



*UCSB Summer Sessions
Annual Research Mentorship Program
Symposium & Poster Session*

*Tuesday, July 31, 2012
Wednesday, August 1, 2012
Bren Hall 1414 UCSB*

Tuesday, July 31, 2012

8:45 AM Welcome Address by Dr. Alison Butler, Interim Director

8:55 AM

Title: Space, the Final Frontier: Futuristic Architecture of the 60's

Presenter: Adrian Rodriguez

Mentor: Thuy Tran, Dept. of History of Art and Architecture

9:05 AM

Title: On Square-Free Fixed Points: Sigma Composed of Phi

Presenter: Sanjeev Suresh

Mentor: Jonathan Cass, Dept. of Mathematics

9:15 AM

Title: The Effects of Prompting on the Social Communication Skills of Children with Autism Spectrum Disorder

Presenter: Donna-Lee Arreguin

Mentor: Sunny Kim, Dept. of Education

9:25 AM

Title: Evaluation of the Overgrazing Potential of the Northern Kelp Crab (*Pugettia producta*) on the Santa Barbara Coastline

Presenter: Rachel Song

Mentor: Robert Miller, Dept. of Ecology, Evolution, and Marine Biology

9:35 AM

Title: Correlation between Multitasking and Mindfulness

Presenters: Dawn Rauch and Kenneth Wong

Mentor: Michael Mrazek, Dept. of Psychological and Brain Sciences

9:50 AM

Title: Pink-1 Serves as an Activator of Programmed Cell Death in *Caenorhabditis elegans*

Presenter: Maribel Anguiano

Mentor: Julia Dey, Dept. of Molecular, Cellular, and Developmental Biology

10:00 AM

Title: Optical Variability of Active Galactic Nuclei in Galaxy Clusters

Presenter: Erich Herzig

Mentor: Melissa Graham, Ph.D., Dept. of Physics

10:10 AM

Title: Physiological Implications of Locus of Control

Presenter: Kristina Delgado and Pauline Simes

Mentor: Jessica Cornick, Dept. of Psychological and Brain Sciences

10:25 AM — BREAK

10:35 AM

Title: New Fossil Mammal Specimen (Closely Related to *Pachyrhukhos moyanoi*) Observed in the Chilean Andes

Presenter: Alexandra Mauceri

Mentor: Daniel Luna, Dept. of Earth Science

10:45 AM

Title: Using Behavioral Intervention to Improve Social Skills in Children with Autism Spectrum Disorder (ASD)

Presenter: Niha Gottiparthi

Mentor: Sunny Kim, Dept. of Education

10:55 AM

Title: Image Sonification and Sound Visualization

Presenter: Shankar Iyer

Mentor: David Gordon, Dept. of Music

11:05 AM

Title: The Effects of Hypoxic Water Conditions on the Growth of Mortality Rates of Juvenile Bay Pipefish (*Syngnathus Leptorhyncus*)

Presenters: Rachel Hanford and Cheyenne Wuitschick

Mentor: Nicholas Huynh, Dept. of Ecology, Evolution, and Marine Biology

11:20 AM

Title: PCI's Soluble C-terminal Tail and its Role in Autosomal Dominant Polycystic Kidney Disease

Presenter: Madeline Matthys

Mentor: Jacob Torres, Dept. of Molecular, Cellular, and Developmental Biology

11:30 AM

Title: The Representations of *El Cucuy* in the Latina Culture

Presenter: Maria Maldonado

Mentor: William Calvo, Dept. of Chicana/o Studies

11:40 AM

Title: The Effects of Neurodegeneration on Animal Behaviors Relevant to Neuropsychiatric Disease

Presenter: Megan Burrey

Mentor: Chris Knight, Dept. of Psychological and Brain Sciences

11:50 PM — LUNCH**1:00 PM**

Title: Optimizing an Insulin ELISA to Determine Insulin Levels in Transgenic Type I Diabetic Mice

Presenter: Benjamin Haslund-Gourley

Mentor: Cheri Mann, Dept. of Molecular, Cellular, and Developmental Biology

1:10 PM

Title: Discrepancies Between Implicit and Explicit Sexual Orientation: Homophobia

Presenters: Eva Chen and Ha Nguyen

Mentor: William Ryan, Dept. of Psychological and Brain Sciences

1:25 PM

Title: The Effect of Ectopic Expression of *elt-7* on *C. elegans*' Chemosensation

Presenter: Robert Sumner

Mentor: Misty Riddle, Dept. of Molecular, Cellular, and Developmental Biology

1:35 PM

Title: Measuring the Effects of Fame in Baseball Contracts

Presenters: Mark Koenig and Varun Mathur

Mentor: Tom Zimmerfaust, Dept. of Economics

1:50 PM

Title: The Effects of Gender on Social Support Provision and Ego-Depletion

Presenter: Caitlyn Rand

Mentor: Courtney Gosnell, Dept. of Psychological and Brain Sciences

2:00 PM

Title: Nonlinear Amplification between Outflow and Photoionization in the Presence of Self-Shielding

Presenter: Daniel Godinez and Janardan Sivapalan

Mentor: Kristian Finlator, Ph.D. and Po Kin Leung, Ph.D., Dept. of Physics

2:15 PM

Title: Local Production for Global Consumption: An Ethnographic Examination of Farm Labor on California's Central Coast

Presenter: Iris Ramirez

Mentor: Shelley LaMon Dept. of Anthropology

2:25 PM

Title: International Cyber Security Policy: China's Use of Cyberia and Hactivism to Combat Threats to Its Legitimacy

Presenter: Amy McMillen

Mentor: Chris Hortinela, Dept. of Global Studies

2:35 PM — BREAK**2:45 PM**

Title: Contemporary Conceptualization of Cyber Warfare: Responses to Cyber Warfare Versus Responses to Conventional Warfare

Presenter: Benjamin Kaplan

Mentor: Chris Hortinela, Dept. of Global Studies

2:55 PM

Title: The Effect of Progesterone on Cocaine Seeking in Female Rats

Presenters: Gabriel Rodarte and Alec Silverstein

Mentor: Amanda Carr, Dept. of Psychological and Brain Sciences

3:10 PM

Title: The Effects of Drug History and Withdrawal on the Positive and Negative Effects of Cocaine Use

Presenters: Danielle Kroll and Allison Torchia

Mentor: Shelley Su, Dept. of Psychological and Brain Sciences

3:25 PM

Title: Belief Revision and the Thought Process

Presenter: Vanessa Cano

Mentor: Alex Swan, Dept. of Psychological and Brain Sciences

3:35 PM

Title: The Opponent-Process Properties of Acute Cocaine Usage

Presenters: Zach Kolanksky, Justin Palmer, Alex Peckman, and Brandon Wu

Mentor: Jennifer Wenzel, Dept. of Psychological and Brain Sciences

3:55 PM

Title: The Determinants and Consequences of Teen Pregnancy

Presenters: Connie Carachure, Samantha Marciano, and Trayniesha Taylor

Mentor: Lisa McAllister, Dept. of Anthropology

4:15 PM — Adjourn

Wednesday, August 1, 2012

9:00 AM

Title: Evaluating the Effects of Sulforaphane on the Anti-Mitotic Properties of Paclitaxel and Eribulin in MCF-7 and MDA-MB-231 Breast Cancer Cells

Presenters: Sahil Kemkar and Sophia Zheng

Mentor: Olga Azarenko, Dept. of Molecular, Cellular, and Developmental Biology

9:15 AM

Title: Oncoids: The Mysterious Stromatolite

Presenters: Micaela Kowalczyk and Brendon Nylen

Mentor: Dr. Stanley Awramik, Dept. of Earth Science

9:30 AM

Title: Reality Uncovered: Through the Eyes of a Mexican Immigrant

Presenter: Esmeralda Martinez

Mentor: Marla Ramirez, Dept. of Chicana/o Studies

9:40 AM

Title: The Potential for Fog Water Use by Two Coastal California Shrubs (*Artemisia californica* and *Adenostoma fasciculatum*)

Presenter: Brandy Nisbet

Mentor: Nathan Emery, Dept. of Ecology, Evolution, and Marine Biology

9:50 AM

Title: Creating Private Property Rights for Groundwater and the Formation of Water Markets

Presenter: McCall Koenig

Mentor: Zachary Donohew, Bren School of Environmental Science and Management

10:00 AM

Title: Audio Data Transfer Between FPGA Boards Across an Infrared Beam

Presenter: Nathan Holmes

Mentor: Kunal Arya, Dept. of Electrical and Computer Engineering

10:10 AM

Title: Trench Etching in MOSFET Devices

Presenters: Andrew Bourhis, Dekonti Davies, and Joshua Greenberg

Mentor: Dr. Doron Cohen-Elias, Dept. of Electrical and Computer Engineering

10:30 AM — BREAK

10:40 AM

Title: Evaluating the Trade-off between Low-Power FPGAs and Off-the-Shelf Microcontrollers

Presenter: Jay Iyer

Mentor: Kunal Arya, Dept. of Electrical and Computer Engineering

10:50 AM

Title: Improvements in Compressed Audio Quality Evaluation Techniques

Presenter: Lauren Perry

Mentor: Tejaswi Nanjundaswamy, Dept. of Electrical and Computer Engineering

11:00 AM

Title: Displacement of Primary Resources Due to Recycling

Presenters: Javier Guerrero and Ubaldo Guzman

Mentor: Trevor Zink, Bren School of Environmental Science and Management

11:15 AM

Title: Analysis of a Meal Detection Module for the Artificial Pancreas

Presenter: Meddage Binuki Madushani Wimalasoma

Mentor: Rebecca Harvey, Dept. of Chemical Engineering

11:30 AM

Title: Microtubule Structural Changes Induced by Eribulin and Vinblastine Visualized Using hMBII

Presenters: Alexander Kaufman and Rajeep Parvathala

Mentor: Dr. Douglas Thrower, Dept. of Molecular, Cellular, and Developmental Biology

11:40 AM

Title: Identification of New Genetic Regulators of Programmed Cell Death (PCD) in *C. elegans*

Presenter: Eugene Cho

Mentor: Dr. Pan-Young Jeong, Dept. of Molecular, Cellular, and Developmental Biology

11:50 PM LUNCH**1:00 PM**

Title: Sinusoidal Illumination for Biomicroscopy

Presenters: Harry Cooke and Evan Mok

Mentor: Kevin Chan, Dept. of Electrical and Computer Engineering

1:15 PM

Title: Describing Quantum Physics with Philosophy

Presenters: Jesus Hernandez and Ziyang Li

Mentor: Amir Saemi, Dept. of Philosophy

1:30 PM

Title: Isolation and Characterization of Stem Cells in *Botryllus Schlosseri*

Presenter: Collin Blout

Mentor: James Pierce, Dept. of Molecular, Cellular, and Developmental Biology

1:40 PM

Title: Neurological Basis of Cocaine Addiction

Presenters: Jenesa Chin, Sung-Kuk Lim, and Alexandria Mar

Mentor: Kyle Ploense, Dept. of Psychological and Brain Sciences

2:00 PM

Title: Providing Support and Ego Depletion

Presenter: Nicole Pal

Mentor: Courtney Gosnell, Dept. of Psychological and Brain Sciences

2:10 PM

Title: Searching for New Planetary Bodies in the WASP-12b System through the Examination of Primary Transit Times

Presenter: Logan Brammer

Mentor: Dr. Jason Eastman, Dept. of Physics

2:20 PM

Title: Identification of an Intraspecific Genetic Marker in Giant Kelp for Use in Dietary Analysis

Presenter: Yuvraj Grewal

Mentor: Paige Miller, Dept. of Ecology, Evolution, and Marine Biology

2:30 PM BREAK

2:40 PM

Title: Genetic Determinants of the Neural Spacing of Horizontal Cells in the Mouse Retina

Presenter: Léa Tran Le

Mentor: Patrick Keeley, Dept. of Molecular, Cellular, and Developmental Biology

2:50 PM

Title: *Cancion y Comida: Corridos* and Food as a Means of Political Mobilization

Presenter: Maria Meza

Mentor: Gregory Prieto, Dept. of Sociology

3:00 PM

Title: *Femme Fatale: Women in Pop Art History*

Presenter: Arianna Spiller

Mentor: Thuy Tran, Dept. of History of Art and Architecture

3:10 PM

Title: Alternative Splicing of Islet-1 and its Role in Ganglion Cell Differentiation in the Mouse Retina

Presenter: Ian Hall

Mentor: Irene Whitney, Dept. of Molecular, Cellular, and Developmental Biology

3:20 PM — Poster Session Setup

4:00 -5:00 PM — Poster Session

Research Mentorship Program

The UCSB Summer Research Mentorship Program matches highly motivated high school students from around the country and world with active researchers or scholars who serve as faculty advisors and research supervisors. Students earn university credit while gaining valuable research experience.

For additional information, please contact:

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