

2014

## 2014 Presentation Abstracts

Grand Valley State University

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## **ACF 2014 January - March Presentations**

### **Auten, Justin**

January - March FY14

Intercollegiate Men's Chorus National Seminar

"GVSU Varsity Men Concert"

GVSU Varsity Men, selected in a nationally competitive blind audition, will perform a forty-minute vocal concert highlighting both classic and new works for TTBB (Tenor, Tenor, Baritone, Bass) male chorus. They will perform alongside other elite and influential male choruses from across the country. The members will be offered unparalleled opportunities to observe sessions on a variety of vocal music pedagogic and performance techniques.

### **Chaness, Samantha**

January - March FY14

International Shakespeare Festival

"Bard To Go: Puzzle the Will"

The show features scenes from some of the most famous plays by William Shakespeare, including Othello, Hamlet, Macbeth, XII Night, Pericles. It combines moments of high dramatic tension with comedic episodes. The scenes are connected with a through line: a character borrowed from the world of videogames. The show tours middle and high schools in Michigan, bringing some of GVSU Shakespeare to younger audiences. Also, the show has been invited to be part of the International Shakespeare Festival in Prague (Czech Republic) and in Italy, by the Associazione Valle Christi, which operates a Festival and several cultural activities in Genoa, in the north of Italy. The production is sponsored by the School of Communication and by GVSU Shakespeare festival.

### **Darnell, Matthew**

January - March FY14

International Shakespeare Festival

"Bard to Go: Puzzle the Will performance"

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**Duebner, Thomas**

January - March FY14

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**Ellis, Gabriel**

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Baritone, Bass) male chorus. They will perform alongside other elite and influential male choruses from across the country. The members will be offered unparalleled opportunities to observe sessions on a variety of vocal music pedagogic and performance techniques.

**Farrell, Ryan**

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**Feiner, Erin**

January - March FY14

International Shakespeare Festival

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2013 GVSU BARD To GO Puzzle the Will The show features scenes from some of the most famous plays by William Shakespeare, including Othello, Hamlet, Macbeth, XII Night, Pericles. It combines moments of high dramatic tension with comedic episodes. The scenes are connected with a through line: a character borrowed from the world of videogames. The show tours middle and high schools in Michigan, bringing some of GVSU Shakespeare to younger audiences. Also,



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**Fowler, Matthew**

January - March FY14

Kennedy Center American College Region Three Theatre Festival

"Irene Ryan Acting Scholarship Auditions"

No Abstract.

**Gilmour, Aynsley**

January - March FY14

Michigan Academy of Science, Arts and Letters 2014 Conference

"Geospatial Analysis of Grand Valley State University's Enrollment, 1989-2012"

The purpose of this study was to investigate the enrollment reach of Grand Valley State University over a 24 year period of time. The hypothesis was that GVSU had significantly expanded its recruitment of freshmen students beyond the Grand Rapids area. Data was collected from the GVSU registrar. The number of incoming freshman by year was analyzed by county and descriptive and inferential statistics were generated. Results indicate that the mean center of recruitment has moved significantly to the southeast of the state.

**Hanson, Kelsey**

January - March FY14

Michigan Academy of Science, Arts and Letters 2014 Conference

"Airborne LiDAR and Ancient Landscapes: An Archaeological Application in Ottawa County, Michigan"

Since its introduction in the 1960s, LiDAR has proven to be a uniquely suitable tool for archaeological research, particularly in the identification of previously unrecorded site locations. By removing vegetation that often obscures aerial imagery, LiDAR offers a model of the bare earth beneath. The present research project represents a preliminary application of this technique to a selected area in Ottawa County, Michigan using 2004 LiDAR data from Ottawa County Parks and Recreation that attempts to compare unusual surface phenomena with previously recorded archaeological sites, historic plat maps, and aerial imagery. The first area in question includes Spoonville (20OT1), an intensively occupied Woodland Period site located on the left bank of the Grand River that features three known mound features, one burial, and several associated artifacts. The second area includes Connor Bayou (20OT353), a recently discovered multi-component prehistoric site located about 1.5 km west on the opposite bank. This preliminary application of LiDAR data in these two areas has yielded interesting results that drastically change our current understanding of the archaeology in this region.

**Kiel, Jesse**

January - March FY14

Intercollegiate Men's Choruses National Seminar

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**Lendman, Megan**

January - March FY14

## Society for Photographic Education: Collaborative Exchanges: Photography in Dialogue

### "China: Life of the Civilian"

There's an ocean between us in both directions. Not to mention that the Himalayas and the Sahara reside in one of those directions as well as the Ring of Fire and part of Siberia in the other, in the way of our two countries. It's understandable that we, the Americans, don't and maybe can't always understand them since they, the Chinese, are so far away. But does that mean we shouldn't try? As a civilian in a democratic country, I hold only as much power as I am willing to enforce and vocalize. As a civilian in a communist nation, a person holds only as much power as they are willing to work together and work towards. In a nation as egocentric as our own, it is easy to overlook the common people and think only of governments and the struggle for power over natural resources. But I had to see; I had to meet them, the ones who were living life in a city not too dissimilar from my own. Could they possibly be like me? So I flew over the ocean to bridge the gap. Kunming is a bit larger than Grand Rapids. With seven million people calling Kunming their home, it seemed more like Chicago or New York- but without the pizza. For a month, I roamed the streets with a mindset to live as the Chinese do. I ate with them, walked with them, spoke with them, and even danced with them. What I discovered was far more than I had hoped and this discovery is what I want to share. People, human beings, we are because we do. No matter if you are fifty feet from your home, or three thousand miles away, people have the same desires. We cook, go to school, raise children, and have our own vices. We dance and sing, sleep and wake, have aspirations and doubts. With my work *China: Life of the Civilian*, I want my viewers to see the beautiful colors and exotic clothing the Chinese choose to wear, through my images I invite them to discover the similarities in the seemingly obvious differences. I feel more whole after this journey, after I have befriended the foreign. The realization that people are people seems too undeniable to be overlooked, but sadly this is too often the case. My images are to act as a liaison to help people understand, and hopefully it can inspire them to make a journey of their own.

**Lo, David**

January - March FY14

51st Annual Conference of the Academy of Economics and Finance

"More Evidence on the Impact of Investor Sentiment on The Return Disparity for Dual-Listed Securities"

In this paper we provide more information on the return disparity between dual-listed companies (DLCs) stocks. A DLC is, in effect, a virtual merger of two companies where formally independent firms agree to share cash flow but retain their separate legal identities, including separate stock listings. Theoretically, in an efficient market the ratio of stock prices of the DLCs should reflect the ratio of the cash flow split and returns to the stock should be identical to maintain the ratio. A growing literature establishes that a disparity exists in the price ratio and returns of DLCs, with this disparity attributed to differences in investor sentiment in the separate markets at which the DLC twins are listed. We contribute to this literature by using a new methodology that allows us to parse the conditions under which the investor sentiment creates return disparity.

**Mackey, Justin**

January - March FY14

Kennedy Center/American College Theatre Festival

"Irene Ryan Award Competition"

I will be presenting 6 minutes worth of prepared scene and monologue work for competition for the Irene Ryan Award in our KC/ACTF Region. This work includes two scenes and 1 monologue, and requires extensive preparation. I will also be attending the workshops and performance at the festival. The Kennedy Center American College Theater (KC/ACTF) is a national theater program involving 18,000 students from colleges and universities nationwide which has served as a catalyst in improving the quality of college theater in the United States. The KCACTF has grown into a network of more than 600 academic institutions throughout the country, where theater departments and student artists showcase their work and receive outside assessment by KCACTF respondents([http://www.kcactf.org/KCACTF.ORG\\_NATIONAL/KCACTF.html](http://www.kcactf.org/KCACTF.ORG_NATIONAL/KCACTF.html) website).

**Maclean, Tighe**

January - March FY14

Intercollegiate Men's Choruses National Seminar

"GVSU Varsity Men Concert"

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**Malfrid, Martin**

January - March FY14

Intercollegiate Men's Choruses National Seminar

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**Maloff, Ashley**

January - March FY14

Annual Ethnographic and Qualitative Research Conference

"The Effects of Race on a U.S. Master"

Racial/ethnic demographics are shifting the United States. Subsequently, higher education institutions are becoming more racial and ethnically diverse. Given the demographic changes, faculty, staff, and administrators must also become increasingly culturally competent. The goal of the present case study is to learn more about the effects of the U.S. concept of race (i.e., White, Black/African American, etc.) on the experiences and educational outcomes for a graduate student affairs program study abroad experience in Jamaica. Interviews were conducted with 6 masters students or alumni of a graduate student affairs preparation program at a large, public, predominantly White comprehensive university located in the Midwest region of the United States. Questions regarding the importance and acknowledgement of race during and after the study abroad experience were part of the interview protocols. Such research is useful to help document the experiences of graduate students participating in study abroad; and, how current or future student affairs professionals are critically reflecting on race and racism in United States higher education.

**McCullough, Caitlin**

January - March FY14

40th Annual Meeting of the Southeastern American Society for Eighteenth-Century Studies

"Undergraduate Research on the Encyclopédie and the French Revolution"

The presentation will focus on the French mathematician, Jean leRond d'Alembert. d'Alembert greatly influenced the French Enlightenment, particularly through his work as a co-editor and a contributor to l'Encyclopédie. While studying this aspect of his life, I discovered and became interested in his contributions to the field of mathematics, which, most notably and radically, was his assertion that physics and mathematics were not two separate fields to be studied, but one and the same. This assertion continued to influence his later mathematical discoveries. At this conference, I will share the contributions of d'Alembert, which many of the audience will be most familiar with his work within the realm of literature and the Enlightenment, to his field of mathematics and relate how his contributions to those two fields (literature and mathematics) were related.

**Nykamp, Trevor**

January - March FY14

Intercollegiate Men's Choruses National Seminar

"GVSU Varsity Men Concert"

GVSU Varsity Men, selected in a nationally competitive blind audition, will perform a forty-minute vocal concert highlighting both classic and new works for TTBB (Tenor, Tenor, Baritone, Bass) male chorus. They will perform alongside other elite and influential male choruses from across the country. The members will be offered unparalleled opportunities to observe sessions on a variety of vocal music pedagogic and performance techniques.

**Phillipson, Jack**

January - March FY14

American Choral Directors Association (ACDA) Central Division Conference

"Collegiate Repertoire Choir"

The American Choral Director's Association (ACDA) is an extremely active organization in the professional music industry. Here at GV, we have a student organization that works within the music department that consists of mostly music education majors who volunteer at and organize a variety of music-related meetings and activities. At the end of February, ACDA is holding their annual Central Region Conference in Cincinnati, Ohio. At this conference will be a plethora of highly acclaimed choral directors and composers who will conduct seminars and music readings throughout the conference. The amount of career building information that will be available at this conference is astounding and opportunities such as these come rarely. Considering the fact that I along with my peers will be immersed in the industry in the very near future, learning opportunities such as this are extremely valuable to our careers as music educators. Along with attending the conference, I, along with the other students interested in attending the conference were invited to perform in a select group of collegiate singers called the Collegiate Repertoire Choir. This invitation offers an even more in depth and active experience at the conference. It is

rare to see opportunities such as these be available to such young performers; and valuable career building experiences will be lost if these opportunities are not taken advantage of.

**Reed, Philip**

January - March FY14

Michigan Academy of Science, Arts and Letters 2014 Conference

"Distribution of Four Michigan Trout Species from 1951-2002"

The purpose of this research was to map the changing geography of four native trout species, rainbow, brown, brook, and lake trout, in Michigan from 1951 to 2002. Michigan trout represent an important resource for game, trade, and tourism. Data were gathered from the Michigan Fish Atlas and mapped using ArcGIS. The highest density of sightings for rainbow and brook trout was in Alger County (13%), Mackinac County for brown trout (9%), and Berrien County for lake trout (29%).

**Rothstein, Steven**

January - March FY14

Intercollegiate Men's Choruses National Seminar

"GVSU Varsity Men Perform Opening Concert"

GVSU Varsity Men, selected in a nationally competitive blind audition, will perform a forty-minute vocal concert highlighting both classic and new works for TTBB (Tenor, Tenor, Baritone, Bass) male chorus. They will perform alongside other elite and influential male choruses from across the country. The members will be offered unparalleled opportunities to observe sessions on a variety of vocal music pedagogy and performance techniques.

**Schroeder, Nikolaus**

January - March FY14

Intercollegiate Men's Choruses National Seminar



## "GVSU Varsity Men's Concert"

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## **St. Louis, Scott**

January - March FY14

40th Annual Meeting of the Southeastern American Society for Eighteenth-Century Studies

"The Influence of John Locke on Diderot's Encyclopédie, 1751-1772 AND Rousseau, Burke, and the Revolution in France: A Participatory Demonstration of Reacting to the Past Pedagogy (Two Presentations)"

First Presentation: "The Influence of John Locke on Diderot's Encyclopedie, 1751-1772." The European intellectual movement known as the Enlightenment was marked by a renewed interest in inalienable rights, an idea (closely linked to modern democracy) first articulated in 1690 by English political philosopher John Locke in his Second Treatise of Government. Indeed, the famous Encyclopedie, one of the first comprehensive encyclopedias in history, published between 1751 and 1772, included support for this concept in articles by such profound thinkers as Voltaire, Rousseau, Montesquieu, and Diderot. Unfortunately, the colossal size of the Encyclopedie (74,000 articles) has long prevented scholars from fully understanding how it was shaped by ideas from earlier theorists, including Locke. In relatively recent times, however, an online database from a program known as American and French Research on the Treasury of the French Language (ARTFL), sponsored jointly by the University of Chicago and the French government, has made possible a more thorough examination of the Encyclopedie by enabling scholars to search the entire work in the original French for a particular word or phrase. A search of Locke yields 116 references concentrated in just 19 articles. By closely examining these

references to Locke and bringing attention to occurrences of the name that are not currently detected by a database search, this paper will demonstrate the extent to which Locke's political and epistemological philosophy influenced one of the greatest works of the French Enlightenment, within the unique scholarly context of assessing the values and limitations of the ARTFL database. Second Demonstration: "Rousseau, Burke, and the Revolution in France: A Participatory Demonstration of Reacting to the Past Pedagogy." "Reacting to the Past" games are taught at over three hundred colleges and universities, in a wide array of disciplines. Assigned roles in crucial flashpoints in the history of ideas, in order to win, students must do everything professors have always tried to get them to do: read and analyze rich texts, master course content, construct and articulate convincing arguments in writing and in public speaking, participate actively, and collaborate. So that interested conference attendants can get a sense of how this pedagogy might work in their classrooms, and what the experience is like for students, during this session they will be immersed in the intellectual, political, and ideological fervor of Revolutionary Paris, in a brief micro-game of "Rousseau, Burke, and Revolution in France, 1791."

**Steward, Andrew**

January - March FY14

International Shakespeare Festival

"Bard to Go - Puzzle the Will performance"

2013 GVSU BARD to Go Puzzle the Will The scenes are connected with a through line: a character borrowed from the world of videogames. The show tours middle and high schools in Michigan, bringing some of GVSU Shakespeare to younger audiences. Also, the show has been invited to be part of the International Shakespeare Festival in Prague (Czech Republic) and in Italy, by the Associazione Valle Christi, which operates a Festival and several cultural activities in Genoa, in the north of Italy. The production is sponsored by the School of Communication and by GVSU Shakespeare Festival. I Andrew Steward am performing in this show.

**Theule, Joel**

January - March FY14

Intercollegiate Men's Choruses National Seminar

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**Torkelson, Katie**

January - March FY14

Southeastern American Society for Eighteenth-Century Studies

"Françoise de Graffigny, Feminism, and French Thought : A Reflection on"

This presentation will be on the different forms of feminism in eighteenth-century France. Letters of a Peruvian Woman, an epistolary novel written by Françoise de Graffigny, the entry "Femmes" in Diderot's Encyclopédie, and general sentiments of the French toward women's roles in society will be discussed. The importance of the role-playing games "The Enlightenment in Crisis: Diderot's Encyclopédie in a Parisian Salon, 1751-59" and "Rousseau, Burke, and Revolution in France, 1791", played in Professor Eick's Honors Junior Seminar, will also be explored.

**Utter, Jessica**

January - March FY14

International Shakespeare Festival

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**Westmaas, Chad**

January - March FY14

40th Annual Meeting of the Southeastern American Society for Eighteenth-Century Studies

"Robespierre and Rousseau"

Robespierre has long been a controversial figure in the history of the French Revolution. For many his name is synonymous with terror and death. Called The Incorruptible during his own life it is often difficult to reconcile these two realities. How could a man deemed incorruptible by many of his peers have stained his hands with so much blood? Some have seen his involvement in the Reign of Terror as proof that he was indeed corrupted, drawn to abandon his earlier ideals in favor of power. This, however, is not the only possible answer. Indeed, analysis of Robespierres speeches reveal the mind of a man who was not corrupted by a lust for power, but instead a man who pursued his ideologies to their ultimate ends, regardless of the consequences. Indeed it seems that Robespierre followed much of Rousseaus Social Contract religiously, despite evidence that his goals were untenable.

**Wiener, Nicholas**

January - March FY14

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**Williams, Alexander**

January - March FY14

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**Wright, Sean**

January - March FY14

Phi Alpha Theta National History Conference

"Rising and Falling Against Imperium: The Capacities of Militant Slave Revolt in the Roman Republic"

Militant slave revolts during the Roman Republic succeeded and failed militarily and politically, causing Roman writers to reinforce and challenge the image of barbaric slaves.

## **ACF 2014 April - June Presentations**

### **Adkins, Tyler**

April - June FY14

19th Annual Undergraduate Philosophy Conference at SUNY Oneonta

"Effort-Responsibility: A Reply to Robert Kane's Theory of Freedom"

No Abstract.

### **Applebach, Brett**

April - June FY14

American Academy of Physician Assistants (AAPA) IMPACT 2014: Charting a Course

The purpose of this study was to identify barriers to healthcare that will exist after implementation of the Affordable Care Act (ACA) and to address the potential effect of the ACA on a free health clinic. Methodology: This study is a case control exploratory study to investigate the barriers that will still exist to patients currently receiving care at an urban free health clinic after the implementation of the ACA. A survey was generated based on barriers to health care, Medicare accessibility, and knowledge of the ACA. In addition, demographic information was included on the survey to which included medical care needs, gender, permanent residence, income, and household size. Over a three-month time frame, the survey was offered to adults who were seeking care at an urban free clinic. A total of eighty-seven surveys were collected. Data was entered into a spreadsheet for analysis using SPSS. Results: Of the 87 surveys completed, 45 were completed by females and 42 were completed by males. The age of the individuals who completed the survey ranged from 19 to 65 years of age. 73 (84%) were US citizens, and 96% had an annual income less than \$30,000 with an average household income of 2.5. 43% reported their health as good or excellent, and 57% reported their health as fair or poor. 57% had unmet health care needs while 43% identified that their health care needs are being met. In regard to barriers to health care, an analysis of the survey revealed that the most significant barriers that patients at a free health clinic face are both knowledge and tools to obtain health

care access that is available to them. 67% of patients either did not know about or were unsure if they understood the Affordable Care Act. 82.7% reported they believed they would not be or were unsure if they would be eligible for insurance under the ACA but if offered health insurance in 2014, 65% of Oasis of Hope patients would sign up. This barrier to obtaining health care is further supported by the difficulty patients at Oasis of Hope faced when attempting to sign up for Medicaid : 45.8% of patients have applied for Medicaid in the past and 82.4% of these patients were denied. 37.8% reported that the Medicaid application was long and complicated, 23.4% reported difficulty obtaining Medicaid document, and 18.5% said it was hard to apply due to Medicaid hours and difficulty finding transportation. Other barriers that may potentially exist for patients receiving care a free health clinic were identified. 55% of patients would like to continue receiving care at Oasis of Hope even after they obtain insurance indicating comfort at a free health clinic and the role of the patient-provider relationship in obtaining health care. Several patients still expressed concerns about the affordability of health care even after the implementation of the ACA. This is a potential concern for medication co-pays that will still exist for the 59% of diabetes patients, 34% of hypertension patients, and 41% of high cholesterol patients that primarily come to Oasis of Hope for the drug prescription assistance program. Conclusion: The ACA was developed to provide health care to all individuals through government subsidized or government assistance. However, the results of this study identified that there is a lack of knowledge of the ACA from individuals who could benefit from government assistance. In addition, the survey identified that the process of obtaining health care coverage is difficult as well as time consuming. Based on the findings of this survey, the free clinic has obtained computers and volunteers to assist their patients with navigating through the application for health care assistance.

**Barnhart, Kyle**

April - June FY14

Association of American Geographers Annual Meeting

"Park Equity and Green Access in Three Midwestern Cities"

High quality accessible parks play a vital role in urban livability. Urban planners have cited parks as a remedy for issues ranging from crime to climate change and touted their effectiveness as a strategy in revitalization, tourism and civic engagement. Growing research suggests that the positive effects of parks on physical health, in particular, are linked to green and recreational spaces with particular functions and design as well as size and accessibility. Unfortunately, the spatial distribution of parks with these various attributes is not always equitable. This paper compares the park systems of three mid-sized cities in the Great Lakes region of the United States with a focus on discrepancies in park accessibility, size, and function in low vs. high income census districts. GIS mapping is applied to provide a database on park accessibility and quality in the cities of Aurora, Illinois, Cincinnati, Ohio, and Grand Rapids, Michigan. The results are analyzed in the light of literature showing the impacts of accessibility, size and function on levels of physical activity and environmental quality. In Grand Rapids, for instance, tree coverage is lower and average park size smaller in lower income regions places that, at the same time, have greater exposure to highway and factory particulate matter. The overall purpose of this research is to show the implications of neglecting spatial equity especially with regard to green spaces and to inform parks policy where cities are faced with prioritizing the spending of limited funds.

**Becker, Carson**

April - June FY14

2014 American Occupational Therapy Association, Inc. (AOTA) Annual Conference & Expo

"Teaching Interprofessional Education (IPE) Core Competencies Through An International Service Learning Experience"

The purpose of this presentation is to guide OT educators understanding of how to use an Interprofessional Education (IPE) teaching method within an International Service Learning context to develop student competencies in ethics, roles, communication, and teamwork.

**Blake, Travis**

April - June FY14



2014 University System of Georgia Teaching and Learning Conference: Best Practices for Promoting Engaged Student Learning

"Final Collaborative Projects that engage students in Experiential Learning: The case of a"

Travis Blake Emily Cameron Dr. Natalia Gómez. Experiential Learning is one of the most engaging teaching practices that educators can bring into the classroom. Having this in mind, we would like to present a collaborative project that was completed during Prof. Natalia Gómez's Spanish 313 (Latino/a Civilization and Culture) at GVSU. Students taking this course were asked to finish a Final Project to complete the requirements of the class. The students were to choose among three diverse projects to finish the Final Project. They could do community services; they could create a blog in pairs in which they were asked to critically analyze five topics studied in the class. And finally, they could collaboratively create a reality video of a Latino/a living in the Grand Rapids community. One of the main objectives of this Final Project was to give the students the opportunity to use their main fields of study. For the purpose of this conference, my students, Travis Blake, Emily Cameron and I will show the third Final Project option, the creation of a reality video in groups of two. The video project option was given to students who were studying Spanish but also Film and Video Productions. During the presentation the students and I will talk about the importance of engaging students in a collaborative and interdisciplinary project. The project we will present required active learning where students integrated academic knowledge into a practical reality: students were critically thinking about the material that had been taught, they were engaged in problem based-learning, they collaboratively put into practice what they had learned and they applied their learning within diverse communities outside the classroom.

**Bos, Veronica**

April - June FY14

American Society for Clinical Laboratory Science-Michigan (ASCLS-MI) 2014 State Convention

"Comparison of Group B Strep Detection Methods"

The objective of our study is to assess the results of GBS testing using three rapid methods and compare them to the results of a routine culture on the same specimen. The three rapid tests to be used are Illumigene GBS by Meridian, AmpliVue GBS by Quidel, and Smart GBS by Cepheid. We will be looking at the accuracy, turnaround time, and cost of each in order to see which test offers the best balance of these traits. The vaginal/rectal specimens that come into the lab for screening from patients at 35-37 weeks gestation will be used for the tests. We will use the results from the micro department for the cultures and follow the manufacturer instructions for the rapid tests. The Illumigene GBS has a shorter run time on the machine, but since it requires the specimen be enriched in carrot or LIM broth for 18-24 hours first, we suspect the fastest overall turnaround time will be that of the Smart GBS system, which uses specimen from the swab directly. According to the FDA, specificity and sensitivity are quite close for the rapid tests, so we don't predict much difference there. As far as cost, we suspect that cost will be higher for the Smart GBS compared to Illumigene GBS. As we do not yet know the actual cost difference or performance level, we cannot yet make a decision on which test is better overall.

**Brehm, Chelsea**

April - June FY14

American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD) 2014 National Coaching Conference

"Sustaining Standards Based Coaching Education in an Urban, Low-Income School District"

This presentation will discuss outcomes of a justice based coaching education collaborative between Grand Rapids Public Schools (GRPS), a large, urban, low-income district in Michigan and Grand Valley State University (GVSU) Coaching Education faculty. GRPS received a multi-million dollar grant in 2009 to fund the Academic and Athletic Enhancement Project (AAEP) which included a long-term plan strengthen district athletic staff leadership and coaching. In an effort to help GRPS achieve this goal, GVSU faculty introduced the NASPE standards to administration and assisted them in organizing standards based coaching education workshops for their coaching staff (over 300 coaches) beginning in 2010. In winter 2012, evaluative/ needs

assessment data was collected to provide direction for future initiatives. Fifteen current GRPS coaches were interviewed using a standardized, open-ended interview script (Patton, 2002). Coaches were asked to discuss why they participated in the workshops, how they had incorporated content from workshops into their coaching, what the strengths/weaknesses of workshops were, topics they would like to learn more about, and changes they would like to see in coaching education initiatives. Interviews were transcribed; data was coded, and then analyzed using inductive and deductive analysis to affirm appropriateness and organization of themes (Patton 1987, 2002). Coaches reported they attended workshops to improve skills and better serve kids. They also stated they had incorporated several new ideas and suggested the strengths of the workshops were educational aspects and networking opportunities. A major weakness cited was that information lacked breadth and depth relevant to the low-income, at risk environment they work in. Finally, the major change coaches wanted was for future workshops be more sport (Xs and Os) specific. Results will be further discussed as they relate to organizing and sustaining long-term NASPE standards based education programs for coaches in an urban, low-income setting.

**Cameron, Emily**

April - June FY14

2014 University System of Georgia Teaching and Learning Conference: Best Practices for Promoting Engaged Student Learning

"Final Collaborative Projects that engage students in Experiential Learning: The case of a "reality" video of a Latino in Grand Rapids"

Travis Blake Emily Cameron Dr. Natalia Gómez. Experiential Learning is one of the most engaging teaching practices that educators can bring into the classroom. Having this in mind, we would like to present a collaborative project that was completed during Prof. Natalia Gómez's Spanish 313 (Latino/a Civilization and Culture) at GVSU. Students taking this course were asked to finish a Final Project to complete the requirements of the class. The students were to choose among three diverse projects to finish the Final Project. They could do community services; they could create a blog in pairs in which they were asked to critically analyze five topics studied in

the class. And finally, they could collaboratively create a reality video of a Latino/a living in the Grand Rapids community. One of the main objectives of this Final Project was to give the students the opportunity to use their main fields of study. For the purpose of this conference, my students, Travis Blake, Emily Cameron and I will show the third Final Project option, the creation of a reality video in groups of two. The video project option was given to students who were studying Spanish but also Film and Video Productions. During the presentation the students and I will talk about the importance of engaging students in a collaborative and interdisciplinary project. The project we will present required active learning where students integrated academic knowledge into a practical reality: students were critically thinking about the material that had been taught, they were engaged in problem based-learning, they collaboratively put into practice what they had learned and they applied their learning within diverse communities outside the classroom.

**Crawford, Kelsie**

April - June FY14

2014 American Occupational Therapy Association, Inc. (AOTA) Annual Conference & Expo

"Teaching Interprofessional Education (IPE) Core Competencies Through An International Service Learning Experience"

The purpose of this presentation is to guide OT educators understanding of how to use an Interprofessional Education (IPE) teaching method within an International Service Learning context to develop student competencies in ethics, roles, communication, and teamwork.

**Dingess, Ashley**

April - June FY14

American Society for Clinical Laboratory Science-Michigan (ASCLS-MI) 2014 State Convention

"Testing Coagulation Centrifuge Criteria to Improve Turnaround Time in the Laboratory"

This comparison study examined the coagulation centrifugation methods for Prothrombin time and Partial Thromboplastin Time at manufacturers recommended setting and at a stat spin for a lower period of time. The manufacturers recommending setting is 3000g for 10 minutes and the stat spin was set at 5000g for 4 minutes. Stat spin criteria was determined by checking for platelet poor plasma (PPP) after centrifugation with the Coulter hematology instrument to make sure the platelet counts in the plasma were all under 10,000. Once centrifuged, we ran the samples on the coagulation instrument and compared results. Our hypothesis was that stat would produce results that were not significantly different than that of the manufactures recommended spin time and speed. This study is useful in providing data to the lab which in turn lowers turnaround for the laboratories, one of the primary ways to gauge performance.

**Disler, Lindsey**

April - June FY14

The Future of Religion: Witnessing and Confessing in Modernity and Post-Modernity

"Witnessing and Confessing in Action"

The purpose of this article is to analyze theories that address the acts of witnessing and confessing as well as how these two acts interrelate for the purpose of creating a dialogue between academia and the rest of the population who are not well versed in these theories. This is in an effort to shape society positively for people through what secular humanists refer to as the categorical imperative and what the religious refer to as the golden rule, an ethical pillar of all the major world religions. Witnessing the world around us is a common act of everyday life, or the action upon what we confess. Confession must be a part of life as well. The confession is not merely the act of saying the problem, but the ultimate act of confession is to do something about it. Through this we can put theory into praxis and influence people to shape society for the better.

**Ertz, Emily**

April - June FY14

National Science Teachers Association (NSTA) National Conference on Science Education

"How Do We Know The Paleozoic Started 542 Million Years Ago?"

No Abstract.

**Eslamian, Sharzad**

April - June FY14

Great Lakes Bioinformatics (GLBIO) Conference 2014

"Supporting omics research, finding gene expression changes over time"

No Abstract.

**Fedewa, Erica**

April - June FY14

American Academy of Physician Assistants (AAPA) IMPACT 2014: Charting a Course

"The Potential Effect of the Affordable Care Act on a Free Clinic and Potential Barriers to Health Care Access as Perceived by Patients Receiving Health Care at a Free Medical Clinic"

Purpose: The study's purpose was to identify barriers to healthcare that will exist after implementation of the Affordable Care Act (ACA), and address the potential effect of the ACA on a free health clinic. Methodology: To determine the impact of the ACA on patients who obtain health care at a free clinic, a survey was generated to assess knowledge of the ACA, Medicare accessibility, and barriers to obtaining health care. In addition, demographic information regarding medical care needs, gender, permanent residence, income, and household size was collected. The survey was offered to adults seeking care at an urban free clinic. A total of eighty-seven surveys were collected. Data were entered into a spreadsheet for analysis using SPSS. Results: 87 surveys were completed, 45 by females and 42 by males. Age range of those who completed the survey ranged between 19 to 65 years of age. 73(84%) were US citizens, and 96% had an annual income less than \$30,000. 43% reported their health as good/excellent, and 57% reported their health as fair/poor. 57% had unmet health care needs while 43% identified

that their health care needs are being met. 67% of patients either did not know about or were unsure if they understood the Affordable Care Act. 82.7% reported they believed they would not be or were unsure if they would be eligible for insurance under the ACA but if offered, 65% of the patients would sign up. The barrier to obtaining health care is further supported by the difficulty patients at the free clinic had when attempting to sign up for Medicaid: 45.8% of patients have applied for Medicaid in the past and 82.4% of these patients were denied. 37.8% reported that the Medicaid application was long and complicated, 23.4% reported difficulty obtaining Medicaid documents, and 18.5% said it was difficult to apply for Medicaid due to limited hours and difficulty finding transportation. 55% of patients would like to continue receiving care at the free clinic even after they obtain insurance. Several patients expressed concerns about the affordability of health care even after the implementation of the ACA. This is a potential concern for medication co-pays that will still exist for the 59% of diabetes patients, 34% of hypertension patients, and 41% of hypercholesterolemia patients that primarily come to Oasis of Hope for the drug prescription assistance program. Conclusion: The ACA was developed to provide health care to all individuals through free or government subsidized health insurance. However, the results of this study identified a lack of knowledge of the ACA from individuals who are currently uninsured seeking care at a free health clinic. In addition, the survey identified that the process of obtaining health care coverage is difficult due to hours of operation, and difficulty navigating the application. With a majority of the patients in the clinic having health care needs unmet and a majority having difficulty navigating government documents to obtain health insurance, there will be patients who may fall through the gaps in the ACA.

**Frostick, Challie**

April - June FY14

2014 Annual Meeting of the Midwestern Psychological Association

"Relationships Between Maternal-Mind-Mindedness, Gender-Stereotypes, and Mother-Child Emotion Talk About Jealousy"

Area: Childrens Socio-Cognitive Development Purpose: With widespread attention turning towards a possible bullying epidemic in the U.S., childrens socio-cognitive understanding about interpersonal rivalry is becoming an increasingly important topic. Research suggests that parent-guided reminiscing about emotional events (Fivush, 2001), and maternal-mind-mindedness (MMM, degree of maternal attention to a childs mental capacities; Meins et al., 1998), are beneficial to childrens social-cognition. Studies of parent-guided reminiscing with preschoolers have found that mothers talk more about emotions with girls than boys, and girls talk more about emotions than boys (Fivush & Buckner, 2000). However, few studies have investigated parent-guided reminiscing with older children about complex emotions like jealousy (a ubiquitous emotion concerning interpersonal rivalry) and lacking research on the influence of MMM. Therefore, this study investigated: (1) whether gendered patterns found in preschoolers and mother-child emotion talk occur during middle childhood, (2) whether MMM differentially influences girls and boy-child emotion talk, and (3) whether mothers gender-stereotyped beliefs influence mother-child emotion talk about interpersonal rivalry. Procedure: Eighty 5-to-11-year-olds (40 girls, 40 boys) and their mothers talked about the child's previous experience of rivalry concerning jealousy. The narratives were coded for both partners use of emotion type. Mothers completed the MMM interview by providing a verbal description of their child. Each child characteristic was coded for both MMM (i.e., proportion of mentalistic attributes) and gender-stereotype (i.e., proportion of gender-stereotyped characteristics for child's sex). Children were given standardized measures of verbal and nonverbal intelligence, and emotion understanding; mothers were given a measure of verbal intelligence. ————— Results: One-way ANOVAs revealed no gender differences in the standardized measures or use of emotional discourse for mothers or children. Differences were found, however, within the maternal descriptions of children: Mothers of sons focused on mentalistic attributes, whereas mothers of daughters focused on female-stereotyped characteristics. Correlation analyses revealed that daughters of mothers who focused on female-stereotyped attributes talked more about sadness. Contrastively, sons of mothers who focused on male-stereotyped characteristics talked more about contempt, and also talked more themselves about their son experiencing contempt and pride. Conclusions/Implications: Results suggest that while MMM may play less of a role in school-age childrens social-cognition, maternal stereotyped-beliefs and maternal-guided reminiscing may continue to influence childrens developing abilities beyond preschool. Our



findings may have important implications for understanding the socialization practices behind childrens emotional discourse about childhood rivalry and aggression.

**Gilewski, Carlene**

April - June FY14

Southeastern Section, Geological Society of America (GSA) 63rd Annual Meeting

"P-T-T PATH CONSTRAINTS DURING DEFORMATION WITHIN THE CHUNKY GAL MOUNTAIN FAULT, CENTRAL BLUE RIDGE, NORTH CAROLINA"

The Chunky Gal Mountain Fault (CGMF) is located within the Central Blue Ridge province of the Southern Appalachians. This terrane-bounding fault lies adjacent to the Buck Creek-Chunky Gal mafic-ultramafic complex (BCC), an ocean crustal fragment that experienced peak (Taconian) conditions of  $\sim 825^{\circ}\text{C}$ , 1.2 GPa. At the type locality, the CGMF is characterized by several focused shear zones along the boundary between BCC amphibolites and garnet-biotite or sillimanite-garnet-biotite gneisses. CGMF samples preserve complex physical and chemical textures that may help constrain the emplacement history of the BCC. A biotite gneiss ultramylonite (sample 11L3), with a shallow lineation and sinistral asymmetry includes garnet, K-feldspar, plagioclase, and muscovite porphyroclasts and accessory ilmenite, rutile, and monazite. EPMA monazite geochronology indicates a range of ages for monazite growth. The ages of cores of larger monazite grains and those preserved as garnet inclusions cluster around 470 Ma. The small matrix monazites and low Y rims of larger grains display asymmetry consistent with growth during mylonite formation and cluster around an age of  $\sim 450$  Ma. Complex garnet zoning in 11L3 and other CGMF samples suggests preservation of prograde zoning (increasing Mg/decreasing Ca) similar to large garnets at Winding Stair Gap (WSG) where peak granulite facies are documented. However, a distinct increase in Ca and Mn toward the rims, which has not been previously reported in the area, is distinctive in 11L3 and other CGMF rocks. We estimate peak metamorphic conditions of  $\sim 800^{\circ}\text{C}$  and  $> 0.8$  GPa, similar to conditions at WSG, using TWQ thermobarometry and Theriak-Domino pseudosections. Retrograde temperatures of  $\sim 600^{\circ}\text{C}$  are estimated from Garnet rim/adjacent biotite. Preliminary P-T-t modeling of garnet zoning (Gibbs program) suggests that prograde growth is characterized

by a slight increase in temperature and distinct decrease in pressure. The increased Ca toward the rim produces a nearly isothermal and sharp increase in pressure. This may indicate significant loading at or near peak temperature conditions, possibly resulting from thrusting across the GCMF.

**Goodrich, Erica**

April - June FY14

PharmaSUG 2014

"P-T-T PATH CONSTRAINTS DURING DEFORMATION WITHIN THE CHUNKY GAL MOUNTAIN FAULT, CENTRAL BLUE RIDGE, NORTH CAROLINA"

A new addition to SAS® 9.4 is the Output Delivery System (ODS) Electronic-Publications (EPUB) destination. ODS EPUB can be used to create SAS® output files for various e-readers on both smart phones (e.g. Samsung Galaxy, Apple iPhone) and tablets (e.g. Apple iPad, and Amazon Kindle). We will discuss how to create SAS® output from varying reporting and graphical procedures alongside free flowing text and ODS EPUB customization options available to create easy to use e-publication files. Some PROCs may be discussed at moderate levels of complexity, however ODS EPUB topics will be discussed at an introductory level.

**Hisler, Garrett**

April - June FY14

Midwestern Psychological Association (MPA) Annual Meeting

"Effects of Processing Style and Message Format on Health Beliefs"

No Abstract.

**Kline, Kimberley**

April - June FY14

American Academy of Physician Assistants (AAPA) IMPACT 2014: Charting a Course

## "Quality of Life Analysis between Premenopausal and Postmenopausal aged Women after da Vinci Robotic Sacrocolpopexy"

The purpose of this study was to compare the postoperative quality of life after the da Vinci robotic sacrocolpopexy procedure for the correction of pelvic organ prolapse (POP) between premenopausal and postmenopausal-aged women as defined by <55 and ≥55 years of age, respectively. Methodology: Demographics were collected from the first 100 women to receive da Vinci Robotic sacrocolpopexy between the years of 2007 and 2010 from a private obstetric and gynecological practice. Quality of life preoperatively and postoperatively was assessed using a questionnaire known as the Pelvic Floor Impact Questionnaire-Short Form 7 (PFIQ-7). An additional questionnaire, the Pelvic Floor Distress Inventory Questionnaire- Short Form 20 (PFDI-20) was also used to evaluate postoperative symptoms. Surveys were mailed to the 100 women, and 58 surveys were received. Results: SPSS was used to analyze boxplots and histograms; nonparametric statistics were used due to the presence of extreme outliers. An analysis of the PFIQ-7 survey in the entire sample identified that the subjects reported significant postoperative improvement in bowel symptoms ( $p=0.008$ ) and overall combined symptoms ( $p<0.0001$ ). For the purpose of comparing the quality of life between premenopausal and postmenopausal women, the sample was age stratified. Women of premenopausal age (<55 years) reported no significant postoperative improvements in bladder ( $p=0.754$ ), bowel ( $p$ -value could not be calculated by SPSS due to pre and post values being identical), vaginal symptoms ( $p=0.549$ ), or summary scores ( $p=0.227$ ). Women of postmenopausal age (≥55 years) reported significant postoperative improvement in bowel symptoms ( $p=0.020$ ) and overall summary score ( $p<0.0001$ ), but no significant improvements in bladder ( $p=0.361$ ) or vaginal ( $p=0.381$ ) symptoms. Conclusions: There was a difference in the type of symptomatic improvement reported by women of pre- and postmenopausal age after undergoing da Vinci robotic sacrocolpopexy for repair of POP. Premenopausal-aged women had no significant improvement in any of the symptom categories, whereas postmenopausal-aged women reported improvement in bowel symptoms and the overall quality of life score. These differences indicate that menopausal-age status may play a role in determining the type of symptomatic improvement after da Vinci robotic sacrocolpopexy to repair POP.

**Koch, David**

April - June FY14

39th Annual International Trumpet Guild Conference

"Trumpet Ensemble Prelude"

The GVSU trumpet ensemble has been invited to play a prelude before an event at the International Trumpet Guild Conference. This is a fantastic opportunity for personal growth as a musician through the conference and to represent Grand Valley State University through our performance.

**Littell, Jamin**

April - June FY14

American Academy of Physician Assistants (AAPA) IMPACT 2014: Charting a Course

"Quality of Life Analysis between Premenopausal and Postmenopausal aged Women after da Vinci Robotic Sacrocolpopexy"

Objective: To compare the postoperative perceived success of the da Vinci robotic sacrocolpopexy procedure for the correction of pelvic organ prolapse (POP) between premenopausal- and postmenopausal-aged women as defined by <55 and e55 years of age, respectively. Materials and Methods: Demographics were collected from the first 100 women to receive da Vinci Robotic sacrocolpopexy between the years of 2007 and 2010 from a private obstetric and gynecological practice. Quality of life preoperatively and postoperatively was assessed using a questionnaire known as the PFIQ-7. An additional questionnaire, the PFDI-20 was also used to evaluate postoperative symptoms. Surveys were mailed to the 100 women, and 58 surveys were received. Results: SPSS was used to analyze boxplots and histograms; nonparametric statistics were used due to the presence of extreme outliers. An analysis of the PFIQ-7 survey identified that the subjects reported significant postoperative improvement in bowel symptoms ( $p=0.008$ ) and overall combined symptoms ( $p<0.0001$ ). Women of

premenopausal age (<55 years) reported no significant postoperative improvements in bladder (p=0.754), bowel (p-value could not be calculated), or vaginal symptoms (p=0.549), or summary scores (p=0.227). Women of postmenopausal age (≥55 years) reported significant postoperative improvement in bowel symptoms (p=0.020) and overall summary score (p< 0.0001), but no significant improvements in bladder (p=0.361) or vaginal (p=0.381) symptoms. Conclusion: There was a difference in the type of symptomatic improvement reported by women of pre- and postmenopausal age after undergoing da Vinci robotic sacrocolpopexy for repair of POP. These differences indicate that menopausal status may play a role in determining the type of symptomatic improvement after da Vinci robotic sacrocolpopexy to repair POP.

**Long, Justine**

April - June FY14

American Society for Clinical Laboratory Science-Michigan (ASCLS-MI) 2014 State Convention

"Comparison of Group B Strep Detection Methods"

The objective of our study is to assess the results of GBS testing using three methods and compare them to the results of a routine culture on the same specimen. The three tests to be used are Illumigene GBS by Meridian, AmpliVue by Quidel, and Smart GBS by Cepheid. We will be looking at the accuracy, turnaround time, and cost of each in order to see which test offers the best balance of these traits. The vaginal/rectal specimens that come into the lab for screening from patients at 35-37 weeks gestation will be used for the tests. We will use the results from the microbiology department for the cultures and follow the manufacturer instructions for the rapid tests. Though this study is currently ongoing, we are looking for a valid detection method that will give the most accurate results, therefore providing the patients with the best care. However, we are going to analyze multiple aspects of each method including sensitivity, specificity, turnaround time, tech time, as well as cost of the test and equipment needed. Based on the criteria stated, we will conclude which detection method is the best option for improving patient care.

**Loree, Courtney**

April - June FY14

American Academy of Physician Assistants (AAPA) IMPACT 2014: Charting a Course

"Quality of Life Analysis between Premenopausal and Postmenopausal aged Women after da Vinci Robotic Sacrocolpopexy"

The purpose of this study was to compare the postoperative quality of life after the da Vinci robotic sacrocolpopexy procedure for the correction of pelvic organ prolapse (POP) between premenopausal and postmenopausal-aged women as defined by <55 and e55 years of age, respectively. Methodology: Demographics were collected from the first 100 women to receive da Vinci Robotic sacrocolpopexy between the years of 2007 and 2010 from a private obstetric and gynecological practice. Quality of life preoperatively and postoperatively was assessed using a questionnaire known as the Pelvic Floor Impact Questionnaire-Short Form 7 (PFIQ-7). An additional questionnaire, the Pelvic Floor Distress Inventory Questionnaire- Short Form 20 (PFDI-20) was also used to evaluate postoperative symptoms. Surveys were mailed to the 100 women, and 58 surveys were received. Results: SPSS was used to analyze boxplots and histograms; nonparametric statistics were used due to the presence of extreme outliers. An analysis of the PFIQ-7 survey in the entire sample identified that the subjects reported significant postoperative improvement in bowel symptoms ( $p=0.008$ ) and overall combined symptoms ( $p<0.0001$ ). For the purpose of comparing the quality of life between premenopausal and postmenopausal women, the sample was age stratified. Women of premenopausal age (<55 years) reported no significant postoperative improvements in bladder ( $p=0.754$ ), bowel (p-value could not be calculated by SPSS due to pre and post values being identical), vaginal symptoms ( $p=0.549$ ), or summary scores ( $p=0.227$ ). Women of postmenopausal age (e55 years) reported significant postoperative improvement in bowel symptoms ( $p=0.020$ ) and overall summary score ( $p<0.0001$ ), but no significant improvements in bladder ( $p=0.361$ ) or vaginal ( $p=0.381$ ) symptoms. Conclusions: There was a difference in the type of symptomatic improvement reported by women of pre- and postmenopausal age after undergoing da Vinci robotic sacrocolpopexy for repair of POP. Premenopausal-aged women had no significant improvement in any of the symptom categories, whereas postmenopausal-aged women reported improvement

in bowel symptoms and the overall quality of life score. These differences indicate that menopausal-age status may play a role in determining the type of symptomatic improvement after da Vinci robotic sacrocolpopexy to repair POP.

**Lott, Sarah**

April - June FY14

American Society for Clinical Laboratory Science-Michigan (ASCLS-MI) 2014 State Convention

"Improving the Quality of Life in Treating Cystinosis with Procysbi"

Cystinosis is a rare autosomal recessive disease that causes cystine to accumulate in cell lysosomes. Due to the lack of transport proteins, the cell is unable to expel cysteine resulting in an abundance of cysteine crystals in all tissues, particularly to the kidneys and eyes, causing damage as well as metabolic imbalance. Cysteamine bitartrate (trade name Cystagon) was found to enable the transport of cysteine out of the lysosomes and is currently the only treatment option for cystinosis patients. Typical treatment involves taking a large number of pills divided into four daily doses, every six hours through the day and night, to maintain  $< 2 \text{ nmol } \frac{1}{2}$  cystine level in the WBC. Recently, a new extended-release form of cysteamine was FDA approved that allows dosing at twelve hour intervals, and may result in a decrease in GI symptoms and patient compliance. Our case study will examine whether the twice-daily regimen of Procysbi will be as effective in regulating cystine levels as the six hourly dosage with an improvement in GI symptoms and overall quality of life.

**Machiela, Jenna**

April - June FY14

American Society for Clinical Laboratory Science-Michigan (ASCLS-MI) 2014 State Convention

"Comparison of Group B Strep Detection Methods"

The objective of our study is to assess the results of GBS testing using three methods and compare them to the results of a routine culture on the same specimen. The three tests to be used are Illumigene GBS by Meridian, AmpliVue by Quidel, and Smart GBS by Cepheid. We will be looking at the accuracy, turnaround time, and cost of each in order to see which test offers the best balance of these traits. The vaginal/rectal specimens that come into the lab for screening from patients at 35-37 weeks gestation will be used for the tests. We will use the results from the microbiology department for the cultures and follow the manufacturer instructions for the rapid tests. Though this study is currently ongoing, we are looking for a valid detection method that will give the most accurate results, therefore providing the patients with the best care. However, we are going to analyze multiple aspects of each method including sensitivity, specificity, turnaround time, tech time, as well as cost of the test and equipment needed. Based on the criteria stated, we will conclude which detection method is the best option for improving patient care.

**Meirow, Danielle**

April - June FY14

"Midwest Undergraduate Conference in Gender

Studies: Bursting Gender's Bubble, An Interdisciplinary Gender Studies Conference"

"The Leaky Pipeline: Women Pursuing Careers in Medicine"

Since the passage of Title IX in 1972, women's educational and career opportunities have expanded drastically in the United States, however, research has shown that women pursue post-baccalaureate and graduate level education at lower rates than men, and that when they do enter graduate school, they are more likely to drop out of their programs. The metaphor of a leaky pipeline has been used to explain this phenomenon. This study will draw on the leaky pipeline effect to study students in their undergraduate years who hoped to become a physician upon entering college, but have since changed their career aspirations. Additionally, it will investigate the causes of this change. Primary data will be collected through an e-mailed survey, while additional in-depth information will be gained through one on one interviews. It is expected that women will have altered their career goals at greater rates than men and that these changes will be due to social pressures placed upon them by those around them.



**Miller, Robert**

April - June FY14

39th Annual International Trumpet Guild Conference

"Trumpet Ensemble Prelude Performance"

The GVSU Trumpet Ensemble has been invited to perform the prelude music for a featured recital of a world renowned artist at the International Trumpet Guild. This is an incredible opportunity to meet other professionals in the trumpet and music circles from around the world. It is also an incredible performance opportunity to perform and refine ones artistry and craft of music performance. Not to mention the great ability this is to sponsor and advertise Grand Valley State University on an international stage, to other professionals, students, and future students.

**Munday, Alice**

April - June FY14

6th Annual Symposium for History Undergraduate Research (SHUR)

"Power has Passed : Union Surgeon George M. Trowbridge' s Evolutionary Perceptions of Freedmen During the American Civil War"

Historians have long tried to generalize Union soldiers views on slavery; however, there seems a plethora of understandings. Our paper utilizes the over 200 sagacious letters George M. Trowbridge, an Assistant Surgeon in the 19th Michigan Infantry, wrote to his wife from 1863-65 to evince the nuances of a Union soldiers views on the peculiar institution during the Civil War. As a well-educated medical doctor, Trowbridge offers canny insights about the complexities and the evolution of his ideas about slavery, race, politics and the wars objectives. We aim to bring to light the individuality of this typical soldier to expose his speckled viewpoints surrounding slavery and emancipation, rather than to categorize his views. Though Trowbridge has limited antebellum interactions with African Americans, this seemingly moderate abolitionist and evangelical Christian from Michigan interacts with freedmen throughout his military service.

These interactions militate his assessment of African Americans. Trowbridge goes from being provincial and almost indifferent towards African Americans to becoming more tolerant and excited to see African American troops mettle in fighting for their freedom. The surgeons wartime views cover a broad spectrum. At one point he postulates that blacks were a docile race who would benefit from miscegenation to advance their cerebral acumen. At another point he believes them more intelligent than southern whites. The letters home reveal a personal and vivid picture of the larger narrative of slavery and the Civil War. Trowbridges writings demonstrate the inner conflict and debate he had over the place of freedmen and racial prejudices when he encountered the peculiar institution.

**Phillipich, Jamie**

April - June FY14

American Academy of Physician Assistants (AAPA) IMPACT 2014: Charting a Course

"Mass Media Influence on Human Papillomavirus Knowledge of College Freshmen"

Many studies have assessed the publics perceptions and acceptability of the Human Papillomavirus (HPV) vaccine, while others have analyzed the medias coverage of the vaccine, however few have specifically assessed the media influence on the perception HPV and vaccine compliance. College freshmen in fall 2013 were the first group of adolescent females targeted by the proposed Gardasil® vaccine guidelines in 2006 for 11-12 year old girls, and the first group of adolescent males targeted in 2009 for 15-16 year old boys. Thus, there is limited data evaluating how this population was educated about HPV and if the media has influenced their perception and acceptance of the vaccine. The aim of this study was to evaluate this populations education about HPV/Gardasil® and determine if the media had an increased role in their reception of HPV knowledge and if the media influenced their reception of the HPV vaccine, Gardasil®. Methods: One thousand randomly selected 18-19 year old freshmen students at Grand Valley State University were invited to participate in this cross-sectional quantitative pilot study using an on-line, anonymous questionnaire. The 48 question survey evaluated participant demographics, basic STD knowledge and perceptions, HPV knowledge, personal sexual behaviors, acquisition of sexual health information, knowledge about Gardasil®, vaccination barriers, and vaccination

status. Pearson Chi-Square tests, score development, Mann-Whitney, and Spearman's rank correlation were tools used to analyze the data. Results: One hundred forty six students completed the survey. The majority of participants were female (69.2%) and white, non-Hispanics (87.7%). The study revealed 68% of respondents reported obtaining HPV and Gardasil® related information from the media, and 37% of respondents felt that the information presented in the media was not believable. Respondents reported receiving the most believable HPV-related information from health education classes and healthcare providers. An HPV knowledge score was developed and Mann-Whitney analysis revealed that neither gender (p-value=0.619), vaccination status (p-value=0.417), nor parents having a college degree (p-value=0.210) had a significant impact on HPV knowledge. Additionally, a health score analyzed the amount of interaction between healthcare providers and media exposure students received. A Mann-Whitney test revealed gender had a significant impact (p-value<0.001) on the health score, with females outscoring (M=3.27, SD=1.054) males (M=2.36, SD=1.125). Individuals who received the vaccine scored significantly higher (M=3.64, SD=0.586, p-value<0.001) than those who did not receive the vaccine (M=2.45, SD=1.234). Additionally, 41% of the respondents had a health score of 100%, with 25% of this subset reporting receiving the vaccine. Thus, despite receiving all the health information about Gardasil®, 75% had not been vaccinated. Conclusion: The results of this study suggest that regardless of the amount of interaction students had with healthcare providers and/or the media, it did not affect their overall knowledge of HPV or Gardasil®. It is imperative as providers, to impart accurate, honest information with patients and their families so they have information necessary to make informed decisions about their health, particularly in regards to HPV information and the Gardasil® vaccine.

**Phillips, Kristy**

April - June FY14

Joint Aquatic Sciences Meeting 2014

"Unionids: Their Current Status, Association with Macroinvertebrates and Population Dynamics at Cedar Creek"

The decline in mussel populations in North America has been attributed to land-use modifications and unionids are endangered and likely to become extirpated. Our project investigated the status of the unionid community in a 3rd order stream and examined their relationship with aquatic macroinvertebrates. Multiple variables were compared to mussel patches. We sampled 18 randomly chosen sites within 2 separate 100-meter reaches at Cedar Creek and compared unionid and macroinvertebrate diversity, density, and richness. Variables measured included transport OM, chemistry, substrate; and biological samples included benthic macroinvertebrates (0.25m<sup>2</sup>) and unionids (n=144). Mussel density was positively correlated with macroinvertebrate density (p=0.003, R=0.783) and substrate composition correlated with the higher mussel density and consisted of a mixture of gravel, cobble, sand, and Vallisneria. Sample sites that had little/no mussels present had one or two dominate types of substrate.

**Smit, James**

April - June FY14

Joint Aquatic Sciences Meeting 2014

"SEDIMENT NUTRIENT FLUX IN RESPONSE TO HYDROLOGIC RECONNECTION AND CLIMATE CHANGE"

Wetland restoration and creation activities are common practices in today's world. The intent of these activities is to restore the ecosystem services that wetlands provide such as flood prevention, sediment retention, and water quality improvement through the sequestration of nutrients such as nitrogen and phosphorus. However, wetlands restored on former agricultural land may act as a source of these nutrients to the water column rather than a sink. This study involves a parcel of land that was originally a deltaic wetland that was converted to farmland, and is now designated for wetland restoration. Our goal is to determine if the sediments in question will serve as a source or sink of nutrients once the wetland is hydrologically reconnected to an adjacent stream. This project also examines how increased temperature, a phenomenon that is expected to occur through the century, will affect nutrient exchange between the water column and sediment. Lab-based experiments, using sediment and water from the

study area, were performed to simulate different reconnection scenarios and both phosphorus and nitrogen water column concentrations were monitored over time.

**Sunny, Nadia**

April - June FY14

121st American Society for Engineering Education (ASEE) Annual Conference & Exposition

"Ethics of Regulated Biomedical Device Design"

Safety and welfare of human beings is the top priority of all codes of ethics for engineers. At the same time, market wants more useful and effective products from engineers in no time. Engineers working directly with the health sector, i.e. biomedical engineers, often have to struggle in making design choices to balance these demands for the very sensitive nature of the sector. Regulation and monitoring for this field of engineering is more heightened than any other for the same reason. This adds to the biomedical device design engineers list to comply with, or risk to be alleged for. Literature shows that biomedical engineers usually go through a number of dilemmas in different stages of a device design. Examples of these dilemmas include: sufficient safety of the user, need for clinical trials, and confidentiality level of the patients data. These are examples of the issues reported as unresolved in most cases. While the regulator, the Food and Drug Administration (FDA), wants the device and its development process to be full-proof, and the code of ethics wants these to be ethical, the design engineer is left to make a balanced and correct choice. The fact that these issues end up being unresolved reveals a multifold opportunity for improvement. First, the existing code of ethics for biomedical engineers, from the Biomedical Engineering Society (BMES), is not currently adequate, with its broad nature, to help the engineer find a balanced decision and yet design a device that is safe and effective. Second, the education of biomedical engineers, particularly in the area of ethics, seems to be insufficient to equip them with what they need to overcome these hurdles. Third, the regulatory process in spirit agrees with the code but includes its own challenges. This calls for an in-depth study of the ethical issues encountered in biomedical device design as well as additional clarification of the code of ethics, which influences both the student and the practicing engineer. It also calls for a check on the curriculum content related to the area of ethics and regulations, within biomedical

engineering education programs. Screening through twenty leading universities shows evidence of ethics studies in engineering within different courses. However, presence of a thorough study on biomedical engineering ethics, for instance a dedicated ethics course, is found in only one of them. Based on these findings, it is recommended that a weighty inclusion of studies on ethics, integrated with regulation, be part of the curriculum of biomedical engineering education. Recommendations to improve the existing code of ethics in this field are proposed as well as a discussion of integrating the code and the FDA regulation in the curriculum for biomedical engineers, to improve the situation. Keywords: Biomedical engineering, engineering ethics, biomedical device design, medical device regulation, device licensing.

**VanNoord, Tyler**

April - June FY14

American Academy of Physician Assistants (AAPA) IMPACT 2014: Charting a Course

"The Potential Effect of the Affordable Care Act on a Free Clinic and Potential Barriers to Health Care Access as Perceived by Patients Receiving Health Care at a Free Medical Clinic"

The study's purpose was to identify barriers to healthcare that will exist after implementation of the Affordable Care Act (ACA), and address the potential effect of the ACA on a free health clinic. Methodology: To determine the impact of the ACA on patients who obtain health care at a free clinic, a survey was generated to assess knowledge of the ACA, Medicare accessibility, and barriers to obtaining health care. In addition, demographic information regarding medical care needs, gender, permanent residence, income, and household size was collected. The survey was offered to adults seeking care at an urban free clinic. A total of eighty-seven surveys were collected. Data were entered into a spreadsheet for analysis using SPSS. Results: 87 surveys were completed, 45 by females and 42 by males. Age range of those who completed the survey ranged between 19 to 65 years of age. 73(84%) were US citizens, and 96% had an annual income less than \$30,000. 43% reported their health as good/excellent, and 57% reported their health as fair/poor. 57% had unmet health care needs while 43% identified that their health care needs are being met. 67% of patients either did not know about or were unsure if they understood the Affordable Care Act. 82.7% reported they believed they would not be or were unsure if they

would be eligible for insurance under the ACA but if offered, 65% of the patients would sign up. The barrier to obtaining health care is further supported by the difficulty patients at the free clinic had when attempting to sign up for Medicaid: 45.8% of patients have applied for Medicaid in the past and 82.4% of these patients were denied. 37.8% reported that the Medicaid application was long and complicated, 23.4% reported difficulty obtaining Medicaid documents, and 18.5% said it was difficult to apply for Medicaid due to limited hours and difficulty finding transportation. 55% of patients would like to continue receiving care at the free clinic even after they obtain insurance. Several patients expressed concerns about the affordability of health care even after the implementation of the ACA. This is a potential concern for medication co-pays that will still exist for the 59% of diabetes patients, 34% of hypertension patients, and 41% of hypercholesterolemia patients that primarily come to Oasis of Hope for the drug prescription assistance program. Conclusion: The ACA was developed to provide health care to all individuals through free or government subsidized health insurance. However, the results of this study identified a lack of knowledge of the ACA from individuals who are currently uninsured seeking care at a free health clinic. In addition, the survey identified that the process of obtaining health care coverage is difficult due to hours of operation, and difficulty navigating the application. With a majority of the patients in the clinic having health care needs unmet and a majority having difficulty navigating government documents to obtain health insurance, there will be patients who may fall through the gaps in the ACA.

**Webb, Margaret**

April - June FY14

American Academy of Physician Assistants (AAPA) IMPACT 2014: Charting a Course

"Mass Media Influence on Human Papillomavirus Knowledge of College Freshmen"

Many studies have assessed the public's perceptions and acceptability of the Human Papillomavirus (HPV) vaccine, while others have analyzed the media's coverage of the vaccine, however few have specifically assessed the media influence on the perception of HPV and vaccine compliance. College freshmen in fall 2013 were the first group of adolescent females targeted by the proposed Gardasil® vaccine guidelines in 2006 for 11-12 year old girls, and the first group of

adolescent males targeted in 2009 for 15-16 year old boys. Thus, there is limited data evaluating how this population was educated about HPV and if the media has influenced their perception and acceptance of the vaccine. The aim of this study was to evaluate this populations education about HPV/Gardasil® and determine if the media had an increased role in their reception of HPV knowledge and if the media influenced their reception of the HPV vaccine, Gardasil®. Methods: One thousand randomly selected 18-19 year old freshmen students at Grand Valley State University were invited to participate in this cross-sectional quantitative pilot study using an on-line, anonymous questionnaire. The 48 question survey evaluated participant demographics, basic STD knowledge and perceptions, HPV knowledge, personal sexual behaviors, acquisition of sexual health information, knowledge about Gardasil®, vaccination barriers, and vaccination status. Pearson Chi-Square tests, score development, Mann-Whitney, and Spearmans rank correlation were tools used to analyze the data. Results: One hundred forty six students completed the survey. The majority of participants were female (69.2%) and white, non-Hispanics (87.7%). The study revealed 68% of respondents reported obtaining HPV and Gardasil® related information from the media, and 37% of respondents felt that the information presented in the media was not believable. Respondents reported receiving the most believable HPV-related information from health education classes and healthcare providers. An HPV knowledge score was developed and Mann-Whitney analysis revealed that neither gender (p-value=0.619), vaccination status (p-value=0.417), nor parents having a college degree (p-value=0.210) had a significant impact on HPV knowledge. Additionally, a health score analyzed the amount of interaction between healthcare providers and media exposure students received. A Mann-Whitney test revealed gender had a significant impact (p-value<0.001) on the health score, with females outscoring (M=3.27, SD=1.054) males (M=2.36, SD=1.125). Individuals who received the vaccine scored significantly higher (M=3.64, SD=0.586, p-value<0.001) than those who did not receive the vaccine (M=2.45, SD=1.234). Additionally, 41% of the respondents had a health score of 100%, with 25% of this subset reporting receiving the vaccine. Thus, despite receiving all the health information about Gardasil®, 75% had not been vaccinated. Conclusion: The results of this study suggest that regardless of the amount of interaction students had with healthcare providers and/or the media, it did not affect their overall knowledge of HPV or Gardasil®. It is imperative as providers, to impart accurate, honest information with patients and



their families so they have information necessary to make informed decisions about their health, particularly in regards to HPV information and the Gardasil® vaccine.

## **ACF 2014 July - September Presentations**

### **Bjorkman, Beth**

July - September FY14

Mathematical Association of America (MAA) Mathfest

"Graph Theoretic Models of Interdependent Preferences in Referendum Elections"

In referendum elections, voters are frequently required to cast votes simultaneously on multiple questions or proposals. The separability problem occurs when a voter's preferences on the outcome of one or more proposals depend on the predicted outcomes of other proposals. These kinds of interdependencies cannot be fully expressed in a simultaneous election. When voters are forced to separate issues that may be linked in their minds, the resulting election outcomes can be unsatisfactory or even paradoxical. In this talk, we will use graph theoretic models to characterize, construct, and better understand interdependent voter preferences in referendum elections. We will also explore connections between these models and prior research on the structure of interdependent multidimensional preferences. This work was completed as part of the Grand Valley State University Summer Mathematics REU.

### **Brown, William**

July - September FY14

2013 Michigan Council of Teachers of Mathematics (MCTM) Annual Conference

"Adventures with Mathematics, Grades 3-5 / Adventures with Mathematics, Grades K-2 / Engaging Families in Mathematical Learning"

Adventures with Mathematics, Grades 3-5 Room A102/103 Char Beckmann, Grand Valley State University Bill Brown, Grand Valley State University Katie Smith, Grand Valley State

University Megan Frame, Eastern Michigan University Upper Elementary General interest Looking for ways to engage students in mathematics in and outside of school? Adventures with Mathematics includes games, activities, and problems aligned with the CCSS. Adventures with Mathematics, Grades K-2 Room A102/103 Char Beckmann, Grand Valley State University Bill Brown, Grand Valley State University Katie Smith, Grand Valley State University Megan Frame, Eastern Michigan University Early Elementary General interest Looking for ways to engage students in mathematics in and outside of school? Adventures with Mathematics includes games, activities, and problems aligned with the CCSS. Engaging Families in Mathematics Learning Room A102/103 Char Beckmann, Grand Valley State University Bill Brown, Grand Valley State University Katie Smith, Grand Valley State University Megan Frame, Eastern Michigan University Early elementary, Upper elementary, Middle school General interest What to do when kids are out of school? Play with mathematics! We will share several engaging activities suitable for home, family math events, out on a field day, and classrooms.

**DeHart, Abigail**

July - September FY14

2nd International Conference on Business Social Partnership: Towards Value Based Social Engagement

"Self-Interest, Sympathy, and Social Entrepreneurship"

Traditionally, economic models and theories are based on some form of rational choice theory, supposing consumers make decisions based on calculated self-interest. Historically, this has also been the assumption about classical economist Adam Smith and his work *Wealth of Nations*, associating both with the term *homo economicus* because his theory entails structuring a self-interested society in economically beneficial ways. However, this interpretation of *Wealth of Nations* is too narrow because it neglects a crucial element to his analysis i.e., the role of sympathy for a stable and economic order. Smith's larger humanitarian purpose was to balance concern for the poor with the reality that some degree of self-interest is essential for upward mobility. To Smith, ethics was an integral part of economics. This paper will reexamine Smith's account of the sociability of man, especially his account of the plurality of motivations in order

to evaluate modern instances where traditional rationality models may not be enough, specifically when accounting for philanthropic organizations and social entrepreneurial movements. As some dissenters of rational choice theory point out, individuals do not always make rational and utility-maximizing decisions. Furthermore, because social entrepreneurs often face scenarios that are constantly changing, behavioral economics is becoming increasingly relevant and necessary when experiencing, what would be traditionally labeled, irrational consumer behavior. Revisiting conversations about Smith's role of sympathy as it relates to self-interest will suggest there are alternate human motivations causing us to act, and are worth examining because of their modern implications.

**Dykstra, Michael**

July - September FY14

The Sixth Annual World Molecular Imaging Congress

"Development of A Quality Control Protocol to Assess the Feasibility of Cerenkov Luminescence Imaging. A Mathematical Method to Estimate CCD Saturation of Cerenkov Luminescence Imaging"

There are approximately 40 million foreign-born persons living in the United States, accounting for 13% of the total population. Mental health practitioners are finding that some of their clients are foreign-born persons with limited English proficiency. This session lecture will provide skills for working effectively with interpreters to enhance service delivery to clients with limited English proficiency. Objectives " How to use interpreters effectively in mental health. " Challenges that may arise when working with interpreters in a mental health setting. " Training interpreters to work with mental health practitioners.

**Hogan, Joseph**

July - September FY14

2013 Southern Writers, Southern Writing Graduate Conference

"Authenticity and the"

An analysis of the character John Grady Cole, the Stoic, John Wayne-ian protagonist in Cormac McCarthy's *All the Pretty Horses*, calls attention to the novel's placement in the tradition of the American Western. However, when considering Grady Cole in relation to the genre, it becomes quite easy to overstate the extent to which the novel relies on empty cultural constructions and clichés like the rough-riding cowboy of American cinema. This essay considers how one such reading of *All the Pretty Horses* Sarah Gleeson-White's 2007 article in *Southwestern American Literature* overemphasizes the novel's reliance on genre and, in so doing, wrongly ascribes to its protagonist a certain nostalgia and inauthenticity that affirms the deadness of the Old West. This essay first admits that Gleeson-White's analysis rightly places the novel in the context of the cinematic American Western tradition, but posits that its preoccupation with intertextuality and empty cultural artifact obfuscates a central element of the text from the reader's critical eye: namely, the extent to which McCarthy presents his protagonist's code as entirely authentic. Accordingly, in this essay, I challenge the notion that *All the Pretty Horses* derives its meaning from the empty cultural construction of the Old West. Further, I examine the ways in which such a reading would undermine the novel's philosophical and aesthetic significance. In all, I call for the adoption of an attitude toward the text that simultaneously accounts for the novel's clear relation to the cinematic Western, but also takes seriously the authenticity of John Grady Cole's thoroughly Western code, encapsulated in his dictum: There aint but one truth & the truth is what happened. It aint what come out of somebodys mouth.

**Hundley, Zachary**

July - September FY14

The 27th Annual Symposium of The Protein Society

"Factors Determining Carbapenemase Activity in the OXA Family of  $\beta$ -Lactamases"

Bacterial resistance to antibiotic therapies, especially to  $\beta$ -lactams is a growing health-care problem. Resistance mediated by class D  $\beta$ -lactamases has been both the least studied, and most rapidly expanding in the past decade. Of particular clinical concern is the emergence of class D

enzymes with the ability to hydrolyze the newest family of  $\beta$ -lactams: the carbapenems. Class D  $\beta$ -lactamases are extremely diverse in terms of sequence and hydrolytic profiles, and it remains unclear what factors determine multispecificity in general, and carbapenemase activity in particular. Recent studies have revealed the importance of the 25-26 loop in acquiring carbapenemase activity<sup>1</sup>. Here we present a combined experimental and computational study of the effects that several point mutations in the OXA-24s 25-26 loop have on the enzyme catalytic profile. Site-directed mutagenesis and kinetic assays indeed show significant changes in the catalytic profiles of the mutant enzymes. We have employed several computational techniques, namely sequence and motif analysis, Molecular Dynamics simulations and covariance analysis based on the Anisotropic Network Model in order to determine the impact of M223A, G224D and P227S mutations on the dynamics of the OXA-24 active site. We show here that the mutations affect the dynamics of the catalytic site, specifically the carboxylated lysine residue and its hydrogen bonding network within the binding pocket. Multiple sequence alignment and motif analysis show distinct patterns of the 25-26 loop sequence variation in different subgroups of OXA carbapenemases. These data will help correlate the sequence traits of OXA carbapenemases to their mechanism of substrate selection and hydrolysis. 1. De Luca et al., PNAS 2011, 108, 18424.

**LaFleur, James**

July - September FY14

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**Moore, Eric**

July - September FY14

Midwest Yeast Conference 2013

"Investigating the cellular interaction of Mid1 and protein phosphatase Dis2 in in Schizosaccharomyces pombe cell division"

Investigating the cellular interaction of Mid1 and protein phosphatase Dis2 in in Schizosaccharomyces pombe cell division Author: Eric Moore and Dawn M. Clifford Hart Affiliation: Grand Valley State University, Department of Cell and Molecular Biology, Allendale, MI 49401. Cell size, in accordance with shape, are principle factors contributing to the point at which a cell enters mitosis and ultimately divides into two equivalent daughters. In tandem with synthesizing the components that are essential for cell division, a determining characteristic of the G2 phase of the cell cycle is growth. In Schizosaccharomyces pombe, a concentration gradient regulates mitotic commitment with respect to cell growth. When the cell exits the DNA replicative S phase and enters the G2 phase, it is short and the majority of cell growth and elongation has yet to occur. A distinguishing feature of S. pombe cells is that they

maintain a prolonged G2 phase when compared to other replication systems. At the beginning of G2 the cell is short, and as a result, there is an overlapping concentration of the negative mitotic regulator protein Pom1. As the cell elongates throughout G2, Pom1 concentration is maintained at high levels at the cell tips and progressively lower levels across the equator. Concurrently, positive mitotic regulators Cdr2 and Mid1 are restricted to the equator of the cell where the nucleus resides. Dis2 phosphatase at the cell tips leads to Pom1 binding the cortex. As Pom1 migrates towards the center of the cell from either tip, it autophosphorylates and dissociates from the cortex. Pom1 then migrates back towards the cell tip where Dis2 dephosphorylates it and the concentration gradient is maintained as the cell elongates. This trend continues until a growth threshold is reached where Mid1 has localized to the cortical interphase nodes and sets the stage for divisional septum formation. Mid1 serves as the scaffold that recruits proteins associated with the actin contractile ring, such as IQGAP protein Rng2 and myosin II essential light chain Cdc4, among various other proteins. Mid1 dissociates from the contractile ring as Sid2, the most downstream SIN kinase, is displaced from the spindle pole body to the division site to initiate contractile ring constriction. Though these interactions of Mid1 have been elucidated, many other Mid1 protein interactions may exist within the cell. A tandem affinity purification revealed Dis2 as a potential binding partner of Mid1, an interaction which has not yet been characterized. Preliminary results affirm that Dis2 dephosphorylates Mid1 in vitro. Mid1-GFP localization exhibits broad cytoplasmic distribution in *dis2*<sup>Δ</sup> cells when visualized in vivo. The principle aim of this investigation is to further elucidate the interactions between Mid1 and Dis2 and the factors that lead to their association. Grand Valley State University, Department of Cell and Molecular Biology, Allendale, MI 49401. This research is supported by National Science Foundation RUI Award #1157997.

**O'Brien, Amanda**

July - September FY14

The 27th Annual Symposium of The Protein Society

"Mechanism of Telomerase Inhibition by Novel Non-Nucleosidic Drug Candidates"

Telomerase is a reverse transcriptase enzyme that synthesizes and adds telomeric DNA repeats to the ends of linear chromosomes. Normal somatic cells show very low telomerase activity and thus a limited capacity for proliferation. However, majority of cancer types have the ability to overexpress telomerase, which enables the cancer cells to divide uncontrollably. This makes telomerase an important anti-cancer drug target and designing an effective inhibitor of telomerase will potentially aid cancer therapy in all telomerase-expressing tumors. Here we present the results of computational modeling of interactions between the telomerase TERT domain and several non-nucleosidic drug candidates. On the basis of our protein-ligand docking simulations, domain motions, and bioinformatics analysis, we identified several different modes of drug binding to telomerase leading to inhibition of its TERT domains function via distinct mechanisms. Non-nucleosidic drugs are postulated to affect telomerase processivity. The binding modes presented here support this hypothesis, especially through involvement of the Fingers subdomain and changes in the protein dynamics. Our results will aid and inform further efforts in inhibitor design and optimization.

**Schneider, Patrick**

July - September FY14

Midwest Yeast Conference 2013

"Codifying the proteins involved in the nuclear localization of the Mid1 protein in fission yeast cell division"

The ability for *Schizosaccharomyces pombe* to undergo a successful round of cell division is contingent upon the regulation of protein rich punctate structures embedded within the medial regions of the yeast's cytoplasmic membrane. Cell cycle progression is directly correlated to fluctuations in the protein composition of these node-like frameworks. Mid1 is a prominent nodal protein that acts as a recruitment tool necessary to correctly assemble the contractile ring late in mitosis. During interphase, Mid1 localizes heavily within the nucleoplasm. Upon mitotic onset, a significant efflux of Mid1 from the nucleus is observed. This Mid1 emigration from the nucleus is regulated by the polo-like kinase Plo1. While this mechanism largely accounts for Mid1's cytoplasmic aggregation, little is known about the proteins involved in the extensive



localization of Mid1 within the nucleus during interphase. Our ongoing research implicates Sid2 kinase as a viable candidate for such a task. Here we establish Mid1 as a substrate for Sid2 phosphorylation as well as Mid1's inability to enter the nucleus upon mutating its Sid2 consensus motifs. In addition to these phosphorylation regions, there exists a classical nuclear localization sequence within Mid1's protein domain map. Its presence suggests the use of importin proteins to import Mid1 to the nucleus directly. Fission yeast contain two importin  $\pm$  genes, imp1 and cut15, which may assist in Mid1's movement. Upon establishing the importin proteins responsible for Mid1's nucleocytoplasmic transport, the phosphorylation status of Mid1 will be investigated, as it may serve as a marker that affects its binding ability with the transport molecules. Furthermore, studies using importin  $\pm$  orthologs have shown that they are phosphorylated by casein kinase II. Similar assays will be done to determine if this event is consistent within *S. pombe*, and if the potential phosphorylation of Imp1 and Cut15 affect Mid1 localization as well as their own. By determining mechanisms involved in Mid1's voyage during the cell cycle, cogent prospects can be made about points of regulation that contribute to Mid1 protein function.

**Shatsky, Adam**

July - September FY14

Montana State University Philosophy Conference

"Why Compatibilists cannot resist Prepunishment: A Defence of Smilansky"

No Abstract.

**Smith, Kathryn**

July - September FY14

2013 Michigan Council of Teachers of Mathematics (MCTM) Annual Conference

"Adventures with Mathematics, Grades 3-5 / Adventures with Mathematics, Grades K-2 / Engaging Families in Mathematical Learning"

The Adventures in Mathematics books were created to engage students in mathematics during the summer in everyday settings, however many teachers have found uses for the activities in their classrooms. Presenting these books and activities give teachers additional resources. The Engaging Families in Mathematics Learning session includes activities and games created by my classmates and me as fun activities to be used inside or outside of the classroom to encourage students, teachers, and parents to think of their world from a mathematical lens. We don't realize how many things we do on a daily basis that involve math! We want to provide teachers with a way to help students and parents realize this. Each presentation will be a brief description of the books or projects followed by time for the attendees to participate in each activity, gain resources, and ask questions. As a presenter at the conference, I will facilitate one activity each session. From this presentation, we hope to gain feedback for improvement on the current activities and ideas for new ones. When not presenting, I will attend other presentations to gain resources and information on how to effectively teach mathematics to all students I will have in my future classroom. Specifically, I hope to gain knowledge of the Common Core State Standards and learn of ways to meet the standards and reach all of my students which I can apply in my student teaching placement at Muskegon High School in the fall.

**VanOevern, Sarah**

July - September FY14

Midwest Yeast Conference 2013

"Identification of potential cytoskeletal proteins as binding partners of Mid1 in *Schizosaccharomyces pombe*"

The anillin-like protein, Mid1 in *Schizosaccharomyces pombe* is responsible for recruiting the necessary cytoskeleton proteins to the medial plane of the cell to assemble the actin-myosin contractile ring during cytokinesis. This final step in cell division is a highly dynamic process that results in ultimate division of the cell into daughter cells. Orientating the contractile ring to the proper site of cell cleavage is vital to the equal distribution of genetic material. Mid1 contains several protein binding domains important for proper contractile ring formation, yet a complete understanding of Mid1 interactions has not been attained. To identify Mid1 binding proteins at

the contractile ring, tandem affinity purification (TAP) complexes were isolated from mitotic extracts expressing TAP-tagged versions of Mid1. Using mass spectrometry for identification, several cytoskeleton proteins, such as Rho1 and Cpc2, were identified as potential binding partner of Mid1. Rho1, a small GTPase, is characterized for its role in myosin activities and actin assembly. This protein is known to be required for cytokinesis and accumulates in the equatorial region immediately before cell division. Cpc2, a RACK1 homolog, has a more global role and is implemented in translation of specific mRNAs and cytoskeleton integrity under certain stress conditions. Whether these cytoskeleton proteins physically interact with Mid1 is of important interest. Here, we hypothesize that Rho1 and Cpc2 can bind to Mid1 and may be important for both the formation of and stability of the contractile ring. This research is supported by a National Science Foundation RUI Award #1157997.

## **ACF 2014 October - December Presentations**

### **Amity, Rachel**

October – December FY14

National Conference on Peer Tutoring in Writing (NCPTW) 2013 - The Year of the Writer

"Technology in the Classroom: Why the 'Mis' in Misuse can Lead to Mis-educative Experiences for Students"

School systems are experiencing a massive wave of technology integration in education. While many educators and community members support the increasing reliance on technology use in the classroom, misusing such technological devices and programs can be detrimental to student learning. Using Dewey's concept of Experience and Education, this paper argues that it is essential that educators provide an environment for students to have experiences with technology that lead to growth and critical thinking skills built upon from past experiences. I highlight the different ways technology can be misused in the classroom, causing mis-educative experiences (Dewey, 1938) to occur, which hinders growth and often eliminates the need for critical thinking and a deeper understanding of concepts presented.

**Brown, Andrew**

October – December FY14

National Conference on Peer Tutoring in Writing (NCPTW) 2013 - The Year of the Writer

"Self-Efficacy: Making Writing a Collaborative Process"

Because research shows that increasing a writers self-efficacy can increase overall writing performance, understanding and implementing it can help consultants have a greater impact on students. In this workshop, consultants will learn various ways of improving writersself-efficacy and how it can effectively develop the writers strengths and writing process.

**Calderon, Alexandra**

October – December FY14

Michigan World Language Association Conference

"What Might Oral Proficiency Look Like? Using Graphic Organizers in the World Language Classroom"

Our aim of this presentation is to offer various samples of graphic organizers that illustrate what oral proficiency in any world language might look like at various levels. Since it is often difficult as a teacher to gauge each individual student's grasp of the language and to assess where they fall into the proficiency levels, we would like to create a tool that will aid teachers in this task. The graphic organizers will present guided-discussion-type questions in a visually pleasing manner to help both teachers and students themselves have a better understanding of student proficiency levels. We will use the Michigan State Standards for world languages and the ACTFL Proficiency Guidelines as a tools to direct our creation of the graphic organizers. We are also examining other examples of graphic organizers from other states to critique and model after.

**Conigliaro, Katie**

October – December FY14

National Conference on Peer Tutoring in Writing (NCPTW) 2013 - The Year of the Writer

## "Mom, Dad We Need to Talk: Three Strategies for Helping Students Understand and Apply Rhetoric to Their Writing"

Our presentation is designed to help students transcend their status as students in writing courses, instead becoming rhetorically-aware writers. Professors and consultants often teach students how to write a good essay, but we've found that students don't always understand why these basic tenets of essay-writing create effective arguments. They view these requirements as a set of arbitrary rules assigned to them by their professor. We will provide three strategies for explaining the why behind effective essay-writing to students. The first strategy is a discussion with the student of why rhetoric is important, and the skills that students can gain from introductory writing courses that can be applied to other aspects of life. The second strategy is drawing a parallel to argumentation that happens in the real world, to show students that they are already familiar with the characteristics of a good argument. The third strategy is switching registers with the student to demonstrate that they can argue effectively in written or spoken informal English. These three strategies will be presented with a PowerPoint presentation. We will also include handouts, so consultants are able to take the information back to their respective Writing Centers. We will supplement this presentation with anecdotes from our own experiences in trying to explain rhetoric to students. Afterwards, we will open the floor to discussion. We will also encourage participants to describe their own experiences in describing rhetoric to students.

### **Curtis, Rachel**

October – December FY14

Jewish American & Holocaust Literature Symposium

### "Eva as Exoneration: Exploring "Tell Me a Riddle" through the Context of Tillie Olsen's Life"

Both critics and Olsen herself have pointed to Ida Goldberg, Olsens mother, as the inspiration for Eva, the protagonist of Olsens Tell Me a Riddle. However, regardless of the ways that Goldberg resembles and may have inspired Olsens original conception, Eva emerges as Olsens foil. Eva

demonstrates the same proclivities toward the social and intellectual spheres that Olsen possesses; however, Eva has been thwarted by circumstance. Stifled by familial responsibility and economic hardship, her attempts at personal fulfillment are ineffectual. She emerges as a victim of the exploitative systems that surround her. Unlike Eva, who after years of physical and mental exhaustion only mentally declares her resolve to never again be forced to move to the rhythms of others, Olsen's life was characterized by her indifferent refusal to subjugate her activism or artistry to the needs or desires of her family. Although both Eva and Olsen demonstrate similar attributes, they exhibit varying trajectories. Through Eva, Olsen explores possibilities she has sought to avoid in her own life; namely, the denial of both activism and artistry through the imprisoning patriarchal family structure. Consequently, *Tell Me a Riddle* demonstrates a poignant critique of the nuclear family, and through this depiction, Olsen exonerates her own radical life choices.

**Fisher, Nicole**

October – December FY14

National Conference on Peer Tutoring in Writing (NCPTW) 2013 - The Year of the Writer

"Self-Efficacy: Making Writing a Collaborative Process"

Because research shows that increasing a writer's self-efficacy can increase overall writing performance, understanding and implementing it can help consultants have a greater impact on students. In this workshop, consultants will learn various ways of improving a writer's self-efficacy and how it can effectively develop the writer's strengths and writing process.

**Geerlings, Timothy**

October – December FY14

Michigan World Language Association Conference

"Practical Guide for language level"

Very often, levels of proficiency in foreign language are left in very theoretical terms. It is therefore difficult for a foreign language teacher to gauge the proficiency level of their students. To help our fellow teachers, we propose presenting a series of posters for use in classroom that show practical examples of the various foreign language proficiencies. There will be posters of what each level means in three different arenas, such as family, travel, food, etc. They will display clearly what linguistic task someone at each of the different levels of proficiency should be able to complete. We will present the posters in print and online, in Spanish and in English. That way Spanish teachers can use them immediately; other language teachers need merely translate them into their target language. Our goal is for the posters to be very easily useful and informative to the classroom foreign language teacher.

**Houseman, Jennifer**

October – December FY14

2013 Michigan Premiere Public Health Conference

"Collegiate Service Learning through International Partnership"

No Abstract.

**Ingraham, Allyssa**

October – December FY14

27th Annual Conference of the American Evaluation Association 2013: The State of Evaluation Practice in the Early 21st Century

"An Assessment of Goal-Free Evaluation: Case Studies of Four Goal-Free Evaluations"

This article provides a critical review of four goal-free program evaluations. Goal-free evaluation (GFE) is a lesser used evaluation model whereby the independent evaluator is intentionally screened from the programs stated goals and objectives in hopes of reducing perceptual bias. The findings from these case studies are focused in three areas: (1) elements of the programs evaluated and the evaluation contexts (e.g., types of programs, pre-evaluation conditions, size of

evaluation budgets), (2) the design of the GFEs (e.g., screening methods, data collection methods), and (3) the expertise of the goal-free evaluators (e.g., GFE-specific training, graduate degrees attained). With these evaluations, GFE served as a qualitative data collection method or tool, and all of the GFEs were relatively small in size, scope, and budget. Conclusions call for further operationalization of GFE if its use is to increase as well as for systematic and empirical study comparing GFE with goal-based evaluation.

### **Jarman, Sorscha**

October – December FY14

"Neuroscience 2013: 43rd Annual Meeting of the Society for Neuroscience"

"Kappa opioid regulation of depressive-like behavior and reward seeking during acute and protracted withdrawal from ethanol"

Withdrawal from alcohol is often characterized by enhanced negative affect, such as symptoms of depression and anxiety, and increased reward seeking. These behavioral changes can be long-lasting in nature, which further contributes to the challenge of the long-term management of alcoholism. Recent evidence from animal models suggests that the increased activity of the dynorphin (DYN)/kappa opioid receptor (KOR) system leads to an increase in depressive-like behaviors and reward seeking following withdrawal from ethanol. The objective of the present experiments was to determine the role of the KOR system in the regulation of depression-related behaviors and saccharin reward following chronic exposure to ethanol. In the first experiment, male Wistar rats were fed an ethanol or control liquid diet for approximately four weeks. To assess the ability of the KOR antagonist nor-BNI to attenuate increases in depressive-like behavior, animals were examined in the forced swim test. Immediately after removal of the diet, rats were injected with nor-BNI (20 mg/kg, i.p.), and 24 h later, were exposed to a 10 min session of forced swim stress. The following day, rats were given a 5 min forced swim session that was recorded and examined for time spent immobile. In the second set of experiments, male Wistar rats were trained to self-administer saccharin, and following stable intake, were exposed to an ethanol or control liquid diet as described above. The ability of the nor-BNI to decrease saccharin self-administration was examined during acute withdrawal and protracted abstinence



from ethanol. Following removal of the diet, rats were injected with saline, and 24 h later, were allowed to self-administer saccharin. Immediately following this initial self-administration session, animals were pretreated with nor-BNI (20 mg/kg, i.p.), and were again allowed to self-administer saccharin 24 h later. This saccharin self-administration procedure was repeated three weeks later after rats received injections of saline and nor-BNI as described. In the forced swim test, ethanol dependent rats displayed a characteristic increase in time spent immobile compared to controls, an effect that was reversed by pretreatment with nor-BNI. nor-BNI also selectively decreased saccharin intake in ethanol dependent rats without affecting responding in controls at 48 h and 3 weeks following withdrawal. These results suggest that KOR blockade reverses depression-related behaviors and general reward seeking associated with withdrawal from ethanol following both acute and protracted periods of abstinence. Supported by: R15 AA018213 from NIAAA (GRV). SKJ was supported by the Ronald E. McNair Scholars Program at GVSU.

**Joffre, Kevin**

October – December FY14

National Conference on Peer Tutoring in Writing (NCPTW) 2013 - The Year of the Writer

"Mom, Dad We Need to Talk: Three Strategies for Helping Students Understand and Apply Rhetoric to Their Writing"

Our presentation is designed to help students transcend their status as students in writing courses, instead becoming rhetorically-aware writers. Professors and consultants often teach students how to write a good essay, but we've found that students don't always understand why these basic tenets of essay-writing create effective arguments. They view these requirements as a set of arbitrary rules assigned to them by their professor. We will provide three strategies for explaining the why behind effective essay-writing to students. The first strategy is a discussion with the student of why rhetoric is important, and the skills that students can gain from introductory writing courses that can be applied to other aspects of life. The second strategy is drawing a parallel to argumentation that happens in the real world, to show students that they are already familiar with the characteristics of a good argument. The third strategy is switching registers with the student to demonstrate that they can argue effectively in written or spoken

informal English. These three strategies will be presented with a PowerPoint presentation. We will also include handouts, so consultants are able to take the information back to their respective Writing Centers. We will supplement this presentation with anecdotes from our own experiences in trying to explain rhetoric to students. Afterwards, we will open the floor to discussion. We will also encourage participants to describe their own experiences in describing rhetoric to students.

**Kobe, Marissa**

October – December FY14

National Conference on Peer Tutoring in Writing (NCPTW) 2013 - The Year of the Writer

"Under Pressure: Removing the Paper to Empower the Student"

When writing early drafts, students often attempt to focus on all aspects of writing and editing at once, from general organization to finding the perfect word. The combination of attempting to brainstorm, formulate thoughts into coherent sentences, and editing those sentences to sound scholarly, intelligent, and impressive often results in unorganized shallow drafts and anxiety-wracked students. In this presentation we will discuss how separating students from the physical paper can relieve this pressure of producing a perfect product. This low-stressed atmosphere allows the student to articulate their thoughts in a conversational setting, which results in more efficient brainstorming, clearer organization of ideas, and a better understanding of their personal writing process.

**Lockmiller, Kayla**

October – December FY14

Geological Society of America (GSA) Annual Meeting & Expedition

"TOC, C/N, <sup>13</sup>C, and <sup>15</sup>N of Shales from the Mississippian Michigan Formation, Western Michigan"

The Mississippian Michigan Formation, exposed in an abandoned gypsum mine in Wyoming, Michigan, is composed of very thick beds of gypsum interbedded with much thinner beds of siliciclastic-rich dolomite and shale. Samples of shale (15 total) from three cyclic units (unit 3, oldest; unit 1, youngest) exposed in the mine were collected. Each of the three beds of shale has a distinct appearance, especially that in unit 1, which is much thicker (mean, 1.0m), more brown in color, and more silt-rich than the gray shales in units 2 (mean thickness, 0.3m) and 3. Proxies [total organic carbon (TOC), carbon/total nitrogen (C/N) ratios, organic  $\delta^{13}\text{C}$ , and total  $\delta^{15}\text{N}$ ] were used to help determine the depositional environment of the shales. To remove inorganic carbon for TOC and organic  $\delta^{13}\text{C}$  analyses, samples were treated with HCL. As others have also observed, acid-treatment consistently decreased the percent nitrogen in the samples. However, we did not see a consistent change in  $\delta^{15}\text{N}$  with acid-treated samples. Nevertheless, results of analyses for only untreated samples were used for all nitrogen proxies. Low percentages of TOC (0.20 - 0.51%) in our samples indicate low productivity of organic matter. C/N (3.98 - 8.50) and  $\delta^{13}\text{C}$  (-22.77 to -25.390 PDB) imply carbon input from mixed marine-derived water and freshwater sources, which supports a margined marine depositional environment as suggested by previous studies. On C/N versus  $\delta^{13}\text{C}$  plots, the data for units 1, 2, and 3 fall in three different fields. Unit 1 is most nearly characteristic of a freshwater source, and unit 2 is most typical of a marine source, which is consistent with field observations.  $\delta^{15}\text{N}$  (1.78 - 3.770) remains enigmatic; however, it may also indicate a mix of sources. The lack of terrestrial plant indicators suggests an arid environment with little vegetation. An arid environment would promote the evaporation of seawater, producing gypsum, the most common rock type at in the mine. Freshwater influx into the brine would halt gypsum precipitation and allow clays to be deposited.

**Miller, Ashley**

October – December FY14

American Public Health Association (APHA) 141st Annual Meeting and Exposition

"Using the American community survey and geographic information systems to improve community health needs assessments"

The late Tip O'Neal once said that All politics is local. The same is true for health, yet most health needs assessments tend to focus on large geographic areas (i.e. county or city level) that tend to mask disparities due to social, economic and environmental conditions at the community level. As part of class project, we set out to better analyze and identify health disparities at lower geographic units of analysis (census tract) in Kent County, MI using Geographic Information Systems (GIS) and the American Community Survey (ACS). DESCRIPTION: We examined the relationships between the socioeconomic factors and health outcomes to select ACS variables for analysis. These socioeconomic variables (poverty, single-parent households, education) often predict where health disparities are most likely to occur. After selecting and mapping the variables, we analyzed the cumulative impacts of the socioeconomic variables to understand where health disparities are most acute within the county. LESSONS LEARNED: By examining publicly available data among Kent County's 128 census tracts and mapping the results, we were better able to identify specific areas within a larger geographic area such as Kent County where the socioeconomic variables would suggest vast disparities in health outcomes exist. Improved identification of areas likely to suffer from health disparities can lead to more appropriate and effective interventions. RECOMMENDATIONS: Work with hospitals and health systems required by the Affordable Care Act to conduct community health needs assessments to improve the focus and targeting of interventions in reducing health disparities.

**Ohman, Jennifer**

October – December FY14

Gerontological Society of America's 66th Annual Scientific Meeting

"Factors Associated with Life Space Mobility in Community Dwelling Older Adults"

In aging, the ability to be spatially and socially engaged within ones world is important for quality of life. Life space mobility (LSM), or the degree to which people move through their environment, can decrease with age. The New Theoretical Framework for Mobility (Webber, Porter, & Menec, 2010) proposes that financial, psychosocial, environmental, physical, and cognitive factors determine the extent of ones LSM. The purpose of this study was to examine these factors as proposed in the model and their contribution to LSM in a sample of older adults.

In this study, 142 community-dwelling, cognitively intact adults aged 62 to 96 were asked about the quality and quantity of traveling in their environment using the Life Space Questionnaire (LSQ). A multiple regression model was constructed using financial, psychosocial (Lubben Social Network Scale), environmental (the type of residence), physical (a health score including number of medications used, vision using the snellen eye test, and assistive devices used), and cognitive measures (Trail Making B test) to examine their effect on LSM. The final model indicated cognitive abilities ( $p=.0486$ ), physical health ( $p=.001$ ), psychosocial status ( $p=.0014$ ), and environment ( $p=.0041$ ) were significant predictors for LSM. Healthier individuals with better cognitive abilities, who have larger social networks and live in their own homes versus senior residential complexes, were predicted to have higher LSM. A better understanding of the contribution of these factors to LSM can lead to interventions to decrease mobility burden and prevent limitation of life space in older adults.

### **Regan, David**

October – December FY14

ASME International Mechanical Engineering Conference and Exposition (IMECE)

"Standing Frame and Control System Designed for Rehabilitation"

Standing frames currently on the market have only one primary function, which is to sit and stand the user. This project focused on designing a new standing frame to be paired with a control system, expanding the use of the standing frame to include rehabilitation. This device was carefully designed to mimic the standing motion of a healthy individual by taking into consideration the path of the center of mass of the body during the standing motion. This was achieved by offering an adjustable amount of knee flexion prior to the standing motion, positioning the center of mass over the feet. During the standing motion, the control system extends the knee while the seat is lifting the user, maintaining the relationship between the center of mass and the feet and thereby optimizing muscle activation to mimic the standing motion and increase stability. The seat was also redesigned using a six bar mechanism to move the pivot points of the seat behind the legs, rather than placing the pivot point between the knees as is typical of standing frames on the market. The repositioned pivot point significantly increases

ease of access, while maintaining the comfort and low amount of shear between the user and the seat during the sitting and standing motion. Finally, this device has another significant therapeutic aspect which allows the user to select an adjustable amount of assisting force. This feature allows the user to lift only a portion of their weight but still actively assist with the standing motion, where the improvement can be tracked over time.

**Robinson, Collete**

October – December FY14

International Studies Association Midwest

"Political Corruption and its Effects on the Economy: Case Study and Analysis of Nigeria"

The purpose of this research is to examine political corruption and its effect on the economy in two different settings: on a broad, global level, and in the specific case of Nigeria. The goal is to show the detrimental effects that political corruption can have on a global, national, and regional level. This has been done by examining the relationship between increases in corruption and a variety of economic gauges such as the following: income inequality, reduction to investment, and economic growth (based on an equation created by Kwabena Gyimah-Brempong). By showing the detrimental effects of corruption on a global level, I am then able to better assess the situation of Nigeria and the ways in which corruption directly affects the Nigerian people.

**Rydecki, Krysta**

October – December FY14

Annual Meeting of the Psychonomic Society

"Higher Costs Warrant a Variety of Stopping Rules for Decision Making"

The critical step facing every decision maker is when to stop collecting evidence and make a decision. Decision making models usually utilize one stopping rule. We proposed a model for selecting from a set of multiple stopping rules in the same task (stopping rule selection, SRS, theory). We tested the model in an optional decision task in which subjects were asked to buy or

reject products based on recommendations. The results revealed that subjects opened more recommendations and used a wider variety of stopping rules for more expensive than for less expensive products without sacrificing the response accuracy.

**Sattler, Marybeth**

October – December FY14

International Christian Educators Conference

"Practical Guide for language level"

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**Seeley, Jessica**

October – December FY14

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consideration the path of the center of mass of the body during the standing motion. This was achieved by offering an adjustable amount of knee flexion prior to the standing motion, positioning the center of mass over the feet. During the standing motion, the control system extends the knee while the seat is lifting the user, maintaining the relationship between the center of mass and the feet and thereby optimizing muscle activation to mimic the standing motion and increase stability. The seat was also redesigned using a six bar mechanism to move the pivot points of the seat behind the legs, rather than placing the pivot point between the knees as is typical of standing frames on the market. The repositioned pivot point significantly increases ease of access, while maintaining the comfort and low amount of shear between the user and the seat during the sitting and standing motion. Finally, this device has another significant therapeutic aspect which allows the user to select an adjustable amount of assisting force. This feature allows the user to lift only a portion of their weight but still actively assist with the standing motion, where the improvement can be tracked over time.

**Singh, Shambhavi**

October – December FY14

American Society of Cell Biology (ASCB) Meeting 2013

"Identifying a role for the metastasis tumor suppressor protein CD82 in prostate cancer metastasis"

No Abstract.

**Smith, Kirstie**

October – December FY14

American Association for Teaching and Curriculum (AATC) 20th Annual Conference

"Technology in the Classroom: Why the 'Mis' in Misuse can Lead to Mis-educative Experiences for Student"



School systems are experiencing a massive wave of technology integration in education. While many educators and community members support the increasing reliance on technology use in the classroom, misusing such technological devices and programs can be detrimental to student learning. Using Dewey's concept of Experience and Education, this paper argues that it is essential that educators provide an environment for students to have experiences with technology that lead to growth and critical thinking skills built upon from past experiences. I highlight the different ways technology can be misused in the classroom, causing mis-educative experiences (Dewey, 1938) to occur, which hinders growth and often eliminates the need for critical thinking and a deeper understanding of concepts presented.

**Thornton, Megan**

October – December FY14

2013 Michigan Premiere Public Health Conference

"Collegiate Service Learning Trip through SHAWCO Health - Grand Valley State University and SHAWCO Health"

Deal directly with the patients and their medical complications in the township of Manenberg, South Africa. The community health workers act as a resource to direct patients towards advanced medical care. Goals and objectives of the program: To understand the differences between a community health workers role in the United States versus in South Africa. Compare and contrast between the professional roles, their duties and responsibilities. Number of years program in operation: One year partnership between SHAWCO HEALTH, South Africa and Grand Valley State University. Community Health Workers roles in the program: o How did the CHWs roles in service delivery improve outcome care and education in the program? South African CHW provide basic care, but are a necessary step for the patient to receive higher medical attention. CHWs in the US are assigned patients to monitor or assist with a diagnosis. o What external and internal support mechanisms were available for the CHW in providing services for the program? South Africa CHW depend on their affiliation with the ministry for health and the City of Cape Town for pay, resources, and supplies. Donations of any kind are accepted. o What innovative documentation/evaluation strategies were developed to capture the

CHWs impact on individuals, communities and systems? Documentation included a very basic form inquiring about lifestyle, eating habits, and a brief health history. Filled out to provide evidence of patient visit and used to attain additional help; CHW does not keep form on record. o What role did CHWs play in politics, policy and advocacy efforts related to the establishment of this program? Patient was able to receive transportation, equipment, and referrals to doctors/specialists with a CHW signed form. Without this form they would have to pay costs they could not afford.

**Wolpert, Lindsey**

October – December FY14

National Conference on Peer Tutoring in Writing (NCPTW) 2013 - The Year of the Writer

"Awkward Turtle: Handling Awkward Situations in the Writing Center"

Consultants face awkward or difficult situations in and out of the Writing Center. Since training cannot cover everything, this session will explore a collection of tricky scenarios through a round-table discussion. Participants will gain multiple perspectives on strategies and techniques to effectively address them, as well as things to avoid.

**Worm, Anna**

October – December FY14

National Conference on Peer Tutoring in Writing (NCPTW) 2013 - The Year of the Writer

"Author v. Audience: Whose Needs Are We Addressing?"

Grounded in composition theory, we developed four categories of consultant feedback that balance global/local concerns with directive/facilitative consulting strategies. We will demonstrate how these categories can be used to analyze the consultants role in addressing writers needs.

**VanMiddendorp, Eric**

October – December FY14

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**Yazbec, Angele**

October – December FY14

Annual Meeting of the Psychonomic Society

"To Buy or not to Buy? That is the question."

The topic of this study is the various rules people use to assist them in their decision making. We created an experiment on the basis of the Stopping Rule Selection (SRS) theory, which hypothesizes that the decision maker selects different strategies and stopping rules specific to the decision at hand. The decision that our participants were faced with was whether to buy or not to buy the unknown product based on a series of simplistic reviews. In attempts to create a real life situation, the participants lost or gained a small sum depending on their choice of each product. We investigated how the time pressure and the quality of recommendations affect the process of selection of stopping rules in decision making. The strategies that they used were assessed by conducting a pattern analysis (a sequence of recommendations opened), and in a short questionnaire proceeding the final session. Results showed the striking differences in a number of reviews inspected, as result of both manipulations.