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 Pachyrhkos 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 Gottiparthy
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: PC1’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 1 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 Hacktivism 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 hMB11
Presenters: Alexander Kaufman and Rajeev 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 Ziyan 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: Comidas 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.

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