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Research Day 2013

Highlighting and recognizing graduate and undergraduate student research throughout all disciplines at the University of Northern Colorado.

University of Northern Colorado's Annual Research Conference during Academic Excellence Week

April 11, 2013University Center

Sponsored and facilitated by
Office of Undergraduate Research
Center for Honors, Scholars & Leadership
Graduate Student Association
The Graduate School



Direct questions regarding Research Day and Academic Excellence Week to

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Lunchtime music provided by UNC Radio

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A full list of abstracts is available on the website at www.unco.edu/aew

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Research Excellence Awards

The Research Excellence Awards program was established to encourage and reward those presentations that exemplify the highest levels of excellence in research. Only a limited number of presentations were accepted into the awards program, and each will be evaluated by a team of faculty on Research Day.

Awards will be presented to the top scoring posters and individual presenters within each of the two categories: Graduate and Undergraduate. The awards will be presented at 4:45 PM in Mt Evans Ballroom on Research Day.

Research Excellence Posters

Mt Evans and Pikes Peak Ballrooms

Graduate Research Excellence Posters:

Morning Poster Session

09:00 - 11:00 in the Morning

Graduate Students' Perspective about Flipped Learning Classroom

Educational Technology

Presenter(s): Alebrahim, Fatimah

Faculty Sponsor(s): Gall, James

There are many strategies for teaching that use technology to enhance students' performance. One such strategy is a method called Flipped Learning or the Inverted Classroom. It relies on technology to introduce students to course content outside of the classroom so that students can engage with it on a deeper level.

purpose of this study was to explore this new teaching method in education and collect data from students who participated in a Flipped Learning classroom. The following questions were addressed: What impact does Flipped Learning have on a graduate students' ability to comprehend content? How do the students enrolled in a higher education program describe the experience of Flipped Learning Model? What impact does the Flipped Learning model have on the students' level of anxiety regarding their ability to integrate all of the required course data?

A qualitative case study method was used to examine two graduate courses that employed the Flipped Learning strategy. Interviews were conducted with the instructor and five of the 10 students who participated in both classes. Artifacts in the form of materials from the courses (such as reading assignments, projects, video links and writing assignments) were also collected). The data were coded and themes were developed.

The study revealed that the effectiveness of these Flipped Learning classes were influenced by a number of factors. For example, the instructor was challenged in that enough online reading materials and videos to support topics had to be prepared for the course. Effective assignments and practice activities were also required. Each student's ability to study independently and use technology effectively impacted his or her success. Students that had the motivation and could complete the required activities before class appeared to learn and apply high-level skills. Those that didn't have negative feelings about the class.

Effects of a resistance training model on doxorubicin-induced muscle dysfunction in the rat Sport & Exercise Science

Presenter(s): Bredahl, Eric

Faculty Sponsor(s): Hydock, David

Doxorubicin (DOX) is an effective chemotherapy treatment that has been associated with a number of deleterious side effects including skeletal muscle dysfunction. Endurance exercise is effective at protecting against a variety DOX-induced toxicities, but examinations of the effects of resistance training on DOX-induced skeletal muscle dysfunction have been limited. PURPOSE: To examine the effects of a resistance training model in which rats rise to an erect bipedal stance to access food and water on DOXinduced muscle dysfunction. METHODS: Ten week old male Sprague-Dawley rats were randomly assigned to the raised cage resistance training model (RC) or sedentary (SED) group. RC animals were housed in specialized cages where food and water height were progressively increased so that rats would achieve an erect bipedal stance to access food and water. SED animals were housed in standard rat cages. Following 10 weeks of RC or SED treatments, animals received either a bolus DOX injection (15 mg/kg) or a saline injection (SAL) as a control. Five days following injections, soleus (SOL) and extensor digitorum longus (EDL)

function was analyzed ex vivo. RESULTS: A significant decline in maximal twitch force was observed in SOL and EDL from SED+DOX (-44% and -44%, respectively, P<0.05 vs. SED+SAL), but this significant reduction was not observed in RC+DOX (-22% and -24%, respectively, P>0.05 vs. SED+SAL). Using a 100 s fatigue protocol, a significant reduction in force from baseline was observed at 20 s in SOL from SED+DOX (P<0.05) whereas a significant reduction in force from baseline did not occur until 70 s in RC+DOX (P<0.05). CONCLUSION: The raised cage model employed prior to DOX administration attenuated muscle dysfunction suggesting that resistance exercise may play a role in managing muscle weakness and fatigue often experienced by cancer patients receiving DOX.

Outpatient Phases in Cancer Rehabilitation

Sport & Exercise Science

Presenter(s): Brown, Jessica

Faculty Sponsor(s): Schneider, Carole

Cancer detection and treatment methods have improved significantly, which has in turn led to an estimated 12 million cancer survivors living with negative treatment-associated side effects. Rehabilitation of cancer survivors has become a problem of increasing significance with the surge in the incidence of cancer. A plethora of research investigations have shown that exercise is beneficial for cancer survivors. Yet there is not an orderly plan or system to rehabilitate cancer survivors with varying levels of acuity following diagnosis. PURPOSE: To establish appropriate phases in cancer rehabilitation that address the individual needs of cancer survivors. The phases should be built upon goals addressing varying levels of acuity and establish appropriate exercise recommendations. METHODS: Seven hundred-twenty-eight cancer survivors were grouped according to cancer history and treatment status yielding four distinct categories of care. Patient files and exercise logs from previous cancer rehabilitation participation were examined to develop exercise prescriptions and the orderly phase plan. RESULTS: Following analysis of exercise logs, the phase system includes four phases corresponding to the four distinct categories of treatment status found in cancer survivors. Each phase consists of its own goals and appropriate exercise recommendations of intensity, duration, and frequency for the exercise prescription. CONCLUSION: Rehabilitation of cancer patients should follow an orderly plan that includes varying levels of patient acuity and appropriate exercise recommendations throughout the cancer continuum. Outpatient phases should be an essential component of cancer rehabilitation.

*Juvenile doxorubicin exposure increases cardiac progenitor cell expression in late-onset cardiotoxicities*Sport & Exercise Science

Presenter(s): Gibson, Noah

Faculty Sponsor(s): Gibson, Noah

Doxorubicin (DOX) is a commonly used athracycline antibiotic used to treat many childhood cancers. While children have a reduced risk of acute DOX-induced cardiotoxicities, they are more likely to exhibit late-onset DOX-induced cardiotoxic symptoms later in life. We hypothesized that the late-onset cardiac dysfunction is associated with a decline in cardiac progenitor cell (CPC) populations due to DOX exposure during childhood cardiac development. PURPOSE: The purpose of this study was to determine if late-onset DOX-induced cardiotoxicity is associated with a decline in CPC populations. METHODS: Twenty-five day old male Sprague-Dawley rats were randomly selected to receive 14 mg DOX/kg body weight or equivalent saline (SAL) in serial i.p. injections of 2 mg/kg/day for 7 days. At 16-weeks of age echocardiography and Langendorff preparations were performed to assess cardiac function. Cardiomyocytes were isolated, cells expressing the stem cell factor receptor c-Kit were stained and CPCs were quantified using flow cytometry. RESULTS: Significant differences (p<0.05) were observed in the following cardiac functional and geometric parameters between SAL and DOX treated animals: left ventricular developed pressure (SAL 92±17 mmHg, DOX 60±12 mmHg), mitral valve maximal flow velocity (SAL 98±7 cm/sec, DOX 75±11 cm/sec), aortic valve maximal flow velocity (SAL 104±6 cm/sec, DOX 62±7 cm/sec), myocardial performance index (SAL 0.68±0.03, DOX 0.91±0.07), and left ventricular mass (SAL 598±75g, DOX 424±128). DOX treated animals also showed a significant increase (p<0.05) in CPC populations (2.5-fold) CONCLUSIONS: These data suggest that late-onset DOX-induced cardiotoxicities increase CPC populations. The increased CPC populations may be indicative of the endogenous repair mechanisms of the heart in response to the stresses of cardiomyopathies. Further research is needed to elucidate the time course of CPC populations during and following DOX exposure to determine their role in cardiac development and how they may contribute to late-onset cardiotoxicities.

Cardiac Dysfunction in the Tumor Bearing Rat

Sport & Exercise Science **Presenter(s): Parry, Traci**

Faculty Sponsor(s): Hayward, Reid Cardiac Dysfunction in the Tumor Bearing Rat

Cancer cachexia is a disease that affects up to 80% of cancer survivors and contributes to 20 to 30% of cancer deaths. It is characterized by weight loss, muscle atrophy, weakness, fatigue, and a diminished quality of life. While there is substantial evidence that cancer cachexia can lead to skeletal muscle wasting and weakness, its role in cardiac function is not well understood. Purpose: To determine whether cardiac function is altered in the tumor bearing rat.

Methods: Fisher 344 rats (8 weeks old) were randomly assigned to one of two groups: tumor-bearing (Tm) or non tumor bearing (NT). Animals in the Tm group were inoculated with MatBIII tumor cells (1 x 105) in the left flank. Animals in the NT group received no treatment. Two weeks later (week 10 of protocol), cardiac function was assessed both in vivo (echocardiography) and ex vivo (isolated perfused working heart).

Results: The Tm group exhibited significantly (P < 0.05) lower left ventricular developed pressure, maximal rate of developed pressure, fractional shortening, and posterior wall thickness during systole and diastole compared to the NT group. The Tm group also exhibited significantly (P < 0.05) greater left ventricular rate of pressure decline, left ventricular diameter during systole and diastole, and ejection time compared to NT animals.

Conclusion: Inoculation with MatBIII tumor cells causes significant cardiac dysfunction both in vivo and ex vivo in the Fisher 344 rat, suggesting that cancer cachexia can affect cardiac function.

Development and Validation of a Unidimensional Measure of Hope with a Population of Severely and Persistently Mentally Ill Individuals.

Applied Statistics & Research Methods, Educational Psychology, Psychology

Presenter(s): Traxler, Karen; Siegrist, Mary

Faculty Sponsor(s): Traxler, Karen

Snyder et al. (1991) developed a two-factor and unidimensional measure of hope within the framework of goal-setting and achievement. This measure, known as The Snyder Hope Scale (SHS), has been extensively used in clinical settings even though well-defined clinical populations (encompassing severe mental illnesses) were not included in the original development and validation of the instrument. To bridge this gap in the literature, the current study, conducted in three phases, examined the psychometric properties of the SHS, using a target population of severely and persistently mentally ill individuals from a residential treatment facility located in the Eastern United States. In Phase I, reliability of the scores in the target population was assessed using Chronbach's alpha and found to be moderate (.698). Confirmatory Factor Analysis (CFA) using Lisrel 8.8 (Jöreskog, K.G. & Sörbom, D, 2006) was conducted and fit statistics were examined to assess the construct validity of the scores, which were found to be unacceptable in the target population. During Phase II, the results from the statistical analysis in Phase I were compiled, and a modified version of the SHS was sent to a panel of experts in the field of clinical psychology for review. A revised version, developed to improve the unidimensional model fit of the SHS was then created using feedback from the panel of experts. Phase III focused on implementing a pilot study in the target population using the SHS-revised. Reliability and validity of the SHS-revised scores was assessed and the results provided evidence of high reliability (.898) and acceptable model fit, suggesting that the SHS-revised could be used and interpreted in a population of severely and persistently mentally ill individuals, offering clinicians and consumers more meaningful results.

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MANY COLORADO AND WYOMING GRAD SCHOOLS WILL BE PROVIDING INFORMATION ABOUT THEIR PROGRAMS

ON RESEARCH DAY, APRIL 11

DOWNSTAIRS IN THE LOWER LEVEL OF THE UNIVERSITY CENTER

10 AM - 2 PM

Undergraduate Research Excellence Posters:

Afternoon Poster Session

12:00 - 02:00 in the Afternoon

Serine Proteinases in Venom of the Yucatan Rattlesnake Crotalus simus tzabcan

Biological Sciences

Presenter(s): Caudillo, Ana

Faculty Sponsor(s): Mackessy, Stephen

Snake venoms comprise a complex mixture of macromolecules, primarily proteins, that can cause cataclysmic destructive changes to living tissues when injected by a snake. Somewhat enigmatically, these same molecules have high potential for medicinal purposes, because most venom components are mimics of natural regulators of body functions. Previous studies have revealed that serine proteases in venoms interact with the blood coagulation cascade, a complex series of protease-mediated reactions in the body which regulate and the thrombin-like serine proteases (TLSP) act preferentially on fibrinogen. The isolation and manipulation of these proteins could directly contribute to the treatment of clotting disorders, acute hypertension, and even some cancers. New drug candidates are necessary because current drugs have undesired side effects and several newer candidates have recently failed in clinical trials. To address this need, I am examining TLSPs from the venom of the Yucatan Rattlesnake (Crotalus simus tzabcan), a species whose venom has not been investigated but which contains abundant serine proteases. Isolation of a TLSP has just been completed using a three step chromatographic purification protocol (low pressure size exclusion, ion exchange and reversed phase). Initial characterization of this purified protein include determination of its mass, specific activity and possible inhibitors. In addition, I will evaluate other physical characteristics of the protein such as extent of glycosylation, which can influence physiological stability and resistance to endogenous proteases, and specific activity toward fibrinogen and other natural substrates. Identification of these properties are the first steps toward a future therapeutic, and if these are positive, biological testing in a rodent model will be undertaken. This research further demonstrates the potential for new and more specific-acting drugs from natural sources, and animal venoms contain a wealth of candidate molecules potentially useful for treating human diseases.

The Impact of Residence on Dietary Intake, Food Insecurity, and Eating Behavior Among University Undergraduate Students

Nutrition

Presenter(s): Gonzales, Kittra

Faculty Sponsor(s): Gould, Susan

University students are overlooked as a nutritionally at-risk population in regards to poor dietary intake, food insecurity, and eating behavior. The purpose of this study is to determine if residence has an impact on university students' dietary intakes, which residence type (on-campus or off-campus) meets recommendations more closely, and investigate socioeconomic and behavioral factors related to poor dietary intake. A cross-sectional, online Qualtrics survey was designed and distributed to University of Northern Colorado students. The survey includes an original food frequency questionnaire (FFQ) designed according to ChooseMyPlate.gov dietary intake recommendations and the U.S. Adult Food Security Survey Module (AFSSM) developed by the US Department of Agriculture. Responses about eating behavior and demographic characteristics, such as gender and age will be analyzed. Chi-square and independent t-test analyses will be used to determine significant differences in the variables between residence type and gender. This study addresses knowledge gaps between newly updated nutrition guidelines and student lifestyle by incorporating an innovative approach to study design and methodology commonly used in nutrition research.

Auditory Status of Youth Who Shoot Recreational Firearms

Audiology & Speech-Language Sciences

Presenter(s): Holm, Kristen

Faculty Sponsor(s): Meinke, Deanna

Firearms generate high level impulse sounds that are known to damage the delicate structures of the inner ear and cause hearing loss (Axelson et al., 1987, Holmes et al. 1997, Kramer and Woods, 1982). Otoacoustic emissions (OAEs) are low-level sounds that are produced by the cochlea's outer hair cells. Almost all people with normal hearing and some with hearing-impairment will produce OAEs. The presence or absence of OAEs can provide information about inner ear changes due to hazardous noise exposures. OAEs have been found to demonstrate early signs of noise induced hearing loss (NIHL) before it becomes evident on a conventional hearing test (Arnold et al., 1990, Avan et al., 1995, 1997, Dorn et al., 1999, Konopka et al., 2005, Yates and Withnell, 1999). Ahmed et al. (2001) has also suggested that ultra-high-frequency (UHF) hearing loss may also be an early indicator of NIHL. The purpose of this research is to evaluate the auditory status of youth (aged 10-15 years) who shoot recreational firearms as compared to a control group that does not shoot. For this study, auditory status will be evaluated with conventional audiometry using pure-tone air conduction hearing testing 500-8000 Hz, ultra-high-frequency audiometry (HFA) 10000-20000 Hz and distortion product otoacoustic emissions (DPOAEs). For DPOAE testing, each participant will have a 12 frequency DPOAE scan administered (1600-6300 Hz). DPOAE data will consist of the distortion product amplitude (DP), noise floor (NF), and signal to noise ratio (SNR) for each test frequency. Data collection is currently underway, and preliminary findings suggest a trend towards reduced UHF hearing thresholds and DPOAE amplitudes for the experimental group shooting recreational firearms.

An Examination of the Cytotoxic Effects of Snake Venom on Human Colon Cancer Cells Biological Sciences, Chemistry

Presenter(s): Maxey, Elizabeth

Faculty Sponsor(s): Mackessy, Stephen

Snake venom is a complex mixture of enzymes, proteins and other substances with toxic/lethal properties which immobilize and aid in digestion of prey. Venom's biological effects are caused primarily by many proteins found in the venom. Some of these proteins may provide novel leads for drug discovery, with applications to many human diseases. Cancers are characterized by uncontrolled growth and metastatic spread of abnormal cells that commonly results in death; colorectal cancer is the fourth most commonly diagnosed and second most lethal cancer in the United States (2011). Treatment options for colon cancer are limited, depending on the stage of the cancer at diagnosis, illustrating the need for new therapeutics. In this study, the cytotoxicity of Pseudechis porphyriacus venom and purified proteins toward Colo205 cancer cells was explored. Previous work showed that the venom contains metalloproteinases (SVMPs), phospholipases A2 (PLA2), three-fingered toxins (3FTxs) and cysteine-rich secretory proteins (CRiSPs); in spite of these components, the venom is only moderately toxic (LD50 ~2.5 mg/kg). Crude Pseudechis venom showed potent, dose-dependent toxicity toward Colo205 cells. Fractionation of crude venom via cation-exchange FPLC resulted in 13 prominent peaks, primarily 6 and 14 kDa proteins; peaks 1, 11, 12, 13 were cytotoxic. Purification of the cytotoxic proteins was performed via reverse-phase HPLC. The purified proteins ranged from having no cytotoxic effect to moderate/potent cytotoxic effect on Colo205 cells. Mass spectrometry was used to aid in identification of each purified protein. The need to develop alternative treatments for colorectal cancer is essential, as current options are limited and often have severe side effects, due in part to the sensitivity of the colorectal area to traditional cancer therapies. If apparent anti-cancer effects observed with this venom and its purified proteins are specific, these results may produce leads for novel drug therapies to treat colorectal cancer.

Native American retention: factors, programs and practices contributing to the completion of a four-year degree by Native American students in higher education

Interdisciplinary Studies

Presenter(s): Nirschl-Coats, Valerie

Faculty Sponsor(s): Franklin, Elizabeth

This study examines the factors that contribute to the completion of a four-year degree among Native American students at a midsize university in the Southwestern United States. In the United States Native American retention in higher education is at a low.
Programs and practices have been implemented among universities to improve retention rates, but nonetheless retention rates are
still minimal. Research in the field indicates that the factors contributing to Native American retention include familial support,
support from faculty and staff, institutional commitment, and connections to homeland and culture. However, the research does not
seem to show factors in relation to specific institutions. This qualitative study will focus on the experiences of six to twenty Native
American students. These students will be interviewed to determine the factors that they regard as motives why Native Americans
at this specific institution do or do not complete a four-year degree. Along with qualitative research this research will also be a
program review in which the researcher will look at the University of Northern Colorado, Fort Lewis College, the University of
Colorado at Boulder, the University of Colorado at Denver, Colorado State University, Duke University, and Baylor University.
These programs will be evaluated through each individual program's website. Based on the program reviews and the responses
from the students we will conduct thematic analysis to find trends.

How Individuals who Stutter, Graduate Student Clinicians, and an Experienced Speech-Language Pathologist Perceive Success in Fluency Therapy

Audiology & Speech-Language Sciences

Presenter(s): Ortega, Evelyn

Faculty Sponsor(s): Murza, Kimberly

Since the inception of stuttering therapy, the field of speech-language pathology has become increasingly evidence-based; this trend has led clinicians to pursue techniques that are more successful. However, there are still some gaps in the research about successful fluency therapy. Current research needs to look at the experiences and perceptions of people who stutter as well as their perceptions of fluency therapy. By considering clients' attitudes toward fluency therapy, personality traits, life events, and specific therapeutic characteristics, speech-language pathologists will gain a better understanding of what successful therapy can entail. In addition, few recent studies have explored the clinician's point of view as well as the experiences and perceptions of clients. These studies have concluded that both perspectives should be included in treatment planning. While previous research has reported clients' and clinicians' perceptions of fluency therapy separately, this research considers both views simultaneously. The results from this qualitative study will aid speech-language pathologists in considering the factors that can create a successful fluency therapy session. Participants for this study were adults who stutter, graduate assistant clinicians, and a clinical educator. The participants who stutter were interviewed to determine if personality traits, hobbies, outside support, life events, or specific therapeutic characteristics influence success. The clinicians were asked what they have observed to be successful in speech therapy and what they believe their clients perceive as vital in fluency sessions. The data collected from three types of people involved with stuttering therapy were transcribed and analyzed to generate themes. Expected results of this research highlight factors that contributed to perceptions of success.

Improvisational therapy alleviates MPA symptoms in college wind musicians

Music, Psychology

Presenter(s): Rush, Shaina

Faculty Sponsor(s): Montemayor, Mark

Researchers have recognized musical performance anxiety (MPA) as a prominent disorder among musicians and have explored ways to cope with the resulting symptoms (Kirchner, 2004/2005). Methods such as pharmacotherapy, hypnotherapy, and cognitive behavioral therapy have been tested to treat individual symptoms of MPA, each with some measure of success. Music therapy is one of the most effective forms of therapy for stress, depression, and psychological disorders, all of which are affiliated with MPA (Martinez, 2009). However, music therapy as a treatment for MPA has been largely overlooked. This study will test if improvisational music therapy will reduce MPA symptoms (including state anxiety and trait anxiety symptoms) and improve self-esteem in music majors who play wind instruments. A secondary purpose of this study is to compare these data with those from a previous study involving pianists (Kim, 2005). Participants will freely improvise music (i.e., aside from their performance literature) for 15 minutes per day for six weeks, and will participate in a weekly group improvisation session; they will also keep journals so that they can track their own progress regarding anxiety symptoms. Anxiety levels will be measured through Likert-type scales about self-reported symptoms. Results may inform musicians and music teachers as to the benefits of these methods as a form of self-therapy for performing artists. Reducing anxiety through improvisational music therapy may provide for more rewarding experiences for performers and audiences, and may prove to be beneficial for musicians' careers.

Spatial Regression Analysis of Refugee Settlement: Greeley, Colorado, 2012-2013 Geography

Presenter(s): Yeager, Kyle

Faculty Sponsor(s): Diggs, David

This project is going to look at the location of refugees in Greeley Colorado and Census Block Group information such as income levels, education, density, and crime to see if there's any correlation. The significance of this study is to look at the refugee conditions in the western United States. The hypothesis is refugee settlement in Greely, Colorado is determined by factors such as density, educational levels, income, and cost of living. Research methodology includes using survey information provided by the Global Refugee Center of 488 refugees in Greeley. Census block group information will also be used. The program to map out the regression analysis will be ArcGIS. The project will first begin with Ordinary Least Squares Analysis to see if there is any strong correlation between location of refugee settlement and factors such as education, income, and cost of living. Next step in the process will be using tools to assure that spatial autocorrelation is not present within the data. From there Geographically Weighted Regression will be used as it accounts for local variation more accurately as compared to Ordinary Least Squares. The Anticipated outcome of this project is that there will be correlation present between refugee settlement and income levels and cost of living. Current research conclusions have found no correlation between housing density and refugee settlement.

Research Excellence Oral Presentations

Undergraduate Research Excellence Oral Presentations:

09:20 - 09:35 in the Morning

Council Room

PARENT-CHILD SHARED BOOK READING: An exploration of story book reading as an influence in increasing the phonological awareness skills in preschool age children with both normal language development and language disorders.

Audiology & Speech-Language Sciences

Presenter(s): Rea, Amber

Faculty Sponsor(s): Fahey, Kathleen

As children learn their native language, they develop awareness of the structure of words, such as beginning and ending sounds, the number of syllables, and how some words sound similar to others. These skills are known collectively as phonological awareness. A gradual progression of abilities occurs during the preschool years as children are exposed to books, rhymes, songs, and daily interactions. Phonological awareness is an imperative foundation for increased language and literacy development. Parent-child shared story-book reading is one activity that may promote the development of phonological awareness in preschoolage children. In this thesis, I developed a series of single subject case studies guided by two research questions: Does shared storybook reading increase phonological awareness in preschool age children? Does shared story-book reading result in positive outcomes for children who are developing language normally and for children who have phonological delays? For this study, I collected quantitative data from two preschool-age children with normally developing language skills and two preschool-age children with phonological delays using The Test of Phonological Awareness (TOPA), which consists of twenty items that compare initial sounds in words. I then staged an intervention where each participant's caregiver read a story book high in rhyming and alliteration with their child four times a week for four to five weeks. Additionally, each caregiver was supplied with a list of reading strategies to employ in fostering phonological awareness during each shared story-book reading session. To postmeasure, I performed the same TOPA test I utilized four weeks prior and made note of and analyzed the differences between the two scores. The results of all four post-tests showed an increase in phonological awareness in all subjects, regardless of whether the child had phonological delays or not, highlighting the positive impact that shared story-book reading has on this essential metalinguistic skill.

09:40 - 09:55 in the Morning Council Room

Judging Sexual Orientation from Still Faces

Psychology

Presenter(s): Archuleta, Aly; Morrison, Katey

Faculty Sponsor(s): Peterson, Eric

A burgeoning literature demonstrates that individuals can judge personality and group membership (e.g., religious and political affiliation) from still faces with some degree of accuracy. Recent studies demonstrate that individuals perceive sexual orientation better-than-chance from surprisingly impoverished facial stimuli. This effect remains even when the stimuli consist of only the eve region (i.e., cut out from the face) and are presented at just 50 milliseconds. To date, researchers have explored possible physiological markers (i.e., increased pupillary dilation) that may convey information about orientation. However, it remains unclear what aspects of the facial stimuli the perceiver utilizes to form a judgment. An important limitation of past studies concerns the creation of stimuli. Researchers have obtained pictures (i.e., faces of gay and straight individuals) from online dating websites. In the present study, we are recruiting volunteers who confidentially self-report sexual orientation information and allow us to take a face pic. After grouping our stimuli by sexual orientation, we will use morphing technology to create composite stimuli representing each group. The composites will provide a more robust means of exploring two feasible hypotheses: 1) the faces or eyes of individuals of homosexual orientation differ in a systematic way (e.g., pupillary dilation), or 2) individuals of homosexual orientation may display facial characteristics that are more likely to diverge from an "average" face in a non-systematic way. In the first scenario, any discerning featural traits should intensify in the composite faces. In the second scenario, sexual orientation discrimination should dissipate in the morphing process. We believe our results will inform our understanding of the social cognitive mechanisms that support a person's ability to make orientation judgments based on minimal information. Further, we may gain some insights that direct future research in the development of sexual orientation.

10:00 - 10:15 in the Morning Council Room

Already On the Outside: Feminist Identity Development Among Women on a College Campus Higher Education & Student Affairs Leadership

Presenter(s): Koppel, Lauren

Faculty Sponsor(s): Hawthorne, Barbara

Being a feminist like any social constructed identity is not essential to the character but rather develops throughout time. The body of literature around Feminist Identity Development frequently features college women as participants and yet the literature has a conspicuous absence in examining how the factors present on a college campus assist Feminist Identity Development. A review of semi-structured hour-long interviews with three self-identified feminist women, anthologized accounts by feminists, and a review of college campus environments will better inform the literature around Feminist Identity Development in regards to the role of the college campus. My study indicates that the college campus does assist Feminist Identity Development through exposure to sexism and feminism, the ability to create safe space and engage in discourse, and the opportunity for self-reflections and synthesis of identity. One of the birth places of feminism is the American College Campus. To achieve feminist goals in American society means fostering and promoting feminism on college campuses.

10:40 - 10:55 in the Morning

Council Room

Expriences of Fire Survivors and Disaster Mental Health

Gerontology, Psychology Presenter(s): Seeley, Austin

Faculty Sponsor(s): Karlin, Nancy

The current study is interested in how age, social support, self-efficacy, and depression are related to resilience specifically in the case of the Colorado fire victims in 2012. These factors assume roles within the Life Course Model which makes it a useful tool in advancing our understanding of resilience in disaster victims and constructing a theoretical framework to guide further research. Considering the factors of age and social support, research suggests that social networking and family support are particularly important for older adults (Kamo et al., 2011). Extended families and neighbors are of specific importance because their social contribution is key in maintaining mental health of older victims (Shenk et al., 2009). The results for social support and level of resilience reported are mixed. However, the importance of social support for older individuals seems to be even more relevant considering the study by Gooding et al. (2012), which reports younger people actually had more resiliency related to social support than older adults. Further investigation on social support and impact on elders appears relevant. Depression appears to also be an important factor in resilience particularly if there is depression prior to a disaster (Ginexi et al., 2000). Depression is a factor related to overall levels of resilience following many types of life events (Taylor et al., 2011) and deserves consideration with survivors of fire. Overall, review of the current literature suggests that limited research exists in the area of disaster relief for fire victims. For quantitative data obtained from the survey a Multiple Linear Regression (MLR) was used to build a predictive model of resilience using scores on the four instruments for self-efficacy, depression, social support and resilience. Qualitative data from the openended questions was analyzed using theme analysis in other words identifying, analyzing, and reporting patterns (themes) within

11:00 - 11:15 in the Morning Council Room

Out From Under the Cosh: The Impact of Football on English Working Class Identity through Cartoons, 1900-1925

Geography, History

Presenter(s): Karp, Matthew

Faculty Sponsor(s): Seegel, Steven

This study examines the impact of football on English identity from 1900-1925 through the concepts of space and place. It is significant because of the narrow view on the subject of previous research and the social importance of football in modern England. Prior research regarding football and English identity focuses on football as the "working man's game" and highlights the development of a working class identity, in opposition to upper and middle class identities, through football. Unfortunately, it is difficult to find primary sources on this subject from the first quarter of the twentieth century in order to gain a more holistic understanding of the subject. In order to discover more about football's impact on English identity from 1900-1925, this study uses cartoons published in English newspapers as primary sources to discover a more comprehensive sense of football's impact on English identity. This analysis shows: 1) Football was generally played and supported by working class males; 2) Football divided England by city, borough, and region through allegiances to various professional football clubs; 3) Football further developed an English identity for white working class males through the England national team. I explain these discoveries through various geographic theories in order to show how football in England simultaneously divided and united Englishmen. This study then applies theories such as topophilia, place pride, the theory of hegemony, and visibility based on the works of the of Yi-Fu Tuan, Stuart Hall, and John Bale, in order to understand how space and place allowed football to influence English working class identity from 1900-1925.

11:20 - 11:35 in the Morning Council Room

Describing the Self-Efficacy Found in Parents of Children with Hearing Loss

Audiology & Speech-Language Sciences

Presenter(s): Walter, Jamie Faculty Sponsor(s): Hanks, Julie

This study allowed an opportunity for parents of children with hearing loss who were being seen at the University of Northern Colorado Speech-Language Pathology/Audiology Clinic to provide information regarding personal measurements of self-efficacy and involvement concerning their child's life with a hearing loss. Research in this specific field has been spearheaded by Jean L. DesJardin, designer of the Scale of Parental Involvement and Self-Efficacy (SPISE). Due to the emergence of the SPISE in the area of parental self-efficacy, the primary purpose of this study was to compare the data obtained by parents whose children attend the UNC clinic to existing measures found in other populations.

Five parents of children with hearing loss were voluntarily recruited and were asked to complete a modified version of the Scale of Parental Involvement and Maternal Self-Efficacy (SPISE). The questionnaire contained three sections: demographic information, self-efficacy and parental involvement.

Given a sample of children who were identified with a hearing loss and provided amplification at a young age, overall parental self-efficacy and involvement was high, when compared to previous studies. With regard to involvement, responses indicated an overall level of confidence and dedication on behalf of the participating parents. Similar results were found with the parental self-efficacy questions and responses in this area concluded that the participants felt comfortable, knowledgeable and confident in their role as the parent to a child with a hearing loss. This research highlighted that the age of identification and amplification of a child provides a direct correlation to high parental self-efficacy and involvement. Additionally, mean scores were calculated for each item on the SPISE and compared to data previously published by DesJardin. The correlations drawn between the data and further results will be discussed in the oral presentation as well as implications for practitioners.

11:40 - 11:55 in the Morning Council Room

Somali Refugee Interpretations of trauma-related Mental Illness: Similarities and Differences between the Somali concepts of 'Murugo Joogto' and 'Qulub' and PTSD

Anthropology, Psychology **Presenter(s): Miller, Caitlin**

Faculty Sponsor(s): Bashore, Theodore

There has been growing interest in studying the psychological impact of trauma on refugees, but studies that combine quantitative psychological methods with qualitative anthropological methods to determine cultural influences on the psychological expression of this trauma are rare. Although post-traumatic stress disorder (PTSD) has been studied extensively since the Vietnam war, most of the studies have excluded the impact of culture on the definition, experience, and manifestation of trauma. In this investigation, Somali refugees were studied to identify their cultural interpretation of psychological reactions to traumatic experiences. Specifically, this research is directed at understanding two culturally-identified disorders, Murugo Joogto and Qulub, from the Somali perspective and comparing them to PTSD. Somali refugees took part in a semi-structured interview in which questions were directed at determining how they experience these two disorders and then completed the PC-PTSD questionnaire in verbal format and the DSM IV-TR to determine their similarities and differences. An important goal of this work is to provide data important to the proper diagnosis and treatment of Somali victims of trauma. The predicted outcome of this research lies within the identification that diagnosing Somali refugees with PTSD damages their psychological health further by introducing the factor of community ostracization. The findings will clarify that although symptoms of Murugo Joogto and Qulub are similar to PTSD, the way they Somali people identify with the mental health experience will express itself as an avoidance of being labeled by their community but rather identification with either Murugo Joogto or Qulub.

Graduate Research Excellence Oral Presentations:

Council Room

01:40 - 01:55 in the Afternoon

Master of Public Health Graduate Student Capstone Presentations: American Indian Youth Perspectives on Traditional Food Systems

Public Health

Presenter(s): Carroll, Danya Faculty Sponsor(s): Sharp, Teresa

American Indian (AI) communities are disproportionately affected by obesity and comorbidities compared to other populations. Obesity is a major health concern for AI youth, many of whom are obese or overweight before age ten. The obesity epidemic among AI youth is a result of complex social determinants including built environment, food deserts, and low socioeconomic status. AI communities have undergone a nutritional shift in which traditional, natural foods are not relied on as heavily as they were in the past. OBJECTIVE: To collect information on the social and environmental factors and barriers youth perceive in accessing healthy traditional foods. METHODS: Qualitative data was collected using a community-based participatory research needs assessment approach through focus groups with AI youth on the Fort Apache Indian Reservation in northeastern Arizona. After Tribal Council approval, focus group participants were recruited through social media, flyers, and word-of-mouth. The focus groups were conducted by age (12-14 yo, 15-17 yo, & 18-20 yo) to enhance discussion. RESULTS: Social and environmental barriers influencing youth perspectives on traditional foods included, 1) limited variety and supply of healthy local foods (food desert), 2) few choices for healthy restaurants and stores, 3) lack of quality foods including fresh fruits and vegetables, and 4) lack of food safety and environmental health were barriers for accessing food. Social barriers included a lack of generational knowledge of traditional foods, substance abuse, and low-income level. Suggestions for improving local food systems included lowering healthy food prices, increasing options, and having more locally-grown food (food sovereignty). CONCLUSION: We gained valuable insight into social and environmental barriers that youth perceive in accessing healthy traditional foods. These discussions provide direction for future obesity and diabetes prevention programs for AI youth. Data also indicate a need for more culturally appropriate nutrition programs to provide AI youth with healthy foundations.

02:00 - 02:15 in the Afternoon

Physical Activity and Preventive Health Behaviors in a National Sample of College Students Public Health

Presenter(s): Groesbeck, Corrie; Schroeder, Emily

Faculty Sponsor(s): Brittain, Danielle; Dinger, Mary

Physical activity (PA) is one preventive health behavior for promoting wellness among college students. Only minimal research has examined whether college students who participate in PA are more likely to engage in other preventive health behaviors. Purpose: The study purpose was to examine differences in: (1) PA and preventive health behaviors between women and men and (2) preventive health behaviors between college students meeting and not meeting weekly PA recommendations (i.e., = 75 minutes of vigorous, = 150 minutes of moderate, or = 150 minutes of moderate/vigorous). Methods: The National College Health Assessment was distributed to students at 157 campuses in the United States during the 2008-2009 academic year. Participants (n = 67,321) were categorized as either meeting or not meeting the PA recommendations and either participating or not participating in other preventive health behaviors (i.e., dental exams/cleaning, sunscreen use, HIV testing, testicular or breast self-exams and gynecological exams). Descriptive statistics and Pearson chi-square analyses were used to examine gender differences in preventive health behaviors and differences in preventive health behaviors between students meeting and not meeting PA recommendations. Results: While males (n = 22,129,32.9%) were more likely to meet PA recommendations (p < 0.0001), females (n = 45,192,67.1%) were more likely to participate in dental exams/cleaning, sunscreen use, and HIV testing (p < 0.0001). Students who met PA recommendations were more likely to engage in dental exams/cleanings, sunscreen use and HIV testing than those not meeting the recommendations. Men meeting PA recommendations were more likely to do a testicular self-exam (p < 0.0001) and women meeting PA recommendations were more likely to have a gynecological exam and do a breast self-exam (p < 0.0001) than those who were insufficiently active. Conclusions: Preventive health behaviors are more likely to be practiced among college students who meet PA recommendations.

Biology Session: Longs Peak

02:50 - 03:05 in the Afternoon

Tracheal Calcification Patterns in the Chiroptera and Insectivora.

Presenter(s): Adams, Rick

Biological Sciences; Faculty Sponsor(s): Adams, Rick

Cartilage calcification is considered to be a phenomenon created by mechanical stimulus on the cartilage. Syringeal and tracheal calcification is a distinguishing feature of birds and is suggested to have evolved due to vocalization. There is however little mention in the literature of tracheal calcification in mammals. Bats and birds synchronize lung ventilation with wing stroke to mechanically economize flight, with echolocating bats also recruiting muscles from the abdominal wall to forcefully emit calls. Synchronization of wing stroke and ventilation results in a compressive force on the lungs and bronchi to help expel air. We hypothesized that 1: calcification of the trachea and primary bronchi will occur during the development of flight in echolocating Artibeus jamaicensis and be present in the nonecholocating adult Syconycteris australis and 2: calcification will not occur in the primary bronchi of the echolocating shrew, Sorex vagrans. Tracheae were obtained from individuals from our captive breeding colony of A. jamaicensis, two preserved specimens of S. australis, and six S. vagrans carcasses from an unrelated study. The tracheae were cleared and stained using Alcian blue for cartilage and Alizarin red for calcification. We found that A. jamaicensis tracheal rings closest to the larynx calcified first with rings of the primary bronchi calcifying last, this latter calcification occurred as individuals were first able to achieve powered flight. Rings of the trachea and primary bronchi of adult S. australis were calcified. Tracheal ring calcification was present in S. vagrans but not in the primary bronchi, in fact the cartilaginous rings diminished in size so that the lower trachea and primary bronchi appeared to lack rings all together. These data suggest convergence between birds and bats that allows for economic respiration and vocalization during powered flight by reinforcing the primary bronchi to resist the compressive forces imposed on the lungs.

03:05 - 03:20 in the Afternoon

Molecular basis for prey relocation in viperid snakes

Presenter(s): Saviola, Anthony

Biological Sciences; Faculty Sponsor(s): Mackessy, Stephen

Vertebrate predators use a broad arsenal of behaviors and weaponry for overcoming fractious and potentially dangerous prey, and among advanced snakes, a chemical mode, venom, is commonly utilized. Venomous snakes, however, exhibit two very distinct prey handling strategies, varying from the strike-and-hold behaviors seen by highly toxic elapid snakes to the rapid strike-andrelease envenomation seen in viperid snakes. For vipers, this mode of envenomation represents a minimal risk predatory strategy by permitting little contact with or retaliation from prey, but it adds the additional task of relocating envenomated prey which may wander several meters or more from the attack site. This task is further confounded by additional chemical cues, and trails of other unstruck conspecific or heterospecific prey. Despite decades of behavioral work, researchers still do not know the specific component(s) of venom involved in altering the chemical odor leading to successful relocation of the envenomated prey. In the current study we examined behavioral responses of Western Diamondback Rattlesnakes (Crotalus atrox) to euthanized mice injected with size-fractionated venom, with snakes responding significantly to only one protein peak. Assays for enzymes common in rattlesnake venoms indicated that this behavioral responsiveness was not dependent on enzymatic activity. Further purification of this significant peak by reverse-phased high-pressure liquid chromatography, mass determination by MALDI-tof mass spectrometry, and N-terminal sequencing identified the proteins responsible for this significant behavioral response as the disintegrins Crotatroxin1 and 2. These findings reveal the evolutionary significance of free disintegrins in venoms as the molecular mechanism in vipers allowing for effective relocation of envenomated prey. In turn, the presence of disintegrins has led to the evolution of a major behavioral adaptation (strike-and-release), characteristic of only rattlesnakes and other vipers. This system of a predator chemically tagging prey represents a novel trend.

03:20 - 03:35 in the Afternoon

Canyon and Rock Wren Coexistence in the Northern Colorado Foothills Presenter(s): Warning, Nat

Biological Sciences; Faculty Sponsor(s): Benedict, Lauryn

Canyon wrens (Catherpes mexicanus) and rock wrens (Salpinctes obsoletus) are two of the least studied Colorado bird species, occurring together in rock-strewn, cliff habitats. Canyon and rock wrens offer a good system for testing how two ecologically and taxonomically similar species partition resources. We identified wren territories on public lands in Larimer County from Apr-Nov 2012. We recorded wren locations using burst sampling and calculated 95% minimum convex polygons in ArcGIS to estimate home range sizes for 12 canyon wren pairs and 17 rock wren pairs. Mean home range size was 7 ha for canyon wrens and 3.7 ha for rock wrens. Considerable home range overlap occurred between species, with 75% (9/12) of canyon wren territories coinciding with those of rock wrens. Rock wren home ranges absent of canyon wrens were 20% larger than those with canyon wrens present, indicating possible interspecific competition. Both species foraged equally on rock surfaces, talus slopes, and in rock cavities (50% of pts). Canyon wrens foraged significantly more within rock crevices (32% of pts), while rock wrens foraged more in vegetation and on open ground (25% of pts). Separate foraging preferences, along with differences in size and morphology point to some partitioning of food resources in these rock-dwelling wren species. Nevertheless, home range size and foraging analysis data indicate that they compete during periods of co-occupancy.

Honors Program Presentations

Students who have reached high levels of academic achievement may enter the Honors Program as incoming Freshmen, Current UNC Students or Transfer students. Encouraging original thinking and research, the Honors Program guides its students through a curriculum of interdisiplinery study, experiential learning, and independent research. All students who graduate with Honors from the program must submit an original thesis or creative capstone project and present their project in public.

Session 2

09:20 - 09:35 in the Morning

Council Room

PARENT-CHILD SHARED BOOK READING:

An exploration of story book reading as an influence in increasing the phonological awareness skills in preschool age children with both normal language development and language disorders.

Audiology & Speech-Language Sciences

Presenter(s): Rea, Amber

Faculty Sponsor(s): Fahey, Kathleen Research Excellence Award Finalist Undergraduate Presentation

Session 3

09:40 - 09:55 in the Morning

Aspen B

Evidence, Religion, and Gender in the English Reformation: The Case of Anne Boleyn History

Presenter(s): Deselms, Alexandra Faculty Sponsor(s): Wieben, Corinne

Undergraduate Presentation

Session 4

10:00 - 10:15 in the Morning

Council Room

Already On the Outside: Feminist Identity Development Among Women on a College Campus

Higher Education & Student Affairs Leadership

Presenter(s): Koppel, Lauren

Faculty Sponsor(s): Hawthorne, Barbara Research Excellence Award Finalist Undergraduate Presentation

Session 6

10:40 - 10:55 in the Morning

Council Room

Expriences of Fire Survivors and Disaster Mental Health
Gerontology, Psychology
Presenter(s): Seeley, Austin

Faculty Sponsor(s): Karlin, Nancy Research Excellence Award Finalist Undergraduate Presentation

Session 8

11:20 - 11:35 in the Morning

Council Room

Describing the Self-Efficacy Found in Parents of Children with Hearing Loss Audiology & Speech-Language Sciences

Presenter(s): Walter, Jamie Faculty Sponsor(s): Hanks, Julie Research Excellence Award Finalist Undergraduate Presentation

Session 9

11:40 - 11:55 in the Morning

Council Room

Somali Refugee Interpretations of traumarelated Mental Illness: Similarities and Differences between the Somali concepts of 'Murugo Joogto' and 'Qulub' and PTSD

Anthropology, Psychology **Presenter(s): Miller, Caitlin**

Faculty Sponsor(s): Bashore, Theodore Research Excellence Award Finalist Undergraduate Presentation

Session 19

03:40 - 03:55 in the Afternoon

Aspen B

Living in the Moment: Symbolic Immortality-Themed Media influences on College Students Social Drinking Culture

Anthropology

Presenter(s): Brothe, Mariah Faculty Sponsor(s): McBeth, Sally Undergraduate Presentation

Morning Poster Session

09:00 - 11:00 in the Morning

Mt. Evans & Pikes Peak

Barriers to Mental Health Services for Residents of Rural Communities Human Services, Psychology Presenter(s): Wagner, Brittney Faculty Sponsor(s): Crow, Loree **Undergraduate Presentation**

Afternoon Poster Session

12:00 - 02:00 in the Afternoon

Mt. Evans & Pikes Peak

Epithelial to Mesenchymal Transition Induction by zfh-1

Biological Sciences

Presenter(s): Kennedy, Rana

Faculty Sponsor(s): Leatherman, Judith

Undergraduate Presentation

Afternoon Poster Session

12:00 - 02:00 in the Afternoon

Mt. Evans & Pikes Peak

Veterans as Students vs. Non-Traditional Students in College: Common Experiences, Attitudes of Traditional Students, and a Global Measure of Perceived Stress Higher Education & Student Affairs Leadership,

Psychology

Presenter(s): Ramsey, Ian

Faculty Sponsor(s): Traxler, Karen Undergraduate Presentation

Using Python to Mathematically Transform Simple Music: An Exploration of Computer Generated Music and Its Mathematical **Connections**

Mathematics, Music

Undergraduate Presentation

Presenter(s): Williamson, Heidi Faculty Sponsor(s): Miller, Nathaniel Undergraduate Presentation

Cuban Success Reexamined: The Effects of Women's Role Changes and their Contributions to the Cuban Household. Mexican American Studies Presenter(s): Correa, Norman Faculty Sponsor(s): Suarez, Jose

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McNair Scholars Presentations

The McNair Scholars Program provides undergraduate research opportunities designed to prepare eligible juniors and seniors for graduate school. As a member of the federal TRIO family of programs, the McNair Scholars Program is dedicated to increasing access to doctoral education among currently underrepresented groups.

Morning Poster Session

09:00 - 11:00 in the Morning Mt Evans & Longs Peak Ballrooms

Serine Proteinases in Venom of the Yucatan Rattlesnake Crotalus simus tzabcan Biological Sciences

Presenter(s): Caudillo, Ana
Faculty Sponsor(s): Mackessy, Stephen
Research Excellence Award Finalist
Undergraduate Presentation

Retention and Persistence for Underrepresented Students in Multicultural Greek Life: A Case Study

Higher Education & Student Affairs Leadership

Presenter(s): Cruz, Carlos

Faculty Sponsor(s): Serna, Gabriel *Undergraduate Presentation*

Using the social media to reinforce binge drinking normative behaviors: A comparison of American and Australian college students Sociology

Presenter(s): Jones, KyleFaculty Sponsor(s): Schott, Diane *Undergraduate Presentation*

Stereotypes and their effects on first-generation college students
Psychology
Presenter(s): Ward, Kimberlee

Faculty Sponsor(s): Pascoe, Elizabeth *Undergraduate Presentation*

Afternoon Poster Session

12:00 - 02:00 in the Afternoon Mt Evans & Longs Peak Ballrooms

Censorship in History Textbooks: How Knowledge of the Past is being Constructed in Schools

English, History, Philosophy **Presenter(s): Brunner, Tyler**Faculty Sponsor(s): Desjardins, Molly *Undergraduate Presentation*

Cuban Success Reexamined: The Effects of Women's Role Changes and their Contributions to the Cuban Household. Mexican American Studies Presenter(s): Correa, Norman Faculty Sponsor(s): Suarez, Jose Undergraduate Presentation

The Impact of Residence on Dietary Intake, Food Insecurity, and Eating Behavior Among University Undergraduate Students Nutrition

Presenter(s): Gonzales, KittraFaculty Sponsor(s): Gould, Susan
Research Excellence Award Finalist
Undergraduate Presentation

The Shift of Consciousness in African American Television
Africana Studies
Presenter(s): Houston, Jasmine
Faculty Sponsor(s): Gardner, Mitchell
Undergraduate Presentation

Afternoon Poster Session

12:00 - 02:00 in the Afternoon Mt Evans & Longs Peak Ballrooms

Native American retention: factors, programs and practices contributing to the completion of a four-year degree by Native American students in higher education

Interdisciplinary Studies

Presenter(s): Nirschl-Coats, Valerie Faculty Sponsor(s): Franklin, Elizabeth Research Excellence Award Finalist Undergraduate Presentation

How Individuals who Stutter, Graduate Student Clinicians, and an Experienced Speech-Language Pathologist Perceive Success in Fluency Therapy Audiology & Speech-Language Sciences

Presenter(s): Ortega, Evelyn

Faculty Sponsor(s): Murza, Kimberly Research Excellence Award Finalist Undergraduate Presentation Improvisational therapy alleviates MPA symptoms in college wind musicians Music, Psychology

Presenter(s): Rush, Shaina

Faculty Sponsor(s): Montemayor, Mark Research Excellence Award Finalist Undergraduate Presentation

The Effect of Congruency Between Perceiver and Target on Emotional Recognition

Psychology

Presenter(s): Trimble, KyraFaculty Sponsor(s): Peterson, Eric *Undergraduate Presentation*

A Content Analysis of Media Coverage, Victim, Offender, and Sentence Criminal Justice Presenter(s): Trujillo, Miguel

Faculty Sponsor(s): West-Smith, Mary *Undergraduate Presentation*

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The School of Biological Sciences

Presents the

7th Annual Graduate Student Research Symposium

University Center - Longs Peak Ballroom 8:30 AM - 3:30 PM

Undergraduate Research Biology Poster Presentations

University Center - Mt Evans Ballroom 3:30 PM - 4:30 PM (Posters are listed on Page 48)

Registration opens at 8:00 a.m. in the University Center Fireside Lounge.

Each presenter must check-in to receive their participation certificate, complimentary lunch ticket, and Research Day program.

Graduate Biology Oral Presentations

Longs Peak Ballroom

08:30 in the Morning

Autecology and synecology of the shortgrass steppe

Presenter(s): Brandt, Amber Faculty Sponsor(s): Franklin, Scott

08:40 in the Morning

What The Philosophy Of Karl Popper Has To Do With Volunteer-Collected Data Presenter(s): Brown, Lowrey Faculty Sponsor(s): Franklin, Scott

08:55 in the Morning

Rock wren song structure along a latitudinal gradient and across a migratory divide Presenter(s): Najar, Nadje Faculty Sponsor(s): Benedict, Lauryn

09:05 in the Morning

BMP signaling in cyst stem cells in the Drosophila testis stem cell niche Presenter(s): Major III, James

Faculty Sponsor(s): Leatherman, Judith

09:15 in the Morning

Population genetic structure of two sister plant species in the Colorado Plateau Presenter(s): Bresowar, Jerry, JJ

Faculty Sponsor(s): McGlaughlin, Mitchell

09:30 in the Morning

Delivering Biology Online Presenter(s): Ranney, Beverly Faculty Sponsor(s): Jurin, Richard

09:45 in the Morning

Foraging Patterns By Bats in Forested, Edge, and Masticated Ponderosa Pine Forest in Boulder County, Colorado Presenter(s): Craven, Katelin Faculty Sponsor(s): Craven, Katelin

10:15 in the Morning

Winter carbon dioxide efflux post salvage logging of mountain pine beetle infested subalpine forest

Presenter(s): Beverly, Daniel Faculty Sponsor(s): Franklin, Scott

10:30 in the Morning

Investigating receptor tyrosine kinase (RTK) signaling pathways in the Drosophila testis stem cell niche.

Presenter(s): Hammer, Kenneth Faculty Sponsor(s): Leatherman, Judith

10:45 in the Morning

D1 and D2 dopamine receptor activation differentially affects intrinsic resonance properties in Layer 5 pyramidal neurons of mouse medial prefrontal cortex.

Presenter(s): Leyrer, Jonna Faculty Sponsor(s): Thomas, Mark

10:55 in the Morning

Graphic organizers as a tool to improve students' performance in undergraduate General Biology

Presenter(s): Jurin, Richard; Cleveland, Lacy Faculty Sponsor(s): Cleveland, Lacy

11:10 in the Morning

Potential Environmental Impacts of Oil and Natural Gas Development on Proximate Flora Presenter(s): Hogden, Randi Faculty Sponsor(s): Franklin, Scott

11:20 in the Morning

Evolution and Biological Roles of Three-finger Toxins in Snake Venoms (families Colubridae, Elapidae, and Viperidae)

Presenter(s): Modahl, Cassie; Mackessy,

Stephen

Faculty Sponsor(s): Mackessy, Stephen

11:35 in the Morning

Genetic Analyses for Federally Threatened Sclerocactus wetlandicus and Sclerocactus brevispinus to Understand Diversity and Oil Exploration on Gene Flow Presenter(s): Hubbard, Ashley Faculty Sponsor(s): McGlaughlin, Mitchell

LUNCH BREAK 11:50 - 12:45

12:45 in the Afternoon

Activation of Serotonin-2A Receptors Induces Burst Firing in Layer 5 Pyramidal Neurons of the Medial Prefrontal Cortex Presenter(s): Spindle, Michael Faculty Sponsor(s): Thomas, Mark

12:55in the Afternoon

Fish oils: An approach to alter lipid microdomains on the plasma membrane of bovine luteal cells in vitro.

Presenter(s): Graham, Peter
Faculty Sponsor(s): Burns, Patrick

01:10 in the Afternoon

Prey Resistance and Venom Composition in the Desert Massasauga (Sistrurus catenatus edwardsii)

Presenter(s): McCabe, ThomasFaculty Sponsor(s): Mackessy, Stephen

01:20 in the Afternoon

Flowering on cue: how competition affects sexual reproduction in creeping red fescue.

Presenter(s): Bretfeld, Mario

Faculty Sponsor(s): Franklin, Scott

01:35 in the Afternoon

Malaria kinase inhibition: a tool for antimalarial drug discovery and elucidation of cell cycle protein expression patterns Presenter(s): Bullard, Kristen Faculty Sponsor(s): Keenan, Susan

01:50 in the Afternoon

Tests for contaminant exposure and individual effects on bats of Sichuan Province, China Presenter(s): Heiker, Laura
Faculty Sponsor(s): Adams, Rick

02:05 in the Afternoon

Detecting Geographic Speciation in a Continental Plant Model: Molecular Evidence of Peripatry in Calochortus (Liliaceae) Presenter(s): Fuller, Ryan Faculty Sponsor(s): McGlaughlin, Mitchell

BREAK 2:15 - 2:30

02:30 in the Afternoon

Comparative Responses of Chickadee Species Due to Flying Predator Stimuli Presenter(s): Zachau, Chris Faculty Sponsor(s): Zachau, Christopher

02:40 in the Afternoon

Immune gene expression profiles in Jamaican fruit bats infected with Tacaribe virus.

Presenter(s): Hume, Greta

Faculty Sponsor(s): Schountz, Tony

02:50 in the Afternoon

Tracheal Calcification Patterns in the Chiroptera and Insectivora. Presenter(s): Adams, Rick; Carter, Richard Faculty Sponsor(s): Adams, Rick Research Excellence Award Finalist

03:05 in the Afternoon

Molecular basis for prey relocation in viperid snakes

Presenter(s): Saviola, Anthony; Mackessy, Stephen;

Faculty Sponsor(s): Mackessy, Stephen Research Excellence Award Finalist

03:20 in the Afternoon

Canyon and Rock Wren Coexistence in the Northern Colorado Foothills Presenter(s): Warning, Nat Faculty Sponsor(s): Benedict, Lauryn Research Excellence Award Finalist

03:35 in the Afternoon

Does Activation of the Aryl Hydrocarbon Receptor Enhance the Macrophage Response Against Leishmania major? Presenter(s): Pikalova, Vera Faculty Sponsor(s): DeKrey, Gregory

Oral Research Presentations

April 11, 2013

9:00 AM - 4:00 PM University Center Aspen Suites Columbine Suites Council Room Spruce Suites

Registration Opens at 8:30 AM In the University Center Fireside Lounge

Each presenter must check-in to receive their participation certificate, complimentary lunch ticket, and Research Day program.

Session 1

09:00 - 09:15 in the Morning

Aspen A

Multiple Session Presentation - Sessions 1, 2, 3, 4, 5, 6

Master of Public Health Graduate Student Capstone Presentations

Public Health

Presenter(s): Sharp, Teresa; Groesbeck, Corrie

Faculty Sponsor(s): Sharp, Teresa

Graduate Presentation

Aspen C

CADENCIAS 1: Estampas e impresiones Spanish

Presenter(s): Hilgenberg, Kacey; Budde, Jacob; Barker, Emily; Camacho, Adriana; Fish, Janelle Faculty Sponsor(s): Gonzalez, Ester

Faculty Sponsor(s): Gonzalez, Este Undergraduate Presentation

Columbine A

Multiple Session Presentation - Sessions 1, 2, 3, 4, 5

Ottoman Empire Presentations: The Hierarchy of Women within the Ottoman Empire
Africana Studies, Economics, History, Music, Philosophy, Psychology, Sociology
Presenter(s): Contino, Nissy
Faculty Sponsor(s): Junne, George

Undergraduate Presentation

Columbine A

Multiple Session Presentation - Sessions 1, 2, 3, 4, 5

Ottoman Empire Presentations: Dervish Mystics and Their Role in the Ottoman Empire History, Philosophy, Political Science, Sociology

Presenter(s): Blackwood, Samuel Faculty Sponsor(s): Junne, George *Undergraduate Presentation*

Columbine A

Multiple Session Presentation - Sessions 1, 2, 3, 4, 5

Ottoman Empire Presentations: The Ottoman Medical Practices and Procedures

Anthropology, Biological Sciences, Human Services, Nursing Education, Nutrition,

Nursing, Public Health, Sociology **Presenter(s): Dill, Brady**

Faculty Sponsor(s): Junne, George *Undergraduate Presentation*

Columbine B

Integrating Hearing Status and Hearing Protector Attenuation to Estimate a Protected Articulation Index

Audiology & Speech-Language Sciences

Presenter(s): Huerta, Ashley

Faculty Sponsor(s): Meinke, Deanna

Graduate Presentation

Session 2

09:20 - 09:35 in the Morning

Aspen A

Multiple Session Presentation - Sessions 1, 2, 3, 4, 5, 6

Master of Public Health Graduate Student Capstone Presentations: Impact of an after school wellness program on healthy lifestyle knowledge in middle school students Public Health

Presenter(s): Ford, Shelly; Groesbeck, Corrie; Sharp, Teresa; Sheppard, Shannon; Skenadore, Amanda; Carroll, Danya; Madsen, Matthew

Faculty Sponsor(s): Sharp, Teresa *Graduate Presentation*

Aspen C

Gella! A Partial Life Story of Alice (Staab)
Gerstner Through Narrative Inquiry
Higher Education & Student Affairs Leadership
Presenter(s): Mildrexler, Janella
Faculty Sponsor(s): Lahman, Maria
Graduate Presentation

Columbine A

Multiple Session Presentation - Sessions 1, 2, 3, 4, 5

Ottoman Empire Presentations: The Valide Sultans of the Ottoman Empire Africana Studies, Anthropology, Economics, History, Political Science, Sociology Presenter(s): Hutchinson, Bria

Faculty Sponsor(s): Junne, George *Undergraduate Presentation*

Multiple Session Presentation - Sessions 1, 2, 3, 4, 5

Ottoman Empire Presentations: Mehmed the Conqueror and His Role in the Expansion of the Ottoman Empire

Anthropology, Business Administration, Economics, History, Interdisciplinary Studies, Political Science, Sociology

Presenter(s): Lacey, Chance

Faculty Sponsor(s): Junne, George *Undergraduate Presentation*

Columbine A

Multiple Session Presentation - Sessions 1, 2, 3, 4, 5

Ottoman Empire Presentations: Religious Peace within the Ottoman Empire

Anthropology, Economics, History, Interdisciplinary Studies, Philosophy, Political Science, Psychology, Sociology

Presenter(s): Smith, Austen

Faculty Sponsor(s): Junne, George *Undergraduate Presentation*

Columbine B

Multiple Session Presentation - Sessions 2, 3 Linguistic Explorations and Considerations for Teaching English as a Second Language in K-12 ESL

Presenter(s): Romero, Deborah; Weaver, Hope; Manoles, Ruby; Ramirez, Cecilia; Jones, Lindsay; Barron-Avila, Alejandra; Lundeen, Abigail; Cerny, Emily

Faculty Sponsor(s): Romero, Deborah *Undergraduate Presentation*

Council Room

PARENT-CHILD SHARED BOOK READING:

An exploration of story book reading as an influence in increasing the phonological awareness skills in preschool age children with both normal language development and language disorders.

Audiology & Speech-Language Sciences

Presenter(s): Rea, Amber

Faculty Sponsor(s): Fahey, Kathleen Research Excellence Award Finalist Undergraduate Presentation

Spruce B

Historia de inmigrantes

Foreign Languages, Mexican American Studies, Political Science, Spanish, Social Science Presenter(s): Acosta Martinez, Joselin; Jaquez, Mayra; Juarez, Keith; Ward, Patricia Faculty Sponsor(s): Garza, Efrain

Undergraduate Presentation

Session 3

09:40- 09:55 in the Morning

Aspen A

Multiple Session Presentation - Sessions 1, 2, 3, 4, 5, 6

Master of Public Health Graduate Student Capstone Presentations: Unveiling barriers for Community Based Organizations supporting sexual education curriculum in Metro Denver schools

Public Health

Presenter(s): Ford, Shelly; Groesbeck, Corrie; Sharp, Teresa; Sheppard, Shannon; Skenadore, Amanda; Carroll, Danya; Madsen, Matthew Faculty Sponsor(s): Sharp, Teresa

Graduate Presentation

Aspen B

Evidence, Religion, and Gender in the English Reformation: The Case of Anne Boleyn History

Presenter(s): Deselms, Alexandra Faculty Sponsor(s): Wieben, Corinne *Undergraduate Presentation*

Aspen C

Ramón María del Valle-Inclán: La paradójica de España

Foreign Languages, Spanish **Presenter(s): Vazquez, Maria** Faculty Sponsor(s): Garza, Efrain *Undergraduate Presentation*

Multiple Session Presentation - Sessions 1, 2, 3, 4, 5

Ottoman Empire Presentations: The Sociology of Eunuchs within the Ottoman Empire
Africana Studies, Anthropology, Economics,
History, Interdisciplinary Studies, Political
Science, Sociology

Presenter(s): Miller, HannahFaculty Sponsor(s): Junne, George *Undergraduate Presentation*

Columbine A

Multiple Session Presentation - Sessions 1, 2, 3, 4, 5

Ottoman Empire Presentations: Black Eunuchs of the Ottoman Empire

Africana Studies, Anthropology, Biological Sciences, Economics, History, Interdisciplinary Studies, Philosophy, Political Science, Psychology, Sociology **Presenter(s): Smithey, Kasi**

Faculty Sponsor(s): Junne, George *Undergraduate Presentation*

Columbine A

Multiple Session Presentation - Sessions 1, 2, 3, 4, 5

Ottoman Empire Presentations: Women Concubines of Sultans of the Ottoman Empire Anthropology, Economics, History, Interdisciplinary Studies, Philosophy, Political Science, Sociology

Presenter(s): White, JosiahFaculty Sponsor(s): Junne, George *Undergraduate Presentation*

Columbine B

Multiple Session Presentation - Sessions 2, 3 Linguistic Explorations and Considerations for Teaching English as a Second Language in K-12 ESL

Presenter(s): Romero, Deborah; Weaver, Hope; Manoles, Ruby; Ramirez, Cecilia; Jones, Lindsay; Barron-Avila, Alejandra; Lundeen, Abigail; Cerny, Emily Faculty Sponsor(s): Romero, Deborah Undergraduate Presentation

Council Room

Judging Sexual Orientation from Still Faces
Psychology

Presenter(s): Archuleta, Aly; Morrison, Katey Faculty Sponsor(s): Peterson, Eric Research Excellence Award Finalist Undergraduate Presentation

Spruce C

Discovering the Illness of Eating Disorders Sociology

Presenter(s): Guy, Shawna; Ritterbush, Kaci; Sikes, Samantha

Faculty Sponsor(s): Houser, Jeffrey *Undergraduate Presentation*

Session 4

10:00 - 10:15 in the Morning

Aspen A

Multiple Session Presentation - Sessions 1, 2, 3, 4, 5, 6

Master of Public Health Graduate Student Capstone Presentations: Efforts to Increase College Recruitment of American Indian/Alaska Native youth for Publich Health Careers Public Health

Presenter(s): Ford, Shelly; Groesbeck, Corrie; Sharp, Teresa; Sheppard, Shannon; Skenadore, Amanda; Carroll, Danya; Madsen, Matthew Faculty Sponsor(s): Sharp, Teresa Graduate Presentation

Aspen C

Multiple Session Presentation - Sessions 4, 5 Community Research Partnership for Mental Health - Light Bulb Moments Dietetics

Presenter(s): Clark, Alena; Geonnotti, Emily; Murphy, Hannah; Gehr, Michele; Nieft, Jocelyn; Anthony, William Faculty Sponsor(s): Clark, Alena Undergraduate Presentation

Multiple Session Presentation - Sessions 1, 2, 3, 4, 5

Ottoman Empire Presentations: Women and the Ottoman Economy

Anthropology, Economics, History, Interdisciplinary Studies, Philosophy, Political Science, Sociology

Presenter(s): Montano, Ashley Faculty Sponsor(s): Junne, George *Undergraduate Presentation*

Columbine A

Multiple Session Presentation - Sessions 1, 2, 3, 4, 5

Ottoman Empire Presentations: Class Stratification in the Ottoman Empire, From a Sociological Perspective

Economics, History, Interdisciplinary Studies, Sociology, Political Science, Anthropology, Philosophy

Presenter(s): Fine, CarrinaFaculty Sponsor(s): Junne, George *Undergraduate Presentation*

Columbine A

Multiple Session Presentation - Sessions 1, 2, 3, 4, 5

Ottoman Empire Presentations: The Role of the Ottoman Navy in the Expansion of the Empire Anthropology, Philosophy, Political Science, Economics, History, Interdisciplinary Studies, Sociology

Presenter(s): Lloyd, RyanFaculty Sponsor(s): Junne, George *Undergraduate Presentation*

Council Room

Already On the Outside: Feminist Identity Development Among Women on a College Campus

Higher Education & Student Affairs Leadership **Presenter(s): Koppel, Lauren** Faculty Sponsor(s): Hawthorne, Barbara

Research Excellence Award Finalist Undergraduate Presentation

Spruce B

La opresión del libre albedrío por el abuso del amor

Foreign Languages, Spanish **Presenter(s): Ennis, Amanda** Faculty Sponsor(s): Garza, Efrain *Undergraduate Presentation*

Spruce C

Multiple Session Presentation - Sessions 4, 5, 6, 7

Family Studies Research Projects Sociology

Presenter(s): Padilla, Krista; Pflock, Lexi; Gray, Jennifer

Faculty Sponsor(s): Moore, Mel *Undergraduate Presentation*

Session 5

10:20 - 10:35 in the Morning

Aspen A

Multiple Session Presentation - Sessions 1, 2, 3, 4, 5, 6

Master of Public Health Graduate Student Capstone Presentations: American Indian Youth Perspectives on Traditional Food Systems Public Health

Presenter(s): Ford, Shelly; Groesbeck, Corrie; Sharp, Teresa; Sheppard, Shannon; Skenadore, Amanda; Carroll, Danya; Madsen, Matthew Faculty Sponsor(s): Sharp, Teresa Graduate Presentation

Aspen C

Multiple Session Presentation - Sessions 4, 5 Community Research Partnership for Mental Health - Light Bulb Moments Dietetics

Presenter(s): Clark, Alena; Geonnotti, Emily; Murphy, Hannah; Gehr, Michele; Nieft, Jocelyn; Anthony, William Faculty Sponsor(s): Clark, Alena Undergraduate Presentation

Multiple Session Presentation - Sessions 1, 2, 3, 4.5

Ottoman Empire Presentations Anthropology, Economics, History, Interdisciplinary Studies, Philosophy, Political Science, Sociology

Presenter(s): Junne, George and students Faculty Sponsor(s): Junne, George

Undergraduate Presentation

Spruce B

Multiple Session Presentation - Sessions 5, 6 Immigration Debate and Public Policy Mexican American Studies Presenter(s): Serrano, Nereida; Garcia, Erik; Soto-Marquez, Jose; Mejia, Carla; Perez, Jesus; Correa, Michael; Roman-Luevanos, Blanca Faculty Sponsor(s): Falcon, Priscilla Undergraduate Presentation

Spruce C

Multiple Session Presentation - Sessions 4, 5, 6,

Family Studies Research Projects Sociology

Presenter(s): Padilla, Krista; Pflock, Lexi; Gray, **Jennifer**

Faculty Sponsor(s): Moore, Mel Undergraduate Presentation

Session 6

10:40 - 10:55 in the Morning

Aspen A

Multiple Session Presentation - Sessions 1, 2, 3, 4, 5, 6

Master of Public Health Graduate Student Capstone Presentations: Advocating for Equity Around Active Transportation in the Regional **Transportation Funding Process** Public Health

Presenter(s): Ford, Shelly; Groesbeck, Corrie; Sharp, Teresa; Sheppard, Shannon; Skenadore, Amanda; Carroll, Danya; Madsen, Matthew

Faculty Sponsor(s): Sharp, Teresa

Graduate Presentation

Aspen C

A Sociological Perspective Concerning Emotional Trauma and Post-Traumatic Stress Disorder Sociology

Presenter(s): Small, Bob; Holmes, Marissa; Matuszek, Kelsi

Faculty Sponsor(s): Houser, Jeffrey Undergraduate Presentation

Columbine B

Society Behind Bar Sociology Presenter(s): Renzelman, Renae; Cooper, Robert; Arent, Megan; Harder, Jessica Faculty Sponsor(s): Houser, Jeffrey Undergraduate Presentation

Council Room

Mental Health Gerontology, Psychology Presenter(s): Seeley, Austin Faculty Sponsor(s): Karlin, Nancy Research Excellence Award Finalist Undergraduate Presentation

Expriences of Fire Survivors and Disaster

Spruce A

Multiple Session Presentation - Sessions 6, 7, 8,

Developing Curriculum to Support Language and Diversity in Classrooms with English Learners

ESL.

Presenter(s): Babbitt, Haneen; Braaten, Leah; Coler, Kaitlyn; Combs, Kori; Devores, Janelle; Finke, Natalie; Jessup, Faith; Marques, Sandi; Ramirez, Cecilia; Soto, Yessenia Faculty Sponsor(s): Franklin, Elizabeth Undergraduate Presentation

Spruce B

Multiple Session Presentation - Sessions 5, 6 Immigration Debate and Public Policy Mexican American Studies Presenter(s): Serrano, Nereida; Garcia, Erik; Soto-Marquez, Jose; Mejia, Carla; Perez, Jesus; Correa, Michael; Roman-Luevanos, Blanca Faculty Sponsor(s): Falcon, Priscilla Undergraduate Presentation

Spruce C

Multiple Session Presentation - Sessions 4, 5, 6, 7

Family Studies Research Projects Sociology

Presenter(s): Padilla, Krista; Pflock, Lexi; Gray, Jennifer

Faculty Sponsor(s): Moore, Mel *Undergraduate Presentation*

Session 7

11:00 - 11:15 in the Morning

Aspen A

Multiple Session Presentation - Sessions 7, 8 From Theory to Practice: Learning How to Teach in a Newcomer ELLs Classroom Educational Studies

Presenter(s): Rossman, Karisa; Pompey, Rose; Freeman, Sierra; Potter, Shawna Faculty Sponsor(s): Cibils, Lilian Undergraduate Presentation

Aspen B

The Longitudinal study of the IEP's (Intensive English Program) effect on the international students' future academic Achievement Applied Statistics & Research Methods, English, Foreign Languages, Reading Presenter(s): Ramezani, Niloofar Faculty Sponsor(s): Lalonde, Trent

Graduate Presentation

Columbine A

Crow, Loree

Multiple Session Presentation - Sessions 7, 8, 9
Refugee Community in Greeley - A Community
Asset Mapping Project
Interdisciplinary Studies
Presenter(s): Wyscaver, Sarah; Anderson,
Kirstin; Bugarin Correa, Arturo; Eickelman,
Kelsey; Hatton, Conner; Jones, Amanda;
Kropp, Kacey; Krumtum, Alexandra; McCully,
Savannah; Metcalfe, Mackenzie; Morris,
Savannah; Scharf, Emilie; Williams, Kelsy;

Faculty Sponsor(s): Crow, Loree *Undergraduate Presentation*

Columbine B

An Alternative Approach to the Feminine Apologetic:

Does the Situation Dictate Whose Expectations Matter?

Sociology

Presenter(s): Shuey, Mark

Faculty Sponsor(s): Henderson, Angela

Graduate Presentation

Council Room

Out From Under the Cosh: The Impact of Football on English Working Class Identity through Cartoons, 1900-1925

Geography, History

Presenter(s): Karp, Matthew Faculty Sponsor(s): Seegel, Steven Undergraduate Presentation

Spruce A

Multiple Session Presentation - Sessions 6, 7, 8,

Developing Curriculum to Support Language and Diversity in Classrooms with English Learners

ESL

Presenter(s): Babbitt, Haneen; Braaten, Leah; Coler, Kaitlyn; Combs, Kori; Devores, Janelle; Finke, Natalie; Jessup, Faith; Marques, Sandi; Ramirez, Cecilia; Soto, Yessenia

Faculty Sponsor(s): *Undergraduate Presentation*

Spruce B

Multiple Session Presentation - Sessions 7, 8 Standards Based Assessment in Charter versus Public Schools: A Meta-Analysis of Arizona's Instrument to Measure Standards Educational Psychology Presenter(s): Diaz, Abel

Faculty Sponsor(s): Cochran, Kathryn *Graduate Presentation*

Spruce C

Multiple Session Presentation - Sessions 4, 5, 6, 7

Family Studies Research Projects
Sociology

Presenter(s): Padilla, Krista; Pflock, Lexi; Gray, Jennifer

Faculty Sponsor(s): Moore, Mel *Undergraduate Presentation*

Session 8

11:20 - 11:35 in the Morning

Aspen A

Multiple Session Presentation - Sessions 7, 8
From Theory to Practice: Learning How to
Teach in a Newcomer ELLs Classroom
Educational Studies
Presenter(s): Rossman, Karisa; Pompey, Rose;
Freeman, Sierra; Potter, Shawna
Faculty Sponsor(s): Cibils, Lilian
Undergraduate Presentation

Aspen C

Effectiveness of the Dangerous Decibels® Hearing Loss Prevention Program When Delivered With Parental Involvement Audiology & Speech-Language Sciences Presenter(s): Clark, Amanda Faculty Sponsor(s): Meinke, Deanna Graduate Presentation

Columbine A

Multiple Session Presentation - Sessions 7, 8, 9
Refugee Community in Greeley - A Community
Asset Mapping Project
Interdisciplinary Studies
Presenter(s): Wyscaver, Sarah; Anderson,
Kirstin; Bugarin Correa, Arturo; Eickelman,
Kelsey; Hatton, Conner; Jones, Amanda;
Kropp, Kacey; Krumtum, Alexandra; McCully,
Savannah; Metcalfe, Mackenzie; Morris,
Savannah; Scharf, Emilie; Williams, Kelsy;
Crow, Loree
Faculty Sponsor(s): Crow, Loree
Undergraduate Presentation

Columbine B

Wang Yangming and Zhu Xi: Changing Neo-Confucianism in MIng Dynasty China History, Philosophy Presenter(s): Severson, David Faculty Sponsor(s): Fong, Adam Undergraduate Presentation

Council Room

Describing the Self-Efficacy Found in Parents of Children with Hearing Loss
Audiology & Speech-Language Sciences
Presenter(s): Walter, Jamie
Faculty Sponsor(s): Hanks, Julie
Research Excellence Award Finalist
Undergraduate Presentation

Spruce A

Multiple Session Presentation - Sessions 6, 7, 8, 9

Developing Curriculum to Support Language and Diversity in Classrooms with English Learners

ESL

Presenter(s): Babbitt, Haneen; Braaten, Leah; Coler, Kaitlyn; Combs, Kori; Devores, Janelle; Finke, Natalie; Jessup, Faith; Marques, Sandi; Ramirez, Cecilia; Soto, Yessenia Faculty Sponsor(s): Undergraduate Presentation

Spruce B

Multiple Session Presentation - Sessions 7, 8
Standards Based Assessment in Charter versus
Public Schools: A Meta-Analysis of Arizona's
Instrument to Measure Standards
Educational Psychology
Presenter(s): Diaz, Abel
Faculty Sponsor(s): Cochran, Kathryn
Graduate Presentation

Spruce C

Multiple Session Presentation - Sessions 8, 9
Latinos and Public Policy
Mexican American Studies
Presenter(s): Sugi, Teresa; Flores, David;
Janssen, Kathrine; Swazo, Christopher;
Antuna, Donilia; Leal, Erendira
Faculty Sponsor(s): Falcon, Priscilla
Undergraduate Presentation

Session 9

11:40 - 11:55 in the Morning

Aspen C

The Experiences of Older Men in Later Life Relationships
Counseling Psychology, Gerontology
Presenter(s): Sones, Janae
Faculty Sponsor(s): Rings, Jeffrey
Graduate Presentation

Multiple Session Presentation - Sessions 7, 8, 9 Refugee Community in Greeley - A Community Asset Mapping Project

Interdisciplinary Studies

Presenter(s): Wyscaver, Sarah; Anderson, Kirstin; Bugarin Correa, Arturo; Eickelman, Kelsey; Hatton, Conner; Jones, Amanda; Kropp, Kacey; Krumtum, Alexandra; McCully, Savannah; Metcalfe, Mackenzie; Morris, Savannah; Scharf, Emilie; Williams, Kelsy; Crow, Loree

Faculty Sponsor(s): Crow, Loree *Undergraduate Presentation*

Columbine B

Dancing Again: History, Memory and Activism at Wounded Knee

History

Presenter(s): Volzke, OwenFaculty Sponsor(s): Fischer, Fritz *Undergraduate Presentation*

Council Room

Somali Refugee Interpretations of traumarelated Mental Illness: Similarities and Differences between the Somali concepts of 'Murugo Joogto' and 'Qulub' and PTSD Anthropology, Psychology Presenter(s): Miller, Caitlin Faculty Sponsor(s): Bashore, Theodore

Research Excellence Award Finalist
Undergraduate Presentation

Spruce A

Multiple Session Presentation-Sessions 6, 7, 8, 9 Developing Curriculum to Support Language and Diversity in Classrooms with English Learners

ESL

Presenter(s): Babbitt, Haneen *Undergraduate Presentation*

Spruce B

Disrupted Notions of "The Other" in the East African Campaign of the Great War History

Presenter(s): Taylor, Nicole

Faculty Sponsor(s): Clinefelter, Joan

Graduate Presentation

Spruce C

Multiple Session Presentation - Sessions 8, 9
Latinos and Public Policy
Mexican American Studies
Presenter(s): Sugi, Teresa; Flores, David;
Janssen, Kathrine; Swazo, Christopher;
Antuna, Donilia; Leal, Erendira
Faculty Sponsor(s): Falcon, Priscilla
Undergraduate Presentation

LUNCH BREAK NOON - 1:00 PM

Session 11

01:00 - 01:15 in the Afternoon

Aspen A

Multiple Session Presentation - Sessions 11, 12, 13, 14

Education Innovation Institute: Linguistically Diverse Education Program Development Preliminary Findings

Applied Statistics & Research Methods,

Educational Studies

Presenter(s): Siegrist, Mary; Damsri,

Chanaichon

Faculty Sponsor(s): Lalonde, Trent *Graduate Presentation*

Aspen C

La adaptación en tierras extranjeras
Foreign Languages, Mexican American Studies,
Political Science, Spanish, Social Science
Presenter(s): Thayer, Corina; Soto-Marquez,
Jose; Garcia, Karen; Ordonez-Ortega, Perla;
Tavizon, Luis
Faculty Sponsor(s): Garza, Efrain

Faculty Sponsor(s): Garza, Efrain Undergraduate Presentation

Columbine B

Virtue+Knowledge Is Power: Samurai and Society in Tokugawa Japan History

Presenter(s): Medrano, RickFaculty Sponsor(s): Fong, Adam *Undergraduate Presentation*

Spruce A

Effects of Ignoring Truncation in Poisson Count Models

Applied Statistics & Research Methods **Presenter(s): Suaiee, Abdalhalim** Faculty Sponsor(s): Lalonde, Trent *Graduate Presentation*

Spruce C

The Case for Peripheral Cases of Rhetoric Communication Studies

Presenter(s): Carpenter, Elizabeth

Faculty Sponsor(s): Allen, Lin *Graduate Presentation*

Session 12

01:20 - 01:35 in the Afternoon

Aspen A

Multiple Session Presentation - Sessions 11, 12, 13, 14

Education Innovation Institute: A Mixed Methods Study on the Impact of Concurrent Enrollment Participation on Student's College Choice Process and College Readiness Applied Statistics & Research Methods, Educational Studies

Presenter(s): Fanselow, Stephanie A.; Nash, Chad

Faculty Sponsor(s): Lalonde, Trent *Graduate Presentation*

Aspen C

Emilia Pardo Bazán: El sueño de cambios sociales entre sexos
Foreign Languages, Spanish
Presenter(s): Soto-Marquez, Jose
Faculty Sponsor(s): Garza, Efrain
Undergraduate Presentation

Columbine B

Changing Tides: The Evolution of the Maoist Education System in China, 1898-1968 History

Presenter(s): Egland, JohnFaculty Sponsor(s): Fong, Adam *Undergraduate Presentation*

Spruce A

Multiple Session Presentation - Sessions 12, 13 Using Gluten-free Flours, Hydrocolloids, or Food-based Fat Substitutes in Baked Products Dietetics, Nutrition

Presenter(s): Anthony, William; McCann, Caitlin; Munn, Kelsey; Nelson, Staci; Silliman, Mallory

Faculty Sponsor(s): Gould, Susan *Undergraduate Presentation*

Spruce B

Americana: The Voice of a Legend Communication Studies Presenter(s): Chaney, Mary Jo Faculty Sponsor(s): Allen, Lin Graduate Presentation

Session 13

01:40 - 01:55 in the Afternoon

Aspen A

Multiple Session Presentation - Sessions 11, 12, 13, 14

Education Innovation Institute: Outcomes of Remediation at University of Northern Colorado

Applied Statistics & Research Methods, Educational Studies

Presenter(s): Robinson, Rachel; Fanselow, Stephanie A.

Faculty Sponsor(s): Lalonde, Trent *Graduate Presentation*

Aspen C

An analysis of differences in CSR perspectives between Korean chaebols and US multinationals
Business Administration
Presenter(s): Kim, Heera
Faculty Sponsor(s): Wanasika, Isaac
Undergraduate Presentation

Columbine B

Gender Roles of Japanese Women in Anime Asian Studies

Presenter(s): Herreria Gomez, Lily Faculty Sponsor(s): Low, Michelle *Undergraduate Presentation*

Council Room

Master of Public Health Graduate Student Capstone Presentations: American Indian Youth Perspectives on Traditional Food Systems Public Health

Presenter(s): Carroll, DanyaFaculty Sponsor(s): Sharp, Teresa
Research Excellence Award Finalist
Graduate Presentation

Spruce A

Multiple Session Presentation - Sessions 12, 13 Using Gluten-free Flours, Hydrocolloids, or Food-based Fat Substitutes in Baked Products Dietetics, Nutrition

Presenter(s): Anthony, William; McCann, Caitlin; Munn, Kelsey; Nelson, Staci; Silliman, Mallory

Faculty Sponsor(s): Gould, Susan *Undergraduate Presentation*

Spruce C

Multiple Session Presentation - Sessions 13, 14, 15, 16

English Graduate Panel: A Game of Rhetoric: Incorporating Rhetoric and Design into Required Composition Courses through Video Game Play

English

Presenter(s): Macey, Renee; Vance, Bremen Faculty Sponsor(s): Kraver, Jeraldine *Graduate Presentation*

Session 14

02:00 - 02:15 in the Afternoon

Aspen A

Multiple Session Presentation - Sessions 11, 12, 13, 14

Education Innovation Institute: "Region and Tuition and Fees at Public Universities: An Examination of the Impacts of Census Division Effects?"

Applied Statistics & Research Methods, Educational Studies

Presenter(s): Cohen, Joshua; Serna, Ganriel R. Faculty Sponsor(s): Lalonde, Trent *Graduate Presentation*

Columbine B

Getting the most out of JET
Asian Studies
Presenter(s): Lovin, Marjorie
Faculty Sponsor(s): Low, Michelle
Undergraduate Presentation

Council Room

Physical Activity and Preventive Health Behaviors in a National Sample of College Students

Public Health

Presenter(s): Groesbeck, Corrie; Schroeder, Emily

Faculty Sponsor(s): Brittain, Danielle; Dinger, Mary

Research Excellence Award Finalist Graduate Presentation

Spruce A

Comparing ADIE, Prototyping, Spiral, Quality Matters models, and providing a mixed course design approach

Educational Technology **Presenter(s): Siddiqui, Altaf**Faculty Sponsor(s): *Graduate Presentation*

Spruce C

Multiple Session Presentation - Sessions 13, 14, 15, 16

English Graduate Panel: A Game of Rhetoric: Incorporating Rhetoric and Design into Required Composition Courses through Video Game Play

English

Presenter(s): Macey, Renee; Vance, Bremen Faculty Sponsor(s): Kraver, Jeraldine *Graduate Presentation*

Session 15

02:20 - 02:35 in the Afternoon

Columbine A

Multiple Session Presentation - Sessions 15, 16, 17, 18

The Significance and Lasting Impacts of History and Memory

History

Presenter(s): Fischer, Fritz; Gallegos, Megan; Wersch, Jared; Boone, Melinda; Volzke, Owen Faculty Sponsor(s): Fischer, Fritz

Genji Then and Now Asian Studies Presenter(s): Grigsby, Kaitlyn Faculty Sponsor(s): Low, Michelle Undergraduate Presentation

Spruce A

Effects of Testosterone-Boosting Supplements on Body Composition, Serum Hormones, and Muscle Mass and Strength in Male Recreational Weightlifters

Nutrition, Sport & Exercise Science **Presenter(s): Van Wagenen, Jennifer** Faculty Sponsor(s): Gould, Susan *Undergraduate Presentation*

Spruce B

From Birthday Party to No Party: A Tale of Misunderstanding and the Semantic Triangle Communication Studies

Presenter(s): Terhark, Summer Faculty Sponsor(s): Allen, Lin *Graduate Presentation*

Spruce C

Multiple Session Presentation - Sessions 13, 14, 15, 16

English Graduate Panel: Facebook Official: How Social Networking Helps Build Community in the Classroom English

Presenter(s): Macey, Renee; Vance, Bremen Faculty Sponsor(s): Kraver, Jeraldine Graduate Presentation

Aspen C

A Generalized Method Approach for Spatial-Temporal Binary Data Applied Statistics & Research Methods, Mathematics

Presenter(s): Kaufeld, Kimberly Faculty Sponsor(s): Lalonde, Trent *Graduate Presentation*

Session 16

02:40 - 02:55 in the Afternoon

Aspen A

An Examination of Coco Chanel's Leadership Style

Business Administration, Management

Presenter(s): Karlin, Julia

Faculty Sponsor(s): Clinebell, Sharon *Undergraduate Presentation*

Columbine A

Multiple Session Presentation - Sessions 15, 16, 17, 18

The Significance and Lasting Impacts of History and Memory

History

Presenter(s): Fischer, Fritz; Gallegos, Megan; Wersch, Jared; Boone, Melinda; Volzke, Owen

Faculty Sponsor(s): Fischer, Fritz *Undergraduate Presentation*

Columbine B

Totem Teddy: A Student Intern's Point of View Anthropology

Presenter(s): Wright, WendyFaculty Sponsor(s): McBeth, Sally *Undergraduate Presentation*

Spruce C

Multiple Session Presentation - Sessions 13, 14, 15, 16

English Graduate Panel: Facebook Official: How Social Networking Helps Build Community in the Classroom

English

Presenter(s): Macey, Renee; Vance, Bremen Faculty Sponsor(s): Kraver, Jeraldine Graduate Presentation

Session 17

03:00 - 03:15

Aspen A

Evidence of the Holocaust in Lithuania, Latvia, and the Soviet Union
History, Geography
Presenter(s): Dickson, James
Faculty Sponsor(s): Clinefelter, Joan

Undergraduate Presentation

Aspen C

Multiple Session Presentation - Sessions 17, 18 Pitch perception in musicians and nonmusicians: A comparison of psychophysical tuning curves and frequency difference limens Audiology & Speech-Language Sciences, Music Presenter(s): Powner, Amber

Faculty Sponsor(s): Bright, Kathryn Research Excellence Award Finalist Graduate Presentation

Columbine A

Multiple Session Presentation - Sessions 15, 16, 17, 18

The Significance and Lasting Impacts of History and Memory

History

Presenter(s): Fischer, Fritz; Gallegos, Megan; Wersch, Jared; Boone, Melinda; Volzke, Owen

Faculty Sponsor(s): Fischer, Fritz *Undergraduate Presentation*

Columbine B

Rocks in the Sea: Understanding the Senkaku/Diaoyu dispute in the East China Sea History, Political Science Presenter(s): Siegel, Matthew Faculty Sponsor(s): Fong, Adam Undergraduate Presentation

Spruce A

El español de Colorado Spanish

Presenter(s): Camacho, Adriana; Castanaza, Gustavo

Faculty Sponsor(s): Ryan, John *Undergraduate Presentation*

Spruce B

Synthetic Marijuana:Dissuading Teenagers from Using the Synthetic Drug through the Lens of Toulmin

Communication Studies, Human Rehabilitation

Presenter(s): Berry, IanFaculty Sponsor(s): Allen, Lin *Graduate Presentation*

Session 18

03:20 - 03:35 in the Afternoon

Aspen C

Multiple Session Presentation - Sessions 17, 18 Pitch perception in musicians and nonmusicians: A comparison of psychophysical tuning curves and frequency difference limens Audiology & Speech-Language Sciences, Music Presenter(s): Powner, Amber

Fresenter(s): Powner, Amber
Faculty Sponsor(s): Bright, Kathryn
Graduate Presentation

Columbine A

Multiple Session Presentation - Sessions 15, 16, 17, 18

The Significance and Lasting Impacts of History and Memory

History

Presenter(s): Fischer, Fritz; Gallegos, Megan; Wersch, Jared; Boone, Melinda; Volzke, Owen

Faculty Sponsor(s): Fischer, Fritz *Undergraduate Presentation*

Columbine B

Renaming of Assault Survivors Advocacy Program
Criminal Justice, Sociology
Presenter(s): Jones, Kyle
Faculty Sponsor(s): Houser, Jeffrey
Undergraduate Presentation

Spruce A

Don't play Coy Colorado: Gender Communication and the journey of Coy Mathis Communication Studies Presenter(s): Maynard, Kody Faculty Sponsor(s): Allen, Lin Graduate Presentation

Spruce B

Square-Free Sequences on Small Symbol Sets Mathematics

Presenter(s): Myrant, CatrinaFaculty Sponsor(s): Levin, Oscar *Undergraduate Presentation*

Spruce C

An Analysis on the Chinese Hukou System and its Role in Chinese inequality

Economics

Presenter(s): Ballard, Ryan

Faculty Sponsor(s): Low, Michelle *Undergraduate Presentation*

Session 19

03:40 - 03:55 in the Afternoon

Aspen B

Living in the Moment: Symbolic Immortality-Themed Media influences on College Students Social Drinking Culture

Anthropology

Presenter(s): Brothe, Mariah Faculty Sponsor(s): McBeth, Sally

Undergraduate Presentation

Aspen C

Meaning of Movement; An Examination of the use of Metaphor in Pilates Discourse

Communication Studies **Presenter(s): Bigas, Angelina**Faculty Sponsor(s): Allen, Lin *Graduate Presentation*

Columbine A

Effects of Race Primes on Violent and Nonviolent Crime Judgments: Exploring Implicit Measures of Race-Crime Congruency Criminal Justice, Psychology Presenter(s): Provenza, Karlee Faculty Sponsor(s): Peterson, Eric Undergraduate Presentation

Columbine B

La gramaticalización del progresivo: un estudio basado en el habla culta de Buenos Aires.

Nutrition, Spanish

Presenter(s): Monzon, Gloria Faculty Sponsor(s): Ryan, John *Graduate Presentation*

Spruce A

A Narrative Inquiry into the Academic Experiences of Female Saudi Graduate Students at a Comprehensive Doctoral Institution in the Western US

Educational Leadership

Presenter(s): Sandekian, Robyn; Keen, Katee; Weddington, Michael

Faculty Sponsor(s): Birnbaum, Matthew *Graduate Presentation*

Spruce B

CADENCIAS 2: :Leyendo con cuidado

Spanish

Presenter(s): Gray, Katherine; Nunez, Jose; Mohnssen, Ashley

Faculty Sponsor(s): Gonzalez, Ester *Undergraduate Presentation*

Spruce C

"The Hunger Connection: Towards a Diasporically Imagined Transnational Community"

History, Interdisciplinary Studies, Sociology

Presenter(s): Nickell, AmberFaculty Sponsor(s): Clinefelter, Joan *Graduate Presentation*

Poster Presentations

University CenterPikes Peak and Mt Evans Ballrooms

April 11, 2013

Morning Poster Session 9:00 AM - 11:00 AM Setup begins at 8:30 AM

Afternoon Poster Session Noon - 2:00 PM Setup begins at 11:30 AM

School of Biological Sciences Poster Session 3:30 PM - 4:30 PM Setup begins at 3:00 PM

Registration Opens at 8:30 AM In the University Center Fireside Lounge

Each presenter must check-in to receive their participation certificate, complimentary lunch ticket, and Research Day program.

Morning Poster Session

Mt. Evans & Pikes Peak Ballroom 09:00 - 11:00 in the Morning

Applied Statistics & Research Methods, Educational Psychology, Psychology

Development and Validation of a Unidimensional Measure of Hope with a Population of Severely and Persistently Mentally Ill Individuals. Presenter(s): Traxler, Karen; Siegrist, Mary Faculty Sponsor(s): Traxler, Karen Research Excellence Award Finalist Graduate Presentation

The Correlation Between Exercise and Depression
Presenter(s): Cloyes, Christina
Faculty Sponsor(s): Traxler, Karen
Undergraduate Presentation

Audiology & Speech-Language Sciences

Effectiveness of Auditory Steady-State Responses to Air and Bone Conduction Stimuli in Estimating Behavioral Audiometric Thresholds Presenter(s): Dillman, Gwendolyn Faculty Sponsor(s): Stoody, Tina

Chemistry

Graduate Presentation

Analysis of Trace Metals in Glass by EDXRF Presenter(s): Arizmendi, Nicole Faculty Sponsor(s): Pringle, David Undergraduate Presentation

The Spectrophotometric Determination of the Acid Dissociation Constant of p-Nitrophenol Presenter(s): Ash, Kitchner Faculty Sponsor(s): Pringle, David Undergraduate Presentation

Determination of Blood Alcohol Concentration by Gas Chromatography Using Headspace Sampling

Presenter(s): Certain, WhitneyFaculty Sponsor(s): Pringle, David *Undergraduate Presentation*

Who Dunnit?
Presenter(s): Moss, Chelsea
Faculty Sponsor(s): Pringle, David
Undergraduate Presentation

Communication Studies

Our Values, Our Ads
Presenter(s): Stise, Robert
Faculty Sponsor(s): Allen, Lin
Graduate Presentation

Educational Studies

Linguistically Diverse Education Program
Development Preliminary Findings
Presenter(s): Damsri, Chanaichon
Faculty Sponsor(s): Huang, Jingzi
Graduate Presentation

Linguistically Diverse Education Program
Development Preliminary Findings
Presenter(s): Siegrist, Mary
Faculty Sponsor(s): Huang, Jingzi
Graduate Presentation

Educational Technology

Graduate Students' Perspective about Flipped Learning Classroom Presenter(s): Alebrahim, Fatimah Faculty Sponsor(s): Gall, James Research Excellence Award Finalist Graduate Presentation

Geography

Spatial Autocorrelation and Regression Analysis of Players' Hometowns: 2011/12 Season

Presenter(s): Andromeda-Focht, Bleys Faculty Sponsor(s): Diggs, David *Undergraduate Presentation*

Spatial regression analysis of geographic factors associated with shortgrass steppe vegetation

Presenter(s): Brandt, AmberFaculty Sponsor(s): Diggs, David *Graduate Presentation*

Hydraulic Modeling Comparisons, Lake of the Clouds drainage, Never Summer Mountains, Colorado

Presenter(s): Fenner, JordanFaculty Sponsor(s): Diggs, David *Graduate Presentation*

Higher Education & Student Affairs Leadership

Retention and Persistence for Underrepresented Students in Multicultural Greek Life: A Case Study

Presenter(s): Cruz, CarlosFaculty Sponsor(s): Serna, Gabriel *Undergraduate Presentation*

Human Rehabilitation

Major Medical Illness/Injury Related PTSD: Resilience and Treatment Outcome Presenter(s): Beal, Dan Faculty Sponsor(s): Ososkie, Joseph Graduate Presentation

Post Organ Transplant Depression and Anxiety: Prevalence, Causes and Longevity Presenter(s): Kanzler, Mike Faculty Sponsor(s): Ososkie, Joseph Graduate Presentation The Need for Fitness and Nutrition Education Programs for Individuals with Intellectual Disabilites who are Overweight or Obese Presenter(s): Kinyon, Rebecca; Williams, Josie Faculty Sponsor(s): Ososkie, Joseph Graduate Presentation

The Effectiveness of Holistic Treatment in Reducing Hospitalization for Individuals with Schizophrenia
Presenter(s): Boyd, Amie; Carcellero, Frankie; Kavon, Stephanie
Faculty Sponsor(s): Ososkie, Joseph Graduate Presentation

Human Services

Barriers to Mental Health Services for Residents of Rural Communities

Presenter(s): Wagner, Brittney

Faculty Sponsor(s): Crow, Loree

Graduate Presentation

Physics

Whack-A-Ball: Tennis balls and Energy conservation
Presenter(s): Caraveo, Jassiel; Gregg, Eric;
Garrett, David; O'Neill, Timothy
Faculty Sponsor(s): Dietz, Richard
Undergraduate Presentation

The Falling Tower
Presenter(s): Carlson, Benjamin; Gallegos,
Carlos; Schwartz, Jeremiah
Faculty Sponsor(s): Dietz, Richard
Undergraduate Presentation

The Effects of Elevation on Muon Flux Presenter(s): Clay, Michael; Herlea Jr, Marius; Higgins, Sean Faculty Sponsor(s): Dietz, Richard Undergraduate Presentation

Using Optical Tweezers to Investigate the Escherichia coli Molecular Motor
Biological Sciences, Physics
Presenter(s): Champion, Steven; Day, Travis;
Jordan, Connor
Faculty Sponsor(s): Sung, Ruwang

What Are We Seeing? Spectra of Common Light Bulbs

Presenter(s): Lorentz, Isaac; Pacheco, Richard; Wadle, Josh; Wall, Audrey

Faculty Sponsor(s): Dietz, Richard *Undergraduate Presentation*

Psychology

Effect of platform depth on Morris Water Maze learning in mice

Presenter(s): Jackson, Joseph; Rutledge, Jacob Faculty Sponsor(s): Gilliam, David Undergraduate Presentation

WEIGHT DEFICITS IN MICE EXPOSED TO ETHANOL VAPOR

Presenter(s): Jackson, Joseph; Rutledge, Jacob Faculty Sponsor(s): Gilliam, David *Undergraduate Presentation*

Stereotypes and their effects on first-generation college students

Presenter(s): Ward, KimberleeFaculty Sponsor(s): Pascoe, Elizabeth *Undergraduate Presentation*

Recreation, Tourism & Hospitality, Sport & Exercise Science

An Empirical Analysis of Factors Contributing to Increased Downhill Ski Participation Presenter(s): Hungenberg, Eric Faculty Sponsor(s): Gould, James Graduate Presentation

Sociology

Using the social media to reinforce binge drinking normative behaviors: A comparison of American and Australian college students Presenter(s): Jones, Kyle

Faculty Sponsor(s): Schott, Diane *Undergraduate Presentation*

The Mistreatment in Mental Institutions
Presenter(s): Larcinese, Michelle; Tomlin,
Anna; Tonelli, Rick; Trevino, Kimberly
Faculty Sponsor(s): Houser, Jeffrey
Undergraduate Presentation

Special Education

Transition Outcomes from Secondary School to Adult Life for Individuals with Intellectual Disabilities:Literature Review Presenter(s): AlRusaiyes, Reem Faculty Sponsor(s): Rude, Harvey Graduate Presentation

Severe Disabilities in Saudi Arabia: Current Status and Improvements for the Future Presenter(s): Shugdar, Effat Faculty Sponsor(s): Brewer, Robin Graduate Presentation

Sport & Exercise Science

Cognitive Training in a Cancer Survivor Following Radiation Therapy: A Case Study Presenter(s): Beebe, Corey Faculty Sponsor(s): Schneider, Carole Graduate Presentation

Effects of a resistance training model on doxorubicin-induced muscle dysfunction in the rat

Presenter(s): Bredahl, Eric Faculty Sponsor(s): Hydock, David Research Excellence Award Finalist Graduate Presentation

Outpatient Phases in Cancer Rehabilitation Presenter(s): Brown, Jessica Faculty Sponsor(s): Schneider, Carole Research Excellence Award Finalist

Research Excellence Award Finalis Graduate Presentation

Measuring Sport Team Brand Personality
Presenter(s): Davies, Melissa; Schmitt, Craig
Faculty Sponsor(s): Gray, Dianna
Graduate Presentation

Aging downregulates MRPs and increases cardiac doxorubicin accumulation
Presenter(s): Gibson, Noah
Faculty Sponsor(s): Gibson, Noah
Graduate Presentation

Juvenile doxorubicin exposure increases cardiac progenitor cell expression in late-onset cardiotoxicities

Presenter(s): Gibson, Noah
Faculty Sponsor(s): Gibson, Noah
Research Excellence Award Finalist
Graduate Presentation

Leveraging Sponsorship through Competitive Advantage

Presenter(s): Howes, JanetFaculty Sponsor(s): Gray, Dianna *Graduate Presentation*

Strength and Cardiovascular Training on Cancer-Related Fatigue
Presenter(s): Manikowske, Trista
Faculty Sponsor(s): Schneider, Carole
Graduate Presentation

Cardiac Dysfunction in the Tumor Bearing Rat Presenter(s): Parry, Traci

Faculty Sponsor(s): Hayward, Reid Research Excellence Award Finalist Graduate Presentation

Toward a Global Sport Sponsorship Model: Implementing the Actual Purchase Presenter(s): Zaharia, Noni; Hungenberg, Eric; Mayer, K.C.

Faculty Sponsor(s): Gray, Dianna *Graduate Presentation*

Afternoon Poster Session

Mt. Evans & Pikes Peak Ballroom 12:00 - 02:00 in the Afternoon

Africana Studies

The Shift of Consciousness in African American Television
Presenter(s): Houston, Jasmine
Faculty Sponsor(s): Gardner, Mitchell
Undergraduate Presentation

Applied Statistics & Research Methods

Beyond IRB: The Role of Relational Ethics in Research with Vulnerable Populations Presenter(s): Christensen, Wendy; Kincaid, Tyler; Landram, Suzy; Reavill, David Faculty Sponsor(s): Lahman, Maria Graduate Presentation

Audiology & Speech-Language Sciences

Auditory Status of Youth Who Shoot Recreational Firearms Presenter(s): Johnson, Leann; Holm, Kristen Faculty Sponsor(s): Meinke, Deanna Graduate Presentation How Individuals who Stutter, Graduate Student Clinicians, and an Experienced Speech-Language Pathologist Perceive Success in Fluency Therapy Presenter(s): Ortega, Evelyn

Faculty Sponsor(s): Murza, Kimberly Research Excellence Award Finalist Undergraduate Presentation

The Relationship Between Spontaneous Otoacoustic Emissions in Female Adults Presenter(s): Pritzl, Kathleen Faculty Sponsor(s): Bright, Kathryn Graduate Presentation

Biological Sciences

Separating heterotrophic and autotrophic respiration contributions to winter soil carbon efflux

Presenter(s): Beverly, Daniel Faculty Sponsor(s): Franklin, Scott *Graduate Presentation*

Serine Proteinases in Venom of the Yucatan Rattlesnake Crotalus simus tzabcan Presenter(s): Caudillo, Ana Faculty Sponsor(s): Mackessy, Stephen Research Excellence Award Finalist Undergraduate Presentation Identification of Dopamine Receptors on a Class of Mouse Prefrontal Cortical Neurons Presenter(s): Cowper, Laira

Faculty Sponsor(s): Thomas, Mark *Undergraduate Presentation*

Epithelial to Mesenchymal Transition Induction by zfh-1

Presenter(s): Kennedy, Rana

Faculty Sponsor(s): Leatherman, Judith

Undergraduate Presentation

Separating heterotrophic and autotrophic respiration contributions to winter soil carbon efflux

Presenter(s): Whitehead, Kathryn Faculty Sponsor(s): Franklin, Scott *Undergraduate Presentation*

An Examination of the Cytotoxic Effects of Snake Venom on Human Colon Cancer Cells Presenter(s): Maxey, Elizabeth Faculty Sponsor(s): Mackessy, Stephen Research Excellence Award Finalist

Chemistry, Criminal Justice

Undergraduate Presentation

Fingerprint Enhancement on Used Prophylactics Presenter(s): Mccartney, Michael Faculty Sponsor(s): Price, Alan Undergraduate Presentation

Chemistry, Educational Studies

Scientifically Successful Nonmainstream Undergraduates' Perceptions of Chemistry Presenter(s): Cink, Ruth

Faculty Sponsor(s): Song, Youngjin

Graduate Presentation

Counseling Psychology, Psychology

Combat Guilt: A Preliminary Examination of the Current State of the Literature and Directions for Future Research Presenter(s): Kacmarski, Jason Faculty Sponsor(s): Rings, Jeffrey Graduate Presentation

Criminal Justice

A Content Analysis of Media Coverage, Victim, Offender, and Sentence Presenter(s): Trujillo, Miguel Faculty Sponsor(s): West-Smith, Mary Undergraduate Presentation

Educational Psychology

Executive Function and Incentives
Presenter(s): Rohrbacher, Caitlin Rohrbac
Faculty Sponsor(s): Welsh, Marilyn
Graduate Presentation

Today's Textbooks in Tomorrows' Classrooms: An Annontated Bibliography Presenter(s): Rumpf, Tabitha Faculty Sponsor(s): Diaz, Abel Undergraduate Presentation

Educational Technology

Attitudes of International College Students in the U.S. towards Educational Technologies Presenter(s): Alebrahim, Fatimah; AlMonuf, Hadi; Almaden, Abdullah Faculty Sponsor(s): Gall, James Graduate Presentation

Speaking Out of School: A Content Analysis of World of Warcraft Forums Presenter(s): Alebrahim, Fatimah; Alruwaili, Tahani; Alawami, Nariman Faculty Sponsor(s): Gall, James Graduate Presentation

English, History, Philosophy

Censorship in History Textbooks: How Knowledge of the Past is being Constructed in Schools

Presenter(s): Brunner, Tyler

Faculty Sponsor(s): Desjardins, Molly *Undergraduate Presentation*

Geography

Determining Bat Roost Preferences and Water Value with Spatial Statistics
Presenter(s): Craven, Katelin
Faculty Sponsor(s): Diggs, David
Graduate Presentation

Spatial Analysis of the Distribution of Global Refugees in Greeley, Colorado 2010-2012 Presenter(s): McMonagle, Emily Faculty Sponsor(s): Diggs, David Undergraduate Presentation

Spatial Regression Analysis of Refugee Settlement: Greeley, Colorado, 2012-2013 Presenter(s): Yeager, Kyle Faculty Sponsor(s): Diggs, David Research Excellence Award Finalist Undergraduate Presentation

Higher Education & Student Affairs Leadership, Psychology

Veterans as Students vs. Non-Traditional Students in College: Common Experiences, Attitudes of Traditional Students, and a Global Measure of Perceived Stress Presenter(s): Ramsey, Ian Faculty Sponsor(s): Traxler, Karen Undergraduate Presentation

History

Women on Trial
Presenter(s): Fassler, Gaylynn
Faculty Sponsor(s): Melish, Jacob
Undergraduate Presentation

Human Rehabilitation

Post Traumatic Stress Disorder and Stigma-Related Barriers to Mental Health Treatment as Risk Factors for Iraq and Afghanistan War Veterans with Suicidality Presenter(s): Andenmatten, Joseph Faculty Sponsor(s): Ososkie, Joseph Graduate Presentation

Interdisciplinary Studies

Native American retention: factors, programs and practices contributing to the completion of a four-year degree by Native American students in higher education

Presenter(s): Nirschl-Coats, Valerie

Faculty Sponsor(s): Franklin, Elizabeth

Research Excellence Award Finalist

Undergraduate Presentation

Mathematics, Music

Using Python to Mathematically Transform Simple Music: An Exploration of Computer Generated Music and Its Mathematical Connections

Presenter(s): Williamson, HeidiFaculty Sponsor(s): Miller, Nathaniel *Undergraduate Presentation*

Mexican American Studies

Cuban Success Reexamined: The Effects of Women's Role Changes and their Contributions to the Cuban Household. Presenter(s): Correa, Norman Faculty Sponsor(s): Suarez, Jose Undergraduate Presentation

Music, Psychology

Improvisational therapy alleviates MPA symptoms in college wind musicians Presenter(s): Rush, Shaina Faculty Sponsor(s): Montemayor, Mark Research Excellence Award Finalist Undergraduate Presentation

Nursing

Cost-benefit of fixed fluoroscopy vs. mobile carm in a GI lab Presenter(s): Adams, Les Faculty Sponsor(s): Hummel, Faye Graduate Presentation

Cost Management: Energy Usage in Preop/PACU
Presenter(s): Bates, Cindy
Faculty Sponsor(s): Hummel, Faye
Graduate Presentation

Protecting our Backs: A cost benefit analysis of installing overhead patient lifts vs. worker's compensation claims

Presenter(s): Bennett, Lindsay

Faculty Sponsor(s): Hummel, Faye

Graduate Presentation

Minimizing Hospital Supply Costs: A Cost-Benefit Analysis

Presenter(s): Bishop, Laura

Faculty Sponsor(s): Hummel, Faye

Graduate Presentation

Comparison of Costs Between Warfarin and Xarelto for Anticoagulation Therapy in a Skilled Nursing and Long-term Care Facility Presenter(s): Bronstein, Dennis

Faculty Sponsor(s): Hummel, Faye

Graduate Presentation

The Energizer Bunny - Is Longer Better

Presenter(s): Brown, Heather

Faculty Sponsor(s): Hummel, Faye

Graduate Presentation

Impact of Nursing Residency Programs on

Nurse Retention

Presenter(s): Buss, Lisa

Faculty Sponsor(s): Hummel, Faye

Graduate Presentation

Cost Analysis of Antecubital Vein IV Starts

Presenter(s): Feldman, Joan

Faculty Sponsor(s): Hummel, Faye

Graduate Presentation

Cost Benefit Analysis: Recycleable Waste vs.

Trash Collection

Presenter(s): Goshey, Tricia

Faculty Sponsor(s): Hummel, Faye

Graduate Presentation

The cost benefit of changing an office supply

ordering policy

Presenter(s): Hall, Brook

Faculty Sponsor(s): Hummel, Faye

Graduate Presentation

Cost-Benefit Analysis of Oral Aprepitant in the Prevention of Post Operative Nausea and

Vomiting

Presenter(s): Higgins, Jennifer

Faculty Sponsor(s): Hummel, Faye

Graduate Presentation

MRSA Screening: A Cost-Benefit Analysis

Presenter(s): Hoffman, Cynthia

Faculty Sponsor(s): Hummel, Fave

Graduate Presentation

Save cash by using white trash (bags)

Presenter(s): Holthouser, Jodi

Faculty Sponsor(s): Hummel, Faye

Graduate Presentation

SAFETY MEASURE

Presenter(s): Joder, Chris

Faculty Sponsor(s): Hummel, Faye

Graduate Presentation

Reusable biopsy forceps: Are they cost effective?

Presenter(s): Lewan, Shea

Faculty Sponsor(s): Hummel, Faye

Graduate Presentation

Cost Benefit Analysis of VIP Linen vs. Regular

Hospital Linen for Women's Services

Presenter(s): Lujan, Tracy

Faculty Sponsor(s): Hummel, Faye

Graduate Presentation

Intravenous Fluid stop times in the Emergency

Devartment

Presenter(s): Perkins, Ramona

Faculty Sponsor(s): Hummel, Fave

Graduate Presentation

The cost/benefit analysis for plastic graduated cylinder use versus using plastic drinking mugs at a Denver metro hospital Labor and Delivery

unit

Presenter(s): Puricelli, Arian

Faculty Sponsor(s): Hummel, Faye

Graduate Presentation

Urinary Catheter Use: A Cost/Benefit Analysis

Presenter(s): Sampson, James

Faculty Sponsor(s): Hummel, Faye

Graduate Presentation

Cost Benefit Analysis Evaluating the Efficacy of

Current Staffing Patterns.

Presenter(s): Skomp, Jessica

Faculty Sponsor(s): Hummel, Faye

Graduate Presentation

How well did you 'Scrub the Hub?' A cost

benefit analysis

Presenter(s): Soliman, Annie

Faculty Sponsor(s): Hummel, Faye

Graduate Presentation

Needleless System in the Hospital Setting Presenter(s): Sullivan, Jenny Faculty Sponsor(s): Hummel, Faye Graduate Presentation

Nutrition

The Impact of Residence on Dietary Intake, Food Insecurity, and Eating Behavior Among **University Undergraduate Students** Presenter(s): Gonzales, Kittra Faculty Sponsor(s): Gould, Susan Research Excellence Award Finalist Undergraduate Presentation

Physical Education

Trends in Physical Education Identified by Professionals in the Field Presenter(s): Nampai, Udon Faculty Sponsor(s): Sinclair, Christina Graduate Presentation

Physics

Bouncing Back: Energy Loss in Wooden Block **Collisions** Presenter(s): Champion, Steven; Hafen, Zachary; Pausa, Bronson; Smith, Tyler Faculty Sponsor(s): Dietz, Richard Undergraduate Presentation

Beyond Your Lifetime: Relativities' Effect on Muon Flux at Various Elevations Presenter(s): Day, Travis; Gasteiger, Joseph; Tonye Tonye, Herve Faculty Sponsor(s): Dietz, Richard

Undergraduate Presentation

The STM: High Resolution Images of Atoms Presenter(s): Pacheco, Richard Faculty Sponsor(s): Sung, Ruwang Undergraduate Presentation

Psychology

Social Deviance and Gender Stereotypes Presenter(s): Gonzales, Hannah Faculty Sponsor(s): Traxler, Karen Undergraduate Presentation

Gender Differences in the Gym Presenter(s): Hood, Kayla Faculty Sponsor(s): Traxler, Karen Undergraduate Presentation

The Effect of Congruency Between Perceiver and Target on Emotional Recognition Presenter(s): Trimble, Kyra Faculty Sponsor(s): Peterson, Eric Undergraduate Presentation

Public Health

Master in Public Health Student Poster presentations Presenter(s): Ford, Shelly; Groesbeck, Corrie; Sharp, Teresa; Sheppard, Shannon; Skenadore, Amanda; Carroll, Danya; Madsen, Matthew Faculty Sponsor(s): Sharp, Teresa Graduate Presentation

Sociology

Schizophrenia: Japan vs. U.S.A. Presenter(s): Cordero, Chelsea; Tubbs, Naomi Faculty Sponsor(s): Houser, Jeffrey Undergraduate Presentation

Improving Greeley's Public Transportation Presenter(s): Dekraai, Elise Faculty Sponsor(s): Houser, Jeffrey Undergraduate Presentation

Frustrations among Staff and Residents at a Homeless Shelter Presenter(s): Flores, Giovanni Faculty Sponsor(s): Houser, Jeffrey Undergraduate Presentation

The Sociology of the Insanity Defense Presenter(s): Gerardi, Genae; Mahleres, Noelle; Trevino, Audrey; Vongphachanh, Debbie Faculty Sponsor(s): Houser, Jeffrey Undergraduate Presentation

Discovering the Benefits of a Factitious Disorder Presenter(s): Hope, Ashleigh; Wolfe, Erin; Hyland, Samantha; Rathbun, Jennifer Faculty Sponsor(s): Houser, Jeffrey Undergraduate Presentation

Socialization Ability of Feral Children Presenter(s): Huerta, Bobbie; Perez, Jazmin; Rich, Stephanie

Faculty Sponsor(s): Houser, Jeffrey *Undergraduate Presentation*

Mental Illness in LGBTQ

Presenter(s): Prouty, Ashley; Halley, Tamra; Escarcega, Jon; Hansen, Brittany

Faculty Sponsor(s): Houser, Jeffrey Undergraduate Presentation

Suicide

Presenter(s): Schrader, Maelee; Hernandez,

Teresa; Graf, Shantell

Faculty Sponsor(s): Houser, Jeffrey

Undergraduate Presentation

Special Education

Influence of Peer Buddy Program Intervention for Adolescents with Disabilities in High School Setting: Impact on Social and Academic Achievement

Presenter(s): AlQahtani, RageaFaculty Sponsor(s): Murry, Francie *Graduate Presentation*

Exploring the needs of mothers of adults with disabilities in Saudi Arabia: A pilot study Presenter(s): AlRusaiyes, Reem Faculty Sponsor(s): Jackson, Lewis Graduate Presentation

Parents' Perspectives of Special Education Services for Students with Significant Support Needs

Presenter(s): Shugdar, EffatFaculty Sponsor(s): Brewer, Robin *Graduate Presentation*

Sport & Exercise Science

Voluntary wheel running upregulates MRP-2 expression and decreases cardiac doxorubicin accumulation

Presenter(s): Bashore, Alex

Faculty Sponsor(s): Hayward, Reid

Undergraduate Presentation

An Investigation of Student Non-Attendance at FCS Football Games
Presenter(s): Mayer, K.C., Davies, Melissa;
Zaharia, Noni;

Faculty Sponsor(s): Mayer, Kurt *Graduate Presentation*

Measuring Sport Team Brand Personality: Scale Validation

Presenter(s): Must, EmilyFaculty Sponsor(s): Gray, Dianna *Graduate Presentation*

Aging downregulates MRPs and increases EDL doxorubicin accumulation
Presenter(s): Pfannenstiel, Keith
Faculty Sponsor(s): Hayward, Reid
Graduate Presentation

Looking for a Grad School in the Region? Check out the Grad School Fair!

MANY COLORADO AND WYOMING GRAD SCHOOLS WILL BE PROVIDING INFORMATION ABOUT THEIR PROGRAMS

ON RESEARCH DAY, APRIL 11

DOWNSTAIRS IN THE LOWER LEVEL OF THE UNIVERSITY CENTER

10 AM - 2 PM

Undergraduate Biology Poster Session

03:30 - 04:30 in the Afternoon Mt. Evans Ballroom

Effect of omega-3 fatty acids on lateral mobility of the prostaglandin (FP) receptor in bovine luteal cells.

Presenter(s): Balderston, Stephanie Faculty Sponsor(s): Burns, Patrick

SUR-1 protein expression levels in an MPTP mouse model of Parkinson's disease
Presenter(s): Blazosky, Elyse
Faculty Sponsor(s): Thomas, Mark

Joint action approach to studying pesticide effects on the marine copepod Tigriopus californicus.

Presenter(s): Cameron, Lindsay Faculty Sponsor(s): Fisher, Ginger

Effects of fish oil treatment on prostaglandin F2α-induced mitogen activated protein (MAP)-kinase cell signaling pathway in bovine luteal cells

Presenter(s): Gilbert, Zachery Faculty Sponsor(s): Burns, Patrick

Pvr is a receptor tyrosine kinase (RTK) that functions in Drosophila testis cyst stem cells Presenter(s): Johnson, Kelli Faculty Sponsor(s): Leatherman, Judith

Identification of Dopamine Receptors on a Class of Mouse Prefrontal Cortical Neurons Presenter(s): Johnson, Vanessa Faculty Sponsor(s): Thomas, Mark

Determining the impact of relatedness and age on mate choice in the marine copepod Tigriopus californicus

Presenter(s): Kelly, Michael Faculty Sponsor(s): Fisher, Ginger

Owens Valley hybrid zone: providing new insight into song diversity in sage sparrows Presenter(s): King, Carissa Faculty Sponsor(s): Benedict, Lauryn

Does territory preference in Canyon Wrens depend on crevice density?

Presenter(s): Lashaway, Daynia

Faculty Sponsor(s): Benedict, Lauryn

Quantification of Metals in Snake Venoms Using X-Ray Fluorometry Presenter(s): Maxey, Elizabeth Faculty Sponsor(s): Mackessy, Stephen

"Analysis of transgenic reporters for expression of the dpp gene in the Drosophila testis"

Presenter(s): Roberts, Nicole

Faculty Sponsor(s): Leatherman, Judith

Tzabcanin, a novel snake venom disintegrin, inhibits metastasis in melanoma (skin cancer) by binding to the integrin avß3

Presenter(s): Wanner, Megan

Faculty Sponsor(s): Mackessy, Stephen

Determining the impact of relatedness and age on mate choice in the marine copepod Tigriopus californicus

Presenter(s): Wenger, EllieFaculty Sponsor(s): Fisher, Ginger

Isolation of lipid microdomains from bovine luteal cells using a sodium carbonate buffer and ultracentrifugation through sucrose gradients Presenter(s): Yu, Yi Faculty Sponsor(s): Burns, Patrick

Development of a Parkinson's Disease Mouse Model Using the Potent Neurotoxin MPTP Presenter(s): Hartman, Brittany Faculty Sponsor(s): Thomas, Mark

An Examination of the Cytotoxic Effects of Snake Venom on Human Colon Cancer Cells Presenter(s): Maxey, Elizabeth Faculty Sponsor(s): Mackessy, Stephen Research Excellence Award Finalist

Index of Participants

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