

The Office of Student Research (OSR) & The Office of Graduate Studies Present the

*4th Annual*  
Student Research Symposium



Meeting of  
the Minds  
**Event Program**

 May 21st, 2015 • 9:30 am - 7:30 pm • Santo Manuel Student Union

4th Annual  
“Meeting of the Minds”  
Student Research Symposium  
May 21st, 2015

Hosted by



Sponsored by



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# Welcome

It is with great pleasure that we welcome students and faculty of California State University, San Bernardino to our 4th annual “Meeting of the Minds” Student Research Symposium. The purpose of the 4th Annual Symposium is to recognize the various academic achievements of our students and our faculty mentors. Our students across the various colleges at CSUSB will have the honor of showcasing their research projects and creative activities for all to see. We are very proud of our students who are willing to share their research projects and creative activities. We would also like to acknowledge our faculty mentors who took the time and made an effort to guide and nurture their students’ academic and creative impulses. In closing, we hope that everyone who attended had a great time and are encouraged to participate in future symposiums.



***Dr. Jeffrey Thompson***

*Dean of Graduate Studies*  
*Associate Provost for Research*  
*Professor of Biology*



***Dr. Francisca Beer***

*Associate Dean of Graduate Studies*  
*Director of the Office of Student Research*  
*Professor of Finance*

# Faculty Moderators

## **College of Arts & Letters**

Dr. Kathryn Ervin  
Dr. Allen Menton  
Dr. Carol Damgen

## **College of Business & Public Administration**

Dr. Marc Fudge  
Dr. Alexandru Roman

## **College of Natural Sciences**

Dr. Guillermo Escalante  
Dr. Tomasz Owerkowicz  
Dr. Christopher Gentry  
Dr. Renwu Zhang

## **College of Social & Behavioral Sciences**

Dr. Daniel MacDonald  
Dr. Donna Garcia  
Dr. Manijeh Badiie

# Agenda

9:00 a.m. - 9:30 a.m.

**Event Center**

Registration

9:30 a.m. - 10:00 a.m.

**Theatre, SMSU 107**

Welcome

Dr. Francisca Beer

President Morales

10:00 a.m. - 10:30 a.m.

**Theatre, SMSU 107**

Keynote Speaker: Dr. Cynthia Crawford

Long-Term Consequences of Early Exposure to Methylphenidate

10:30 a.m. - 11:00 a.m.

**Theatre, SMSU 107**

CSUSB Student Research Competition Recognition

11:00 a.m. - 11:30 a.m.

**Theatre, SMSU 107**

Performing Arts Students Excerpt of La Curandera  
Musical Director: Dr. Cho Eun Lee

11:30 a.m. - 12:00 p.m.

**Theatre, SMSU 107**

Student Honoree: Jason Alipio

Memory Related Side Effects of Adolescent Prozac Exposure

12:00 p.m. - 1:00 p.m.

**Event Center C**

Lunch

Guest Speakers: Dr. Vincent Racaniello and Dr. Kathy Spindler

This Week in Virology Podcast

1:00 p.m. - 2:30 p.m.

**Event Center A & B**

Poster Presentations & Art Exhibits

**RM 215-218**

Student Presentations I

**Theatre, SMSU 107**

CSUSB MFA in Creative Writing: Artistic Expressions in Synthetic Multi-Modality

2:30 p.m. - 2:40 p.m.

**Event Center B**

Refreshments

2:40 p.m. - 4:00 p.m.

**RM 215-218**

Student Presentations II

Workshop (2:40-3:10pm)

**RM 207**

Social Media-Finding Jobs and Exploring Careers using LinkedIn, Facebook and Twitter

4:00 p.m. - 5:00 p.m.

**Theatre, SMSU 107**

Guest Speaker: Dr. Vincent Racaniello  
The Gerald M. Scherba Lecture

*Communicating Science*

4:20 p.m. - 5:30 p.m.

**RM 215-218**

Student Presentations III

Workshop (4:20p.m.-4:40p.m.)

**RM 207**

Making Study Abroad a Passport to a Dream Job

5:30 p.m. - 6:00 p.m.

**Event Center C**

Reception

6:00 p.m. - 6:20 p.m.

**Event Center C**

Students and Coyotes: Instruction in Poetry and Prose (SCIPP)

6:25 p.m. - 6:45 p.m.

**Event Center C**

University Dance Company (UDC)

6:50 p.m. - 7:30 p.m.

**Event Center C**

Awards Ceremony

# Biography of Keynote Speaker



**Dr. Cynthia Crawford**

Professor of Psychology

Presenting: *Long-Term Consequences of Early Exposure to Methylphenidate*

Dr. Cynthia Crawford received her bachelor's degree from Washington University in St. Louis and her masters and doctoral degrees from the University of Kentucky. Cynthia completed postdoctoral fellowships in the Department of Psychiatry at University of California, San Francisco, and the University of California, Los Angeles. Cynthia joined the psychology department at CSUSB in 1996. Her research has focused primarily on the biological bases of addiction and the long-term effects of psychostimulant drugs. Cynthia has published over 65 research articles and has received several federal grants from the National Institute of Health.



# Biography of Guest Speaker

## **Dr. Vincent Racaniello**

Professor of Microbiology & Immunology  
Columbia University

Podcast Host: *This Week in Virology*

Presenting: The Gerald M. Scherba Lecture

Vincent Racaniello began his training in virology at Mt. Sinai School of Medicine in New York, earning his Ph.D. in Peter Palese's lab studying influenza viruses. In 1979 he joined the lab of Dr. David Baltimore for his postdoctoral work where he studied poliovirus. He joined the faculty in the Department of Microbiology at Columbia University College of Physicians & Surgeons in 1982 where he established a laboratory to study the biology of viral infections and train virologists. Understanding that the World Wide Web is a primary scientific tool, Racaniello is one of the co-creators of BioCrowd, a social network designed to bring together scientists of all disciplines. Racaniello's virology blog, and podcasts *This Week in Virology*, *This Week in Parasitism*, and *This Week in Microbiology*, unify science with technology. His blog, podcasts, specialized pages on *Influenza 101* and *Virology 101*, aim to bring microbiology to non-scientists



# Biography of Student Honoree



## **Jason B. Alipio**

Biopsychology Undergraduate Student  
Department of Psychology, CSUSB

Presenting: *Memory Related Side Effects of Adolescent Prozac Exposure*

Jason B. Alipio is currently a senior undergraduate student working toward the completion of his B.A. in biological psychology. Prior to his enrollment at CSUSB, Jason served in the military during Operations Iraqi Freedom (Iraq) and Enduring Freedom (Afghanistan), where he witnessed various negative behavioral consequences among his fellow Marines following the stressful environment of combat. This led him to pursue higher education, and to contribute to the field of research that concerns individuals who suffer from stress-induced mood-related disorders (i.e., posttraumatic stress disorder, general anxiety, and depression). He began his research career in the clinical lab of Dr. Christina M. Hassija where he investigated trauma and resiliency among sexual assault survivors and military veterans. He later became very interested in the underlying neurobiological and behavioral mechanisms of these disorders, and thus, decided to join the developmental psychopharmacology lab of Dr. Sergio D. Iñiguez. During this time, Jason has had the opportunity to be actively involved in various research projects, and has disseminated his findings at local, national, and international scientific conferences. Jason says that the mentorship and guidance he has received from Drs. Iñiguez and Hassija has been invaluable. He thanks Dr. Iñiguez for his continued support, and for the inspiration he has provided for him to reach his goal of attaining a Ph.D. in the field of neuroscience.

# Special Performance

## Excerpts from *La Curandera*

Robert Xavier Rodríguez's Mexican folklore themed opera intertwines Mexican culture with opera delightfully offering audiences traditional folkloric music with a Mozart-esque twist.

*La Curandera* is a comedic one-act opera with original stage direction by Dr. Stacey Fraser. It's modern and innovative music and staging will appeal to audiences who normally would turn a deaf ear to new music. The music for this opera is textured, multifaceted and alive with an upbeat orchestration reflecting the Latino culture.

By Robert Xavier Rodriguez

Dr. Stacey Fraser, Director

Dr. ChoEun Lee, Music Director and Pianist

Ms. Sandy Sooter, Choreographer

Ms. Jacqueline Saint-Anne, Costume Designer

Mr. Curtis Bailey, Projection Designer

(Senior in the Dept of Art)

### **Cast:**

Maria Spalding as La Curandera

Andres Valenzuela as Alberto

Olivia Clark as Alba

Erick Valencia as Ramon

Leslie Gonzalez /Abbey Williams as Dionisia

Kevin Blickfeldt as General

# Students & Coyotes: Instruction in Poetry and Prose (SCIPP)

SCIPP is a volunteer mentoring program pairing CSUSB Creative Writing MFA and undergraduate students with the students from Salinas Elementary School. This program allows students the opportunity to follow their passions and to envision themselves in academic roles - as scholars, artists, and educators. The families below consist of K-12 students and their parents, who have been selected to read original work.

*Mr. Oscar Camarena*

*Mrs. Edith Camarena*

*Mayela Camarena*

*Luis G. Camarena*

*Emanuel Camarena*

*Ximena Camarena*

*Arianna Hernandez*

*Madison Hernandez*

*James Hernandez*

*Mario Hernandez*

*Leilani Lomeli*

*Peter Schuler*

*Allyson Jeffredo*

*Kylee Chelbana*

*Bolin Jue*

*D.T. Collins*

*Alex Avila*

# Workshops

## **Social Media- Finding Jobs and Exploring Careers using LinkedIn, Facebook, and Twitter**

*Presented by:*

**Career Center**

Plan your work, then work your plan! This tried and tested truism bridges personal and professional life. This workshop is designed to expose the most effective, relevant and up-to-date job search strategies used in today's highly competitive job market, along with the do's and don'ts of job searching!

By the end of this workshop participants will be able to:

- Identify three resources that assist & influence the job search process
- Use social media to find jobs
- Describe how social media increases the number of networking opportunities and job leads
- Explain how engaging in career related professional development site can increase their professional network

## **Making Study Abroad a Passport to a Dream Job**

*Presented by:*

**Dr. Vipin Gupta**

Dr. Vipin Gupta (Ph.D., Wharton School) is an expert in international management, strategy in a global context, and also teaches study abroad business in China, India, Middle East, and Europe courses at CBPA. He is renowned for his contributions to the science of culture, sustainable strategic management in the emerging markets, managing organizational and technological transformations, and entrepreneurial, global, and women's leadership. He has authored or edited 16 books, including the seminal GLOBE project on culture and leadership in 62 societies, eleven on family business models, two on organizational performance, one on the Multinational subsidiaries in China, and an innovative strategy textbook. He has published about one hundred fifty articles in international academic journals and as book chapters. He has been an invited speaker and presenter at conferences and institutions in over 40 nations.

# MFA Artistic Expressions

MFA Students will discuss their processes, outside activities, and answer questions. The Montage Video will be a visual representation of everything that the MFA students have been involved in during the last year. The Stage Performances will include a variety of activities, but the focus will be on MFA students reading their own creative writing pieces. The SCIPP videos will be videos made by the elementary school students of the SCIPP program under the direction of the MFA SCIPP instructors.

Peter "Pedro" Schuler

Ruben Rodriguez

Maritza O'Campo

Michelle Bracken

Tracey Dover

Charles "Chuck" Von Nordheim

Tara Cummins

Edgar Hernandez

D.T. Collins

Trayevion Satterwhite

Eva Warren

M. Cooper

Chance Castro

Elisha Holt

Orlinda Pacheco

Rosie Angelica Alonso

Alex Avila

Bolin Jue

Allyson Jeffredo

Nikki Harlin

Tim Hatch

# Schedule at a Glance

## Session 1: Oral Presentations

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**Location: RM 215**

**Time: 1-2:20**

**Moderator: Professor Kathryn Ervin**

**College: Arts and Letters**

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- 1:00 Diego Irigoyen  
*Whole Brain Power*
- 1:20 Ashley Thomas  
*Blurred lines: Exploring the Complex Nature of Teasing in the Context of a Romantic Relationship Dynamic.*
- 1:40 Diane Balane  
*Using an Inference Engine for AI in the Office Tactics Video Game*
- 2:00 Carrera Allred  
*Military Issued Equality: A Semiotic Analysis of "The Invisible War's" Portrayal of Sexual Assault in the Military*
- 2:20 Clarissa Toll, Alexander Douglas, & Eli Fabro  
*Recommender Systems and the Construction of User Identity*

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**Location: RM 216**

**Time: 1-2:20**

**Moderator: Dr. Marc Fudge**

**College: Business and Public Administration**

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- 1:00 Christopher Dustin  
*Becoming All That You Can And Then Some!*
- 1:20 Calvin Ramos and David Shea  
*Cybersecurity Framework Analysis of Information Security Awareness among University Faculty, Staff and Students*
- 1:40 Sarah Lee  
*Effective Nutritional Labeling for Improved Self Control*
- 2:00 Clinton Haywood, Kangwook Noh, & Catherine Ou  
*Estimating the Impact of Austerity during the Great Recession Using the Hicksian Super-Multiplier*
- 2:20 Alberto Jasso  
*The link between Personal Values and Decision-Making: The Case of Public Procurement Specialists*

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**Location: RM 217**

**Time: 1-2:20**

**Moderator: Dr. Guillermo Escalante**

**College: Natural Sciences**

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1:00 Aristeo Cataquis  
*Developing Temperature Reduction Apparatus for the Rapid Growth of Single Crystal CsNaC5O5*

1:20 Sean Ganther, Zakkary Hudson, and Channing Toomey  
*On The Hunt for Adult Stem Cells in Drosophila Melanogaster*

1:40 Jaime Nava, Lynae Bakland, & Alberto Castro  
*The Nose Knows: Nasal Cavity of the American Alligator*

2:00 Sarah Leighton  
*Impact of Adapted Sports Program on Wounded, Ill, Injured Airman's Quality of Life*

2:20 Lowell Andrew Iporac  
*Elevation competition between two invasive grass species (B. tectorum and B. rubens)*

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**Location: RM 218**

**Time: 1-2:20**

**Moderator: Dr. Donna Garcia**

**College: Social and Behavioral Sciences**

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1:00 Alexander Feldt  
*Moderating Role of Humor on the Relationship between Early Maladaptive Schemas on Depression*

1:20 Jose Navarro  
*Acculturation and Latina Women Ethnic Identity*

1:40 Bryan Cruz  
*Acute Ketamine Exposure during Adolescence Reverses Depressive-Like Behavior after Social Defeat Stress*

2:00 Edson Andrade  
*Latino/a Immigrants: Social Experiences and Mental Health*

2:20 Monica Aguilar  
*The Influence of Coping Strategies in the Relationship between Self-blame and PTSD and Depressive Symptom Severity among Survivors of Sexual Assault*

## **Session 2: Oral Presentations**

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**Location: RM 215**

**Time: 2:40-4:00**

**Moderator: Dr. Allen Menton**

**College: Arts and Letters**

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2:40 Debra Freeland  
*Finding your Audience: The Academic Paper Publishing Process*

3:00 David Godoy  
*How Effective Are College Reading and Writing Remedial Programs?*

3:20 Yvonne Gonzalez, Guadalupe Rincon, & Felicia Thomas  
*Bilingualism and the Indexical Field: Third Space Persona Styles in Southern California*



3:40 Eric Walker  
*Apostasy or Not Apostasy? The Story of Keeping My Faith in College*

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**Location: RM 216**

**Time: 2:40-4:00**

**Moderator: Dr. Tomasz Owerkowicz**

**College: Natural Sciences**

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2:40 Beverly Thackeray-Lacko  
*Photometric Reverberation Mapping with a Small Aperture Telescope*

3:00 Stephanie Arnold  
*Identification and Amplification of Microsatellite and Intron Markers for use in Phylogeographic Analysis of the Pygmy Nuthatch*

3:20 Jenny Stone  
*Examining the tad locus in *Variovorax paradoxus* EPS and its tad role in motility*

3:40 Nelson Membreno  
*Embryonic Responses to Carbonic Anhydrase Inhibition and Exogenous Calcium Supplementation in Eggs of the American Alligator*

4:00 Alicia Davis  
*Characterization of Influenza Nucleoprotein body domain as antiviral target*

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**Location: RM 217**

**Time: 2:40-4:00**

**Moderator: Dr. Renwu Zhang**

**College: Social and Behavioral Sciences**

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2:40 Kirk Fortini  
*False Online Personas: Who Creates Them and Why?*

3:00 Maria Del Fierro, Kaneez Batool, Alexis Mitchell, Mary Huxster, & Crystel Chapparo  
*Philippines Research & Service Project*

3:20 Stephanie Montes and Chelle Stokes  
*Program Participation and Experiences in Young Adults Currently or Formerly Receiving Foster Care Services*

3:40 Lace Riggs  
*Witness defeat: A novel animal model of vicarious stress-induced depression in female c57BL/6 mice*

4:00 Francisco Flores Ramirez  
*Enduring Anxiolytic Effect of Adolescent Ketamine Exposure in Female c57BL/6 Mice*

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**Location: RM 218**

**Time: 2:40-4:00**

**Moderator:**

**College: Social and Behavioral Sciences**

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2:40 Beatrice Longshore-Cook  
*Organizations of Women: Towards an Equal Future in Palestine*

3:00 Kevin Cleppe  
*Theory and Cyberspace*

- 3:20 *Sina Bastami*  
*Mental Health Model of refugee Children, Syrian case study*
- 3:40 *Andrea Hardin*  
*Chronic early nicotine exposure and the effects on cannabinoid agonist-induced conditioned place preference*
- 4:00 *Crystal Chaparro*  
*Philippines Research & Service Project*

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**Location: RM 210**

**Time: 2:40-4:00**

**Moderator:**

**College: Arts and Letters**

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- 2:40 *Jamie Jacob and Jonathan Williams*  
*Theatre Arts Summer Project*
- 3:00 *Bethany Burke*  
*Mental Institutions in the Cape during the 20th Century*
- 3:20 *Amber Castro and Tyler Wolfe*  
*Man Enough? Framing Gender in Presidential Elections*

**Session 3: Oral Presentations**

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**Location: RM 215**

**Time: 4:00- 5:40**

**Moderator: Dr. Alexandru Roman**

**College: Social and Behavioral Sciences**

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- 4:00 *Anahi Angel*  
*The Empowerment Process of Latina Women*

- 4:20 *Moriah Schnose*  
*Shaping Identity in Post-Apartheid South Africa through Public History*

- 4:40 *Ryan Stoermer*  
*Missed Focus: The perceptions of America Media through Globalization*

- 5:00 *BrittneyWinters*  
*Person-Corporate Social Responsibility Fit: Considering the Effects of Corporate Values on Fit within the Organization*

- 5:20 *Seallong Sechang*  
*The Influence of Emotion Regulation Strategies in the Relationship between Social Support and Posttraumatic Stress Disorder Symptoms among Survivors of Sexual Assault.*

- 5:40 *Lisa Motley*  
*Childhood Sexual Assault, Schemas, and Revictimization: The Role of Early Maladaptive Schemas on Revictimization*

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**Location: RM 210**

**Time: 4:00- 5:40**

**Moderator: Dr. Daniel MacDonald**

**College: Natural Sciences**

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- 4:00 *Johnny Yang*  
*Heart Regeneration in a Reptilian Model*

- 4:20 *Peter Braun*  
*Drought Stress Response in *Carpobrotus edulis*: Sharing or Saving Resources*

- 4:40 *Dorothy Skates*  
*Locomotor Exercise Exerts no Systemic Effect on the Dentary in the American Alligator*

- 5:00 *Sofia Gianoutsos*  
*Neurofeedback and the IVA+ in the Treatment of ADHD and Autism in an 8 Year Old Boy*
- 5:20 *Krystal Howard and Caryn Kruse*  
*Using Narrative Counseling and Remembering Practices with College Students Impacted by Suicide*
- 5:40 *Melissa Esparza Cynthia Britt*  
*A Dual Approach to RTI*

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**Location: RM 211**

**Time: 4:00- 5:40**

**Moderator: Dr. Christopher Gentry**

**College: Social and Behavioral Sciences**

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- 4:00 *Erin Alderson*  
*Effects of repeated paroxetine exposure on acoustic startle in adolescent rats.*
- 4:20 *Mirella Hernandez*  
*Exposure to Social Defeat during Adolescence Results in Depressive-like Behaviors in male c57BL/6 mice*
- 4:40 *Kristi Shawhan*  
*The Effects of Social Defeat Stress on Anxiety-Inducing Situations*
- 5:00 *Pammeli Carlos*  
*Experiences of Coming Out as LGBTQ*
- 5:20 *Silvana Johnston*  
*The Importance of Fatherhood*
- 5:40 *Edson Andrade*  
*Latino/a Immigrants: Social Experiences and Mental Health*

# **The College of Arts & Letters**

Disclaimer: All student abstracts have been written and approved by the student authors before publication.

## Art Display

**Presenter:** Andrew Thompson

**Program:** MFA Studio Art & Design

**Title:** *Shadow Icons*

**Abstract:** A Self-portrait without Discernible Features. An Icon without a Face. A Shadow Shelf Emerges.

## Poster and Oral Presentations

**Presenter:** Bethany Burke

**Program:** BA Philosophy

**Title:** *Mental Institutions in the Cape During the Twentieth Century*

**Abstract:** Mental institutions during the twentieth century were used to house so-called 'delinquent' individuals. For the most part, the voices and experiences of these individuals have remained unwritten. I am therefore wanting to look at the connection between mental institutions in the Cape, South Africa and racial, gender and/or class segregation from patients' perspectives. While in South Africa I will be going through the Valkenberg Hospital archives housed at the University of Cape Town library to gather data about patient experiences of race, gender and class discrimination that were common during apartheid. I want to be able to look at the use of mental institutions as a form of 'disciplinary control' and how it relates to the political process of the time. Other sources, such as government reports, hospital reports, and some patient files are available at the Cape Town National Archives. These would need to be accessed and reviewed in an attempt to give context an understanding of patient experience as mental hospitals after the Second World War to the end of apartheid. With the history of mental illness in South Africa being such an under studied topic, I cannot say what I will find. However, I am hoping that I will be able to obtain not only some statistical data, but give insight to the views and experiences of patients. While preliminary research shows that mental treatment during apartheid South Africa failed the African population, particularly African women, patient views for the most part remain under represented.

**Presenter:** Alex Avila, Allyson Jeffredo & Bolin Jue

**Program:** MFA: Creative Writing - Poetry (Concentration in literature)

**Title:** *MFA in Creative Writing: Artistic Exercises in Synthetic Modality*

**Abstract:** As a vital part of a recognized Hispanic Serving Institute, our nationally recognized Master of Fine Arts Program in Creative Writing serves the community which supports CSUSB through interactive creative writing and arts projects by developing a more inclusive public sphere. These projects develop bridges between CSUSB and Palm Desert Campus, alumni, prospective students, other universities and the surrounding community, including local Native American tribes. Through these projects students have access to unique creative experiences that are non-replicable where students learn technological and

artistic mediums they would not have avenues to otherwise. Students develop self-advocacy principles to articulate themselves both verbally and non-verbally—i.e. performance through poetry/fiction readings, multimedia exhibitions, artistic collaborations—which allows them to follow their passions through utilizing minimum capital resources for maximum returns in preparation for academic and professional success. MFA students execute these accomplishments through these following projects which make meaningful contributions to a broader society, elevate marginalized communities, and increase the social artistic consciousness: • Visiting Writers • National Literary Magazines: Badlands and Ghost Town • HOWL Radio • Reading Series • SCIPP • College Field Day • National Awards • Collaborations – other CSUSB departments, San Bernardino Generation Now, Film Club, San Bernardino County Museum, PoetrIE, Inlandia, etc. • James Irvine Foundation funded “Be Part of the Art” • Film Festivals – Latino Film Festival, PDC Short Film Festival, Library Short Film Festival • Native Voices 1st Annual Poetry Festival • AAHHE • PAMLA • AWP Our panel discussion will showcase robust MFA involvement in the above activities through video/photographic presentations, live performances, development of individual artistic expressions, etc.

**Presenter:** Allyson Jeffredo and Bolin Jue

**Program:** MA MFA Creative Writing in Poetry

**Title:** *The AWP Experience: Presenting and Networking at a Creative Writers Convention*

**Abstract:** AWP Conference & Bookfair is the largest national writing conference of North America where CSUSB is one of three CalState campuses fortunate enough to participate. Our national literary magazines Ghost Town and Badlands represent the diversity present in the writing and artistic community of Southern California. In addition, this year we released an MFA Anthology, Drought City, which further illustrates the diversity of voices, talent, and creative drive coming out of CSUSB on a national platform. By attending the AWP conference as a writer, an advocate, and an admirer of the arts and its reflection of the human condition, we are propelled into a stream of opportunities and connections through networking with literary magazines, journals, authors and organizations that constitute contemporary literature both nationally and internationally. Furthermore, we will exhibit how the exposure to these different literary mediums is both aesthetically and intellectually enriching to our growth as writers. We will capture a part of the AWP experience through the documentary form which will deliver our hands on experience as presenters and attendees and give insight into the benefits of the conference for all CSUSB students and alumni in attendance.

**Presenter:** Alexander Douglas, Eli Fabro & Clarissa Toll

**Program:** MA Communications

**Title:** *Recommender systems as cultural intermediaries: Big data and the construction of user identity*

**Abstract:** Recommender systems are a great source of income for online companies. Using big data analytics and users' history of online transactions, a recommender engine will suggest new products for consumers to consider, thus increasing a company's business and consumer loyalty. Using a qualitative content analysis on a sample of 127 trade journal articles, we show how recommender systems driven by big data redefine consumer identity. First, we explore the new intimacy created between the consumers and marketers by the use of these recommender systems. Second, we explain the map of identity created

through the real-time surveillance of consumer data and through large- scale experiments. Finally, we discuss the role of recommender systems as the new cultural intermediaries that shortcut the trust previously placed in the recommendations of other peers, taste-makers, or cultural critics. We conclude by showing how, with big data-fueled recommender engines, marketers have changed the way individuals experience culture.

**Presenter:** Jamie Jacobs and Jonathan Williams

**Program:** Psychology, B.A

**Title:** *Theatre Arts Summer Project*

**Abstract:** The objective is to find art opportunities for young people in the City of San Bernardino. A research study was conducted to see what art opportunities are available for young people; age's ranging from middle school to high school. Under the supervision of Kathryn Ervin, various sites throughout San Bernardino were visited by two student research assistants. A few types of the 13 sites that were contacted include; parks, recreation centers, and libraries. A survey style method of research was used. Data was generated and stored using SurveyMonkey.com. Each establishment was asked a series of questions that pertained to art opportunities offered at their location. It was hypothesized that more opportunities will be available for young children grades K-3, ages 5-9, and less opportunities for young adults ranging from middle school to high school, ages 12-18. The research was supportive of the hypothesis that the majority of opportunities are available for younger children. Most opportunities are offered to young children and this leaves huge disconnects for the young adults. Additionally, the study gave insight on the lack of art opportunities in San Bernardino for people of all ages. This research is not conclusive but important information was drawn from the results. In conclusion, the results show that the art opportunities are significantly neglected and that more attention in this field is needed for the prosperity of San Bernardino.

## Oral Presentations

**Presenter:** Carrera Allred

**Program:** BA Communication Studies

**Title:** *Military Issued Equality: A Semiotic Analysis of "The Invisible War's" Portrayal of Sexual Assault in the Military*

**Abstract:** There are currently 200,000 women serving in the American Armed Forces, but only represent approximately 14.5% of the military population. Women are expected to uphold the same standards as men, but are most likely to be victims of sexual assault. In the media, military women are often misrepresented as victims. This research study analyzes the representation of military women in the film *The Invisible War* through a semiotic analysis, and sought to discover how the women may be portrayed as victims in the documentary. The methodology used in this study was semiotic analysis, which is the study of signs and symbols and how viewers come to associate meaning with each symbol. There were three findings which revealed how military women are portrayed as victims in the film. First, women are displayed as being unable to protect themselves. Second, women were shown as overly emotional victims through excessive crying. Finally, the film continually emphasized the women's womanhood and marginalized their military identity by consistently portraying the women in civilian attire. The potential of equality between men and women in the military is possible, since gender is a socially constructed concept. However, because the media consistently portrays women as victims, society may come to associate all military women as victims. Key Terms: Sexual Assault, Military Women, Victims, Semiotics

**Presenter:** Diane Balane

**Program:** BA Graphic Design & Marketing

**Title:** *Using an Inference Engine for AI in the Office Tactics Video Game*

**Abstract:** FSM (or its improvements) is the most common method employed when implementing AI on video games. Its major advantages are its simplicity and the ease of implementation but its greatest disadvantage is the predictability of the next state, which could lead to the player predicting the next step the game will take. Although there are some improvements done in FSM to alleviate this predictability, the inference engine allows a reasoning process and could come up with a strategy or move that the player might not be expecting. The inference engine consists of three parts: the knowledge base, the agenda, and the working memory. This paper developed an inference engine using the scripting language of UDK and applied to a video game, *OfficeTactics*. The resulting AI is very diverse and provides a lot of options that makes the game more exciting and enjoyable to play.



**Presenter:** Debra Freeland

**Program:** MA English Composition

**Title:** *Finding your Audience: The Academic Paper Publishing Process*

**Abstract:** I propose to examine the process of scholarly publishing; how it works, what it does, and how to get started. From the process of finding the right journal for the voice, then finding the current topics of discussion and discourse in a specific genre, on to the submission procedures, guidelines and expectations, understanding the way in which an article is reviewed, the work of revision/re-submission as an opportunity as well as models of the cover letter for the re-submission. Investigating the process from beginning to end in order to gain an understanding of how the process unfolds, until the final sought after achievement; the acceptance and publication of an article. Perhaps in bringing light to this subject, the unease that usually accompanies this undertaking, can be lessened, the process better understood, and that can, in turn, allow for an easier navigation to achieving publication.

**Presenter:** David Godoy

**Program:** MA English-Composition & Rhetoric and Literature

**Title:** *How Effective Are College Reading and Writing Remedial Programs?*

**Abstract:** The purpose behind my project is to explore just how effective college reading and writing remedial programs are. In college, there is a certain academic level that is expected from students. The idea of remediation has been to help underperforming students reach this academic level. At the same time though, remediation can also be unfavorable for students because of its associated stigma and added cost. The extra cost is due to the fact that remedial programs extend the amount of time required for a college student to graduate with their degree, thus making them pay more for the extra classes of remediation. This project is valuable because it serves to elucidate whether or not college reading and writing remediation programs are as helpful as they set out to be. This is important because there are a large amount of funds that go into college reading and writing remedial programs. Understanding whether or not these programs are effective and to what extent, is important. This is because the results can either help to justify all of the energy and money that go into these programs, or the results can serve as an indicator to find alternative methods for remediating students

**Presenter:** Diego Irigoyen

**Program:** BA Art History & Art Education

**Title:** *Whole Brain Power*

**Abstract:** What had began as an individual pursuit to scoring a higher GPA turned into a series of lectures, workshops, and finally an experimental class. Whole Brain Power is groundbreaking in the realm of brain training and neurology, and is based on the discovery: the hands grow the brain. Over the past two and a half years, I have applied the methodologies of Whole Brain Power and as a repercussion transformed not only my GPA but my overall state of well-being. Having experienced such tremendous results through Whole Brain Power I made it a goal to inform as many students as possible of the incredible resource that resides at the finger-tips of their non-dominant hand. Initiated by an insightful lecture featuring the

innovator and designer of Whole Brain Power, Michael J. Lavery, I pursued the desire to teach a course on the tenets of Whole Brain Power at Cal State San Bernardino. The class has had over 40 students to date, and teaches individuals how to embrace their whole brain through ambidexterity and creative memory exercises. This training of the brain has had side effects such as improved sleep, increased energy, higher motivation, greater confidence, and extended attention span; everything a college student, or any person for that matter, could wish for. Over the past year I have witnessed participants experience the same remarkable results I have, and have concluded that this program can be beneficial for people in all walks of life.

**Presenter:** Ashley Thomas

**Program:** BA English-Linguistics

**Title:** *Blurred Lines: Exploring the Complex Nature of Teasing in the Context of a Romantic Relationship Dynamic.*

**Abstract:** The purpose of this paper is to analyze how teasing works in a romantic relationship dynamic. While there has been much research that has explored the overall function of teasing based on context and familiarity; and has even explored how teasing can be misconstrued (Hample et al. 2009, Boxer & Cortes-Conde 1997, Lampert & Ervin-Tripp 2006, Dynel 2008) there has yet to be any research done on how teasing can function differently and more complexly in a romantic relationship dynamic and why. Through careful analysis, I will try to answer: (1) Does teasing work differently in a romantic relationship and why? And (2) If teasing is most successful when the two (or more) participants know each other well, what then causes miscommunication between people who are in a romantic relationship dynamic, considering that their level of intimacy and familiarity is often higher than that of a platonic relationship?

**Presenter:** Guadalupe Rincon, Yvonne Gonzalez, & Felicia Thomas

**Program:** MA Composition/Applied Linguistics

**Title:** *Building Bridges: Changing a Globalized Society Through Writing*

**Abstract:** The internationalization of the university systems across the globe has left incoming L2 writers alone as they encounter difficulties in becoming socialized into the practices of written academic discourse. Canagarajah (2013) has advocated for translingual approaches and pedagogies to teach writing to multilingual and multidialectal students in the university. Canagarajah posits that a translingual approach incorporates linguistic variances, and that readers and writers co-construct texts by using envoicing, recontextualization, interactional, and entextualization strategies. Readers and writers navigate through ambiguous linguistic spaces to co-construct the text itself. Because academic institutions still expect students to participate and be able to use academic practices that do not invite students to use their first language or variances of the “standard” language, this forces writing centers to act as spaces for language socialization, particularly when the university does not accommodate students working in their second language. For the purposes of this discussion, I will discuss the current writing center scholarship about L2 writers and analyze the implications that a translingual approach would have in tutoring sessions with non-native writers, and how navigating through linguistic ambiguity would give students “their right to their own language,” and how tutors can co-construct texts with second language

writers, even if tutors have to build bridges between languages. By negotiating languages, tutors can help incorporate translingual approaches to writing outside of the classroom in ways to scaffold and guide students as they write in the target language, and yet addresses the needs and realities of a globalized society and university.

**Presenter:** Eric Walker

**Program:** MA Communication

**Title:** *Apostasy or Not Apostasy? The Story of Keeping My Faith in College*

**Abstract:** This study shares my personal experience as a college student being challenged mentally and emotionally concerning my Christian beliefs. I experienced a level of apostasy during the beginning of my college life. Through this autoethnography, accompanied by personal narratives, interactive interviews and other ethnographic data, I seek to understand how Christians or other religious people lose their faith while pursuing higher education. There is a possibility that college students like myself are challenged in measurable degrees to lose faith in God. Recent research shows that this conventional wisdom concerning higher education posing a threat to religious faith appears to be more “myth” than measurable fact. I take the stance to show that college students undergoing apostasy is not a myth by sharing qualitative data from an ethnographic study of my personal experience along other accounts of students’ experiences that show change in their religiosity.

# **The College of Business & Public Administration**

Disclaimer: All student abstracts have been written and approved by the student authors before publication.

## Oral Presentations

**Presenter:** Christopher Duarte Dustin

**Program:** BA Entrepreneurial Mgmt

**Title:** *Becoming All That You Can And Then Some!*

**Abstract:** In 2012, I embarked on a journey of discovery as I earned my bachelor's degree in Entrepreneurial Mgmt. Along the way I discovered where I belonged and what I should be doing with my life. I obtained a second Bachelor's degree in Marketing as well. This presentation will specifically show the value a CSUSB degree in Entrepreneurial Management has. Aside from the classroom instruction, I will share the out of classroom experiences that added to my education. These include Dinner with the Entrepreneur and the toolbox series. I will also share a personal story of surviving a brain aneurysm in May 2006 and how the CSUSB program allowed me to earn my two degrees in spite of this setback. I will discuss the reasons I am going for the MBA at Cal State University San Bernardino. This is a true story of successfully overcoming a life changing and crippling event.

**Presenter:** Alberto Jasso

**Program:** BA Public Administration

**Title:** *The link between personal values an Decision-Making: The Case of Public Procurement Specialists*

**Abstract:** The study of procurement remains an area that is significantly underexplored with public administration. There is little that we know about the decision-making dynamics at the individual level. We have no empirical studies that address the public procurement-politics relationship and there is only a minimal academic attention to the manner in which individual values affect the decision that public procurement specialists make. Within increasing reliance on outsourcing, contracting-out and public-private-partnerships the role of public procurement within current governance will only continue to grow.

**Presenter:** Sarah Lee

**Program:** MBA Marketing Management

**Title:** *Effective Nutritional Labeling for Improved Self Control*

**Abstract:** Food consumption has become an important research area due to the increasing number of health problems related to obesity and poor eating in general. The Nutritional Labeling and Education Act (NLEA) provides a framework to better inform consumers of food items, and since this act was passed label usage in general has increased over time. Previous research has examined the effectiveness of various labeling mechanisms but the results have been mixed. For example, the Percentage Daily Values, which are based on a 2,000 calorie diet, are commonly used in the U.S., but research has suggested that people typically find it challenging to understand nutrient information, especially when qualitative calculations are involved. Clearly there is a need for simpler nutritional labeling mechanisms. The purpose of this research is to examine the effect of one such novel mechanism (percent content by volume) on consumer ratings of the healthiness of food items, and ultimately, food choices. Preliminary results

support the finding that presenting some nutritional content by volume does indeed affect consumer perceptions of the healthiness of some types of food items.

**Presenter:** Calvin Ramos and David Shea

**Program:** BS Cyber Security

**Title:** *Cybersecurity Framework Analysis of Information Security Awareness Among University Faculty, Staff and Students*

**Abstract:** The purpose of this research attempts to better understand the influence of awareness and training on information security as well as its relevance to risk management in a campus setting. This study is designed to survey all network user types at a regional state university in Southern California to investigate their understanding and attitudes toward information security.

## Poster Presentations

**Presenter:** Danny X Sanchez

**Program:** BA Accounting

**Title:** *Understanding the U.S.-Mexican Border*

**Abstract:** Border regions, throughout the world, are areas of connection and conflict. In the U.S.-Mexican borderlands, security is highlighted by the national governments and other interest groups, but this does not tell the full story of the region. This project is set to develop a U.S.-Mexican border indicator dashboard that will be posted on the California State University- San Bernardino webpage. The data includes: population; per capita income; poverty rates; education rates; number of universities and colleges; number of trade schools; employment numbers and sectors; public budgets; taxes collected; voting rates; security expenditures; crossing data for pedestrians, personal vehicles, and cargo; retail sales; wholesale sales; and environmental indicators on air and water. Based on the data collected there are several areas of concern in the region. The lack of higher education, employment, high income jobs begs for new policy directions for the border region. This project will provide an overview of the dashboard along with insights into the complexities in collecting data on the communities along the U.S.-Mexican border.

**Presenter:** Brandon Sims

**Program:** BA business admin-info sys tech

**Title:** *Public Measurements*

**Abstract:** As a scientist of public measures I provided my mentor with the most precise statistical analysis of 200 cities randomly selected out of 300 within the United States. Analyzing their measurements of performance year by year with an index that was created to compare to that Dr. Fudge had already created. It was a great to learn about the different municipalities in the United States. I was surprised at some of the cities within the US to find out how great they were actually doing and what they did for their communities.

# **The College of Education**

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## Oral Presentations

**Presenter:** Cynthia Britt and Melissa Esparza

**Program:** MA PPS in School Psychology

**Title:** *A Dual Approach to Response to Intervention (RTI)*

**Abstract:** Many well-meaning school sites implement an incomplete version of RTI. While proponents of the RTI model claim that emphasis placed on early intervention could prevent academic failure (Fuchs & Deshler, 2007; Hallahan, Keller, Martinez, Byrd, Gelman & Fan, 2007), advocates of RTI would be wise to directly address the common misconception that PBS is for behavior and/or RTI is for academics. RTI is most effective when it addresses both behavioral and academic concerns simultaneously. Most experts would agree that there is an inverse relationship, which exists between students' behavior and their academic functioning. Students often become frustrated and act aggressively to avoid difficult academic tasks. The reverse can also be true in that the lack of social skills and emotional self-regulation abilities contribute to reduced instructional effectiveness resulting in one or more academic deficit. However, a dual approach to RTI can ensure that the delivery of effective high quality instruction at every Tier level is maximized. It is the purpose of this presentation to demonstrate the interaction effect between the two types of interventions.

**Presenter:** Sofia Gianoutsos

**Program:** MA Rehabilitation Counseling

**Title:** *Neurofeedback and the IVA+ in the Treatment of ADHD and Autism in an 8 Year Old Boy*

**Abstract:** Neurofeedback and the IVA+ in the Treatment of an Individual with ADHD and Autism  
Neurofeedback is a non-invasive computer based program utilized in the treatment of individuals with ADD, ADHD, Major Depression, Anxiety, Insomnia, mTBI, and Reading/Learning Disabilities. Neurofeedback involves training and learning self-regulation of brain activity to better control one's mental state. The IVA+ is the assessment tool used to help identify auditory and/or visual processing challenges that are then treated with Neurofeedback sessions. This presentation will introduce the assessment process and how Neurofeedback works. A case study of an 8 year old boy diagnosed with ADHD and Autism will be presented including a discussion of the positive effect Neurofeedback has had on diminishing his ADHD behaviors and initiating emotional regulation and empathy- related to his Autism. Further research will need to focus on behavioral interventions along with Neurofeedback treatment.

**Presenter:** Krystal Howard and Caryn Kruse

**Program:** MS Counseling and Guidance

**Title:** *Using Narrative Counseling and Re-membering Practices with College Students Impacted by Suicide*

**Abstract:** Traditional discourses around death and bereavement invite conversations about "letting go" and "moving on" from our deceased loved ones, which emphasizes the finality of death and disconnects us from those we love. Modern discourses around suicide further alienate us from the deceased. Suicide is a challenging topic to address and acknowledge, due to the sensitive nature of the act, emotions and social stigma attached to it. The graduate student researchers have conducted a research project to understand the effects of suicide on the lives of the bereaved, in this case, university students. They will present their research and address the research question "Does narrative therapy and its practices (specifically re-membering practices) ameliorate the pain caused by the death of a loved one by suicide?" While they do not claim that re-membering practices remove all pain, they believe they can make a difference in how participants view the transition of death, especially when the death is traumatic or violent in nature. Krystal Howard & Caryn Kruse will be graduating in June 2015 with an M.S in Counseling and Guidance from Cal State San Bernardino in. Under the mentorship of Dr. Lorraine Hedtke and Dr. John Winslade, they have been studying and discovering their personal and professional passion for narrative therapy and the power of re-membering conversations. They have both been invested in understanding the important narrative research to continue exploring the impact of those whose lives have been changed as a result of another person's suicide.

## Poster Presentations

**Presenter:** Melissa Castro

**Program:** MS Counseling and Guidance

**Title:** *Clear My Aching Mind: Justifications for Adopting and Persisting in Mindfulness Meditation*

**Abstract:** To date, little research has examined participants' adoption decisions regarding mindfulness interventions, or factors related to treatment persistence. The current exploratory study addresses this scarcity of information by investigating factors involved in participants' decisions to initiate a mindfulness based wellness activity and persist in its use. Semi Structured qualitative interviews were conducted with participants of a drop-in university based mindfulness meditation program. Interviews were conducted by a trained graduate research assistant who contacted participants approximately one week – one month after their initial meditation experience. Among other questions, participants were asked why they decided to try the activity, what they were hoping to experience or get from it, what the actual meditating was like, how much effort it took, any difficulties that came up during the experience, whether they had continued to meditate after their initial experience, and the likelihood that they would continue to engage in meditation in the future. Demographic information was also collected and participants were asked to rate their general level of stress. Transcribed interviews were examined for emergent themes and a content analysis will be performed on responses to develop coding categories. Preliminary analysis revealed several important themes. Participants regularly indicated that they believed thinking ("thinking about stuff") contributed to their stress or discomfort and that they were engaging in meditation to "kind

of make thoughts go away”, and “clear my mind.” These findings, along with others will be discussed in the context of tailoring future mindfulness interventions to better address participants’ expectations and needs.

**Presenter:** Frances Suderman

**Program:** Ed.D. Educational Leadership

**Title:** *Hoop Jumping: Assessing the Usefulness of Freshman Composition Placement Mechanisms and Pre-College Registration Requirements.*

**Abstract:** This paper examines how various institutional mechanisms of literacy education in place on campus and in the state system intersect, overlap, complicate and hinder one another. Drawing in part on responses to a directed self-placement survey, this paper considers how system-wide mechanisms undermine local efforts to challenge the practice of labeling students as "remedial." The paper was presented on an approved panel at the Council of Writing Program Administrators (CWPA) conference centered on the topic of "The WPA as Worker." The panel's work sought to complicate early celebratory treatments of directed self-placement in the professional literature and to extend emerging critical studies of directed self-placement (e.g. Genre et al., 2010).

# **The College of Natural Sciences**

Disclaimer: All student abstracts have been written and approved by the student authors before publication.

## Poster and Oral Presentations

**Presenter:** Aristeo Cataquis Jr

**Program:** BS Chemistry

**Title:** *Developing Temperature Reduction Apparatus for the Rapid Growth of Single Crystal CsNaC5O5*

**Abstract:** Temperature Reduction method for the rapid growth of a single crystal CsNaC5O5, which is a piezoelectric material is explored. The key component in this method, the metastable region of CsNaC5O5 aqueous solution, was established. Two curves that constitute such metastable region, super-saturation curve and solubility curve, were obtained via reducing temperature of solution and using Atomic Absorption Spectroscopy. The large difference in the solubility of CsNaC5O5, 0.794 g/100mL at 0 °C and 3.636 g/100mL at 60 °C, makes Temperature Reduction method ideal for rapidly growing single CsNaC5O5 crystal, which is vital to the projects exploring ferroelectricity under different conditions. The apparatus for rapid growth is very close to being put together.

**Presenter:** Beverly Thackeray-Lacko

**Program:** BS Physics

**Title:** *Photometric Reverberation Mapping with a Small Aperture Telescope*

**Abstract:** We present photometric observations of a sample of bright, broad-line active galactic nuclei (AGNs) in order to monitor variability and verify their black hole masses using the photometric reverberation mapping technique. Observations were taken, primarily remotely, using the 20-inch telescope at the Murillo Family Observatory, a campus-based observatory located on the outskirts of the Southern California metro area, in both monitored and automated mode nightly in BVRI over a period of 2-5 months. We will show the viability of such a technique for small-aperture telescopes in bright-sky locations and discuss the possibilities of extending this program in the future. We also note that undergraduate students (both from 4-year and community colleges) have been and will continue to be instrumental in the success of similar research programs at CSUSB.

## Oral Presentations

**Presenter:** Stephanie Arnold

**Program:** MS Biology

**Title:** *Identification and amplification of microsatellite and intron markers for use in phylogeographic analysis of the Pygmy Nuthatch*

**Abstract:** The pygmy nuthatch, *Sitta pygmaea*, occupies the long-needled pine forests of western North America. These forests were formerly contiguous but became fragmented following the most recent glacial recession, forming geographically isolated “sky islands” occupied. Pygmy nuthatch populations within these sky islands have since evolved independently. Previous research has utilized mitochondrial DNA to examine the population structure and phylogeography of isolated pygmy nuthatch populations, but this data has yet to be corroborated by nuclear DNA markers. Here, microsatellites identified in the brown-headed nuthatch (*Sitta pusilla*) and introns common across the avian clade Passeriformes are tested for polymorphisms within the pygmy nuthatch genome. Sequences that prove to be polymorphic within and across populations will be used to assess the genetic structure and phylogeography of the pygmy nuthatch species from a bi-parental nuclear perspective.

**Presenter:** Peter Braun

**Program:** BS Biology

**Title:** *Drought Stress Response in *Carpobrotus edulis*: Sharing or Saving Resources*

**Abstract:** This work examined the role of alternative drought tolerance mechanisms in the succulent ground cover plant, *Carpobrotus edulis*. *C. edulis* produces new plants (ramets) which are physically connected by stolons. It is a major invasive plant in coastal California. Previous studies demonstrate the ability of *C. edulis* to switch from C3 to Crassulacean Acid Metabolism (CAM) photosynthesis, allowing the plant to save water under drought conditions. As well, previous studies have shown improved performance in *C. edulis* stolon connected ramets. Presumably, this improved performance occurs through sharing resources like water. We were interested in whether water conservation through CAM induction or water sharing through connected ramets was an alternative or complementary response for drought tolerance. We grew 96 potted *C. edulis* ramets divided into four treatments, connected watered (CW), connected droughted (CD), severed watered (SW) and severed droughted (SD), in controlled greenhouse conditions. We measured air and leaf temperature, titratable acidity, pre-dawn leaf water status, leaf photosynthesis and whole shoot growth at regular intervals throughout the six week experiment. The SD treated ramets showed drought symptoms at the leaf and whole plant levels of organization. Leaf level physiology in the CD treated ramets was indistinguishable from that of the watered ramets (CW, SW) only. CAM induction was not observed in any treatment. We conclude that water-sharing between ramets and not water saving via CAM induction is the primary mechanism of drought tolerance in this species.

**Presenter:** Alicia Davis

**Program:** MS Biology

**Title:** *Characterization Of Influenza Nucleoprotein Body Domain As Antiviral Target*

**Abstract:** Influenza is a segmented negative strand RNA virus. Each RNA segment is encapsulated by viral nucleoprotein (NP) and bound by the viral RNA dependent RNA polymerase (RdRP) to form viral ribonucleoproteins (vRNPs) responsible for RNA synthesis. NP is a critical structural component of the vRNP but also interacts with both viral and host factors to regulate viral RNA expression. NP is conserved among influenza A isolates, making NP interactions compelling antiviral targets. Here we report characterization of NPbd3, an NP mutant encoding 5 amino acid changes within an accessible region of the NP body domain as determined by NP crystal structure. NPbd3 was designed to target interaction between NP and the RdRP. To characterize NPbd3 we first confirmed NPbd3 expression and localization was as WT-NP by both cellular fractionation and Western Blot, and NP-GFP fusions and fluorescence. Although NPbd3 was expressed, localized, and binds nucleic acid as WT-NP, we found NPbd3 was defective in RNA expression in reconstituted vRNPs and cRNPs, as assessed by reverse transcription and quantitative polymerase chain reaction (RT-qPCR). We hypothesize a disruption in NP interaction, likely with the viral polymerase, results in this severe defect. Our current experiments are focused on determining NPbd3-polymerase interaction using co-immunoprecipitation and co-immunofluorescence with a functional Strep tagged PB2, and vRNP formation using blue native gel analysis. Characterization of NP mutants within this conserved and accessible region of the NP body domain will contribute structural information to facilitate studies of antivirals targeting this highly conserved NP body domain

**Presenter:** Sean Ganther, Zakkary Hudson, & Channing Toomey

**Program:** BA Biology

**Title:** *On The Hunt For Adult Stem Cells In Drosophila Melanogaster*

**Abstract:** Drosophila has long been an excellent model organism for studying stem cell biology. Notably, studies of Drosophila's germline stem cells have been instrumental in developing the stem cell niche concept. Oenocytes in adult Drosophila melanogaster function in lipid processing, storage and detoxification of substances in the body. They are analogous to hepatocytes in mammals, although we are finding that they do much more than their mammalian analogs. Adult Drosophila melanogaster have 52 cardiac cells that regulate heart tube function and rhythm. The importance of these cells in the function and health of the animal lead us to believe that these tissues must contain adult stem cells as a source for the renewal and repair mechanisms needed to maintain these tissues. The hearts and oenocytes of zero to six day-old adult wild-type male Drosophila melanogaster were used. Heart and oenocyte explants were first performed to ensure the cells were viable in vitro. The cultures were established using mechanical as well as trypsinization to establish which method would yield more robust and functioning cultures. Schneider's culture media with 2% anti-mycotic and 20% FCS was used. Successful explants of the heart tissue were maintained up to six days and remained beating for up to four days. Once identification of adult stem cells in these tissues is verified, a culture of pure adult stem cells can be established in future studies.

**Presenter:** Lowell Andrew Iporac

**Program:** BA Biology

**Title:** *Elevation competition between two invasive grass species (B. tectorum and B. rubens)*

**Abstract:** Two species of grasses, Bromus tectorum (Cheatgrass) and Bromus madritensis rubens (Red Brome) are known for being widespread and invasive across the semiarid regions of western North America, including southern California. Both species grow quickly, have short life spans, and produce prolific amounts of seeds. Despite these similarities, these closely related grass species exhibit different, albeit overlapping, geographic distributions. In western North America, Cheatgrass tends to occur at higher elevations and more northerly latitudes whereas Red Brome lives at lower elevations and more southerly latitudes (both species are however, seen growing together at intermediate elevations.) It is assumed that these two species differ in their respective tolerances for cool and warm temperatures. It is also well known that climate change affects species distributions with different temperature tolerances and it is a possibility that with climate warming, Red Brome may begin to be more common at higher, cooler sites thereby adding to the invasive species load in these mountain ecosystems. The purpose of this research is to test the competitive abilities between the two grass species at different elevations, which involves a simple field experiment designed to test the competitive interactions between these closely related invasive grass species at a warmer low-elevation site near campus and a cooler high-elevation site in the nearby San Gabriel Mountains. Although data collection lasts from February to May, data analysis from Mid-March has suggested that plants at low elevation have overall higher canopy heights and higher germination rates than their high elevation counterparts.

**Presenter:** Sarah Leighton

**Program:** BS Kinesiology

**Title:** *Impact of Adapted Sports Program on Wounded, Ill, Injured Airman's Quality of Life*

**Abstract:** A quasi-experimental repeated measures control group design will be used to compare the quality of life of Airmen that participate in an adaptive recreation program to those Airmen that do not participate in an adaptive recreation program. All Airmen in the Air Force Wounded Warrior (AFW2) program will be asked to participate in the research project via email and follow-up phone call from AFW2 staff member. All research participants will have the opportunity to participate in the adaptive recreation program. The adaptive recreation program are 3-5 day adapted sports camps that are coordinated by the Air Force Adaptive Sports Staff and consists of sports and physical activities (e.g., wheelchair basketball, sitting volleyball, yoga, archery, swimming, etc.) specifically designed for wounded/ill/injured Airmen and coached by experts in the respective sports. Those that participate in the research project will be asked to complete quantitative surveys before and after each camp the participant attends. BMI and blood pressure data will be gathered at the camps for those that participate in an adaptive recreation camp by a trained professional. For those participants who do not attend the camps will be asked to complete the surveys and assessments at the 3, 6, & 12 months mark after initial survey via email and follow-up phone calls by their respective AFW2 staff member. Participants in the control group will only complete the surveys. The main objective of this research is to prove the benefit of these adaptive sports camps on the quality of life for wounded warriors.



**Presenter:** Nelson Membreno

**Program:** MS Biology

**Title:** *Embryonic Responses To Carbonic Anhydrase Inhibition And Exogenous Calcium Supplementation In Eggs Of The American Alligator*

**Abstract:** During incubation, embryonic archosaurs mobilize calcium from the eggshell, and deposit it in the yolk and the skeleton. Previous experiments on eggs of the American alligator (*Alligator mississippiensis*) demonstrated that removal of the calcareous eggshell results in embryonic growth retardation. So far, no experiments have ascertained the role of carbonic anhydrase in eggshell calcium mobilization, nor the importance of calcium provenance to embryonic crocodylians. We conducted two experiments to test whether (i) carbonic anhydrase (CA) inhibition has similar effects on the embryo as eggshell removal, and (ii) exogenous calcium supplementation can rescue the original embryonic phenotype. To inhibit CA, we applied topical acetazolamide (150-600  $\mu\text{g}/\text{day}$  AZA in DMSO vehicle). As exogenous sources of calcium, we used 0.1M  $\text{CaCO}_3$  solution and calcite sand. We found AZA reduced embryonic wet mass after five weeks of treatment, with a significant dose-dependent response. Calcium supplementation of eggs with the eggshell removed yielded mixed results. Spraying with  $\text{CaCO}_3$  solution partially rescued the phenotype, with alligator embryos being intermediate in wet mass between control and non-treated experimental siblings. Egg incubation in calcite sand, however, did not restore normal embryonic growth trajectory. This suggests alligator embryos can potentially obtain calcium from environmental sources, with presence of aqueous calcium especially important.

**Presenter:** Lynae Bakland, Alberto Castro, & Jaime Nava

**Program:** BS Biology

**Title:** *The Nose Knows: Nasal Cavity of the American Alligator*

**Abstract:** Respiratory turbinates are cartilaginous or bony protrusions into the nasal cavity, where they function in water and heat conservation (Jackson 1964). Endothermic vertebrates (mammals and birds) achieve this through temporal counter-current exchange. When cool dry air is inspired through the nose, it is heated and humidified as it passes over the turbinates. When expired air exits the lungs and passes through the nasal cavity, it is cooled again by condensation, saving the animal a substantial amount of heat and water (Schmidt-Nielson et al. 1970). Recently, turbinate-like structures were reported in the nasal cavity of crocodylians. Being ectothermic, crocodylians are not expected to need turbinates for heat conservation. To address turbinate function in crocodylians, we studied their allometry in an ontogenetic series of 49 specimens of the American alligator from hatchlings to adults. Alligator heads were serially sectioned, to allow imaging of cross-sections and measurement of the surface area of the proto-turbinate. Data were plotted against animal body mass. We found that the turbinate surface area scaled to the exponent 0.84 of body mass, i.e., with positive allometry. This suggests that they do not conform with the scaling of resting metabolism (as they do in endotherms), and therefore probably function in a different way. Large animals, with a lower ratio of body surface area:volume, cannot lose heat as readily as small animals, and are at a greater risk of overheating. Nasal turbinates provide additional surface area for evaporative heat loss. We propose that turbinates in ectotherms function in heat dissipation, not conservation.

**Presenter:** Dorothy Skates

**Program:** MS Biology

**Title:** *Locomotor Exercise Exerts No Systemic Effect On The Dentary In The American Alligator*

**Abstract:** Exercise appears to exert systemic effects on skeletal growth in mammals, causing increased bone deposition in skeletal elements not under direct mechanical loading. Such potential effects in non-mammalian vertebrates have not received much attention. We studied effects of locomotor regimen on the lower jaw histomorphometry in the American alligator (*Alligator mississippiensis*). Animals were assigned to one of three groups: sedentary, running, swimming (n=20 each), and exercised to exhaustion every other day for 18 months. Surgery was used to render the animals' circulatory system in-series (experimental n=24), or retain the original in-parallel design (sham n=36). Whole body growth of animals was tracked biweekly, with fluorescent dye injections used to quantify the mineral apposition rate (MAR). Periosteal MAR of the dentary correlated with both mass and linear growth at the lateral margin of the mandibular ramus, but not at the ventral margin. Exercise regimen and shunt ability had no effect on MAR at either site. This suggests that skeletal integrity of the feeding apparatus in crocodylians is not influenced by systemic effects of exercise. This may be of selective advantage in sit-and-wait predators, which rely on robust jaws despite long periods of inactivity. Similar experiments on modern birds are needed to discern whether non-avian dinosaurs showed systemic sensitivity to exercise. Supported by NSF IOB 0445680 to JWH.

**Presenter:** Jenny Stone

**Program:** MS Biology

**Title:** *Examining The Tad Locus In Variovorax Paradoxus Eps And Its Tad Role In Motility*

**Abstract:** *Variovorax paradoxus* is a gram-negative aerobic bacterium present in the human oral microbiome as well as the soil. This bacterium is known to play roles in biotransformation of xenobiotics and plant growth promotion. The genomes of two strains of *Variovorax paradoxus*, S110 and EPS, were recently published. Although the genome of strain EPS does not contain the flagellum operon that is annotated in S110, the microbe is demonstrably motile and flagella can be observed by staining. To explore this surprising finding further, we enriched for motility mutants from a Tn5 mutant library using a novel liquid culture settling strategy. 124 of the enriched motility mutants deviated significantly from wild-type in swarming motility, with 27 showing a complete loss of this activity. Of the 27, identification showed 11 different loci where insertion resulted in loss of motility. Among these loci several were repeatedly identified, including a putative fimbrial low-molecular-weight protein/fibril-associated protein (Flp/Fap) pilin component (Varpa\_5148), and several genes annotated as parts of the tight adherence (Tad) locus (Varpa\_5157-9). Based on work in other systems, these genes are likely involved in a single pilus biogenesis system, but the roles of these genes in swarming motility is unclear. Recent analysis of the *V. paradoxus* EPS transcriptome during logarithmic, stationary, and biofilm growth was combined with mutagenesis data to examine the possible role of antisense RNA regulation at this loci involved in motility. The Tn5 promoterless lacZ gene was used to help elucidate the role of the antisense expression in the regulation of these surface structures.

**Presenter:** Johnny Yang

**Program:** MS Biology

**Title:** *Heart Regeneration In A Reptilian Model*

**Abstract:** Teleost fish and urodele amphibians are able to fully regenerate lost or damaged cardiomyocytes even as adults. Some mammal species (e.g., neonatal mice) appear to be able to regenerate the myocardium, whereas others (e.g., humans) are incapable of repair and regeneration. Whether this regenerative capacity exists in other vertebrate clades has not yet been described. In order to determine whether “reptiles” (non-avian sauropsids) have the capacity to regenerate cardiac tissue following injury, we developed experimental models similar to those used in zebrafish and mice—ventricular resection and cryoinjury—and tested them in the American alligator (*Alligator mississippiensis*). The alligator, with its four-chambered heart, and independent systemic and pulmonary pressure generation, can be a useful model in studies of cardiac regeneration. Hatchling alligators were injured or sham-operated, allowed to recover, and kept for up to four months. There is indication of significant increase in proliferation of cardiomyocytes in and around the wound area of injured hearts 14 days post-injury (dpi). However, by 60 dpi, a collagen-rich scar persists and assumes trabeculated morphology more similar to that seen in zebrafish. This suggests that regenerative capacity may not be present in crocodylia. Similar studies on more taxa are needed in order to elucidate evolutionary patterns with regard to regenerative capacity among vertebrate clades.

## Poster Presentations

**Presenter:** Matthew Bocanegra

**Program:** BS Kinesiology- Pre-Physical Therapy and Exercise Science

**Title:** *Comparison of Sprint Agility Performance in Recreationally Trained Soccer and Basketball Players: A Pilot Study*

**Abstract:** Sprint speed and the ability to change directions are key attributes needed in a variety of sports. Purpose: Therefore, the purpose of this investigation was to determine the differences in recreationally trained soccer and basketball players on sprint agility performance. Methods: Nine recreationally trained soccer and basketball volunteered to participate in one familiarization session and one testing session. Session one acted as a familiarization day, where the participants performed the testing day protocol. On session two, testing day, participants performed a dynamic warm-up followed by the pro-agility shuttle test. Three trials were collected with 2min rest between each trial and average and maximum times and velocities at split times was measured for each trial. A 2x1 one-way analysis of variance (ANOVA) was conducted for each variable to determine differences between soccer and basketball players. Results: No significant ( $p>0.05$ ) difference were found between players in all variables. Since no group differences were found, groups were collapsed and a repeated measures ANOVA was conducted on time and velocity between all four split times. Significant ( $p<0.05$ ) differences were found between all split times. Conclusions: These results indicate that recreationally trained basketball and soccer players did not perform the pro-agility shuttle differently. These results may be attributed to the lack of sport specific

training in these recreationally trained individuals. Further research is needed to investigate differences in collegiate athletes who train more sport specifically.

**Presenter:** Svetlana Borissova

**Program:** MA Mathematics

**Title:** *Applications of Probability Theory in Actuarial Modeling*

**Abstract:** The purpose of this project is to investigate how probability theory is used by insurance companies for risk management. We will provide examples of various claim frequency and claim severity models.

**Presenter:** Stephen Bryce

**Program:** BS Geology

**Title:** *Determining the chemical variability of Obsidian Dome.*

**Abstract:** Obsidian Dome is part of the Inyo Domes magmatic system. Obsidian Dome erupted 650 years ago on the eastern side of the Sierra Nevada Mountains of California. The composition of the dome was examined using a Niton X-ray fluorescence spectrometer to determine the chemical composition of the rocks that comprise the dome, both in the field and in the laboratory. This study is an attempt to characterize the chemical variation shown by the rocks that make up this dome and to try and determine the sequence of eruptive events that formed Obsidian Dome. The fractional crystallization of the magma chamber should result in measurable differences in chemical composition throughout the dome. If the magma erupted in different events then the composition of the melt, and therefore the successive eruptions, will crystallize with different concentrations of elements within the melt. The petrography shows a change in phenocryst percentage and size with subsequent eruptive events. 62 locations around the perimeter and across the top of the dome were analyzed. Samples were also collected to make into petrographic slides to examine variation in phenocrysts in these rocks.

**Presenter:** Rick Campos

**Program:** MS Biology

**Title:** *Using Functional Genomics and Metagenomics in the Undergraduate Classroom as a Bridge to Research Experiences*

**Abstract:** In Fall 2013, a course titled Functional Genomics in Bacteria was taught at CSU San Bernardino. This small, laboratory-focused course allowed students to pursue two distinct group projects in functional genomics and metagenomics. The students participated in all stages of development of both projects. One project focused on identifying elements of the *Variovorax paradoxus* EPS flagellar apparatus by heterologous host complementation. The polar flagellum of this microorganism has been identified biochemically, but the genes were not identified in the genome annotation process. Several non-motile flagellum knockout strains in *E. coli* were received from the CGSC (New Haven) and libraries of genomic DNA from *V. paradoxus* EPS were generated in pBAD24 and pBBR1MCS5. The construction and evaluation

of these libraries was carried out during the quarter, and then followed up by students from the class after the term ended. A second project focused on enriching for Aminocyclopropane-1-carboxylate (ACC) deaminase activity from the soil metagenome. ACC deaminase is a key enzyme involved in plant growth promotion by disrupting the ethylene stress hormone synthesis pathway. ACC can also serve as a nitrogen source in culture, as the enzymatic activity yields ammonium and alpha-ketoglutarate. On this basis an enrichment strategy was devised. Soils were collected and DNA extracted. The DNA was introduced into *E. coli* using a Fosmid library (CopyControl, Epicentre) and the library was validated and sampled for ACC deaminase activity by growth on medium containing ACC as sole carbon source. Students in this course learned advanced molecular techniques as well as the use of bioinformatics resources and tools, and were directly involved in the planning and execution of an original, publishable research project. Four of the five students involved in this project are currently pursuing graduate degrees, suggesting that “real-world” research experiences in the classroom may stimulate increased participation in STEM careers.

**Presenter:** Garrett Caso

**Program:** BS Geology

**Title:** *Evaluation Of The Ability Of Niton Portable Xrf Spectrometers To Conduct In Situ Geochemical Measurements For Correlation Of Ash Layers In The Barstow Formation, Rainbow Basin, California*

**Abstract:** Analysis of tuffs collected from Rainbow Basin were tested with a Niton portable XRF spectrometers for the purpose of determine the reliability and ability of the Niton to give precise and accurate chemical readings and to determine if the Niton could be used to make correlations of ash layers in the field. To achieve this the Tuffs were scanned in three of the Niton’s modes in three forms, one being as a powder, another as a glass disk, and third as a solid hand sample. The different samples and modes consistently had precise data with the elements Fe, K, Zn, Sr, Ca, and Rb in testing. While the elements Mn and Ti lack consistently correlation could still be made, but the usefulness of the data has yet to be determined. Of the samples scanned only the element U consistently showed no correlations. Scans in the different modes on the Niton showed some variations depending on the element. There is also a variation in the data gained form the samples in there different forms with the reported glass disk data being half of that of the soils. After this process field studies of the ash layers were conducted in situ in Rainbow basin using correction curves produced in the lab. The field data showed a wide variety in chemical composition between and along the same layers.

**Presenter:** Mary Jane Cooney

**Program:** BS Geology

**Title:** *Evaluation Of A Non-Destructive Xrf Analytical Tool For Uranium And Thorium Abundances And Radioactivity Assessment In Dimension Stone*

**Abstract:** The increasing popularity of “granite” dimension stone countertop materials, and their use in homes, illustrates the need for a nondestructive test for radioactivity and potentially harmful elements. The range of values for uranium and thorium in common countertop materials are within appropriate ranges of reliability for portable X-ray fluorescence (XRF) units. The correction curve for uranium has a correlation coefficient of 0.993, showing that raw XRF values may be corrected with a high degree of

reliability. The correction curve for thorium also had a very strong correlation value of 0.999. Plots of U, Th, and U+Th vs. radioactivity measured for individual samples, shows correlation between radioactivity and the abundance of these elements. Specifically, there is moderate correlation of radioactivity with U abundance, stronger correlation with Th, and the best correlation with U+Th. This suggests that portable XRF units can serve as a useful screening tool for granite countertop materials with respect to U and Th levels, and can serve as a proxy for Geiger counter measurements of radioactivity within these same materials. This should prove useful for this presently unregulated industry, should future regulations require these types of measurements.

**Presenter:** Ashleigh Covarrubias

**Program:** BS Geology

**Title:** *Geomorphologic activity in Grinnell valley from lower Grinnell Lake: mineralogical and chemical composition tracer reflections of Mesoproterozoic Belt-Purcell Supergroup formations from Grinnell valley, Glacier National Park, Montana*

**Abstract:** During the summer 2014, sediment cores were collected from Swiftcurrent Lake and Lake Josephine in Glacier National Park. Over 70 meters of core were collected on this excursion. In 2010 LacCore also collected the lower Grinnell Lake cores (LGRIN10-1B-1P-1 and LGRIN10-1C-2B-1) that are studied for this project. Sampling of 4 cubic centimeters (cc) at 1 cm intervals, with a total of 127 samples were collected at LacCore for analysis. X-ray Diffraction (XRD) and X-ray Fluorescence (XRF) were used to determine whether the mineralogical and chemical composition of lake sediment tracers could reflect those of the Mesoproterozoic Belt-Purcell Supergroup rocks that surround Grinnell Valley. Previous mineralogical analyses from two lakes down valley of lower Grinnell Lake demonstrate that quartz, phyllosilicate minerals such as illite (clay), chlorite (mica), and occasionally dolomite are found in varying amounts through the section. Previous XRD and percent total inorganic carbon (%TIC) data showed that during times of glacial advance, there are greater amounts of dolomite found in lake sediments. This suggests the amount of dolomite in the sediments is a proxy for glacier volume due to: (1) the glacier being more erosive, producing fine-grained dolomite, (2) subglacial transport from the cirque to the glacier toe is more efficient, and (3) by advancing over the lake, a more extensive glacier will scour the lake bed and remove lake sediment from the system.

**Presenter:** Marissa De Hoyos

**Program:** BS Geology

**Title:** *The Effects Of Alluvial Sediment Hardness On Coastal Sage Scrub On The Land Lab At CSUSB*

**Abstract:** The Land Lab at CSUSB is inhabited by endangered coastal sage scrub. The vegetation in part of the Land Lab was destroyed when a large amount of sediment was dumped on top during construction of parking structures in 2007. Three previous studies measured the penetrability of the alluvial sediment. The first trial showed a dramatic decrease in penetrability of the disturbed sediment relative to the undisturbed land. The second trial showed further decrease in penetrability. The third and fourth trials showed a further slight decrease. The penetrability levels in this area, (both disturbed and undisturbed areas), decreased well after the dirt piles were removed (2007 vs. 2011). Clearly, something else was causing this continued decrease in penetrability. Caliche build-up from precipitation may be a factor to

the difficulties in penetration of the alluvial sediment of the Land Lab. Following this theory, the annual precipitation values from the University's weather station were compared to the penetrability data. This comparison showed that both followed the same trend. The precipitation year 2010-2011 showed the highest rainfall. This is also the same year the penetrability of the alluvial sediment was at its highest. This supports the idea that caliche may have been mobilized during the years with the highest precipitation. Caliche then precipitated in the sediment pore spaces and partially cemented the sediment. The data have been fairly consistent suggesting that in the past two years with very little rain, there was little addition to the formation of caliche, or mobilization of the existing caliche.

**Presenter:** Michael Fane

**Program:** BS biochemistry

**Title:** *Investigation of Crystalline Structures Known to be Components of Comets and Asteroids and The Effect High Velocity Impacts have on Their Infrared Absorbencies.*

**Abstract:** Comets and asteroids are the key to understanding the evolution of our universe. A deeper understanding of the impact history of these objects has the potential to mold future study, and enlighten us on the early history of our solar system. If signatures in the infrared spectra of these objects were altered due to collisions, then the impact history of a comet or asteroid could be constrained by analyzing features in infrared wavelength spectra (obtained with telescopes) of these objects. We conducted high velocity impact experiments in the Experimental Impact Laboratory at Johnson Space Center NASA to investigate potential shifts in the infrared absorption bands caused by high velocity impacts. These experiments were conducted with minerals known to be components of asteroids and comets from signatures in telescopic data. Minerals such as magnesium rich silicates (e.g. olivines and pyroxenes) underwent high velocity impacts using a high velocity vertical gun. We tested samples impacted at speeds ranging from 1.8 to 2.6 kilometers per second under various conditions and measured the resulting samples with a Fourier Transform Infrared Spectrometer (FTIR) and compared the results to non-impacted minerals. Our research suggests that high velocity impacts do modify the infrared spectra of the minerals

**Presenter:** Mercedes Fuller

**Program:** BS Geology

**Title:** *Analysis of Global Positioning Systems Data from the San Bernardino Mountains*

**Abstract:** The San Andreas Fault and smaller surrounding faults in the San Bernardino Section were tested with Global Positioning Systems (GPS) to calculate the relative movement of the benchmarks; the displacement of the benchmarks were measured in mm/yr. There were 540,801 combinations of slip tested on 15 faults. Evaluation of the models used the  $\chi^2$  equation to assess the deviation of the model from the site velocities. The three models combined the best-fit slip rate, slowest and fastest San Andreas Fault values; the numbers were 9 mm/yr, 0 mm/yr, and 18 mm/yr with a fixed locking depth between the three models.

**Presenter:** Erika Gray

**Program:** BS Mathematics

**Title:** *Ibuprofen's Effect on D.melanogaster*

**Abstract:** This presentation analyzes the effect of Ibuprofen on D.melanogaster and the lifespan. Using two strains of flies with identical genes, except for A $\beta$  1-42, the pathway for Alzheimer's, varying concentrations of the drug were administered throughout their lifespan. Beginning with 150 male flies 0-3 days old, they were separated into six vials in which their concentrations varied from 0.0 $\mu$ g, 0.1 $\mu$ g and 0.3 $\mu$ g. The 00C flies were used as the control group and are known to live longer since they do not have the Alzheimer's pathway. The experiment proved to show that Ibuprofen does have a positive effect on not only the flies with the Alzheimer's pathway, but the control group as well.

**Presenter:** Luis Jauregui

**Program:** BS Applied Physics

**Title:** *Piezoelectric Material Red*

**Abstract:** Croconic acid was found to be ferroelectric in 2010. At CSUSB we began looking at various salts of this acid for newer materials with ferroelectric properties. Computational chemist at CSUSB (Dr. Kimberly Cousins) found that a particular salt of Croconic acid (Red) had potential to be piezoelectric along all of its crystallographic axis. After being synthesized, the powder x-ray diffraction confirmed that the crystal grew in the correct structural phase as predicted from theory. To test the piezoelectric behavior of the material we created a simple, two parallel plate capacitor with Red as the dielectric material, and thermally evaporated gold electrodes. Applying AC voltage at 1 Hz to the sample and looking for displacements, we were able to detect piezoelectric responses on each axis of the material. The resulting graph, strain Vs Electric field (butterfly curve), is used to find piezoelectric constants. We recorded the piezoelectric constant to be 2E-6 cm/KV and 3E-6 cm/KV for the c and b Axis respectively. The problem is that the best butterfly curve obtained on the a-axis is not symmetrical, so we can consider two different piezoelectric constants from this curve; 1E-4 cm/KV and 8E-6 cm/KV. To compare these values a standard PZT disk was used under similar experimental conditions, which yielded a piezoelectric constant of 2E-4 cm/KV. So the biggest piezoelectric constant obtained from the a-axis curve is in the same order of magnitude as one of the conventional piezoelectric materials. This material is worth pursuing further since the preliminary testing reveals that this could be a promising piezoelectric organic material.

**Presenter:** Jason Jung

**Program:** MS Biology

**Title:** *A juvenile specimen of the multiple-tooth-rowed reptile Labidosaurikos (Eureptilia, Captorhinidae, Moradisaurinae) from the Lower Permian of north-central Texas*

**Abstract:** MCZ 1352 is a partial maxillary toothplate from the Early Permian of Baylor County, north-central Texas. The specimen displays the straight rows of teeth characteristic of the Moradisaurinae and is nearly identical in shape to the maxilla of Labidosaurikos meachami. Larger, more mesial individual teeth conform to the dental pattern previously determined for adults of the genus. Adults of L. meachami



are known to possess six maxillary tooth rows, whereas MCZ 1352 has only five. Although only a partial specimen, it appears MCZ 1352 is most likely a juvenile specimen of *L. meachmi*. If correct, the comparative sizes suggest isometric growth of this element. The orientation of the lingual-most row of teeth, and the five as opposed to six maxillary tooth rows, suggest either new tooth rows may move labially during development or bone growth and remodeling occur lingually, resulting in the development of a margin of maxillary bone between the fifth row and the lingual edge.

**Presenter:** Gabriel Jurado

**Program:** BS physics

**Title:** *Surface Energetics of Iron Pyrite*

**Abstract:** We studied the surface energetics of iron pyrite to determine the most stable surface configuration. Interest in this research stems from current application of iron pyrite as a photovoltaic. We would like to understand if surface stoichiometry is responsible for the low Open Circuit Voltage. Density Functional Theory calculations using VASP (Ab-initio Simulation Package) were performed and PAW potentials and the GGA+Hubbard U correction was used. The plane wave energy cutoff as 310eV, and for each cycle the total energy was converged within 1E-06 eV. A Monkhorst pack k-mesh of 9x9x9 was used for bulk relaxations, and a 4x4x1 k-mesh for the surface. DOS and band structure were ran first by a self consistent calculation, and then a non-self consistent run using CHGCAR with a k-mesh of 12x12x1. Bulk (single crystal) of iron pyrite is known to be an n-type semiconductor, and the Fermi level lies closer to the conduction band. While the surface (thin film) is commonly a p-type semi conductor and the Fermi level lies closer to the valance band.

**Presenter:** Seung Heon Lee

**Program:** BS Biochemistry

**Title:** *Docking Protein TRPM8 and Ligand 8 different Menthol isomers through AutoDock Vina and Visual Molecular Dynamics(VMD)*

**Abstract:** Menthol is one of active gradients of mint which induces cool sensation. Menthol has 8 different isomers with different stability and energies. The menthol activates the transient receptor potential melastatin 8 receptor (TRPM8), a cold-sensitive ion channel. Based on different isomers, each menthol showed different affinity in TRPM8 receptor. Receptor is protein and ion channel for menthol, upon activation, it allows the entry of Na+(sodium) and Ca2+(calcium) ions to the cell that leads to depolarization and the generation of an action potential. For interacting of 8 different menthols and TRPM8, AutoDock Vina and Visual Molecular Dynamics(VMD) were used. Original menthol is bound to Tyr 754, Asp 802 and Asn 799 in TRPM8 receptor but menthol isomers showed only two binding sites, Asp 802 and Asn 799. Figuring out why isomers of menthol did not bind to Tyr 754 in TRPM8 receptor, Grid box, setting the specific binding place, was fixed little bit differently for accurate binding. However, they still bound to two sites. While menthol isomers bound to TRPM8, they possibly were rotated or had unstable energies. Therefore, Xsede program, which improves to analyze binding, would be required to stabilize connection between menthol and TRPM8 receptor.

**Presenter:** Madison Morris

**Program:** BS Geological Sciences

**Title:** *Biometric analysis of scaphopods of the Pleistocene Palos Verdes Formation and their indications of environmental change and sediment petrology*

**Abstract:** Biometric measurements of a total sample of forty scaphopod specimens (Phylum Molluska) from the Pleistocene Palos Verdes Formation indicate that scaphopods grew incrementally and their growth patterns may have significant paleoecological value. Several specimens were mounted and ground both parallel and perpendicular to the shell axis in order to analyze their growth patterns which had never been described. Prismatic calcareous crystals formed significant growth layers that can be counted similar to dendrochronological rings. Two specimens exhibit growth rings partitioning the conch into vertical chambers. In both specimens that partition occurred at the third internal growth ring.

**Presenter:** Dan Nario

**Program:** BS Kinesiology

**Title:** *The Difference in Vertical Jump Performance in Recreationally Trained Soccer and Basketball Males: A Pilot Study*

**Abstract:** Assessing lower body peak power output (PPO) in vertical jump performance is critical in sports. Vertical jump height (VJH) and PPO measures may allow practitioner to consider the differences in the needs of vertical jump performance in recreationally trained soccer and basketball players. Purpose: The purpose of this study is to evaluate the difference in VJH and lower body PPO in recreationally trained soccer and basketball males. Methods: Nine recreationally trained males volunteered to participate in two sessions, a familiarization and a testing day. During the familiarization day, participants performed a dynamic warm-up followed by performing countermovement vertical jumps. On testing day, participants were asked to follow the same protocol as familiarization day. Participants performed three countermovement vertical jumps with 15s rest between each jump and were instructed to jump as high and as quickly as possible using an arm swing during each jump. A Vertec<sup>®</sup> was used to measure VJH and PPO was calculated using Sayers equation. A 2x1 one-way analysis of variance was conducted to test difference between soccer and basketball players in VJH and PPO. Results: No significant ( $p > 0.50$ ) difference were found between recreational basketball and soccer players in VJH and PPO. Conclusion: The results of the study conclude that there is no differences between recreationally trained soccer and basketball players. This may be attributed to the participants training level, lack of sport specific training, consistency in training, and/or rigorous training. Future research should investigate the differences in vertical jump performance for soccer and basketball collegiate athletes.

**Presenter:** Carlos Navarro and Amylee Martin

**Program:** BS Biochemistry

**Title:** *Synthesis of Rhodizonic Acid and Croconic Acid*

**Abstract:** Compounds that are piezoelectric produce an electric charge in response to applied mechanical stress. As such, they can be used to measure changes in pressure, acceleration, strain, and force. Piezoelectrics are often used in ultrasound devices, sonars, light deflectors and modulators. Ferroelectric compounds are a subset of piezoelectric compounds. Ferroelectrics possess a spontaneous electric polarization that can be reversed when an external electric field is applied. Croconic acid, a five carbon cyclic oxocarbon acid, has recently been confirmed to be ferroelectric (Horiuchi, et al, Nature, 2010, 463, 789-792). It is hypothesized that other cyclic oxocarbon acids, such as the 6-membered ring rhodizonic acid, and the 3-membered ring deltic acid, may also be ferroelectric. It is also postulated that derivatives of these oxocarbon acids, might display similar piezoelectric or ferroelectric behavior. The purpose of this research is to synthesize croconic acid and rhodizonic acid, to grow single crystals of these substances, and to explore their piezoelectric/ferroelectric behavior. Croconic and Rhodizonic acid are synthesized through multi-step reactions. A precursor to both of these acids is the disodium salt of tetrahydroxy-p-benzoquinone, that can be prepared by the self-condensation of glyoxal under oxidative alkaline conditions. Once prepared, this disodium salt can then be oxidized and decarboxylated to form croconic acid, or oxidized in air to yield rhodizonic acid. Croconic acid has been synthesized with an average percent yield of 7%, while rhodizonic acid has been synthesized with an average percent yield of 12%.

**Presenter:** SueAnn Neal

**Program:** BA Biology

**Title:** *Identifying Microsatellite Candidates For Understanding Diversity Within The Local Callisaurus Draconoides Population*

**Abstract:** Callisaurus draconoides, commonly referred to as the Zebra-tailed lizard, can be found in various desert regions of the American southwest as well as portions of Mexico. However a small local population can be found in the coastal region including an area adjacent to our campus. Callisaurus draconoides is a monotypic classification with multiple subspecies. The subspecies are differentiated through ventrolateral bar count, habitats and difference in fringes located on the hind limbs. (Adest, 1987) Current classifications are relying on phenotypic variations as genetic research on these lizards is limited. The most current studies available are focused on mitochondrial DNA (mtDNA) while nuclear DNA (nDNA) research is lacking such as microsatellites research. Microsatellites are base pair tandem repeats with flanking regions on either sides. The flanking regions, which are highly conserved, are the basis of the primers necessary for the amplification through polymerase chain reaction (PCR) which is utilized in determining the variable base pairs within a given species. Through recent research, eight polymorphic microsatellites markers have been determined for the closest relatives on the phylogenetic tree, Phrynosoma hernandesi. (Sim, 2013) Continuing research in determining phenotypically similar lizards that are within the same family, Phrynosomatidae, will be used to evaluate the possibility of additional microsatellite options. The primers established through this research will be utilized in determining the genetic diversity within the Callisaurus draconoides species elucidating the pattern and extent of genetic diversity will aid us in understanding both the evolutionary and possible management of these local

populations. . Sources: Adest, G. (1987). Genetic differentiation among populations of the zebra-tailed lizard, *Callisaurus draconoides* (Sauria: Iguanidae). *Copeia*, 1987(4), 854-859. Sim, Z. , Booker, B. , Viengkone, M. , Davis, C. , Leung, M. , et al. (2014). Isolation and characterization of 8 polymorphic microsatellite markers from the greater short-horned lizard (*Phrynosoma hernandesi*). *Conservation Genetics Resources*, 6(2), 443-444.

**Presenter:** Tera Ochart

**Program:** BS Geology

**Title:** *Post-mining estimation of silver production from the Silver King vein at Calico, California*

**Abstract:** The Calico silver district as a whole is claimed to have produced 13-20 million ounces of silver. The district contains the Silver King, Oriental, Burning Moscow, and Red Cloud mines. The purpose of this study was to estimate the total silver production from the Silver King mine, using ore pillar grades and stope volumes estimated by field work. An estimated 20-24 million ounces of silver were produced from the main Silver King vein and black oxide pockets in the mine, based upon this field work. The discrepancy between the lower historical estimate and the geological estimate in this study is attributed primarily to poor historical records and corporate fraud.

**Presenter:** Sara Olsen

**Program:** BA Geology

**Title:** *Compositional control of color in halites from Searles Lake, California*

**Abstract:** Halite collected from muds of Searles Lake is commonly pink to red, making it a coveted specimen for rock and mineral collectors. Similar pink halite from the Salt Range in Pakistan, often sold as Himalayan Pink Salt, is prized for its purported natural affinity. Chemical analysis of Searles pink halite shows that the halite is rich in pink to reddish carotenoids. X-ray element analysis shows that iron oxides, which are commonly geological reddening agents, are not the source of the color. However, halophilic bacteria are well known producers of carotenoids. Halophilic bacteria are the major reason why water bodies in which they live a pink to red color, e.g. The Red Sea, The Great Salt Lake and Owens Lake. They can tolerate extreme habitats, i.e. they are extremophiles, and survive in hypo- to hyper-saline aquatic systems. Initial spectrophotometric analysis indicates that absorbance levels and fluorescence tentatively correlate fluctuating preservation and/or bio-productivity of halite-rich environments.

**Presenter:** Whitney Pollitt

**Program:** BA Biology

**Title:** *Malpighian Tubules, an Effort to Employ Regenerative Medicine by Stem Cell Discovery*

**Abstract:** Regenerative medicine proves to be the next advancement in treatment for organ damage or failure. With the use of stem cells, researchers hope to be able to manipulate stem cells into various organs or organ tissues that could be either implanted or used in therapy. Pluripotent stem cells are undifferentiated stem cells that have the potential to become other types of cells, like muscle, neuronal,

bone, kidney and liver cells to name a few, when manipulated properly. Using *Drosophila Melanogaster* as a homolog to the human, we hope to be able to identify and culture stem cells from Malpighian Tubules. Malpighian Tubules are the excretory structures of the *Drosophila*, which are the equivalent structure to mammalian kidneys. Malpighian Tubules are comprised of two sets of two tubules that connect at the common ureter. The common ureter is then connected between the midgut and hindgut of the *Drosophila*'s digestive tract. The right pair extends forward in the body cavity, while the left pair extends backwards, attaching to the posterior end of the hindgut. Stem cells and progenitor cells have been proposed to be responsible for repair and regeneration of injured renal tissue. In *Drosophila*, the Malpighian tubules are thought to be very stable and no stem cells have been previously identified. Multipotent stem cells have been found within the tubules for self-renewal purposes.

**Presenter:** Tania Rangel

**Program:** BS Geological Sciences

**Title:** *Global Positioning System tracking of slip rate of the San Andreas fault*

**Abstract:** Using GPS data collected at various benchmarks in a transect across the Pacific-North American plate boundary through the eastern San Bernardino Mountains, slip rates were determined for the faults in that area. Possible slip rate combinations for thirteen faults along the North American and Pacific plate boundary were tested to determine which of these slip rate combinations best fit with observed GPS site velocities. An envelope was created to house an acceptable range of model predictions that fall among the observed velocities. The slip-rate models that fell into this acceptable range are as follows; 0-8 mm/yr for the San Andreas fault, with corresponding rates of 22 and 14 mm/yr, respectively, for the San Jacinto fault. The best-fitting model had 2 mm/year for the San Andreas fault and 20 mm/year for the San Jacinto fault.

**Presenter:** Corey Rattray

**Program:** BS Geology

**Title:** *Nature of Transverse Fault Deformation in the Horse Range, Nevada*

**Abstract:** Most of the rocks in the Stone Cabin Fault Zone in the Horse Range, Nevada are folded, faulted, and tilted. Several cross-sections were constructed using Dr. Joan Fryxell's unpublished map to show the present structural state of the area. One cross-section in particular shows that these rocks are tilted to the east. The other cross-sections show that the rocks are folded and overturned. The Sevier thrust belt runs through this area, and is a factor in what has happened in the Horse Range. Another factor is the extension that the Basin and Range province is known for, with significant crustal stretching that produced many normal faults. Evaluation of the geometry of the Stone Cabin Fault Zone is to determine its role relative to the Sevier orogeny and/or regional extension and/or some other regional relationship. Three possibilities for the setting of the Stone Cabin Fault Zone represented are a tear fault in the hanging wall of either an older thrust fault, or a younger normal fault, a strike-slip fault related to extension or normal faulting caused by north-south extension. The results from Fryxell's map, and the six cross-sections suggest that this area has experienced normal faulting making horst and graben structures, creating north-

south extension. The maximum age of this fault zone is of Miocene, because Miocene rocks are the youngest ones cut by the faults.

**Presenter:** Edgar Sanchez and Leilina Nguyen

**Program:** BS kinesiology

**Title:** *Differences Between Body Composition Analysis Between The Gold Standards Hydrostatic Weighing, Dual X-Ray Absorptiometry, And The Field Measurement Bioelectrical Impedance On Young Overweight Adults*

**Abstract:** Intro: As the prevalence of obesity rises, as does the need for reliable body composition (BC) methods. Many methods of BC analysis exist, however accuracy is questioned with respect to which criterion method is referenced by the device. There is often debate within the scientific literature about which criterion method and BIA field measurement is applicable for the overweight population. Little research has been found comparing two debated criterion methods with field methods in overweight or obese individuals. The purpose of this study is to compare criterion methods, hydrostatic weighing (HW) and dual energy x-ray absorptiometry (DXA) with two methods of bioelectrical impedance analysis (BIA) in overweight or obese young adults to determine the validity of these methods.

**METHODS:** N=25 overweight and obese adults (BMI  $29.04 \pm 3.568\text{kg/m}^2$ , 13 males, 12 females, ages  $24.37 \pm 4.924\text{y}$ ) followed standardized pre-testing guidelines for BC assessment. Percent body fat (%BF) was estimated by Omron BIA, Impedimed BIA and compared to GE Lunar Prodigy DXA, and HW. %BF was estimated using generalized population specific equations.

**RESULTS:** Repeated measures ANOVA with a Greenhouse-Geisser correction determined there was a significant mean difference between BC methods. Pairwise comparisons indicated significant differences ( $p < 0.05$ ) between Omron BIA and Impedimed, Omron BIA and DXA, and between HW and DXA. Furthermore, %BF was significantly correlated between Omron BIA and HW ( $p < 0.05$ ,  $r = 0.902$ ) as well as between Impedimed BIA and DXA ( $p < 0.05$ ,  $r = 0.709$ ).

**CONCLUSIONS:** The results of this study show criterion methods, HW and DXA were found to be statistically different from one another. Depending upon which criterion method is referenced, the appropriate field measurement Omron BIA or Impedimed BIA should be selected.

**Presenter:** Nicole Sauls

**Program:** BS Kinesiology Allied Health Concentration

**Title:** *Differences in Recreationally Trained Male Soccer and Basketball Players on Balance and Stability Measures: A Pilot Study*

**Abstract:** Balance is an important skill in the execution of movement in sports. For basketball and soccer players, balance assists in the development of optimal performance. Purpose: The purpose of this investigation was to determine the differences in recreationally trained male soccer and basketball players on balance measures. Methods: Nine males volunteered to participate in one familiarization and one testing session. During the familiarization session, the participants performed a dynamic warm-up,

followed by three balance tests on the Biodex Balance System. The tests consisted of Static Balance (SB), Limits of Stability (LOS), and Single Leg Balance (SLB). Participants returned to the laboratory at least 24hrs following familiarization session and balance was assessed with the same three balance tests. The SB and the SLB test consisted of three trials at 20s each with a 10s rest between each trial. The LOS test consisted of three trials until completion of task, with a 10s rest between each trial. The SB, SLB, and LOS test measured degrees from horizontal and the LOS test also measured time to completion. All of the three trials were averaged for each outcome measure. A 2X1 one-way ANOVA was conducted to analyze differences between soccer and basketball players in SB, LOS, and SLB outcome variables. Results: There was a significant ( $p < 0.05$ ) difference in the SB and SLB variables. Following no group differences, groups were collapsed for SLB measures and a paired t-test was conducted between right leg and left leg balance, indicating no significant ( $p > 0.05$ ) differences between right and left leg balance. Conclusion: These results show recreationally trained basketball players had greater dynamic control than soccer players indicating basketball players may develop greater balance while executing a variety of dynamic movements. Both soccer and basketball players had bilateral symmetry balance in their legs, which may be attributed to executing movements equally in each leg. Future research is needed to investigate balance measures in collegiate basketball and soccer players.

**Presenter:** Nicolas Schwartz

**Program:** BS Biology

**Title:** *The Effects of Diet Quality on Xiphophorus Escape Response*

**Abstract:** A fundamental assumption of the theory of sexual selection is that sexually selected traits increase reproductive fitness. However, these traits may incur a survival cost. Among swordtail fishes, both the length of the sword (if present) and body size are sexually selected traits in males—a reduction in adult size would potentially incur both decreased mating success, and reduction in C-start performance. Here we examined the effects of diet (high protein, HQ, vs. low protein, LQ) on body size and C-start performances in three types of swordtail fish, *Xiphophorus variatus* (no swords) and two genetically distinct size classes within the genetically polymorphic *X. multilineatus*. To quantify escape performance we measured whole-body (relative to starting position) and relative (within-fish) maximum turn angles, turn rates, time to maximum body angles, and total displacement of the center of mass. LQ diet fish mass in all three groups was significantly less than HQ counterparts. We found effects of diet only in relative maximum turn angle and turn rate, with LQ fish achieving greater turn angles and rates. However, when controlling for the effects of length, only the relative maximum turn angle was significantly impacted by diet. Our results are somewhat surprising given the substantial differences in mass observed in these fish, and given that size seems to be a good predictor of escape performance in other fishes. For swordtails, smaller size due to a poor quality diet in the wild is likely to be detrimental to reproductive fitness, but perhaps less so to survivorship.

**Presenter:** Teresa Villasenor

**Program:** BS Biology

**Title:** *The Effects of Exercise and Vinpocetine on the Male and Female Heart and Lifespans of Drosophila Melanogaster*

**Abstract:** Alzheimer's is the most common form of dementia and is characterized by increasing mental decline as the disease progresses. Drosophila is often used to study Alzheimer's disease and has also been identified as a good model to study heart function. Alzheimer's has recently been associated with cardiac dysfunction. Vinpocetine is currently used to treat Alzheimer's disease in Europe but is currently classified as a herbal supplement in the United States. Differences between the sexes were studied with a lifespan assay and heart rate assay for four groups; vinpocetine treatment only, vinpocetine treatment with exercise, exercise only and a control. This study utilized one day old A $\beta$ -42 and OOC Drosophila melanogaster. Heart rates were counted manually and flies were exercised using a Hybaid oven at 26°C at 5 rpm for increasing amounts of time each week. It is expected that vinpocetine alone and vinpocetine with exercise as well as exercise only will extend the lifespan of the A $\beta$ -42 flies. The flies treated with exercise and vinpocetine are expected to live longer than vinpocetine or exercise alone. It is also expected that the heart rate of the exercised flies will remain slower than the flies that have not been exercised. This study is currently in progress and future studies will include heart function analysis by semiautomatic optical heartbeat analysis (SOHA v.3) which will allow for better determination of heart function such as measurements of diastole and systole.



# **The College of Social & Behavioral Sciences**

Disclaimer: All student abstracts have been written and approved by the student authors before publication.

## Poster and Oral Presentations

**Presenter:** Catherine Ou, Clinton Haywood, & Kangwook Noh

**Program:** BA Economics

**Title:** *Estimating the Impact of Austerity During the Great Recession Using the Hicksian Super-Multiplier*

**Abstract:** The 2007-2008 recession in the United States was one of the most severe economic downturns since the Great Depression. Standard Keynesian economic analysis calls for government spending to stimulate the economy in such “slumps”. The size of the stimulus, in turn, depends crucially on what macroeconomists refer to as the multiplier, which is the degree to which government spending filters through the rest of the economy to boost spending and job growth. We use the concept of the supermultiplier, first developed by Hicks (1950) and later by Serrano (1995) and most recently employed in an analysis of fiscal policy in the Great Depression by Perry and Vernengo (2013), to analyze the effects of the 2009 American Reinvestment and Recovery Act. Finally, we employ our estimations in a novel way to conclude that a larger “counterfactual” stimulus package would have quickened the pace of economic recovery after the Great Recession.

**Presenter:** Amber Castro and Tyler Wolfe

**Program:** BS Political science

**Title:** *Man Enough? Framing Gender in Presidential Elections*

**Abstract:** Media play an influential role in American political elections. Extensive scholarship from political scientists and communication scholars has assessed the ways in which media coverage of female candidates in particular is distinct from the coverage of male candidates, and how this difference influences elections outcomes. In particular, female candidates receive coverage that focuses more on their appearance, and less on issues, likely signaling that they are less viable as candidates. Overall, there appears to be a positive bias for male candidates in media coverage of elections. Yet I suggest the bias may not necessarily be for male candidates, but instead for masculine candidates, and thus in races where two men are running it is possible that the candidate perceived to be less masculine is subject to the same media biases observed in general for female candidates. Similarly, more masculine female candidates may in fact receive less biased media coverage. The basis of this argument stems from notions of leadership in the United States, which largely embrace masculinity and reject femininity. To the extent that media play a role in maintaining masculinity as the norm—and preference—in American politics, is the focus on this study.

## Oral Presentations

**Presenter:** Monica Aguilar

**Program:** BA Biological Psychology

**Title:** *The Influence Of Coping Strategies In The Relationship Between Self-Blame And Ptsd And Depressive Symptom Severity Among Survivors Of Sexual Assault*

**Abstract:** Posttraumatic stress disorder (PTSD) and depression are potential psychological consequences of exposure to sexual assault (Campbell, Dworkin, & Cabral, 2009). Maladaptive trauma-related cognitive appraisals (i.e., self-blame) have been associated with poorer posttrauma adjustment (Campbell et al., 2009). The manner in which an individual copes with trauma-related emotions and thoughts may determine their risk of developing PTSD and depression. The purpose of the present study was to examine the influence of coping strategies in the association between self-blame and psychological distress (i.e., PTSD and depressive symptoms). Our sample was comprised of 120 female college students who reported prior exposure to sexual assault. Participants completed questionnaires assessing demographic information, trauma exposure, PTSD symptomology, depressive symptoms, posttraumatic cognitions, and coping strategies. Results revealed positive associations between PTSD symptoms and self-blame ( $r = .36$ ,  $p < .001$ ), emotional support ( $r = .21$ ,  $p < .05$ ), instrumental support ( $r = .19$ ,  $p < .05$ ), and substance use ( $r = .34$ ,  $p < .001$ ). Self-blame ( $r = .49$ ,  $p < .001$ ), emotional support ( $r = .19$ ,  $p < .05$ ), and substance use ( $r = .49$ ,  $p < .001$ ), but not instrumental support ( $p > .05$ ), were also positively associated with depressive symptoms. Self-blame was positively correlated with use of emotional support ( $r = .33$ ,  $p < .001$ ), instrumental support ( $r = .24$ ,  $p < .01$ ), and substance use ( $r = .31$ ,  $p < .01$ ) coping strategies. Findings from mediational analyses revealed that substance use emerged as the only significant mediator between self-blame and PTSD ( $F(4, 115) = 8.62$ ; 95% CI: Lower Limit .03 to Upper Limit .32,  $p < .05$ ) and self-blame and depressive symptoms ( $F(4, 115) = 17.34$ ; 95% CI: Lower Limit .07 to Upper Limit .37,  $p < .05$ ). Findings are consistent with prior literature suggesting that sexual assault survivors may turn to substances to cope with the intrusive thoughts and negative emotions, thereby leading to the development and maintenance of PTSD and depressive symptoms. Findings have important treatment implications and highlight the need for future research devoted to investigating potential ways to promote active coping strategies (i.e., seeking treatment) among survivors of sexual assault.

**Presenter:** Erin Alderson

**Program:** BA Biological Psychology

**Title:** *Effects Of Repeated Paroxetine Exposure On Acoustic Startle In Adolescent Rats.*

**Abstract:** Major depression is a common problem in adolescents, yet many of the medications that are effective at relieving the symptoms of depression in adults are ineffective in adolescent populations. Moreover, the most popular class of antidepressants, the selective serotonin reuptake inhibitors (SSRIs), can induce suicidal ideation in adolescents. The mechanism for this paradoxical increase in suicidal ideation is unknown but recent research in our laboratory suggests that paroxetine may increase anxiety in adolescent rats. Therefore, we assessed the effects of repeated paroxetine treatment on acoustic startle response (ASR). Male and female Sprague-Dawley rats ( $N=192$ ) were injected with paroxetine (1.25, 2.5, 5 or 10 mg/kg, IP) or vehicle for 10 consecutive days starting on postnatal day (PD) 35. Rats

were then tested for ASR for 5 days starting 1, 7, or 28 days after the last drug treatment. Paroxetine administration had a differential affect on the weight of adolescent rats by sex. Male rats were more sensitive to ASR than female rats on all test days. However, exposure to paroxetine (10 mg/kg) reduced ASR in both sexes, while treatment with the 1.25 dose of paroxetine decreased the habituation of the ASR for male rats. In this study, paroxetine affected anxiety-like behavior as measured by ASR in a sex- and dose-dependent manner in adolescent rats. Men and women exhibit different rates of depression and our findings suggest that sex and age could be important in determining antidepressant treatment.

**Presenter:** Edson Andrade

**Program:** BA Psychology

**Title:** *Latino/a Immigrants: Social Experiences and Mental Health*

**Abstract:** Immigrants encounter a multitude of difficult experiences that may affect their mental health and how well they adjust to a new culture. Latino/as are the fastest growing minority in the US (Humes, Jones, & Ramirez, 2010); first or second-generation immigrants who are adapting to American culture comprise a significant percentage of this group. Previous literature demonstrates that promoting positive social interactions with immigrants decreases their anxiety of adapting to a new community (Potochnick, Perreira, & Fuligni, 2012). As foreigners, many Latino/as become victims to acts of prejudice, which is linked to negative mental health outcomes (Leong, Park, & Kalibatseva, 2013). The purpose of this study is to gain a better understanding of how certain social experiences are related to immigrants' mental health and their inclination to utilize mental health services. We will run correlational analyses to detect whether there are statistically significant relationships between the social variables and mental health constructs. To determine significance, we will examine the strength of relationship ( $r$ ), significance level ( $p$ ), and coefficient determination ( $R^2$ ). We anticipate results will show a positive correlation between mental health measures and acculturative stress, discrimination, and foreigner objectification. We also anticipate a negative correlation between mental health measures and social experiences like Familismo, social networks, and seeking mental health treatment. Finally, we predict that help-seeking stigma will be negatively related to seeking mental health treatment. Results can assist in developing adequate resources to a minority group who faces disparities in mental health care.

**Presenter:** Anahi Angel

**Program:** BA Psychology

**Title:** *The Empowerment Process of Latina Women*

**Abstract:** Women's empowerment has been suggested to improve the overall health and well-being of the community in seventy-five countries (Varkey, Kureshi, and Lesnick, 2009). Additionally, empowered women experience higher levels of self-esteem and lower levels of depression and psychological violence (Grabe, 2011). Through the empowerment process, a woman experiences an intrapersonal change (Yoder, & Kahn, 1992). As a result, these women have been motivated to impact their environment and are advocates of positive change in their communities. Latina women are no exception. Despite experiencing oppression and facing many adversities, many Latina women have been resilient and have become empowered. To understand how communities can be improved, it is essential to understand the process

of empowerment of Latinas. In the current study, we further explore the empowerment process of Latina women that live in the San Bernardino and surrounding areas. Latina women were interviewed using qualitative, semi-structured interviews. Interviews were recorded, transcribed, translated from Spanish to English (if necessary) and coded using ground theory. Emergent themes in our data suggest that factors important to the empowerment of Latinas are family, social support, education, community resources, and spirituality. Additionally, in accordance with the literature, we found that as a result of their empowerment, Latinas impact their environments by becoming advocates of positive social change in their communities. These findings can be used as tools to create programs and interventions that will empower Latina women who are struggling to become empowered and ultimately can have a powerful impact in our communities.

**Presenter:** Sina Bastami

**Program:** MA Social Sciences

**Title:** *Mental Health Model of refugee Children, Syrian case study.*

**Abstract:** In post-conflict environments, it is easy to determine the physical injury or loss; however, it is much more difficult to determine mental injuries, such as Post Traumatic Stress Disorder (PTSD). Signs or symptoms of PTSD may not be evident or may show up later in life, especially in children. The developed world established prevailing therapy, and with globalization those practices have spread to other countries. These remedies are developed in societies that are typically individualistic and focus on treatment of individuals; these practices do not take into account societies which are collective. These treatments do not address all the essential areas of culture, geography, or post-conflict environment, which could dramatically affect the success of treatment. This paper aims to collect and analyze data on the available models of PTSD therapy and post-traumatic resilience for children in both developed and developing societies. We aim to answer if the models of treating PTSD in developed and developing societies can be utilized by one another to improve mental health. A comparative analysis will clarify differences between the two approaches and aim at creating a comprehensive model of treatment for PTSD which takes into account cultural and geographical differences.

**Presenter:** Denise Batres

**Program:** BA Psychology

**Title:** *Sexual Functioning, Relationship Satisfaction, and Psychological Distress among Survivors of Sexual Assault*

**Abstract:** Sexual assault is a pervasive public health problem, with higher rates being reported in women (i.e., 1 in 5) compared to men (i.e., 1 in 71; Black et al., 2011). Negative consequences of sexual assault include the development of maladaptive posttraumatic cognitions and changes in sexual self-schema (Blain, Galovski, & Peterson, 2011). Few studies have examined sexual functioning, relationship satisfaction, and aspects of psychological distress among sexual assault survivors. Our present study was to examine the associations between couples' satisfaction, sexual functioning, and depressive and PTSD symptom severity among survivors of sexual assault. We hypothesized that there would be a negative relationship between depression and sexual dysfunction and a negative relationship between PTSD and

sexual dysfunction. Participants were university students who reported prior history of sexual assault. The presented study was conducted by creating an online survey: using the Female Sexual Functioning Index (FSFI), The Couples' Satisfaction Index (CSI-16), The Center for Epidemiological Studies Depression Scale (CES-D), and the Posttraumatic Stress Disorder Checklist 5 (PLC-5). Preliminary results based on 38 participants, show a positive correlation between Depression and PTSD symptoms ( $r = 0.82$ ,  $p < .01$ ). Further, depression was negatively associated with lubrication ( $r = -0.43$ ,  $p = .01$ ), orgasm ( $r = -0.45$ ,  $p = .01$ ). Also, there was a positive correlation between couples satisfaction and sexual functioning ( $r = 0.45$ ,  $p < 0.05$ ). Findings demonstrate meaningful relationships between depressive symptoms and aspects of sexual functioning. Additional research is warranted to elucidate the nature of these associations.

**Presenter:** Jason Brown-Galindo

**Program:** BA History

**Title:** *Peace Amongst the Citrus Groves: Southern California's Civil War Veterans from 1865-1930*

**Abstract:** Over the course of 10 weeks, the team constructed a database of over 400 Union veterans who made San Bernardino County their home in the years after the Civil War. Working primarily at the Lincoln Memorial Shrine at the A.K. Smiley Library in Redlands, they focused on tracing the lives of these veterans before, during, and after the war in an attempt to better understand the post-war experiences of men who fought in America's bloodiest conflict. The project was presented at the NEH Workshop on Digital Methods for Military History, at Northeastern University in Boston, Mass., in October 2014.

**Presenter:** John Cabonce

**Program:** BA Psychology and Human Development, Lifespan Track

**Title:** *The Impact of Parenting Styles on Resilience in Young Adults*

**Abstract:** Many studies support the idea that the authoritative parenting style promotes the development of resilience in children and adolescents. The purpose of the present study was to determine whether authoritative parenting continues to promote the development of resilience in young adulthood. In addition, this study examines whether mothers vs. fathers have a differential impact on resilience, and whether direct instructions by parents can assist young adults in learning to cope with stressful situations. It was hypothesized that: 1) authoritative parenting would be positively related to resilience; 2) mothers would have a more significant impact on resilience than fathers; and 3) young adults' resilience would be higher if they received parental direct instructions to help them manage stressful situations. Approximately, 150 volunteer participants will complete the Parental Authority Questionnaire (Buri, 1991), which assesses authoritativeness, authoritarianism, and permissiveness; Connor-Davidson Resilience Scale (Connor & Davidson, 2003), which assesses resilience; and items created for use in the current study that assess parental direct instruction of coping strategies. Correlational analyses and ANOVA will be used to analyze the data. Findings from this study will provide empirical support on how authoritative parenting continues to influence young adults' resilience, and how mothers vs. fathers may uniquely affect the development of resilience. Finally, this study will also provide insight into how often parents directly "teach" their children the ways to cope with difficult situations.

**Presenter:** Elizabeth Camberos

**Program:** BA Psychology and Human Development

**Title:** *Gendered Comics: Reactions to Superheroes Presented Inconsistently with Gender Norms*

**Abstract:** The attitudes and beliefs that individuals form towards men and women are influenced by role models in the environment and how men and women are portrayed in media. Such portrayals, though not necessarily overtly sexist, represent subtle sexism. Forms of subtle sexism are difficult to change because they are accepted as normative behavior and are not easily recognized as detrimental but are harmful to individuals as a function of their gender. Previous studies have discussed how implicit gender beliefs influence the expression of prejudice towards women in roles that contradict those perceived gender expectations. This dissonance is known as role incongruity and it explains the prejudice women face in leadership roles. Since leadership roles are defined in traditionally masculine terms, women must violate role expectations in order to be effective leaders. Prejudices are stronger when evaluators hold traditional or rigid gender norm beliefs. Gender portrayal in popular media often perpetuates gender norms by presenting males and females in traditionally gender consistent ways. This contributes to general beliefs about what is appropriate behavior for men and women. Research has been done on how advertising shapes beliefs about men and women, but less consideration has been given to gender based portrayals of superheroes. As superheroes transition from comics to films and television, the size of the audience consuming these gender portrayals increases. This research furthers our understanding of how gender-related attitudes influence consumer acceptance of fictional superheroes in roles that are not congruent with gender stereotypes.

**Presenter:** Pammeli Carlos

**Program:** BA Psychology

**Title:** *Experiences of Coming Out as LGBTQ*

**Abstract:** There are approximately 9 million Lesbian, Gay, Bisexual, Transgender, and Queer/Questioning (LGBTQ) individuals within the United States (Gates 2011). Many suffer mental health problems due to discrimination and homophobia. LGBTQ individuals suffer from anxiety and stress levels, and emotional suppression (Marx & Sloan 2002). The purpose of the present study was to investigate the different experiences LGBTQ individuals encounter when coming out. Coming out in the LGBTQ population occurs when an LGBTQ member discloses their sexual orientation and/or gender identity to society; this can be a defining moment (Aranda, Matthews, Hughes, Muramatsu, Wilsnack, Johnson, & Riley 2014). The present study represents a correlational design. Relationships between variables will be explored. Researchers examined whether negative reactions to coming out could be related to symptoms of PTSD. Researchers predict that PTSD will positively correlate with internalized heterosexism, psychological distress, family/cultural values, and hate crimes and family/cultural values will moderate relationships between PTSD and other variables. Finally, researchers predict that PTSD and outness will be negatively correlated, but hate crimes moderates this relationship. Data is currently being collected. All study hypotheses will be tested using t-tests and ANOVA. The t tests will be utilized to calculate relationships between variables and the ANOVA will be used to calculate relationships between multiple variables as well as test for moderators. Future implications from this study could formulate better understanding of

LGBTQ coming out experiences. Current therapeutic approaches could be modified to include skills aimed at enhancing social support and coping skills in response to coming out.

**Presenter:** Elizabeth Castaneda

**Program:** BA Psychology

**Title:** *Good Luck!: A Gender and Personality Specific Phenomenon?*

**Abstract:** The purpose of this study is to observe the effect of belief in good luck on psychological distress and well-being as a function of gender and personality (N=131). It was found that good luck significantly predicts higher levels of positive affect and lower levels of psychological distress, regardless of gender and personality. Neurotic females who believe in good luck showed significantly lower levels of anxiety than neurotic males. In addition, conscientious males who believe in good luck showed significantly higher levels of positive affect, than conscientious females. Perhaps belief in good luck serves as a coping mechanism contingent to the need of individuals, which revolve around personality and gender.

**Presenter:** Amber Castro and Tyler Wolfe

**Program:** BS Political science

**Title:** *Man Enough? Framing Gender in Presidential Elections*

**Abstract:** Media play an influential role in American political elections. Extensive scholarship from political scientists and communication scholars has assessed the ways in which media coverage of female candidates in particular is distinct from the coverage of male candidates, and how this difference influences elections outcomes. In particular, female candidates receive coverage that focuses more on their appearance, and less on issues, likely signaling that they are less viable as candidates. Overall, there appears to be a positive bias for male candidates in media coverage of elections. Yet I suggest the bias may not necessarily be for male candidates, but instead for masculine candidates, and thus in races where two men are running it is possible that the candidate perceived to be less masculine is subject to the same media biases observed in general for female candidates. Similarly, more masculine female candidates may in fact receive less biased media coverage. The basis of this argument stems from notions of leadership in the United States, which largely embrace masculinity and reject femininity. To the extent that media play a role in maintaining masculinity as the norm—and preference—in American politics, is the focus on this study.

**Presenter:** Eric Cazares and Lunder Vansa

**Program:** MS Industrial Organizational Psychology

**Title:** *Hiring the Formerly Incarcerated: Challenges illustrated by Justification-Suppression Theory*

**Abstract:** Finding meaningful employment for formerly incarcerated individuals is a determinant of whether they refrain from criminal activities. With a growing inmate population it is vital that researchers and practitioners of prisoner reentry understand how discrimination affects the hiring process. The present study tests a theory of prejudicial expression, which suggests that expressed prejudice is



comprised of two competing components: genuine prejudice and pressures to suppress prejudice. The current study finds support for the theory, and provides evidence that prejudicial attitudes may negatively influence hiring decisions of formerly incarcerated applicants, even though prejudices were not revealed in expressed attitudes.

**Presenter:** Kevin Cleppe

**Program:** MS National Security Studies

**Title:** *Theory and Cyberspace*

**Abstract:** International Relations (IR) theories have been useful in the past for examining world events. Rather than looking at a world event and trying to comprehend every factor that can be analyzed, we can use various IR theories to gain a more focused perspective, and therefore a better understanding. But with the advent of cyber security issues and cyber warfare, will these same theories be as useful, or will they have issues when applied to this new domain? When examining the applicability of two major IR theories, deterrence theory and compellence theory, we find that certain theories have major problems with this unique dimension, while others thrive. Indeed, to apply deterrence theory to this new area has multiple problems, which tend to be unsolvable. Compellence theory, on the other hand, enjoys a number of benefits when used in cyberspace. Such a finding can drastically change policies, and alter how nations, friend or foe, interact with each other.

**Presenter:** Bryan Cruz

**Program:** BA Biological Psychology

**Title:** *Acute Ketamine Exposure during Adolescence Reverses Depressive-Like Behavior after Social Defeat Stress*

**Abstract:** The National Institutes of Mental Health has portrayed major depressive disorder (MDD) to affect approximately 10 percent of children and adolescents. Currently, fluoxetine (FLX; Prozac) is the only pharmacological agent approved to treat juvenile MDD, despite that almost 50 percent of patients do not respond. Additionally, even if remission does occur, this often takes weeks of treatment, thus, necessitating a novel rapid-acting therapeutic agent for the treatment of juvenile MDD. Recent studies suggest that ketamine (N-methyl-D-aspartate receptor antagonist) might be a promising antidepressant, since its shown to rapidly reverse symptoms of depression in adults. However, this has yet to be examined in younger population at both the preclinical and clinical level. Therefore, the purpose of this experiment was to examine the antidepressant efficacy of ketamine, by exposing adolescent mice to social defeat stress – a paradigm used to induce depressive-like behaviors. We hypothesize that ketamine will reverse stress-induced avoidance behaviors in adolescent mice. On postnatal (PD) 35, c57BL/6 mice underwent social defeat stress for 10 consecutive days at intervals of 10 minutes each day. On the last day of defeat, mice were injected with ketamine (20 mg/kg), and tested on social interaction twenty-four hours later. As expected, defeated adolescent mice administered with saline exhibited a depressive-like response (i.e., increased social avoidance). Conversely, exposure to ketamine prevented the development of the stress-induced avoidance phenotype. Together, these findings indicate that ketamine may be a potential novel agent for the treatment of juvenile MDD.

**Presenter:** Maria Victoria Del Fierro, Kaneez Batool, Alexis Mitchell, Mary Huxster & Crystel Chapparo  
**Program:** MS Social Work

**Title:** *Philippines Research & Service Project*

**Abstract:** Survivors of natural disasters often experience the psychological aftereffect of emotional instability, sometimes lasting years after the event. The Philippines is a third world country highly susceptible to such crisis-inducing situations. The World Health Organization (WHO) reported that only 5% of the Philippine government's health budget was spent on mental health services – services that are essential in the recovery of a devastated community. This project consisted of a program evaluation with a quasi-experimental design that provided mental health services to children and their primary caregivers. It was intended to test the efficacy of a short-term and low cost intervention in a country that might otherwise lack the resources to implement mental health services as part of relief efforts. Pre and post quantitative assessments were administered to measure survivors' levels of anxiety, depression, stress, hope, injury, and displacement. Additionally, the community was quantitatively and qualitatively assessed for its ongoing needs nine months after the typhoon. Results from child participants showed promise in the efficacy of the intervention on reduction of stress, but little to no effect on hope. Parent participant scores indicated the intervention was moderately effective in reducing mental health symptoms. Community assessment data showed some prevalence of ongoing mental health symptoms among respondents. If it can be proven that a brief and inexpensive intervention can be effective in improving mental health following a natural disaster, it will increase the likelihood of mental health workers successfully making a case to obtain funding for such services as part of relief efforts.

**Presenter:** Angelica Dominguez  
**Program:** BA Psychology

**Title:** *Decreasing Stigma Through Educational Workshops*

**Abstract:** The purpose of this study is to investigate if stigma toward the lesbian, gay, bisexual, transgender, and queer (LGBTQ) community that exist within a student population can be lessened as a function of participation in a social justice project developed by LGBTQ students. This project emerged out of a previous project that highlighted strengths and challenges of being an LGBTQ-identified in a school setting. One of the issues identified in this previous study was that non-LGBTQ students are often poorly informed or misinformed about the LGBTQ community. We hypothesized that participation in an activity designed to raise awareness would result in more LGBTQ support and would also decrease LGBTQ stigma. Our population consisted of students not affiliated with the LGBTQ community. Participants were administered pre and post-test surveys assessing attitudes about the LGBTQ community before and after the educational session. The survey assessed attitudes toward the LGBT community, how informed participants believed themselves to be, and stigma participants might have towards the community. It was found that students' attitudes and beliefs shifted after having completed the educational session. There was also a change in how well-informed participants felt. This project suggests that change can occur in the stance of non-LGBTQ individuals with regard to the LGBTQ community as a function of participation in an LGBTQ awareness event. Future research should consider whether multiple workshops

might increase this impact by permitting individual sessions focusing on the specific identities that comprise the LGBTQ community as a whole.

**Presenter:** Michelle Fabros

**Program:** MA General Experimental Psychology

**Title:** The Use of Religion as Justification for Prejudice Towards Homosexuals

**Abstract:** In two studies, we examined circumstances in which heterosexuals used religion as justification for prejudice towards LGBTQ individuals. We hypothesized when people are falsely told they show anti-LGBTQ prejudice, they would report higher levels of religiosity compared to those falsely told they have neutral attitudes. We expected political affiliation to moderate this effect. Participants in both studies were given an implicit attitudes task that ostensibly measured their attitudes toward LGBTQ people. Participants randomly received false feedback, either negative (LGBTQ prejudice) or neutral. Among those who received negative feedback, we found liberals were more religious compared to conservatives. However, Liberals were less likely to endorse Biblical literalism (BL) when given negative but not neutral feedback. Conservatives tended to endorse BL across both conditions. Liberals' higher levels of religiosity after negative feedback might have been self-affirming, whereas lack of BL endorsement might have been an attempt to distance themselves from religion.

**Presenter:** Michelle Fabros

**Program:** MA General/Experimental Psychology

**Title:** *The Relationship Between Perceived Parental Monitoring and Health Risk Behaviors Adolescents*

**Abstract:** Poor parental monitoring has long been associated with a number of adolescent health risk behaviors. Recent studies assert that parental monitoring is actually parental knowledge, rather than parenting behaviors suggesting that parents have less influence over their child than once thought. This study examines the associations between adolescents' perceptions of parental monitoring and adolescent health risk behaviors. An ethnically diverse sample of 1,205 male and female students in grades 7-11 completed questionnaires regarding their perceptions of parent-child relationship quality, parental knowledge, parent monitoring behaviors, and health risk behaviors. Results indicate that there is a relationship between parental monitoring and health risk behaviors both directly through parental knowledge and indirectly through parenting behaviors. Implications for future research and health education practice will be offered.

**Presenter:** Alexander Feldt

**Program:** BA Psychology

**Title:** *Moderating Role of Humor on the Relationship between Early Maladaptive Schemas on Depression*

**Abstract:** Depression is a major problem among college youth, often impacting their academic performance, social relationships and emotional health. According to the American College Health Association, 32.5% of college students reported that they felt so depressed over the past 12 months that

they found it difficult to function, with 8.1% of those students responding that they clearly considered suicide as a result. With depression affecting so many college students, it is important for researchers to elucidate specific precursors of depression in order help prevent and treat depression in college students. Early Maladaptive Schemas (EMS), a form of cognitive vulnerability, are broad negative beliefs about oneself and others, that have been positively correlated with symptoms of depression. In the current study, we attempt to further examine the relationship between EMS, coping, humor and depression. Previous research has shown that certain humor styles are negatively associated with depression and may mediate the relationship between EMS and depression. This finding, however, is inconsistent with a large majority of coping research that has found moderating effects. This study extends prior research by proposing that certain humor styles can serve as a form of coping and thus a moderating variable of the relationship between EMS and depression.

**Presenter:** Francisco Flores Ramirez

**Program:** MA Psychology

**Title:** *Enduring Anxiolytic Effect of Adolescent Ketamine Exposure in Female c57BL/6 Mice*

**Abstract:** Major Depressive Disorder (MDD) is one of the most severe and potentially debilitating forms of mood disorder affecting people across the globe. Nevertheless, MDD has only recently been recognized to affect pediatric populations, so the long-term effects of pharmacological treatment approaches for managing this condition have garnered a great deal of attention. Today, fluoxetine, a selective serotonin reuptake inhibitor (SSRI), is the only pharmacological agent approved by the FDA for the treatment of children and adolescents, ages 7-18, who suffer from MDD. Even though fluoxetine has been shown to be somewhat effective in the treatment of adult MDD, there is a lack of evidence suggesting that it is a reliable treatment in pediatric populations. Ketamine, an N-methyl-D-Aspartate receptor antagonist, has recently been proposed as a possible antidepressant alternative at both the clinical and preclinical level, showing both rapid-acting and long-lasting effects, when compared to SSRI's such as fluoxetine. The purpose of this experiment was to delineate the long-lasting neurobehavioral effects of chronic ketamine exposure, especially when administered at early stages of development, in female mice. Particularly, our goal was to understand the role ketamine plays on the mediation of potential anxiogenic (anxiety eliciting) responses in adulthood with the use of the Elevated Plus Maze (EPM). The results the animals who received the chronic regiment of ketamine during adolescence displayed significantly less sensitivity to anxiogenic stimuli in adulthood, as they spent more time in the open arms of the elevated plus maze than the animals pretreated with saline.

**Presenter:** Kirk Fortini

**Program:** MA General Experimental Psychology

**Title:** *False Online Personas: Who Creates Them and Why?*

**Abstract:** Catfishing refers to the practice of creating a false online identity where the intent is to form a romantic bond with another person. This involves the catfishing perpetrator making decisions as to the type of persona that they want to create for the target of their deception. They use their own identity as a baseline, and then decide which aspects of it will be changed or maintained in the manufacture of the

duplicious one. The purpose of this study was to elucidate the factors that characterize the catfish perpetrator's deceptive behavior. Twenty-five interviews were conducted on an ethnically-diverse national sample that was recruited online. Data from perpetrators were qualitatively examined for core themes using the constant comparative method, which involves identifying core themes in participant responses. Some of the themes included: "the different self" where the perpetrator changed their actual identity to reflect a personality that they wanted to "try out;" and "fidelity confirmation," where the perpetrator was romantically involved with their target beforehand and created the false identity to ascertain the target's romantic faithfulness. Perpetrators tended to be males who were narcissistic, and who disclosed little about their true selves to their catfish partner. Moreover, the perpetrators' families of origin were characterized by abuse, mental illness, and affective disorders. Narcissism is one component of the "dark" triad that includes Machiavellianism and psychopathy. Future examination of catfishing is suggested from within this context. Clinical implications for prosocial therapeutic intervention are discussed.

**Presenter:** Karina Frausto

**Program:** BA Psychology

**Title:** *Emotional Intelligence and Psychological Distress: Gender as a Moderator*

**Abstract:** The purpose of this study is to examine the relationship of emotional intelligence and distress symptoms between males versus females. Whereas emotional intelligence has been found to be negatively correlated to psychological disorders, little research has examined the relationship between emotional intelligence and psychologically distressing symptoms. Specifically, we hypothesized that females would show a weaker correlation between emotional intelligence and distress than males. Participants will be comprised of 100 female and 100 male college student aged 18- to 25 years old who will complete one measure for emotional intelligence (Emotional Intelligence [Schutte et al., 1998]), two measures for distress symptoms (Brief Symptom Inventory-18 [Derogatis, 2001] and Perceived Stress Scale [Cohen, 1994]), and demographics items. Results are expected to show a low to moderate negative correlation between emotional intelligence and distress, with males demonstrating a stronger negative correlation than women.

**Presenter:** Kimberly Gonzalez Alfaro

**Program:** BA Psychology and Human Development

**Title:** *Utilizing Cognitive Training To Remediate Cognitive Abilities Following A Tbi*

**Abstract:** This case study describes a 12-month intervention program utilizing neurofeedback and cognitive training to remediate working memory, attention, and response inhibition following a traumatic brain injury for a 33-year-old male. Measures of the above-identified cognitive abilities were made at six points during the course of the intervention. Testing results indicated improvements in verbal working memory, visual response control, and auditory and visual attention. Results were mixed for visual working memory and auditory response inhibition. This case study provides some evidence to support the use of neurofeedback and cognitive training to remediate cognitive abilities. Implications for the use of such intervention techniques are discussed within the context of individuals who have experienced a traumatic

brain injury as well as those who experience learning-related deficits (e.g., attention disorders and learning disorders).

**Presenter:** Andrea Hardin

**Program:** MA General Experimental Psychology

**Title:** *Chronic Early Nicotine Exposure And The Effects On Cannabinoid Agonist-Induced Conditioned Place Preference*

**Abstract:** Adolescent exposure to nicotine alters the response to a number of addictive drugs in adult rodents suggesting that early nicotine exposure may alter the reward centers in the brain. It is unknown whether the relationship between nicotine and marijuana is mediated by changes to neural reward centers. Therefore, the purpose of this study was to investigate whether chronic nicotine exposure starting in adolescence would act as a modifier of the rewarding properties of a cannabinoid drug in adulthood. To this end, male rats were chronically exposed to nicotine (0, 0.16, 0.32, or 0.64 mg/kg, subcutaneously) once daily from postnatal day (PD) 31 through PD 72 and were assessed for cannabinoid-induced conditioned place preference (CPP) using the cannabinoid agonist CP-55,940. On PD 60, a 14-day biased CPP procedure began which consisted of one preconditioning day, 10 conditioning days, one test day, and two rest days. Rats were primed with CP-55,940 (0, 10, 20, or 30 µg/kg, intraperitoneally) on the preconditioning day, with the same dose also used on conditioning days. Rats exposed to saline beginning in adolescence showed a preference for the high dose of CP-55,940 (30 µg/kg). This preference was eliminated by treatment with nicotine. However, exposure to nicotine (0.32 mg/kg) caused a preference for the low dose (10 µg/kg) of CP-55,940. This suggests that nicotine use in adolescence produces dose-specific aversions to the cannabinoid agonist. Simultaneously, moderate doses of nicotine beginning in adolescence act in modifying the rewarding value of low doses of marijuana in adulthood.

**Presenter:** Zachary Harmony

**Program:** MA Biological Psychology

**Title:** *Effects Of Chronic Fluoxetine And Paroxetine Treatment On Affective Behavior In Male And Female Adolescent Rats.*

**Abstract:** Fluoxetine, a selective serotonin reuptake inhibitor (SSRI), is currently the only FDA approved antidepressant for the treatment of major depressive disorder (MDD) in children and adolescents. Administration of paroxetine, a similar SSRI with regard to composition and mechanism of action, has been shown to produce suicidal ideation and behavior within adolescent populations. Therefore, the aim of the present study was to investigate the differing behavioral effects of chronic fluoxetine or paroxetine treatment. Male and female Sprague-Dawley rats were administered intraperitoneal (IP) injections of fluoxetine (5 or 10 mg/kg), paroxetine (2.5, 5, or 10 mg/kg), or vehicle for 30 days from postnatal day (PD) 30-59. On PD 60, anhedonic and anxiety-like behaviors were assessed using sucrose preference and light-dark box tests, respectively. On PD 62, anxiety-like behaviors were assessed on the elevated plus maze (EPM). Rats that received chronic fluoxetine treatment across adolescence consumed less sucrose and had lower sucrose preference scores, when compared to vehicle treated rats. Chronic paroxetine treatment reduced time spent in the light compartment of the light/dark box in male rats. Neither

Fluoxetine nor paroxetine treatment altered time on the open arms of the EPM. Taken together, differences observed in the anhedonic and anxiety-like responses of rats following chronic adolescent fluoxetine or paroxetine treatment indicates that these SSRIs have differing behavioral outcomes on natural reward and environmental stress sensitivity.

**Presenter:** Mirella Hernandez

**Program:** BA Biological Psychology

**Title:** *Exposure To Social Defeat During Adolescence Results In Depressive-Like Behaviors In Male C57bl/6 Mice*

**Abstract:** Stress exposure is highly correlated with the development of mood-related psychopathologies, such as major depressive disorder (MDD). Since the first episodes of MDD often emerge during adolescence, we sought to investigate whether exposure to social defeat – a model commonly used to examine depressive-like behaviors in adult animals – would result in decreased social interaction and increased sensitivity to inescapable stressors during adolescence. To do this, we exposed adolescent male c57BL/6 mice to 10 consecutive days of social defeat (postnatal days [PD] 35-44). Twenty-four hours following the last defeat episode (PD45), separate cohorts of mice were tested on the social interaction and forced swim tests. When compared to non-stressed controls, defeated mice displayed depressive-like behaviors as inferred from decreased social interaction, as well as increased total immobility in the forced swim test. When taken together, our findings indicate that exposure to social defeat during adolescence will yield depressive-like behavioral outcomes, which suggests that this model can be used to investigate stress-induced mood-related disorders in younger populations.

**Presenter:** Lance Johns

**Program:** BA Psychology

**Title:** *Early Maladaptive Schemas and Social Anxiety: Interpretation Bias as a Mediator*

**Abstract:** Cognitive models of social anxiety suggest that individual styles of information processing may produce and maintain social anxiety. A particularly robust finding among the social anxiety literature is an interpretation bias. Socially anxious individuals tend to interpret ambiguous social scenarios more negatively than non-socially anxious individuals. Additionally, research has also suggested a lack of a positive interpretation bias in socially anxious persons. A possible explanation for the root of interpretational biases is the role of Early Maladaptive Schemas (EMS). Schemas have been proposed to act as a filter in sorting and processing information, leading to a confirmation bias. Three EMS domains in particular (disconnection/rejection, impaired autonomy/performance, and other-directedness) have been found to be predictive of social anxiety. Therefore, in the present study it is hypothesized that the relationship between EMS and social anxiety occurs indirectly through interpretational biases. Results revealed that a negative interpretation bias mediated the relationship between the three schema domains of interest and social anxiety. Moreover, the relationship between the disconnection/rejection domain and social anxiety was also mediated by a lack of positive interpretation bias. These findings highlight the role of schemas in perpetuating social anxiety through interpretational biases. Those with schemas in the aforementioned domains, particularly in the disconnection/rejection domain, may

interpret social situations more negatively and less positively; thus producing and maintaining their anxiety symptoms. Targeting these schema domains may be of particular importance in schema therapy. Further results and discussion is presented in the poster.

**Presenter:** Silvana Johnston

**Program:** BA Psychology and Human Development

**Title:** *The Importance of Fatherhood*

**Abstract:** A review of fatherhood and the outcomes of cognitively functioning fathers are discussed in multiple contexts. The authors suggest that the presence of a cognitively functioning father is essential to the positive development of a socially well-adjusted child. Fatherhood is defined as a socially constructed identity/role that one identifies with. Being a father is not directly linked to biologically born males. Cognitively functioning fathers have a considerable amount of traits that distinguish themselves from other fathers. First, these father figures are considered educators for their child. AS an educator, the adult promotes language skills and brain growth of the child. Additionally, a cognitively functioning father is both emotionally and financially supportive of their child. Being emotionally supportive starts as soon as the child is born. A father can financially support his child through work and other resources. A cognitively functioning father is also socially well adjusted and a helpful co-parent. A father that is socially well adjusted teaches their child socially appropriate behavior. A helpful co-parent entails emotional, physical and financial support. These aspects of fatherhood will be reviewed throughout the text. Some of these dimensions will have occasional overlap due to the nature of the traits of cognitively functioning fathers.

**Presenter:** Kamalpreet Kaur

**Program:** BA Psychology and Human Development

**Title:** *Infidelity and HIV in South Africa*

**Abstract:** South Africa has one of the highest infidelity and HIV rates in the world. The high prevalence of HIV is partly due to the number of migrant laborers who travel seeking work, engage in extradyadic sex, and spread the virus to their partners upon returning home. The purpose of the current study was to investigate South Africans' attitudes toward infidelity and HIV. Participants (n = 152) were men and women from Cape Town and Johannesburg, South Africa. After providing consent, participants responded to questions about infidelity including how they defined infidelity, whether they thought it was a common occurrence, and if they had experienced it themselves. They also responded to questions about HIV, including how big of a problem they thought it was, whether HIV or AIDS was something they thought about, if they had ever been tested for HIV, how important they thought it was to get tested, and their own HIV status. Fifty participants defined infidelity as unfaithfulness in the context of a committed partnership, whether it was emotional or physical. Sixty-four participants believed it was an extremely common occurrence. A majority (n = 105) reported HIV as a major problem and of those, 79 thought infidelity was common. From the 105 people who thought HIV was a major issue, 101 also thought people should be regularly tested. Results from our study provide insight regarding the high incidence of infidelity in South Africa. Our findings suggest that individuals are highly concerned about HIV. We propose that



future initiatives focus on strengthening families and reducing the need to separate low-income laborers from their families to find work.

**Presenter:** Hio Tong Kuan

**Program:** MA General Experimental Psychology

**Title:** *Pornography And Happiness: The Relationship Between Pornography Consumption And Subjective Wellbeing*

**Abstract:** Relationships between pornography consumption and negative outcomes such as sexual dissatisfaction are well established; yet, there is little empirical evidence concerning potential mediating mechanisms. In the present study, we draw on social comparison and self-discrepancy theories to predict how disparities between ideal and actual sexual experience will influence pornography consumers' evaluations of their sexual self and sexual relationships, which then influences their general subjective wellbeing. We have three central predictions in the present study. First, we predict that pornography consumption will be associated with 1) an increase in the discrepancy between perceptions of what constitutes satisfied sex (ideal sex) and real sexual experiences (actual sex), 2) a decrease in sexual self and relationship evaluations, and 3) reduced overall subjective wellbeing. Second, we expect the ideal-actual sex discrepancy to be negatively associated with both sexual evaluations (self and relationship) and subjective wellbeing. In terms of mediation, we predict the ideal-actual discrepancy will mediate the relation between pornography consumption and sexual evaluations. Third, we expect that the negative relationship between the ideal-actual sex discrepancy and subjective wellbeing will be mediated by evaluations of self and sexual relationships. Participants will complete an online self-report questionnaire assessing their frequency of pornography consumption, perceptions of ideal sex, actual sexual experience, sexual self-evaluation, sexual relationship evaluation, and subjective wellbeing. The model and hypotheses will be tested using SEM. Overall we expect that the frequency of pornography consumption will negatively influence consumers' subjective wellbeing both directly and indirectly.

**Presenter:** Jung-Jung Lee

**Program:** MS Industrial and Organizational Psychology

**Title:** *The Effect Of Interview Media On Fairness Perceptions*

**Abstract:** As technology has improved, videoconference interviews have become widely used by companies in the selection process. Convenience, fast, and low cost are some of the main benefits of using videoconference interviews. Therefore, the current value placed on videoconference interview begs the question: Should companies replace the traditional interviews (e.g., face-to-face and telephone interview) with the videoconference interview? To address this question, we are currently testing applicant reactions to different selection methods based on media richness theory and procedural justice theory. More specifically, we are interested in how different types of interview media will have an impact on participants' fairness perceptions for the interview process. Participants will come to a lab for the research. After participants sign the consent form, the experimenter will give a brief overview and instruction of the video that participants are going to watch for the study. The video will contain three interview media (i.e., face-to-face, videoconference, and telephone) with the same interviewer and

interviewee in all three media. The format will be a structured interview, consisting of three questions and three responses for a graduate teaching assistant position. All participants will experience three interview conditions: face-to-face, videoconference, and telephone in different order. The experiment will use a (3 Media: Face-to-face, videoconference, and telephone) within subjects design. Expected results are that the face-to-face interviews will be perceived as most fair and best liked media among the three followed by videoconference and telephone interviews, respectively.

**Presenter:** Beatrice Longshore-Cook

**Program:** MA Social Science

**Title:** *Organizations of Women: Towards an Equal Future in Palestine*

**Abstract:** The development and struggle for nationalism in Palestine, as seen through an historical overview of the Israeli-Palestinian conflict, demonstrates the complexity of gendered spaces and narratives inherent in the conflict. Women's roles have often been confined to specific, gendered spaces within their society. However, through the utilization of these roles, women are circumnavigating the gendered spaces of their society in order to effectively alter the political and social systems of Palestine. Through a discussion of two specific women's organizations – the Jerusalem Center for Women (JCW) and the Women's Centre for Legal Aid and Counselling (WCLAC) – this paper will demonstrate the significance of Palestinian women's agency in shaping the political and social atmosphere in Palestine. These two organizations focus on achieving women's rights, utilizing feminist ideology and terminology, but to varying degrees and affect. Although feminism is not explicitly proposed by each organization, the work of each nonetheless addresses the inequalities of the state in order to afford women an equal standing within the society and the eventually, fully recognized State of Palestine. These organizations clearly demonstrate the ability of women in Palestine to act upon their own intentions, desires, and motivations, through the maximization of the gendered spaces, in order to achieve gender, political, social, and national change.

**Presenter:** Alejandra Lopez

**Program:** BA Psychology

**Title:** *Social Exclusion, Rumination, and Women's Ability to Self-Regulate*

**Abstract:** Previous research indicates women who have heightened body-image sensitivity are more likely to perceive any type of rejection as appearance-based. We are interested in examining the effects on women's self-regulation (food consumption) after they are excluded from a social game, especially when the exclusion is ambiguous and might be attributed to their body weight. Additionally, we speculate whether rumination (reflecting on the exclusion) influences this effect. Participants (n = 140) will complete an online, pretest measure of body-image sensitivity. They will then come to the lab to play Cyberball (computer ball toss game) against other women (really computer-simulated players). Participants will be randomly assigned to a blatant rejection condition (receives 1/30 throws) or an ambiguous rejection condition (receives 6/30 throws). Afterwards, participants will complete a separate taste-testing study rating different kinds of cookies and allowed to sample as many cookies as they want. During the taste-testing, half the participants will be allowed to ruminate about their Cyberball experience; the other half

will receive a distractor task to prevent rumination. We will conduct a 2(ambiguous versus blatant exclusion) x 2(rumination versus no rumination) ANOVA to examine condition differences on grams of cookies consumed. We expect body image sensitivity will be associated with decreased self-regulation (as measured by cookie consumption) but only among women in the ambiguously excluded condition and rumination condition. If we find our expected results, then rumination might provide some insight as to why women who experienced ambiguous rejection demonstrated the greatest decrease in self-regulation in our previous research.

**Presenter:** Hector Lopez and Jason Brown-Galindo

**Program:** BA History

**Title:** *Peace Amongst the Citrus Groves: Southern California's Civil War Veterans from 1865-1930*

**Abstract:** The experiences of Civil War veterans in the latter half of the 19th century represents a understudied, yet important avenue for the study of not only the impact of war on these men and their families, but the role that veterans played in the broader nation-building process that occurred during this period. At least three million men served in Union and Confederate armies during America's bloodiest conflict, and they were a visible part of the post-war landscape as they transitioned back to civilian life. Studies of Civil War veterans typically focus on two distinct areas. One, top down political histories of prominent veterans who became important political or social figures after the war, and second, local studies which focus on veterans homes as a means of inferring the physical implications of military service on veterans. Our research is different in that we constructed a database of over 400 Union veterans with extremely diverse backgrounds who made San Bernardino County their home in the years after the Civil War. Working primarily at the Lincoln Memorial Shrine at the A.K. Smiley Library in Redlands, we focused on tracing the lives of these veterans before, during, and after the war in an attempt to better understand the post-war experiences of the men who fought in America's bloodiest conflict.

**Presenter:** Gloria Magana

**Program:** BA Psychology

**Title:** *Inspire Multicultural Holistic Campus Participant Mental Health Outcomes*

**Abstract:** Departments of public mental health have sought to address health disparities by utilizing traditional clinical approaches; however, this method is less than optimal for targeted communities. San Bernardino's Department of Behavioral Health has developed an innovative approach to address disparities related to mental health awareness, service utilization, and mental health outcomes. Their approach relies on a community-based organization, the Inspire Multicultural Holistic Campus, which provides preventative and traditional mental health services that are community developed. This study reports findings from an evaluation of Inspire and its impact on community participants. This study aimed to examine whether the Latino/a participants displayed an enhanced sense of general wellness and increased mental health awareness due to holistic campus participation. Methods of assessment included surveys and logged visitor documentation. This study focused on 970 participants that had provided demographic information within a larger sample of 1,267 Inspire participants. Furthermore, the study

focuses on the Latino/a sample (n = 505) given their preponderance in the overall sample (70%). The findings provide support for an enhanced overall sense of wellness. Specifically, the findings suggest that there was a decrease in depressive and anxiety symptoms. The evidence is mixed as to whether mental health awareness increased and mental health stigma decreased. Further analysis of the data and qualitative interviews are currently underway to further understand these mixed findings. Continued evaluation of the holistic campus is vital to assess its impact on community members' growth and to determine optimal methods that effectively address health disparities of targeted communities.

**Presenter:** Raul Maldonado

**Program:** BA Psychology

**Title:** *Empowerment Through Intersectionality: Being Lgbtq+ And Latin@*

**Abstract:** Psychology's current focus on multiple identities views each identity as independent from one another. Members of the lesbian, gay, bisexual, transgender, queer+ (LGBTQ+) community and those of the Latin@ community face a unique intersection. Members of the LGBTQ+ community are about two-and-one-half times more likely than heterosexual cisgender men and women to have had a mental health disorder. They are also four times more likely to attempt suicide. Latinos are a high-risk group for depression, anxiety, and substance abuse and few of them contact mental health specialists. This study aims to explore whether a non-heterosexual/gender non-conforming identity comes into conflict with having a Latin@ identity. Less clear is how these two factors may intersect, thereby possibly increasing risk. Current measures only assess racism and heterosexism separately; there is no measure that expresses the unique ways that these types of oppressions intersect. Hence, this study utilizes a qualitative approach incorporating semi-structured interviews of participants to investigate the relationship between microaggressions and psychological well-being. The authors proposed that being Latin@ and LGBTQ+ poses a particularly problematic intersection which gives rise to identity conflict and possibly leaves an individual at greater risk for negative mental health outcomes. The findings support the hypothesis that stress focusing on the intersection of LGBTQ+ and Latin@ status was associated with increased feelings of depression. The qualitative data provided rich grounding in understanding the process by which these two factors are linked. The data also supported the authors' secondary hypothesis that the challenges presented through these intersections allowed participants opportunities for the development of resiliency and empowerment. The contribution of the study represents an important step because of the stigmas associated with mental health, particularly within the respective communities being studied. The authors contend that this research contributes to providing a better understanding of how to begin to look at intersecting microaggressions as factors for maladjustment as well as suggests promising areas of inquiry regarding the development of resiliency.

**Presenter:** Timothy Meyer

**Program:** BA Psychology

**Title:** *Effect of Instructions on Categorization of Novel Stimuli*

**Abstract:** Previous research on free categorization has shown that people will group objects based on relational or topological alignability, meaning that different objects with corresponding parts in the same overall arrangement tend to be placed into the same category. Individual distinctive features may play a role in this process by drawing attention to relevant comparisons, but alignability should ultimately determine whether or not people see a given set of objects as belonging to the same "natural kind" category. In previous experiments, our participants grouped stimuli on the basis of both alignability and individual features. However, we suspect that their use of individual features is largely a task effect: People are actively looking for and expecting to find categories in the stimulus array, and will create ad hoc categories based on arbitrary relationships if obvious natural kinds cannot easily be found. To test this, we will be giving participants a free categorization task. Half will receive standard instructions about how to label categories in an array. The other half will receive additional instructions informing them that they may be in a control group where none of the stimuli belong to the same categories, and thus they should not feel pressured to create categories if they don't see any in the array. We hypothesize that participants given instructions which explicitly discourage creating categories where none exist will be less likely to create single-dimension categories from otherwise non-alignable stimuli, while their tendency to create categories based on overall alignability will be unaffected.

**Presenter:** Rachel Milburn

**Program:** BA Psychology

**Title:** *Intimate Secrets: Do Men and Women Differ?*

**Abstract:** Within intimate relationships, some degree of secrecy is normal and beneficial. The most satisfied and long-term partners tend not to disclose everything to each other. But what types of secrets do people keep and does the content differ based on gender? Researchers have identified gender differences in the frequency of secret-keeping but have yet to explore potential differences regarding types of secrets. The purpose of the current study was to identify the most common types of secrets in couple relationships including potential gender differences. In order to participate, individuals had to be at least 18 years of age and involved in a couple relationship for at least two years. The survey contained questions to assess demographic characteristics, self-concealment (open and close ended questions), and relationship characteristics (e.g., satisfaction, commitment). Participants were 391 (189 male, 202 female) ethnically diverse individuals who were in predominately heterosexual relationships (93%). Responses to the open-ended questions about secret keeping were qualitatively analyzed using the constant comparative method. The types of secrets most commonly kept by men included past relationships and experiences, infidelity, and something that may hurt their partner if shared. The types of secrets most commonly kept by women included past trauma or sexual experiences as well as emotional and physical infidelity. For both men and women, secret-keeping from a partner was associated with greater dissatisfaction in the relationship. We extended the literature by identifying the types of secrets most commonly kept by men and women.

**Presenter:** Benjamin Miller

**Program:** MA General Experimental Psychology

**Title:** *Rationale of Free Categorization in a Visual Array*

**Abstract:** Based on prior research we anticipate that participants will categorize objects at a general or superordinate level based on overall alignability or structural correspondence (having the same general parts in the same overall arrangement, even if the specific details differ across examples). More specific or subordinate level categorization should generally be based on individual discretely matching features. In this study, we investigate people's ability to recognize subordinate categories based on discretely matching features as a function of the temporal delay between matching objects. This is accomplished by displaying novel objects one at a time in a sequential presentation and having participants generate category labels. In addition we propose that certain underlying processes guiding the detection of categories may be distinguished by having participants provide rationale for the labels they are creating. It is predicted that participants conscious reasoning of their categorization will demonstrate that noticing similarity between two objects is a separate process from the actual decision to place those objects into the same category. By distinguishing the different processes involved in categorization we can better understand what factors and information drive our intuitive categorization of visual stimuli.

**Presenter:** Stephanie Montes and Chelle Stokes

**Program:** MA Social Work

**Title:** *Program Participation and Experiences in Young Adults Currently or Formerly Receiving Foster Care Services*

**Abstract:** This study examines whether participation in Extended Foster Care (EFC) or the Aftercare Program increase perceptions of independence in former and current foster dependents ages eighteen and older. Foster youth have historically experienced worse outcomes than the general population after reaching age 18. This study surveyed 72 young adults, 36 were in Extended Foster Care (EFC) and 36 were in the Aftercare Program in San Bernardino County. The areas examined were demographics, health care, employment, transportation, education, housing, mental health, pregnancy/parenting status, social support, services received in Independent Living Program (ILP), EFC, and/or the Aftercare Program and the young adults' perception of the helpfulness of the programs, from whom they received information about these services, duration of participation in services, as well as, their confidence in their independence skills. The study found that overall young adults felt prepared for independence and they agreed that EFC or the Aftercare Program contributed to their feelings. The study also found that their outcomes in the aforementioned areas were more positive than previous research indicates. These findings were evaluated through quantitative data analysis of a questionnaire. The significance of this study is that it will determine the programs' abilities to fit the needs of foster youth in overcoming their obstacles to independence. The implications for social work practice, policy and research is that EFC should be extended until age 24, social workers who have EFC caseloads should enhance their professional expertise in areas relevant to adulthood and they should have reduced caseloads. Lastly, EFC, the Aftercare Program and other programs who offer services to transitional age youth should reexamine young adults' outcomes when they are age 25 or older.

**Presenter:** Christopher Morin

**Program:** BA Psychology

**Title:** *Validation of the Sentence Interpretation Questionnaire II: A Test for Interpretive Bias*

**Abstract:** The various ways people process information from the social environment (cognitive bias) ultimately dictates one's emotional reaction and behaviors in response to social cues. This processing of social cues, however, can become biased leading to specific cognitive and emotional vulnerability and social anxiety. One method to assess biased information processing is via ambiguous social situations that can be interpreted in both threatening and non-threatening manners (e.g., While you are talking, the store clerk thinks that you are "stupid"/"likeable"). Research suggests that this interpretive bias of ambiguous situations is related to social anxiety. Cognitive biases, such as the interpretation bias, have been used to measure information processing in those with specific anxiety symptoms and in depression. The objective of this study was to test the validity of the Sentence Interpretation Questionnaire II (SIQ-II; Huppert, unpublished), a measure of social interpretive bias. Specifically, we examined the internal consistency of the SIQ-II as well as the convergent validity (i.e., high correlation with social anxiety measures) and divergent validity (i.e., low correlation with other symptoms) of the SIQ-II.

**Presenter:** Lisa Motley

**Program:** MA Psychology

**Title:** *Childhood Sexual Assault, Schemas, and Revictimization: The Role of Early Maladaptive Schemas on Revictimization*

**Abstract:** Childhood sexual assault (CSA) refers to a sexual act that is imposed on a child or adolescent who lacks the emotional capacity, maturity, and cognitive development to understand what they are engaging in, and is incapable or unwilling to give consent. Many individuals who experience CSA also experience adult sexual assault, such as rape. To date, there is only one known study looking at early maladaptive schemas, CSA, and revictimization. Interestingly, they did not explore factors that may underlie the relationship between CSA and revictimization in adulthood. The purpose of this current study is to first determine if CSA is positively correlated with adult sexual assault and to examine the role of early maladaptive schema in this association. We hypothesize that revictimization will be mediated by early maladaptive schemas among individuals who experienced CSA. To address these issues CSUSB students will be administered the Sexual Experiences Survey which assesses victimization and perpetration of unwanted sexual experiences and the Young Schema Questionnaire to measure early maladaptive schemas. We are currently in the data collection phase of the experiment. It is expected that CSA will be positively correlated with revictimization. Additionally, we expect that early maladaptive schemas, such as, mistrust/abuse and insufficient self-control/self-discipline will mediate the effect between CSA and revictimization. In conclusion, our findings could be used to further investigate what appropriate early childhood interventions could possibly be used to address and treat early maladaptive schemas, which in turn could help to prevent further revictimization.

**Presenter:** Jose Navarro

**Program:** BA Psychology

**Title:** *Acculturation and Latina Women Ethnic Identity*

**Abstract:** This presentation addresses the ethnic identity scenario in which some Latina women find themselves. Latinas brought up in a bicultural environment sometimes have a hard time determining which of the two they truly belong to. Acculturation is recognized to have an effect on the ethnic identity of Latina women that can extend well into adulthood (Martinez et al., 2012). Acculturation is a term used to explain the dynamic process that a person goes through when they encounter a different culture from their own and is sometimes viewed as a clash of cultural identities. However, a person could also successfully combine cultures and create a new multicultural identity (e.g. Organista, Marin, & Chun, 2010; Berry, 2003; Hamers & Blanc, 2000). The constant choices of conforming to the dominant culture versus retaining the traditional culture often become profound internal struggles. We will discuss the stigma attached to speaking Spanish or lack of language fluency when moving through the public and private self, the issues that arise when trying to claim an identity, and the consequences of Latina/Hispanic women's mental health due to the conflicts that develop from ethnic identity ambiguity. Additionally, we will discuss the notion of imaginary internal borders that constrain women from empowerment (Anzaldúa, 1987). The internal and external pressure to identify with either one or multiple ethnic identities simultaneously cultivates imaginary internal borders (Anzaldúa, 1987). Therefore, we want to understand how internalized borders may affect Latina women's lives.

**Presenter:** Ashley Newman

**Program:** BA Psychology

**Title:** *Examining the Relationship Between Child Sexual Abuse, Self-Compassion, and Self-Objectification.*

**Abstract:** A great deal of research has looked at the impacts of child sexual abuse (CSA) on aspects of mental health such as substance abuse, eating disorders, and sexual dysfunction. There is also evidence that CSA may impact perceptions of self. Examples of perceptions of self are self-compassion, or an unconditional positive regard for the self despite difficult times (Neff, 2007) and sexual objectification, or the emphasis on one's body as being the most important part of the self (Fredrickson & Roberts, 1997). Therefore, the purpose of this study is to explore the potential relationships between CSA, self-compassion, and self-objectification. We hypothesize that experiencing sexual abuse as a child will be linked to reduced levels of self-compassion. Additionally, we predict that self-objectification will mediate the relationship between CSA and self-compassion levels. We hope to recruit at least 250 participants, undergraduate students as well as a community sample from sexual assault organizations in Southern California. An on-line survey will be used to collect data, integrating questions taken from the Child Sexual Abuse Questionnaire, the Self-Compassion scale, and the Self-Objectification scale, which are validated measures of each variable. We are hopeful that results will reflect our hypothesis that CSA will be correlated with low levels of self-compassion via the mediation of self-objectification.



**Presenter:** Michelle Orozco

**Program:** BA Psychology

**Title:** *Inspire Multicultural Holistic Campus: Incorporating Members' Perspectives*

**Abstract:** Health disparities greatly impact lower income communities of color (Hooper, 2014) and are especially prominent in the metropolitan and east valley area of San Bernardino. Previous traditional efforts to alleviate mental health disparities have been largely unsuccessful. In order to help alleviate mental health disparities, the San Bernardino Department of Behavioral Health implemented an innovative project known as the Inspire Multicultural Holistic Campus, a community-driven establishment. This project uses a holistic and community-focused approach to reduce the prevalence of mental health disparities. This study reports partial results of a project evaluating the effectiveness of the Inspire Holistic Campus. It was hypothesized that community members would become more open to addressing mental health issues and seeking help as well as become less inclined to stigmatize mental health as a function of participation at Inspire. While a mixed-method approach is being used to explore this issue, this study focused on the qualitative focus group data. The findings suggest that participation in services at Inspire increased participants' awareness of the importance of engaging in activities that enhanced mental well-being and increased their awareness of warning signs related to mental health concerns. The participants also reported an increased willingness to seek help and increased awareness of how to do so. These findings provide support for the effectiveness of this innovative approach to addressing mental health in a holistic fashion. Additionally, this project demonstrates the importance of incorporating the community's perspectives when seeking to increase mental health awareness and decrease mental health stigma (Baker, 2005).

**Presenter:** Catherine Ou, Clinton Haywood, & Kangwook Noh

**Program:** BA Economics

**Title:** *Estimating the Impact of Austerity During the Great Recession Using the Hicksian Super-Multiplier*

**Abstract:** The 2007-2008 recession in the United States was one of the most severe economic downturns since the Great Depression. Standard Keynesian economic analysis calls for government spending to stimulate the economy in such "slumps". The size of the stimulus, in turn, depends crucially on what macroeconomists refer to as the multiplier, which is the degree to which government spending filters through the rest of the economy to boost spending and job growth. We use the concept of the supermultiplier, first developed by Hicks (1950) and later by Serrano (1995) and most recently employed in an analysis of fiscal policy in the Great Depression by Perry and Vernengo (2013), to analyze the effects of the 2009 American Reinvestment and Recovery Act. Finally, we employ our estimations in a novel way to conclude that a larger "counterfactual" stimulus package would have quickened the pace of economic recovery after the Great Recession.

**Presenter:** Kristen Ramos

**Program:** BA Psychology/Geography

**Title:** *Creating A Model To Treat Refugee Children Dealing With PTSD In Post-Conflict Environments*

**Abstract:** In post-conflict environments, it is easy to determine the physical injury or loss; however, it is much more difficult to determine mental injuries, such as Post Traumatic Stress Disorder (PTSD). Signs or symptoms of PTSD may not be evident or may show up later in life, especially in children. The developed world established prevailing therapy, and with globalization those practices have spread to other countries. These remedies are developed in societies that are typically individualistic and focus on treatment of individuals; these practices do not take into account societies which are collective. These treatments do not address all the essential areas of culture, geography, or post-conflict environment, which could dramatically affect the success of treatment. This paper aims to collect and analyze data on the available models of PTSD therapy and post-traumatic resilience for children in both developed and developing societies. We aim to answer if the models of treating PTSD in developed and developing societies can be utilized by one another to improve mental health. A comparative analysis will clarify differences between the two approaches and aim at creating a comprehensive model of treatment for PTSD which takes into account cultural and geographical differences.

**Presenter:** Lace Riggs

**Program:** MA General Experimental Psychology - Neuroscience Focus

**Title:** *Witness Defeat: A Novel Animal Model Of Vicarious Stress-Induced Depression In Female C57bl/6 Mice*

**Abstract:** Stress exposure is a prevailing risk factor for the development of mood-related illnesses, wherein women represent the greater majority of those who suffer from depression-, anxiety-, and posttraumatic stress- disorder. Despite the growing body of studies suggesting that affective disorders can arise after a traumatic event is vicariously experienced, this relationship remains to be examined in female subjects at the preclinical level. Thus, the objective of the current investigation is to examine whether the “witness defeat” paradigm – a model that dissociates emotional versus physical social stressors – induces a depression-like behavioral phenotype in female c57BL/6 mice. To do this, female mice witnessed the social defeat bout of a male conspecific, by a larger CD1 aggressor, for 10 consecutive days. Twenty-four hr after stress exposure, mice were tested in the social interaction, sucrose preference, tail suspension, forced swimming, and elevated plus-maze behavioral tests. As expected, the physically stressed male c57BL/6 mice displayed a depressive-like phenotype as inferred from decreases in social interaction, decreased sucrose preference, increased total immobility in the tail suspension and forced swim tests, along with increases in sensitivity to the anxiety-inducing environment of the elevated plus maze. Interestingly, when compared to non-stressed female controls, female mice exposed to witness defeat stress also displayed a depressive-like phenotype across the same behavioral assays. As such, our results indicate that exposing female c57BL/6 mice to the “witness defeat” paradigm may be used to examine the etiology of vicarious stress-induced mood-related disorders in female populations.

**Presenter:** Jose Rodriguez

**Program:** BA Psychology

**Title:** *Organizational Context And Career Outcomes: The role of GOME*

**Abstract:** Developing and retaining talented workers is increasingly challenging. Consequently, understanding the factors that lead to employee retention is vital for organizations. The current study examines the impact of organizational contextual factors on career-related perceptions, as explained by employee perceptions of resources (means-efficacy). Archival data was collected from 1,252 city government employees in Tennessee via an online survey. The results support the idea that organizational factors are important for career perceptions in part because they lead to positive employee beliefs about the resources available to them to do their job.

**Presenter:** Kevin Rosales

**Program:** BA Psychology and Human Development

**Title:** *The Effects of Statistics Anxiety, Self-Efficacy, and Spirituality on Working Memory*

**Abstract:** The current study will examine the relationship among statistics anxiety, self-efficacy, spirituality, and working memory capacity in college students. It is hypothesized that there will be a negative relationship between statistics anxiety and working memory. Secondly, it is anticipated that self-efficacy and working memory will be positively related. In addition, it is hypothesized that there will be a positive relationship between spirituality and working memory capacity in college students. Approximately 100 undergraduates from CSUSB will be recruited through the university's internet-based research management system. Participants will be provided with a survey containing the following scales: Statistics anxiety rating scale (STARS), the Academics Self-Efficacy Scale, & the spirituality scale. Subsequently, participants will be assessed for working memory capacity using the operation span task. Furthermore, participants will be counterbalanced to where half of the participants will complete the survey first, then the working memory task, and the other half will complete the working memory task then the survey.

**Presenter:** Marcos Sanchez Sierra and Mary Carpio

**Program:** BA Psychology

**Title:** *Exploring Alternative Sexual Assault Prevention Strategies*

**Abstract:** Much research has been done on sexual assault incidences and sexual assault prevention interventions. However, only one study has focused on the "Yes Means Yes" (YMY) model, a recent approach created to increase awareness around consent that emphasizes the importance of a clear and enthusiastic "yes" prior to any sexual advances (LaFrance, Loe, & Brown, 2012). We are exploring individuals' attitudes toward sexual assault after a YMY intervention in comparison with a control group. We expect that after the intervention, the experimental group will demonstrate significant attitudinal changes toward consent and sexual assault after participating in this study. Participants are randomly assigned to one of two groups: a) Yes means yes or b) Relationships information (control group). Online quantitative pre- and post-tests are administered to measure attitudes toward sexual assault and consent.

Measures include scales focused on rape myth acceptance and perceptions of sexual assault. Additionally, qualitative data will be collected immediately following the intervention to assess participants' subjective experiences of the presentations and discussions. Qualitative results indicated a desire for more discussion and less lecture, greater inclusion of genders besides women, and more self-reflective discussion questions. The current study was a pilot study, representing one limitation of this project. We expect further analysis to demonstrate a significant difference between the interventions, prompting support for the development of a "Yes Means Yes" prevention education program. Future directions for research include more intervention studies with greater discussion components. Newman, A.D., Sanchez, M.S., Mary, C., & Badiee, M., 2014.

**Presenter:** Moriah Schnose

**Program:** BS History

**Title:** *Shaping Identity in Post-Apartheid South Africa through Public History*

**Abstract:** Since South Africa's first democratic election in 1994, South Africans have embarked on a journey to re-shape their identity. Museums, in particular, have played a vital role in this reassessment of history. Prior to 1994, South African museums reflected primarily a Eurocentric and Afrikaans perspective. In 1994 apartheid legally ended. It has been roughly twenty-one years since apartheid was overthrown. This project intends to examine how since the end of apartheid, South African museums have undertaken the process of restructuring their exhibits and reassessing their approach to South African history. In turn, such an analysis will hopefully contribute to a broader understanding of how apartheid and post-apartheid politics have impacted South African national identity and consciousness in public history sites. Currently there is very little research done on this subject. My plan is to specifically compare how Africans' history was portrayed in museums in South Africa, if at all, during apartheid and how that changed following its end. My hope is to use the analysis I draw from this comparison to emphasize the risk of history as a political tool and demonstrate how history can be publically distorted to justify and promote the oppression of political and economic minorities.

**Presenter:** Seallong Sechang

**Program:** BA Psychology

**Title:** *The Influence of Emotion Regulation Strategies in the Relationship Between Social Support and Posttraumatic Stress Disorder Symptoms among Survivors of Sexual Assault*

**Abstract:** Sexual assault (SA) can be damaging to a woman's mental and physical health (Campbell, et al., 2009). Social support is a resilience factor in posttraumatic adjustment among SA victims (Borja, Callahan, & Long, 2006). Emotion regulation (ER) may account for this association, and is described with two approaches: cognitive reappraisal and thought suppression. Cognitive re-appraisal, an adaptive strategy, describes how an individual re-interprets a situation following the emotional response. Thought suppression, a maladaptive technique, involves the voluntary inhibition of an emotional response (Gross & John, 2003). The present study examined the influence of ER in the relationship between social support and posttraumatic stress disorder (PTSD) symptom severity. Female college students (N = 120), who reported a history of SA, completed measures of PTSD symptom severity, social support, and use of ER

strategies. Results revealed PTSD symptoms were significantly correlated with social support ( $r = -.30, p < .01$ ) and thought suppression ( $r = .31, p < .01$ ), but not cognitive reappraisal ( $r = .00, p > .05$ ). Social support was significantly negatively associated with thought suppression ( $r = -.40, p < .01$ ), and positively with cognitive reappraisal ( $r = .24, p < .05$ ). Findings suggest that social support leads to reduced engagement in maladaptive ER strategies, such as thought suppression, thereby reducing risk of PTSD severity. Similarly, individuals who engage in thought suppression may be disinclined to seek social support. Implications for treatment highlight the need to improve utilization of social support and ER capacities among SA survivors.

**Presenter:** Kristi Shawhan

**Program:** BA Biological Psychology

**Title:** *The Effects of Social Defeat Stress on Anxiety-Inducing Situations*

**Abstract:** Adolescence is the peak age range for the development of a mood related disorder due to immense stress from a number of competing factors. Additionally, juveniles are at a higher risk for developing a mood-related disorder, such as depression. Among youths with depression, anxiety is the most common comorbid disorder with rates ranging from 15 to 75 percent. Past research has shown that when paired with depression, anxiety becomes increasingly severe. According to the Anxiety and Depression Association of America, approximately 1 in 8 children are diagnosed with anxiety. In order to study novel treatments or consequences of drug therapies, we must have a model to examine anxiety at the preclinical level. To create this model, c57/BL6 mice were exposed to social defeat stress across ten days. 24 hours after the last day of defeat, adolescent mice were then tested on the elevated plus maze and open field test. Socially defeated mice expressed avoidance-like behaviors as inferred by spending significantly less time exploring the open arms of the elevated plus maze and the center of the open field test compared to their non-defeated counterparts. These results illustrate the capability of the social defeat stress model in inducing an anxiety-like phenotype. Findings from the current experiment are crucial for limitless future studies in anxiety affecting the pediatric population by generating a foundation to study this disorder at the preclinical level.

**Presenter:** Gregory Smith

**Program:** MA General Experimental Psychology

**Title:** *Comparison and Categorization in Visual Arrays*

**Abstract:** This research examines how comparison of objects with common and distinctive features underlies categorization, an essential component of human cognition. Classification probabilities have been found to vary as a function of similarity, though it is unclear if the differences are due to a failure to notice lower levels of match, a post sampling evaluation of object similarity, or a combination of both processes. A binomial category sorting task in which participants viewed a 4 x 4 array of 16 occluded objects visible one at a time and provided labels for each object at a family-species level was utilized in the current research. Our primary objective was to learn what kinds of set-level structure provide the most natural or intuitive basis for visual categorization, and to gain insight into the strategies used when engaging in free categorization of novel stimuli. Labeling data and the pattern of visits to other objects

while labels are considered for a given target object in each array was analyzed. Objects at a superordinate level, based on overall alignability or structural correspondence, tend to be grouped together significantly more than objects of differing structural configuration, and received more within-category comparisons than between-category comparisons during labeling. Repeated subordinate level instances with one to four (out of four) matching features were compared and received the same species labels significantly more than other discretely varying alignable objects sharing no identical features. Explanations for scanning patterns at different levels of discrete feature match and future lines of research will be discussed.

**Presenter:** Ryan Stoermer

**Program:** BA History

**Title:** *Missed Focus: The perceptions of America Media Through Globalization*

**Abstract:** How do American films disseminated abroad have an effect on how others perceive us? The film presents a simplification of the world known as a frame and through these frames the United States of America's attitudes, values and culture is spread across the world through the ebb and flow of globalization. The Hollywood films are often the first impression given to others outside our culture; these give them a simple and effective tool to understand the culture that they are experiencing. These films display our societal attitudes towards outsiders entering our country. How easily the themes of these films can be crafted into propaganda against an outsider or group. In a way, some race relations are demonstrated through media. By use of media, groups can be mobilized into action against certain elements deemed harmful by the people in power. The instigation of myths can create an imperfect picture of our society. Perception of these films truly can define how other people view the United States of America and the policies/culture residing herein.

**Presenter:** Daniell Study

**Program:** BA Psychology

**Title:** *The Relationship between the Willingness to Work and Career Intentions among College Students*

**Abstract:** In 2013, Hogan, Chamorro-Premuzic, and Kaiser presented the Rewarding, Ability, and Willingness (RAW) framework to conceptualize the construct of employability. Our review of previous research indicates that though the RAW construct borrows heavily from others, it offers a unique perspective for categorizing existing research as well as guiding future research. This article further explores the motivational component of the Hogan, et al. model of employability, and seeks to identify the personality traits that contribute to an individual's willingness to work. Furthermore, this paper seeks to identify the relationship between college student's willingness to work and his or her career intentions.

**Presenter:** Adrian Valadez

**Program:** BA Psychology

**Title:** *Empowering LGBTQ+ Youth Through Participatory Action*

**Abstract:** Utilizing a traditional Community-Based Participatory Research (CBPR) model, data collected from a previous study was thematically analyzed and presented back to the participating Gay-Straight-Alliance (GSA) chapter. Following the presentation of data, students responded to the findings by developing a social justice project of their own creation in which a key issue related to being a member of the Lesbian, Gay, Bisexual, Transgender, Queer, Questioning, Intersex, Asexual, Pansexual, Two Spirited (LGBTQ+) community was addressed. It was hypothesized that participants directly involved with the planning and execution of a social justice project would feel empowered by taking proactive, positive action which would also improve positive psychological functioning and perceived quality of life. A pretest/posttest design was employed to test these variables. It was found that students felt empowered immediately after the project was complete. Additionally, participants reported higher levels of positive psychological functioning and perceived quality of life. Furthermore, students reported a desire to get more involved with activism and other social justice actions. We believe that this participatory approach is effective for youth participants specifically because this particular population is often underrepresented and/or denied the privilege of advocacy. This research design can be implemented in school settings and utilized as an effective intervention for minority youth. By encouraging individuals to address their community's concerns through advocacy and participatory action, this model can be extended to empower other at-risk populations such as ethnic minorities, gender non-conforming individuals, and victims of domestic violence or sexual assault.

**Presenter:** Gino Veltri and Erin Alderson

**Program:** MA Psychology

**Title:** *Working Memory, Attention, and Mindfulness*

**Abstract:** Working memory (WM) and attention are closely related to each other. Recently, some researchers have suggested that WM can be conceptualized as internally oriented attention. Mindfulness is defined as the cultivation of concentration, attention, and non-judgmental acceptance towards the present moment experience; with attention control viewed as the central component of mindfulness. Therefore, attention plays a central role in both WM and mindfulness. Our main question in this project is whether attentional mechanisms in WM and mindfulness are the same. Participants performed a battery of measures in two one-hour group format sessions. WM capacity was measured with two standard WM span tasks (Operation span and Reading span). Attention was measured with the Attention Network Test (ANT), which includes measures for three important functions of attention - alerting, orienting, and conflict monitoring. Mindfulness was measured with the Mindful Attention Awareness Scale (MAAS) and Cognitive Failure Questionnaire (CFQ). We also added the Identical Picture Test, and the Need for Cognition scale. A negative correlation between MAAS and CFQ, suggests that more mindful people have less attentional lapses in their daily life. MAAS was also negatively correlated with the conflict monitoring component of ANT, suggesting that more mindful people could inhibit distractors better than less mindful people. A correlation between Reading span and the orienting component of ANT, suggests that high WM capacity individuals could allocate attention better than low WM capacity individuals.

Overall, our results suggest that attention in working memory and mindfulness are not the same, though they are related.

**Presenter:** Whitney Welborn

**Program:** BA Psychology

**Title:** *Understanding the Mental Health of Parent College Students*

**Abstract:** The college student population in the past decade has seen a huge shift from the traditional college student, typically 18 years old and recent high school graduate, to nontraditional college students, including: part time, independent, older adults, and parent college students (Center for Postsecondary and Economic Success, 2011). The objective of this project is to better understand the mental health of parent college students. We will be investigating the individuals' experience as a parent college student and assessing the effect of their multiple roles academically, socially, and mentally. We hypothesize that coping strategies, parental stress, and demographic factors are related to mental health outcomes. The mental health of parent college students will be assessed with quantitative surveys. Surveys include a) a Demographic Questionnaire; b) the Parental Stress Scale to evaluate how parents view parenthood as either positive or stressful; c) The Mental Health Inventory, to assess depression, anxiety, well-being, and other mental health items; and d) Coping Strategies Inventory, which assesses different coping styles. Items on the surveys will be converted to a 7-point Likert scale to facilitate analysis. Correlational data analysis procedures will be used to determine relationships among variables. Specifically, Pearson's correlation coefficient will be calculated to determine relationships. We will utilize the results to develop a better understanding of parent college student's mental health. Based on the results, we plan to disseminate findings through campus events as well as create potential beneficial resources.

**Presenter:** Brittney Winters

**Program:** MS Industrial/Organizational Psychology

**Title:** *Person-Corporate Social Responsibility Fit: Considering the Effects of Corporate Values on Fit Within the Organization*

**Abstract:** Corporate social responsibility (CSR) is a growing topic in Business and Psychology research, especially on the micro level of its effects on individual employee outcomes. This study aims to propose a new scale, which is a sub-dimension of Person-Organization (P-O) fit, such that there's a Person-CSR (P-CSR) fit: the perceived congruence between an individual's values with an organization's CSR initiatives. We predict that P-CSR fit will explain additional variance over and beyond P-O fit for organizational outcomes such as organizational commitment, organizational identity, job satisfaction, and organizational citizenship behaviors. Further, we predict the relationship between P-CSR and these organizational outcomes will be moderated by the individual's social responsibility values.



**Presenter:** Marissa Wollard

**Program:** BA Psychology

**Title:** *Queering LGBT Research Utilizing Photovoice*

**Abstract:** This project looked at the issues of Lesbian, Gay, Bisexual and Trans\* (LGBT) youth through a Queer Theory lens. Using Community-Based Participatory Research (CBPR), queer youth were given the opportunity to communicate issues relevant to their lives utilizing Photovoice, a qualitative narrative assessment of their community. This study focused on a Photovoice project conducted with five queer youth who attend GSA meetings at a public high school in Southern California. Following training about the Photovoice procedure and issues related to ethics and safety regarding photo taking, the youth engaged in photo documentation of key images capturing their lives. Critical analysis of the photographs was facilitated by members of the research team utilizing the SHOWED prompt developed by Wang and associates (see for example Wang & Pies, 2004). These prompts include: What is Seen here? What is Happening? How does this relate to Our lives? Why are things this way? How can this image Educate people? What can I Do about it? This specific project focused on the SHOW component that provides an opportunity to examine the various influences on the queer youth's lives. The findings of this Photovoice project highlighted issues such as acceptance, education, emotions (which include strengths and challenges), empowerment, resilience and support systems. These findings contribute to our understanding of the issues that can cause psychological distress among members in the LGBT community. By continuing to research these issues and taking steps to address them, we can enhance the lives of LGBT youth and their surrounding communities through education and action. With the completion of analyzing the thematic issues, the ED portion of SHOWED is to take place in a separate study. These major thematic issues are to be taken back to the youth for a discussion about their perspectives of the themes. The youth's perspectives are to be incorporated into an action plan developed by them.

**Presenter:** Heather Wroten

**Program:** MS Social Work

**Title:** *Utilization of Specialized Camp Services*

**Abstract:** This study addresses Camp Paivika, a summer camp for both adults and children with a disability. Camp Paivika opened in 1947 and is located in the San Bernardino National Forest. This study will provide data to illustrate the benefits of attending Camp Paivika for campers and explore the concept of respite for caregivers. This study will focus on the benefits of specialized camp services; it will include benefits received by the family as a unit from the parents' perspective. The hypothesis regarding this research is that campers will benefit by increasing independence and social skills. The family will benefit by being able to reconnect with family, friends and provide an opportunity for the family to rest in order to continue providing quality care to the child. The above mentioned benefits have the potential to increase protective factors within the family and decrease risk factors. The impact of this research is developing and exploring specialized camp services for adults and children with a disability. Further research on respite provided by specialized camps could impact funding and policy regarding camps as potential respite providers. If this funding can be accessed, camps may be able to receive funding for their programs or expand the services offered. If camp is seen as respite for both the child and the family, it is may be a viable option

for families to elect. By examining the benefits in terms of protective and risk factors associated with respite, specialized camp settings can more clearly be defined as respite.

**Presenter:** Suzanna Zambrano

**Program:** BA Psychology and Arabic

**Title:** *New Media and Technology in Jordan*

**Abstract:** The Arab Spring has proven that media is a powerful tool in Politics and social movements. This study deals with the relationship between the progression of technology use and new media. Through this research, a gaining of the understanding of school policies relating to technology accessibility for students will be provided. Also, an analysis of media outlets and the methods by which news is delivered will be given in order to analyze the effects that this can have on daily lives and political ideologies.

**Presenter:** Krystal Zielen

**Program:** BA Psychology

**Title:** *Guilt and Anxiety Among Working Moms: The Role Of Gendered Beliefs*

**Abstract:** Traditional gender roles socialized to women about the importance of motherhood and homemaker, and to men about the importance of protecting and providing still hold a firm grasp on internal beliefs about others and the self. The presence of these stereotypes in both work and family settings result in gender-based inequalities related to the glass ceiling, unequal pay, and negative attention when discrepancies occur within roles. Indeed, role inconsistent behavior produces conflict in individuals, often eliciting overt forms of sexism and microaggressions. These role-based challenges are relevant for working women rearing children. Working mothers are faced with regular inter-role conflict as work based behaviors are often inconsistent with their mother role. While such conflict may result in negative mental health outcomes such as guilt and anxiety, the severity of such outcomes may vary as a function of modern and traditional gender beliefs. The negativity of violating that role as mother is contingent upon the woman's traditional vs. modern gender belief standpoint. We attempt to understand how gender role beliefs relate to the experience of guilt and anxiety for working mothers compared to working non-mothers. We propose that gender role beliefs (traditional vs. modern) will be a moderating factor. Specifically, working non-mothers will experience equivalent, low levels of guilt and anxiety regardless of gender role beliefs. Higher levels will be reported, however, among working mothers (compared with working non-mothers) who have traditional gender beliefs. Further, differences that emerge will be exacerbated in work settings with high levels of sexism and microaggressions.

## Special Thanks

We would like to thank the Student Success Fee for sponsoring this event. Thank you to all of the moderators, student volunteers, and the Graduate Studies and Student Research staff, whom without this event would not be possible.

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