

Hai Tran and Dr. Mikkel Jensen – Physics and Astronomy
Case studies of self-assembled, multi-subunit biological structures

Jennifer Tran, Gloria Nguyen, and Dr. Robert Crawford – Biological Sciences
The selective serotonin re-uptake inhibitor fluoxetine modulates growth and biofilm of skin wound associated bacteria

Matthew Trevor and Dr. Jim Wanket – Geography
Hypothetical Greenhaven vehicle evacuation

Catalina Truong, Thao Manh-Yu, Jaime Fuentes, Waqas Burney, Raja Sivamani, and Dr. Robert Crawford - Biological Sciences
Sebocyte-associated free fatty acids differentially shift growth rates of prominent skin microbiome bacterial species

Adriel Varela, RJ Suasin, Katherine McReynolds, and Dr. Robert Crawford
Biological Sciences
Selectively deleterious effects of sulfated Glycodendrimers on bacterial growth and biofilm formation

Nathalie Villegas and Dr. Andrew Reams – Biological Sciences
*Gene amplification mutant isolation and reversion rates at differing pre-growth conditions in bacteria *Acinetobacter baylyi**

Raiyna Villasenor, Haya Akkad, McKenzie Bell, David Bui, David Cao, Erik Christiansen, Nathan Creswell, Garrett Crowley, Summer DeRobertis, Shy Difuntorum, Rafi Feroz, Kristine Giordano, Laura Givens, George Harse, Edward Huynh, Matt Imel, Aman Jagait, Julia Konner, Allison Krebs, Nang Lo, Pedro Moakhar, Riad Morrarr, Nataliya Mudrik, Gurvir Pannu, Jerene Pfeiffer, Lai Saechao, Shawn Simkins, Sanjot Singh, Kimmy Swafford, Alan Toscano and Dr. Ron Coleman - Biological Sciences
Egg size determines fry size in substrate-spawning cichlids

Patrick Watanabe and Dr. Kevin Cornwell – Geology
Dimensional characterization of the English Meadow aquifer

Chloe Welch, Darren Nguyen, Amy Lew, Alain (Chie Hung) Hu, Lillian Murphy, Kimberly Nguyen and Dr. Robert Crawford and Dr. Kimberly Mulligan - Biological Sciences
*Analysis of the Gut-Brain axis in a *Drosophila* model of autism*

Rafael Ceja Ayala and Dr. Alejandra Alvarado - Mathematics and Statistics
(Channel Island University)

The binary and ternary interpretation of the collatz conjecture

Amanda Rose Coleman and Dr. Richard Olsen – Physics and Astronomy
(Naval Postgraduate School in Monterey)

Analysis of full-waveform airborne LiDAR of the Monterey Peninsula.

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Thank you!



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