

2012

2012 Presentation Abstracts

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ACF 2012 January - March Presentations

Anderson, Patrick

January - March FY12

2012 Phi Alpha Theta Biennial Convention

"Capitalism and the Science of History: Appleby, Marx, and Postmodernism"

Joyce Appleby has written an extensive amount on the origins and development of capitalism, but her work is influenced by her belief that history is a science with at least some objectivity. She rejects Marxism as a relic of past historians with naïve beliefs about finding the laws of nature, but she also rejects postmodern criticisms of history because they undermine any chance for objectivity. Appleby's specific views about history as a science shape the way she writes about capitalism and often there are contradictions between her expressed views and her practiced methods, even to the point where she proves her opponents' are correct.

Banner, Claire

January - March FY12

East Central Writing Centers Association

"Profanity, Slang, and Professional Language in the Writing Center"

This session will discuss the concept of professional language as it applies to consultants, the writing center, and interaction with students. We will present ways to use types of language generally viewed as less professional in order to build rapport and promote understanding beyond the realms of strictly academic discourse.

Barton, Grayson

January - March FY12

ACDA Central Division Conference

"Collegiate Honors Choir Performance"

The American Choral Directors Association is the largest educational organization for vocal music education in the country. Every year, this professional organization collaborates for a long weekend of interesting and educational seminars, research presentations, concerts, master classes, and networking. Most major universities in the United States have a student chapter of the ACDA organization in order to connect music education majors with the vast world of vocal music teaching and research. Each student chapter of the ACDA organization (of which I am Vice President), has the honor of applying to send a quartet (4 performers) to the Regional ACDA Conference.

Barton, Taylor

January - March FY12

Kennedy Center American College Theatre Festival Region 3

“”

Started in 1969 by Roger L. Stevens, the Kennedy Center's founding chairman, the Kennedy Center American College Theater (KCACTF) 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. Through state, regional, and national festivals, KCACTF participants celebrate the creative process, see one another's work, and share experiences and insights within the community of theater artists. The KCACTF honors excellence of overall production and offers student artists individual recognition through awards and scholarships in playwriting, acting, criticism, directing, and design.

As a nominee for this event, I, with a partner, would prepare and perform up to two scenes and a monologue for jurisdiction from a regional board for the opportunity to advance on and compete on a regional/national level. Success in the final level of this competition includes a scholarship

from the Irene Ryan Foundation of Encino, CA. The material I would perform must be no more than 6 minutes in length, and would serve to showcase my personal abilities as an actor and professional, as well as to represent Grand Valley's Theatre department overall. As part of this trip, various workshops are offered to enhance the growth of the participants' education in theatre, complimented by the numerous productions that are invited to compete and present for all attending nominees.

Billings, Isaac

January - March FY12

East Central Writing Centers Association

Exploring Classifications, Strategies, and Models of Questioning Utilized in Health Care and Potential Applications to the Writing Center

Amazingly, in an age where Sci-Fi technology is changing to become the standard of health care, the importance of asking a simple question remains undiminished in the interaction between patient and clinician. Within the Writing Center, a similar situation is created between consultant and student. This presentation will focus on the classifications, strategies, and models of questioning implemented in the medical field and how this knowledge can be utilized to maximize the interaction between writing consultant and student.

Blackmer, Alicia

January - March FY12

2012 Academy of Criminal Justice Sciences (ACJS) Annual Meeting: Sustainable Justice

"Feelings of Punitiveness and Empathy among Inside Out Students"

Research has indicated that criminal justice students, particularly males, have a higher degree of punitiveness and lack the empathy trait. The purpose of this paper is to explore feelings of punitiveness and empathy among students who have participated in the Inside Out Prison Exchange Program. The Inside Out Program is a nationally-recognized program that has

provided the framework for college courses to take place inside the walls of prisons and jails. The pedagogical approach calls for college and university students to study with residents of correctional facilities, behind the institutional walls. Throughout the 15-week semester, students are required to write reflection papers that detailed their observations, analyses, and reactions to the class sessions. To explore the concepts of punitiveness and empathy among these students, their reflection papers were analyzed to examine their feelings towards the inside students in particular, and punishment philosophy in general.

Bottjer, Charlene

January - March FY12

National Trumpet Competition

"Path of Discovery"

After being accepted from a pre-screened audition, GVSU Trumpet Ensemble C will be competing in the semi-finals of the National Trumpet Competition 2012 in Fairfax, Virginia. Our trumpet ensemble, performing Path of Discovery by Eric Morales, will be competing with the most prestigious trumpet studios in the country such as Juilliard and Northwestern. Grand Valley has a very strong reputation in this competition. Our trumpet ensembles and solo musicians have both earned medals and won on numerous occasions. In addition to participating in the competition itself, we will also be in attendance of Master classes taught by some of the highest regarded trumpet performers and professors in both the country and abroad. The National Trumpet Competition is one of the highest regarded showcases of trumpet excellence and it will be a privilege to compete under Grand Valley's name.

Brown, Heather

January - March FY12

"Crimes of the Heart Stage Management Prompt Book"

The prompt book is a vital part of my stage manager presentation. It contains everything I used in order to organize the production and this is what will be presented at the conference and

judged accordingly. If funded to go I will be able to see how other stage managers organize all their important documents and other aspects of the presentation. The production stage manager is responsible for recording events, organizing schedules and every aspect of the show, documenting blocking (actor movement) for the director from the early processes of auditions all the way down to the last performance. I created rehearsal reports, production meeting reports, performance reports, schedules for rehearsal, I organized cast and crew contact lists, medical forms, I kept records of set design, sound design, costume design, prop design and light design in case anyone needed to know any aspect of the production, I wrote up pre-show, post-show and intermission check lists for all aspects of the technical jobs needed to be completed before, during and after the show to guarantee it ran smoothly. These were just a few of the jobs I did for this performance and the judges at the conference will be looking how I organized each aspect of the production from the master cue list of all the cues I had to call to run the show, such as lights and sound, down to how I organized rehearsals and auditions. There will also be a question and answer session so they can see how I managed to succeed past any challenges I faced, such as the troubles I endured with my production team to procure a permit to allow smoking of herbal cigarettes onstage, how this needed to be related and advertised through public relations and advertisement and what precautions I needed to take because the show included a potential fire hazard onstage. These are a few of the many things included in my prompt book to be presented at the conference.

Burke, Allison

January - March FY12

53rd Annual Drosophila Research Conference

"Characterization of Pkndln⁵, a derivative allele of the delorean mutation associated with the Protein kinase N gene in *Drosophila melanogaster*"

The delorean mutation in *Drosophila melanogaster* was identified from a collection of mutants generated in a large-scale screen of P[*IacW*] transposon insertions on the second chromosome (Torok et al 1993 *Genetics* 135: 71-80). Wings of flies that are homozygous for the delorean mutation are held away from the body, noticeably curved downward and have additional defects

of the wing margin. The P[lacW] insertion has been mapped to the first intron of the *Drosophila* Protein kinase N gene (Pkn) and the delorean mutation is thought to alter Pkn function (Ostrow and Momin 2001 A. Dros. Res. Conf. 42: 701B). The delorean wing phenotype is only seen when the P[lacW] insertion is homozygous (i.e Pkndln/ Pkndln), yet is not due to a loss-of-function mutation as evidenced by the wild-type phenotype observed when Pkndln is heterozygous with a deficiency (Df(2R)45C) that removes the Pkn gene. This is in contrast to other Pkn alleles such as Pkn06736; a null allele that results in dorsal closure defects during embryogenesis (Lu and Settleman 1999 Genes Dev. 13: 1168-1180). To understand the molecular basis of the delorean phenotype we have generated deletion derivatives of the Pkndln allele. One of these derivatives, Pkndln5, generates a less severe wing phenotype, but was found to have a profound effect on female fertility. In addition, Pkndln5 demonstrates that the delorean phenotype is transvection-dependent. We determined that the molecular lesion associated with the Pkndln5 allele was internal to the P[lacW] transposon, removing sequence from the mini-white+ gene. We present our continued analysis of the Pkndln5 derivative with respect to the role of the Pkn gene in wing morphogenesis as well as its prospective role in oogenesis.

Carlson, Laura

January - March FY12

East Central Writing Centers Association

"Behind the Front Desk: The role of desk workers and their effect on writing centers"

At the Fred Meijer Center for Writing and Michigan Authors at Grand Valley State University, we rely heavily on the services that desk workers provide. We plan to show how the integration of desk workers affects the work environment and services, and has the potential to create a hierarchy within the Center.

Chen, Yue

January - March FY12

TESOL International Convention & English Language Expo

"Chinese EFL Students Perspectives on Writing Instruction"

A considerable amount of research has investigated writing instruction in ESL classrooms, showing that teachers scaffolding helps students develop new skills and knowledge (Gibbons, 2001; Nassaji & Cumming, 2000; Qi & Lapkin, 2001; Thompson, 2009). However, little research has considered students special needs in English as foreign language contexts, where students may face different obstacles in learning to write (Silva, Brice, & Reichelt, 1999; Wang, 2011). This study addresses this gap by interviewing three Chinese college students on how they were taught to write in English.

In order to investigate the extent to which writing instruction differs in EFL context from the students perspective, the presenter chose three Chinese L1 EFL college students in different areas of China with various levels of English proficiencies as her participants. Interview questions focuses on how they were taught to write in English, what difficulties they met while writing, and how they expect teachers to teach writing. Notes from interviews were analyzed for major themes using the constant comparative method. Major findings include that most Chinese college students rely heavily on teachers in-classroom instruction; they learn to write in English without effective teachers scaffolding; and they hold high expectations of teacher corrective feedback so that they can correct grammar mistakes. The researcher will present and exemplify these results and discuss the implications of these findings for graduate students in TESOL as well as for future research on English in foreign language contexts.

Cox, Joe

January - March FY12

Kennedy Center American College Theatre Festival Region 3

"Canvas Credeaux, Winston"

My specialty in the realm of acting is over-the-top physical comedy. I was nominated for my role in The Braggart Soldier, during which I was praised for my ability to have cartoonishly high levels of energy and extreme physicality. I even had to go so far as to actually impersonate Bugs

Bunny at times, which is quite possibly one of the most energetic and physical characters in existence. I plan on keeping my performances at ACTF in line with my abilities. I've picked three scenes to showcase at the Irene Ryan competition, that are highly dramatic and use large physicality. My first scene is fight between the couple Winston and Amelia from Canvas Credeaux, this is a dramatic scene and will allow me to showcase large but realistic gestures. My second Scene is from Our Lady of 121st St, and is a serio comic piece which contrasts the first. This piece uses much smaller physicality but high vocal energy to convey the relationship between the characters of Norca and her husband. The final piece I will present at the competition is a comedic take on the bastard Edmund from Shakespeare's King Lear. This scene more than any of the others will allow me to showcase my comedic talent in combination with my energy and physicality. I plan on using these scenes to showcase the experience I've gained from my time at GVSU.

Delgado, Christopher

January - March FY12

National Trumpet Competition

"Path of Discovery"

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Fair, Benjamin

January - March FY12

53rd Annual Drosophila Research Conference

"Epitope labeling of histidine decarboxylase in *Drosophila melanogaster*"

Histidine decarboxylase (HDC) plays a critical role in the synthesis of histamine, a central and peripheral nervous system neurotransmitter used by invertebrates. Past attempts to create antisera that recognize HDC in vivo have not produced satisfactory results. While some HDC antisera have been made in other organisms, they appear not to be useful across species, including *Drosophila melanogaster*. As a result, little is known about the localization or biochemistry of HDC in the fly. It has been suggested that HDC undergoes a complex maturation process, undergoing cleavage at both the N- and C- termini of the protein. We report an approach that allows a functional HDC protein to be examined in vivo using internal epitope tagging. A genomic fragment that had been previously shown to contain a completely functional *Hdc* gene was modified by a PCR-mediated insertion of an epitope tag, 6x-HIS, into the protein coding region of the *Hdc* gene at specific sites. The location of these tags in the protein structure was selected to be in regions of the mature HDC protein which likely would not affect its function, based on comparisons of the structure of DDC from other species with the HDC protein sequence. Each *Hdc* transgene containing a 6X-HIS tagged *Hdc* gene was transformed into *Hdc*JK910 mutant flies that normally have little to no histamine or HDC activity. Results indicate that while one of the epitope tags appears to disrupt *Hdc* function (indicated by a lack of histamine staining in the CNS), a 6X-HIS tag in a different location of the HDC protein structure appears to have no disruptive effect on *Hdc* function (indicated by normal histamine staining in the CNS). Assuming other epitopes can be used that may be easier to detect in tissue; this approach should enable further studies into the biochemistry and cell biology of HDC in vivo.

Fisher, Nicole

January - March FY12

East Central Writing Centers Association

Cohesion, Coherence, and Collaboration: How Writing Centers Can Aid Students with Stilted Syntax

Many teachers and consultants feel we have a felt sense for what good writing sounds like, but describing this style to students can be difficult. This presentation will discuss strategies in cohesion, coherence, and collaboration and how to use these strategies to aid students who struggle to form eloquent syntax.

Furner, Jennifer

January - March FY12

The Louisville Conference on Literature and Culture since 1900

"Split Identities: Lacan's Mirror Stage in Shirley Jackson's 'The Tooth'"

During the Cold War era, successful white educated young couples sought security and comfort by leaving the cities and settling in the suburbs. As Elaine Tyler May wrote in *Homeward Bound*, Suburbia would serve as a bulwark against communism and class conflict. This great migration to the suburbs signified the importance placed on community, specifically, the family unit. The housewives of these fearful and unstable times were not only held accountable for the organization of the home, but for the happiness and health of all family members. In other words, they were married to their homes. Housewives most important responsibility was tending to others needs ahead of their own to the point where caring for ones family became ones whole identity.

The rules of suburbia, however, are not followed within the city limits. In the city, time rushes faster and ones only responsibility is to oneself. Shirley Jackson uses her short story *The Tooth* to portray the city as a place devoid of all the common rules by which housewives live their lives. Without their everyday responsibilities, women, while in the city and surrounded by strangers, lose all sense of purpose. Jacksons protagonist takes this opportunity to shed her housewife identity freely and discover her individuality outside of societys demands.

Using Jacques Lacans Mirror Stage to examine Jacksons short story, this paper will demonstrate how Cold War-era women were identified only by their success at keeping up a home and how, once the home is separated from them, they attempt to discover who they are as an individual separate from the expectations society has placed on them.

Gray, Lauren

January - March FY12

2012 Academy of Criminal Justice Sciences (ACJS) Annual Meeting: Sustainable Justice

"Exploring Male and Female Inmate Misconduct"

No Abstract.

Greenlees, Kimberly

January - March FY12

2012 Academy of Criminal Justice Sciences (ACJS) Annual Meeting: Sustainable Justice

"The Need (Still) to Offer White Collar Crime Courses in Criminal Justice Curriculum"

White-collar crime costs more economic harm than all street and property crime combined. The scandals of Enron, Martha Stewart, Worldcom and Bernie Madoff have received some media attention, but many go ignored. If white-collar crimes do exist and cost taxpayers billions of dollars then it would make sense that these crimes are taught to future criminal justice practitioners in the various criminal justice departments in the United States. Yet less than 10% of the criminal justice departments across the United States have a dedicated course on white-collar crime. This paper examines this issue and gives several reasons why such courses are needed.

Kimberly Greenlees and Debra Ross

Grit, Joseph

January - March FY12

243rd American Chemical Society (ACS) Spring 2012 National Meeting

"Can we improve research experiences to better address nature of science concepts?"

According to the NSTA position statement regarding the Nature of Science (NOS), all those involved with science teaching and learning should have a common, accurate view of NOS. As NOS deals with how scientific knowledge is constructed, a research experience, where participants are involved in constructing scientific knowledge, can be viewed as imperative for developing a sound understanding of NOS. Our study examines the effects of a research experience for teachers, which is part of the Target Inquiry professional development program, on teachers views of NOS, and compares teachers views to those of experts, the science research mentors. Participants NOS views were measured using the VNOS-B form as well as the Thinking About Science Survey. This poster will report the study findings as well as discuss some simple instructional modifications or activities that can be used in conjunction with the research experience that may enhance constructive changes to NOS views.

Kilbourne, Zoe

January - March FY12

243rd American Chemical Society (ACS) Spring 2012 National Meeting

"Defining the mechanistic pathway of the antibiotic resistance enzyme OXA-1 beta lactamase"

Beta-lactam antibiotics, such as penicillin, are the biochemical key to preventing bacterial infections. As a result of the expression of four classes (A-D) of beta-lactamase enzymes, bacteria have developed increased resistance to antibiotics and continue to pose a daunting public health threat. Specifically, class D beta-lactamases are characterized by a serine nucleophile activated by an atypical carboxylated lysine which acts as the general base. Little is known about the enzymes' initial recognition of its beta-lactam substrate and the subsequent mechanistic pathway. Of the nearly 160 known Class D beta-lactamases that contribute to

resistance in bacterial infections like *Pseudomonas aeruginosa*, OXA -1 represents a subclass exhibiting increased activity against the penicillinase-resistant beta-lactam antibiotic oxacillin. Using a mutant OXA-1 (Ser67Gly), the structure of the enzyme complexed with the hydrolyzed oxacillin product was determined to 1.2 Å resolution. This atomic-level structure provides insight into the nuances of Class D beta-lactamase mechanism.

Lachheb, Ahmed

January - March FY12

SITE 2012 Conference

"Student & Teacher Perceptions of Ubiquitous Computing"

Many ubiquitous computing initiatives provide teacher perceptions or student perceptions on a single survey after the program has been implemented for a year or less. The current study compares responses from surveys administered to teachers and students in grades 6 - 12 prior to the initiative beginning and repeated annually for 2 years. Responses cover home use of technology to school use of technology.

Latshaw, Skylar

January - March FY12

American Literature Association: Cormac McCarthy, Ernest Hemmingway and Their Traditions

"Foucault's Panopticonic Gaze and Cormac McCarthy's *The Road* (abbreviated)"

Cormac McCarthy's *The Road* is not only considered one of his masterpieces, but also the black sheep of his novels. Many critics and fans of McCarthy note that its post-apocalyptic setting sets *The Road* apart from the realism of McCarthy's other works, some even arguing that it should be classified and read as science fiction. The world, deprived of flora and fauna, is certainly an alien landscape, with the few people left shells of who they once were, many resorting to cannibalism. The post-apocalyptic setting of *The Road* functions differently than the world before the cataclysmic event. Priorities have shifted; survival and medical skills are essential. Sight is

by far the most important of the senses, allowing for scavenging and avoiding danger. The novels protagonists, an unnamed father and son, are constantly searching abandoned houses for food, hiding from cannibals, scouting and keeping watch. The ocular is survival.

As concrete as the ocular is, it goes beyond the literal in *The Road*. A component of sight, the gaze, the ability to see and be seen, becomes a psychological obsession with the father, informing his actions, outlook, and goals. Although the gaze is a term used by several critics and philosophers (including Jean-Paul Sartre and Jacques Lacan), Michel Foucault's panopticonic gaze is most apt to apply to the father's situation. By viewing the father through this lens, my paper reveals how much of an impact Foucault's panopticonic gaze has on the father in *The Road*. The gaze creates in him an anxiety of surveillance, isolation from other people and, ultimately, a consistent sense of fear. I argue that it is the father's own psyche that is not only both the greatest help and hindrance to him and his son, but also an insightful framework to view the novel's key themes—especially good and evil, religion, and generosity—through.

Lyle, Mark

January - March FY12

National Trumpet Competition

"Path of Discovery"

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Meyers, Ashley

January - March FY12

2012 Society for Photographic Education (SPE) National Conference: Intimacy and Voyeurism:
The Public/Private Divide in Photography

"In the Attic"

This series began with an unintentional recording of the subconscious. In the beginning of the series I had intention to distract my mind from the loneliness I felt while my partner was away on a three week hiking trip but as with much of life nothing goes as expected. Before starting the series I had come into contact with the work of Francesca Woodman and was inspired by the expressive power of her photographs. Woodmans work is challenging and disorienting all the while emphasizing the role of the female body and bringing the viewer closer to the issue of intimacy. She does this with admirable logic and full of energy, in Virginia Woolfs words, like a storm that rushes across everything and tries to free the power of things.

As I drew inspiration from Woodmans work I began to find a niche in the world for my own work. To be honest this series is not meant for an audience, rather it is meant for me. I would consider the work more as an encrypted visual diary. These photographs have forced me to tap into my subconscious to deal with issues Ive buried deep within my being.

This portfolio deals with exploring the relationship between self and architectural space. The attic in our apartment became more of a meditative space than a storage area for empty boxes and dust. During this time period the attic provided me the opportunity to freely express my emotions; it was as if I were performing for the camera, a melancholy dance for an audience of one.

The process behind the creation of my work is minimal. When shooting I use a tripod, my camera, the self-timer on my camera and the natural lighting available. I shot in traditional black and white silver and processed my own film and printed the photographs myself.

Robinson, Carol

January - March FY12

12th Annual International Meeting on Simulation in Healthcare (IMSH)

"End of Life Simulation of Therapeutic Communication and Care Using Standard Patients and SimMan"

Clinical simulation of end-of-life (EOL) scenarios can give students the opportunity to learn the vital concepts of EOL care in a safe, non-threatening environment. We have developed and conducted a live simulation of therapeutic communication for EOL discussion with standard patients, and simulation of an actively dying patient, using one standard patient (family member) and SimMan®. The simulations were part of an elective EOL class, consisting of various undergraduate majors. A doctorate of nursing (DNP) student taped an interview of a model patient couple processing the recent bad news of a terminal diagnosis. The video was shown to the class, followed by a live interaction of the students with the model patients as they discussed which communication techniques were helpful versus those that were not. Three weeks later, the patient (now SimMan) was readmitted to our simulation lab with our model patient wife, and students were invited to participate in the care of the patient and his family while he died. Students originally were reticent to volunteer to participate in the death simulation. The faculty proceeded with the simulation, then offered to perform the simulation again with any student volunteers. Two undergraduate nursing students volunteered at that point. During the debriefing, barriers to participating in the simulation, given the safe environment, were discussed. Feedback included discomfort with caring for the dying without more experience. This simulation underscored the need for further education for undergraduate nurses in palliation and EOL care.

RATIONALE:

Practicing nurses report that they have received very little undergraduate or continuing education in palliative and =EOL care. The clinical rotation of many undergraduate nurses is filled with the psychomotor tasks of caring for the living. Rarely does the student have the privilege of caring for someone who is actively dying. Using AACN and ELNEC competencies and course outcomes as a guide, simulations can provide the student insights into elements of care that seem to provide the most emotional distress for students: emotional support to patients who are dying (and their families), physical care, and postmortem care.

SESSION OBJECTIVES:

1. Review seminal literature in EOL simulation
2. Describe process of producing a clinical simulation for EOL using both standard model patients and SimMan®.
3. Discuss debriefing methods/results for students following the scenario

INTENDED DISCUSSION QUESTIONS:

1. What experiences have audience participants had with EOL simulation (non-BLS/ACLS focused)?
2. What barriers stand in your way to produce an EOL simulation in your environment?

PLANNED FORMAT:

Lecture and presentation of video clips from the simulations

Interactive dialogue following presentation

Rationale: Practicing nurses report that they have received very little undergraduate education in palliative and EOL care. Rarely does the student have the privilege of caring for someone who is actively dying. Using AACN and ELNEC competencies and course outcomes as a guide, simulations can provide the student insights into elements of care that seem to provide the most emotional distress for students: emotional support to patients who are dying (and their families), physical care, and postmortem care.

Sarathi, Akshay

January - March FY12

2012 Phi Alpha Theta Biennial Convention

"Indian Ocean Trade: 300 BCE - 300 CE"

Between 300 BCE and 300 CE the Indian subcontinent witnessed an intensification and spread of trade networks that allowed for an unprecedented level of cultural unity and interconnection. These networks connected the subcontinent to a larger Indian Ocean trade network that allowed for cultural and material exchange across the Indian Ocean basin. The interconnectivity of the Indian Ocean basin is demonstrated by the intensive and sustained contact between the Indian subcontinent and the Roman Mediterranean. The presence of Greco-Romans and Roman artifacts in India and the presence of Indians and Indian luxury items in the Roman Empire evidence the cultural exchange that occurred across the Indian Ocean at the turn of the Common Era.

Schmidt, Thomas

January - March FY12

Michigan Academy of Science, Arts & Letters

"Predictive niche modeling of pteridophyte community reestablishment in secondary forests of Puerto Rico"

By 1950, approximately eighty-five percent of Puerto Ricos forests had been converted into agricultural systems. Since then, there has been extensive abandonment of agricultural practices

initiating a steady increase of forest regeneration and thus a substantial amount of secondary forest throughout the island. Pteridophytes (ferns and fern allies) are a major component of tropical island forests constituting up to seventy percent of the flora. The secondary forests of Puerto Rico have yet to be assessed of their pteridophyte species composition and community structure (i.e., the relative abundances of constituent species). I will present a GIS-based species occurrence predictive model constructed using the program Maximum Entropy (MaxEnt) and herbarium records collected from three major herbaria in Puerto Rico, and environmental, and forest age data. The models predictions will be field tested in Summer 2012, adjusted accordingly, and used to develop a conservation management plan to be disseminated to Puerto Ricos Department of Natural and Environmental Resources, the University of Puerto Rico, and the Institute for Tropical Ecosystem Studies.

Schuurman, Jacob

January - March FY12

2012 Joint Mathematics Meetings

"Sensitivity Analysis of the Wnt Pathway"

Signal transduction begins with a signal binding to receptors on the membrane of the cell. This causes a cascaded of protein interactions within the cell, ending in transcription of targeted genes. The Wnt pathway is a well-studied protein system that plays an important role in the proliferation and adhesion of cancerous cells. When signaled, the Wnt pathway results in a buildup of beta-catenin, which leads to transcription of certain genes. An excess of beta-catenin can cause cells to divide unnecessarily resulting in tumors. Other factors in the pathway, such as Axin and APC, help regulate beta-catenin buildup. In order to sift through the various protein interactions to determine the most influential, we analyze the response of a state variable to a change in the parameter, also known as sensitivity functions. Solving for sensitivity functions analytically in large models such as the Wnt pathway is not practical because it requires computing a large number of partial derivatives. In this project, we use automatic differentiation to compute the partial derivatives related to sensitivity functions. We were interested specifically in beta-catenin and Axin because of their important role in the system, but also investigated other

factors. Through our sensitivity analysis of the Wnt pathway, we were able to determine the most influential protein interactions.

Sharp III, Kermit

January - March FY12

2012 Joint Mathematics Meetings

"Lie Algebra Change of Basis"

We present our work in Lie algebras change of basis. We investigate the problem of low dimensional matrix Lie algebras, and present an algorithm that works for Lie algebras with given structure equations. The results are helpful for studying special Lie algebra extensions and subalgebras.

Shields, Stephanie

January - March FY12

National Trumpet Competition

"Path of Discovery"

After being accepted from a pre-screened audition, GVSU Trumpet Ensemble C will be competing in the semi-finals of the National Trumpet Competition 2012 in Fairfax, Virginia. Our trumpet ensemble, performing Path of Discovery by Eric Morales, will be competing with the most prestigious trumpet studios in the country such as Juilliard and Northwestern. Grand Valley has a very strong reputation in this competition. Our trumpet ensembles and solo musicians have both earned medals and won on numerous occasions. In addition to participating in the competition itself, we will also be in attendance of Master classes taught by some of the highest regarded trumpet performers and professors in both the country and abroad. The National Trumpet Competition is one of the highest regarded showcases of trumpet excellence and it will be a privilege to compete under Grand Valley's name.

Standriff, Stephanie

January - March FY12

National Science Teacher Association (NSTA) National Conference in Indianapolis

"Modeling the Melting of Permafrost by Climate Change"

Thawing permafrost impacts infrastructure and disrupts water and carbon cycles. We will be modeling the melting of permafrost by climate change with data from thermochron iButtons. During our presentation, we will build the permafrost model, take temperatures, and ask our audience members to graph results and compare to real permafrost data.

Stoddard, Micah

January - March FY12

National Trumpet Competition

"Path of Discovery"

After being accepted from a prescreened audition, GVSU Trumpet Ensemble C will be competing in the semi-finals of the National Trumpet Competition 2012 in Fairfax, Virginia. Our trumpet ensemble, performing Path of Discovery by Erik Morales, will be competing with the most prestigious trumpet studios in the country such as Juilliard and Northwestern. Grand Valley has a very strong reputation in this competition. Our trumpet ensembles and solo musicians have both earned medals and won on numerous occasions. In addition to participating in the competition itself, we will also be in attendance of Master classes taught by some of the highest regarded trumpet performers and professors in both the country and abroad. The National Trumpet Competition is one of the highest regarded showcases of trumpet excellence and it will be a privilege to compete under Grand Valley's name.

Trisch, Kelly

January - March FY12

2012 Society for Photographic Education (SPE) National Conference: Intimacy and Voyeurism:
The Public/Private Divide in Photography

"Childhood Memories"

Childhood Memories, the title of my thesis work, is a recreation of memories that have remained with me from as long ago as age three to as recent as two years ago. Starting with my first memory, I am photographing children that look similar to the way I did at that age. They will reenact my memories as I photograph them.

Although capturing memories is the main goal for many who photograph, I have noticed that many of the memories that I can recollect are not photograph ones. Being said, this is the main focus and goal of my thesis. Although it will be known to myself and others that I am not the one in many of the photographs, the memories are unique to myself and could have only been mine.

Memories are fleeting, and one of my fears is losing these memories as I grow older. I have been collecting memories as I go on through this process, not only from my own recollection but also of family members to gain a better perspective on how the events may have actually played out.

Many memories I have forgotten, especially memories containing loved ones that have passed. Recreating these will be the most difficult, however these are the most important ones for me to recreate. The people who I can no longer share my memories with are incredibly important to me, and I will also honor them in my photographs.

Vallier, Beth

January - March FY12

243rd American Chemical Society (ACS) Spring 2012 National Meeting

"Structure determination and analysis of the class D carbapenemase OXA-24 in complex
imipenem"

β -lactams are the most widely prescribed class of antibiotics, but their utility is compromised due to resistance. The leading cause of resistance is the expression of β -lactamase enzymes, of which there are four major classes (A, B, C, and D). Carbapenems are a newer class of β -lactams that are meant to be β -lactamase resistant. Particularly worrisome is the emergence of subclasses of the class D enzymes that exhibit carbapenemase activity. OXA-24 is one example of these carbapenem hydrolyzing Class D β -lactamases, or CHDLs. Using a deacylation deficient mutant of OXA-24 (Lys84Asp), the structure of the acyl-enzyme complex with the carbapenem imipenem was determined to 1.94 Å resolution. Comparison with other β -lactamase/imipenem complexes provides insight on the ability of CHDLs to hydrolyze carbapenems.

Beth C. Vallier, David A. Leonard, and Rachel A. Powers

Van Oeveren, Sarah

January - March FY12

53rd Annual Drosophila Research Conference

"Characterization of Pkndln⁵, a derivative allele of the delorean mutation associated with the Protein kinase N gene in *Drosophila melanogaster*"

The delorean mutation in *Drosophila melanogaster* was identified from a collection of mutants generated in a large-scale screen of P[*IacW*] transposon insertions on the second chromosome (Torok et al 1993 *Genetics* 135: 71-80). Wings of flies that are homozygous for the delorean mutation are held away from the body, noticeably curved downward and have additional defects of the wing margin. The P[*IacW*] insertion has been mapped to the first intron of the *Drosophila* Protein kinase N gene (*Pkn*) and the delorean mutation is thought to alter *Pkn* function (Ostrow and Momin 2001 *A. Dros. Res. Conf.* 42: 701B). The delorean wing phenotype is only seen when the P[*IacW*] insertion is homozygous (i.e Pkndln/ Pkndln), yet is not due to a loss-of-function mutation as evidenced by the wild-type phenotype observed when Pkndln is heterozygous with a deficiency (*Df*(2R)45C) that removes the *Pkn* gene. This is in contrast to other *Pkn* alleles such as Pkn06736; a null allele that results in dorsal closure defects during embryogenesis (Lu and Settleman 1999 *Genes Dev.* 13: 1168-1180). To understand the

molecular basis of the delorean phenotype we have generated deletion derivatives of the Pkndln allele. One of these derivatives, Pkndln5, generates a less severe wing phenotype, but was found to have a profound effect on female fertility. In addition, Pkndln5 demonstrates that the delorean phenotype is transvection-dependent. We determined that the molecular lesion associated with the Pkndln5 allele was internal to the P[lacW] transposon, removing sequence from the mini-white+ gene. We present our continued analysis of the Pkndln5 derivative with respect to the role of the Pkn gene in wing morphogenesis as well as its prospective role in oogenesis.

Waite, Molly

January - March FY12

East Central Writing Centers Association

"Behind the Front Desk: The role of desk workers and their effect on writing centers"

At the Fred Meijer Center for Writing and Michigan Authors at Grand Valley State University, we rely heavily on the services that desk workers provide. We plan to show how the integration of desk workers affects the work environment and services, and has the potential to create a hierarchy within the Center.

Wernette, Andrew

January - March FY12

Kennedy Center American College Theatre Festival Region 3

"A Great Big Hole In the Ground"

Julie, who works in a lab, is surprised at the sudden appearance of her estranged mother, May. May comes bearing a mysterious shard of bone and years of grief and denial about the Oklahoma City Bombing. The play comes to a head as Julie realizes that perhaps she isn't as okay with her life as she thought. A Great Big Hole In The Ground touches on people's relations to their grief, and how it can be good and bad.

Wisniewski, Andrew

January - March FY12

Michigan Academy of Science, Arts & Letters

"A Geopolitical Analysis of the Distribution of American Recovery and Reinvestment Act Funds"

This study examines the political and economic variable which determined the geographic distribution of contracts, grants and loans under the American Recovery and re-investment Act of 2009. The empirical results suggest a strong relationship exists between the party of the congressmen controlling the district and the local amount of stimulus award monies in the district. With Democratic districts receiving more funds than Republican districts on a per capita basis. The unemployment rate, which was expected to have a significant positive effect on stimulus monies awarded per capita actually had a significant negative relationship with stimulus monies awarded per capita at the congressional district level. The poverty rate had a significant and positive relationship with stimulus monies per capita. This relationship which is in the inverse of the relationship established at the state level in previous research needs further investigation.

Winters, Brittney

January - March FY12

The Louisville Conference on Literature and Culture since 1900

"Between Innocence and Experience: Marginalization of the 'Other' in 'On the Road'"

Kerouac and the Beat generation are notorious for appropriating the language of alienated minority subcultures as their own to describe their disillusionment with mainstream society. Fascinated with the ways in which these minority groups manipulated language and subverted meaning to create countercultures, Beat artists incorporated these techniques into their own work and appointed themselves intermediaries between these minority subcultures and the mainstream

masses. Though Beat writers contributed to the demand for representation by minority cultures, these same narratives serve to illustrate the benefits of white privilege. Kerouacs protagonist in *On the Road* expresses his dissatisfaction with the white, middle-class experience by fetishizing the marginalization of racial minorities during his travels, creating in the sense of Otherness a type of innocence that has yet to be sullied by the expectations of mainstream society, further reinforcing racist ideologies. By examining *On the Road* through postcolonial and African-American theoretical lenses, I will demonstrate how the language of othering serves to undermine the protagonists, and by extension, Kerouacs admiration of minority subcultures and also demonstrates a problematic reduction of the struggles that these minorities faced in postwar America.

White, Olivia

January - March FY12

243rd American Chemical Society (ACS) Spring 2012 National Meeting

"Regioselective Nucleophilic Ring Opening of Aziridines in the Synthesis of T1AM Analogues"

Thyroxine (T4), the predominant secretion of the thyroid gland, undergoes deiodination at target tissues to produce the potent agonist Triiodothyronine (T3). Recent work has shown that in vivo enzymatic deiodination and decarboxylation of T3 generates the derivative T1AM, a potent agonist of trace amine associated receptors. Interestingly, T1AM induces physiological effects opposite to those produced by the T3 and T4 hormones (Scanlan et al. 2004). Presently, a regulatory relationship between T1AM and the thyroid hormones requires a more fundamental understanding of the TAAR1 receptor and its ligands. Elucidation of a regulatory pathway has the potential to establish more comprehensive treatment options for thyroid-related disorders. Previous work by this lab has shown agonist/antagonist regulation of TAAR1 using the two enantiomers of Apomorphine. Herein, this project describes the regioselectivity of nucleophilic ring openings on Aziridines using p-methoxy phenol and presents the progress towards the synthesis of a proposed TAAR1 regulator.

Whitmore, Jeremy

January - March FY12

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"Regioselective Nucleophilic Ring Opening of Aziridines in the Synthesis of T1AM Analogues"

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Worm, Anna

January - March FY12

East Central Writing Centers Association

"Profanity, Slang, and Professional Language in the Writing Center"

This session will discuss the concept of professional language as it applies to consultants, the writing center, and interaction with students. We will present ways to use types of language generally viewed as less professional in order to build rapport and promote understanding beyond the realms of strictly academic discourse.

Zilke, Holly

January - March FY12

East Central Writing Centers Association

"He/She/Who Cares?: Gender Perception in the Writing Center"

Using studies as well as research conducted at GVSUs Writing Center, we will examine how students perceive their consultants, based on gender, before the consultation even begins. Using this knowledge, we will further discuss can be done as consultants to negate any ill effects of the stereotypes they may place on us.

ACF 2012 April – June Presentations

Borgman, Andrew

April – June FY12

National Council of Teachers of Mathematics (NCTM) Annual Conference 2012

"The Benefits of ePortfolios and Assessment for Student Development"

In 2010 Grand Valley State University School of Social Work began to incorporate electronic portfolios (ePortfolios) as a means of managing content, integrating student learning as well as aide in assessing student growth and curriculum, and mastering the ten social work core competencies. This paper and presentation will outline the literature surrounding the benefits of ePortfolios as well as how the School of Social Work at Grand Valley has incorporated them into its curriculum. With many changes in technology, as well as changing requirements of professional social workers, Grand Valleys School of Social Work has continued to push itself in serving students and improving its program to meet the needs of an ever changing world.

Botting, Timothy

April – June FY12

International Polar Year (IPY) 2012: From Knowledge to Action

"Impacts of Experimental Warming on *Carex aquatilis*-stands in Northern Alaska"

Global climate change will affect many areas of the world in differing degrees of magnitude. High latitude regions have shown the impact of climate change the most. In 1995 and 1996, two study sites were established in Barrow and Atkasuk, Alaska. The ongoing study uses open-top chambers to examine the response of vegetation to experimental warming. The change of numerous Arctic species has been documented. Here the dominant sedge at both sites, *Carex aquatilis*-stands, is examined and patterns of change have become apparent. Generally, the study has shown that there are more *Carex aquatilis*-stands inflorescences and more inflorescences went to flower on experimental versus control plots. Likewise, more inflorescences tended to go to seed on experimental compared to control plots. These effects of experimental warming suggest that *Carex aquatilis*-stands will become even more dominant in the Arctic community since experimental warming appears to have led to greater development and reproduction.

Carlton, Emrie

April – June FY12

16th Annual Pacific University Undergraduate Philosophy Conference

"A Series on Dialogue"

A critique on dialogue as it pertains to education, democracy, development, and the emergence of a new global worldview, my research stems from the humanities and philosophy of morality, education, and integration. Addressing questions of what it means to undergo a transformation of value and reappropriation of tradition as means for civic engagement and understanding of self, through engaging in dialogue. This research is rooted in a class titled Dialogue, Integration and Action in which rigorous inquiry was conducted on dialogue as means for the locus of transformation to a new worldview, with colleagues such as Tu Weiming, Stephen C. Rowe, Michael Sandel, Amartya Sen, and Martin Luther King, Jr. This topic has provided me with a

solid foundation as I am continuing research in this field with a shift toward interfaith dialogue and understanding.

Christensen, Victoria

April – June FY12

84th Midwestern Psychological Association (MPA) Conference

"Validation of Measures of work-to-school conflict and school-to-work conflict"

Self-report measures of work-to-school and school-to-work conflict were developed based on results from focus groups. Data from 100 employed college students suggested the new measures were psychometrically sound and related to measures of constructs predicted to be theoretically related.

Cynar, Paula

April – June FY12

American Alliance for Health, Physical Education, Recreation, & Dance (AAHPERD) Midwest District Centennial Celebration Conference

"How Do You Role? Future Professionals Tumble On In!"

How do you role? And we're not talking somersaults. Future professionals have the opportunity to amp up their professional development by discussing the importance of regional workshops, state & national conventions, community involvement and professional networking.

Emalander, Tanya

April – June FY12

American Alliance for Health, Physical Education, Recreation, & Dance (AAHPERD) Midwest District Centennial Celebration Conference

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Foster, Travis

April – June FY12

Society for Freshwater Science Annual Meeting 2012

"Bugs and Zebras: How the Zebra Mussel Invasion has Affected Macroinvertebrate Communities in the Muskegon River"

Zebra mussels first invaded the Great Lakes basin in the 1980s, most likely from ballast water from overseas ships. A single zebra mussel can process anywhere from 1 to <5 liters per day, which can cause cascades in many food webs. Zebra mussels were discovered in the Muskegon River, MI in 2000, leading to changes in the aquatic fauna. This study is investigating if differing zebra mussel densities affect macroinvertebrate composition and density in the Muskegon River. Thirteen $0.25 \times 0.25 \text{ m}^2$ substrate samples were collected from the same riffle. Zebra mussel density varied across the riffle, but the habitat and flow remained approximately the same. Preliminary data suggests that there are some shifts in abundance and types of macroinvertebrates in relation to different densities of zebra mussels. For example, flatworms and simuliids seem to have a significant positive trend with increasing zebra mussel densities. Chironomids were the most abundant insect taxon; however their density did not vary with zebra mussel density.

Hake, Benjamin

April – June FY12

American Physiological Society Experimental Biology 2012

"Changes in vascular reactivity of mesenteric arteries following hyperbaric oxygen treatment"

The objective of this study was to evaluate the changes in vascular reactivity of mesenteric arteries resulting from hyperbaric oxygen treatment. It was hypothesized that hyperbaric oxygen treatment alters vascular reactivity in mesenteric arteries. Arteries from porcine mesenteries were dissected and then subjected to a 2-hour hyperbaric treatment in 100% oxygen, 100% nitrogen, or ambient air (1.75 ATA). An additional control included vessels exposed to ambient air at 1 ATA. Immediately following, arteries were mounted in isolated organ baths and passively loaded with 7 grams of tension. Following a 1-hour equilibration in Krebs-Henseleit solution arteries were treated with potassium chloride (KCl; 15–60 mM) to assess viability. Subsequently, arteries were treated with increasing concentrations of phenylephrine (10^{-7} – 10^{-4} M) then sodium nitroprusside (10^{-7} – 10^{-4} M) to measure changes in vascular reactivity. KCl-induced vasoconstriction was significantly increased in response to hyperbaric oxygen treatment compared to ambient air control (1 ATA). Treatment with hyperbaric oxygen augmented vascular responses to phenylephrine and sodium nitroprusside relative to nitrogen but not ambient air. The results from these studies provide insight into the vascular effects of hyperbaric oxygen treatment.

Howard, Gavin

April – June FY12

2012 American Society for Clinical Laboratory Science-Michigan Annual Meeting and Exhibits

"The Effect of Room Temperature Storage of Patient Serum Specimens on Troponin T Levels"

The purpose of this study is to determine the effect of room temperature storage of patient plasma specimens on troponin T levels. A baseline level of troponin T will be measured and the specimens will be incubated at room temperature. Levels will be measured again two hours, four hours and eight hours after the baseline measurement to observe the effect of room temperature incubation on troponin T levels. The protocol for troponin T testing requires a blood sample collected in a lithium heparin tube that is separated via centrifugation. The plasma must be tested within two hours of the blood draw or the test results are invalid. If the sample is not tested within two hours, the uncentrifuged specimen may be stored at four degrees Celsius for up to 24 hours and the troponin T levels will remain stable. Sixty patient specimens will be tested. The

specimens will be separated into three categories, twenty specimens in each, to reflect the three different categories of troponin T levels at Spectrum Health Regional Laboratory (SHRL). The levels are less than 0.03ng/ml which indicates no cardiac damage, 0.03-0.09ng/ml which indicates possible damage and greater than or equal to 0.09ng/ml which indicates definite cardiac damage. By using samples from all three categories the results will be representative of all ranges of troponin T levels. Larger reference laboratories, like SHRL, often perform troponin T blood level testing for smaller laboratories. During transport specimen integrity is lost if the specimen does not reach the testing laboratory within the two hour time limit. If the results of the study indicate there to be minimal to no change in troponin T levels after the specimen is stored at room temperature for two hours or greater, a greater amount of time will be available to transfer the specimen to the testing laboratory and less specimens will be rejected for testing.

Kiger, Paul

April – June FY12

Las Vegas National Technology & Social Science Conference 2012

"The Benefits of ePortfolios and Assessment for Student Development"

In 2010 Grand Valley State University School of Social Work began to incorporate electronic portfolios (hereafter ePortfolios) as a means of managing content, integrating student learning as well as aide in assessing student growth and curriculum, and mastering the ten social work core competencies. This paper will outline the literature surrounding the benefits of ePortfolios as well as how the School of Social Work at Grand Valley has incorporated them into its curriculum. With many changes in technology, as well as changing requirements of professional social workers, Grand Valleys School of Social Work has continued to push itself in serving students and improving its program to meet the needs of an ever changing world.

Kremers, Kelseyann

April – June FY12

International Polar Year (IPY) 2012: From Knowledge to Action

"Consistency of Graminoid Response to Warming in Alaskan Tundra"

Air temperature has been increasing in the Arctic at much faster rates than the rest of the globe. Low temperatures limit the growth and reproduction of arctic plants, so an increase in temperature could greatly affect the plant community. The objective of this analysis was to determine if the response of graminoids to warming is consistent across species and locations. Sites were established at Barrow in 1994 and Atkasuk in 1996. Each location consists of a dry heath site and a wet meadow site. Plots of vegetation (1m²) were warmed 1°C to 3°C using open-top fiberglass chambers, following protocols of the International Tundra Experiment (ITEX). Each study site contains 24 warmed plots and 24 control plots. Growth and reproductive effort for all graminoid species at each site were analyzed. In general, species showed increased leaf length with warming at all sites. For inflorescence height and the number of inflorescences, graminoids at the dry sites generally showed a positive response to warming, while responses at the wet sites were inconsistent (significantly larger or smaller depending on the species). Overall, the response of graminoids to warming at the dry sites is more consistent than at the wet sites. The dry sites are more open communities with presumably less competition, and are dominated by prostrate shrubs and forbs. At the wet sites, graminoids are the most abundant growth form. This analysis suggests that at the dry sites graminoids are out-competing the other growth forms, resulting in a more consistent positive response to warming. At the wet sites, however, graminoid species are being forced to compete with each other, thus resulting in a more inconsistent response.

Lauer , Kathryn

April – June FY12

2012 American Society for Clinical Laboratory Science-Michigan Annual Meeting and Exhibits

"The Effect of Room Temperature Storage of Patient Serum Specimens on Troponin T Levels"

The purpose of this study is to determine the effect of room temperature storage of patient serum specimens on troponin T levels. A baseline level of troponin T will be measured and the

specimens will be incubated at room temperature. Levels will be measured again two hours, four hours, and eight hours after the baseline measurement to observe the effect of room temperature incubation on troponin T levels. The Cobas e 602 electrochemiluminescence immunoassay module is manufactured by Roche and is part of the Cobas 8000 analyzer series. It represents the newest technology for measuring a variety of chemistry analytes, including Troponin T. The protocol for troponin T testing requires a blood sample collected in a lithium heparin tube that is separated via centrifugation. Once the specimens are centrifuged the serum is separated from the red blood cells by a gel separator and no further centrifugation is required. According to instrument protocol, the serum must be tested within two hours of the blood draw or the test results are invalid. If the sample will not be tested within two hours, the uncentrifuged specimen may be stored at four degrees Celsius for up to 24 hours and the troponin T levels will remain stable. Larger reference laboratories often perform Troponin T blood level testing for smaller laboratories. During transport, specimen integrity is lost if the specimen does not reach the testing laboratory within the two hour time limit. If the results of this study indicate there to be minimal to no change in Troponin T levels after the specimen is stored at room temperature for greater than two hours, a greater amount of time will be available to transfer the specimen to the testing laboratory and fewer specimens will be rejected for testing.

Liebig , Jennifer

April – June FY12

International Polar Year (IPY) 2012: From Knowledge to Action

"Finding Grouping Schemes to Better Predict Tundra Response to Warming"

Arctic plant communities are changing in response to warming due to global climate change. Responses to warming are not homogeneous across species or functional groups. To predict how tundra vegetation will change as warming continues, we examined the response of plants to experimental warming at four sites established in the mid-1990s as part of the International Tundra Experiment (ITEX). The change in cover in response to warming was assessed individually for each species, and then these data were lumped into different grouping schemes based on traits that could potentially be used to predict response. The four ITEX sites are in

northern Alaska, where there is a wet meadow site and a dry heath site in Barrow (71°172443N 156°452593W) and a wet meadow site and a dry heath site in and in Atkasuk (70°2840N 157°25253W). Each consists of 24 experimental plots warmed by passive open-topped warming chambers and 24 control plots. The cover of plant species was sampled using a point-frame method in 2007 and 2008. A two-way ANOVA was used to compare difference in cover among groups between the warmed and control plots. If the groups within a grouping scheme responded significantly differently to the warming treatment (i.e., there was an interaction between warming treatment and grouping scheme), then that grouping scheme was considered useful for predicting change in tundra communities. Of the grouping schemes used for this analysis, some were based on geographic distribution, such as distribution zones defined by Young 1971, some were based on phenology of the species, such date of flower opening as observed in these sites, and some were based on other morphological and life history traits, such as the wintering state of buds as defined by Sørensen 1971. The usefulness of an individual grouping scheme varied from site to site. Overall, the geographic grouping schemes were the best predictors of change in plant cover in response to warming and the phenological grouping schemes were the least successful. These grouping schemes are useful for increasing our understanding of how and why community composition is changing; however, a more complex grouping system that combines different traits is needed to more fully understand and better predict the response of Arctic plant species to warming.

List-Leinberger, Krista

April – June FY12

Eighth International Congress of Qualitative Inquiry

"'Use of Self': Reflexive Practices in Qualitative Inquiry"

Social work embraces 'use of self' as a framework for clinical practice. The notion of use of self, which involves recognition and integration of a social worker's values, beliefs, and life experiences during the training of social work students and in practice, coincides with the concept of reflexivity in qualitative inquiry. This dialogue will discuss the processes of a graduate social work student and her faculty mentor in data collection and analysis of the highly

personal and subjective experiences a photovoice study of religious and spiritual identities of social work students. After the graduate assistant joined this ongoing project, she wrestled with making sense of the narratives of peers and delving into her personal and professional values. This paper addresses the ‘use of self’ concept and lessons learned during this endeavor.

Lubbers, Jaclynn

April – June FY12

Midwest Nursing Research Society

"Meeting Teens Where They Are: The feasibility of a cognitive-behavioral intervention for depressed adolescents in pediatric primary care"

Depression among adolescents is underidentified and undertreated due to challenges within mental health systems and primary care settings. These result in poor outcomes. This study expands the role of the Pediatric Nurse Practitioner in primary care by redesigning the detection and treatment of depressed adolescents. An evidence-based, 7-session with homework, manualized cognitive behavioral intervention, named Creating Opportunities for Personal Empowerment(COPE) curriculum, will be implemented in a primary care practice in a Midwestern town. A convenience sample of 25-30 adolescents between the ages of 14-18 will be used. Outcome measures include improvement in depression related outcomes as measured by the PHQ-9 and the Youth Self Report, adolescent satisfaction with care received as measured by the Youth Client Satisfaction Questionnaire, and a qualitative measure of pediatric primary care provider satisfaction.

Lynema, Jill

April – June FY12

American Society for Clinical Laboratory Science (ASCLS) Michigan 2012 Annual Meeting Program

"Alteplase: Coagulation Testing Nightmare"

Out with the old and in with the new and improved seems to be the way of life. This has become true also for the treatment of Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE), but it has not come without any problems. A new recombinant tissue plasminogen activator known as Alteplase is making its appearance in DVT and PE treatment due to its rapid onset and short half-life. But, Alteplase brings havoc into the laboratory. The usual D-Dimer testing for monitoring DVT does not look the same as with the previous clot busting drugs used. This case study looks into a particular case of DVT in which unusual D-Dimer tests were seen in the laboratory. An in-depth study of the difference in the results of the different clot busting drugs used and how the laboratory should handle and report the results was investigated.

McDonald, Karie

April – June FY12

2012 American Society for Clinical Laboratory Science-Michigan Annual Meeting and Exhibits

"The Effect of Room Temperature Storage of Patient Serum Specimens on Troponin T Levels"

The purpose of this study is to determine the effect of room temperature storage of patient plasma specimens on troponin T levels. A baseline level of troponin T will be measured and the specimens will be incubated at room temperature. Levels will be measured again two hours, four hours and eight hours after the baseline measurement to observe the effect of room temperature incubation on troponin T levels. The protocol for troponin T testing requires a blood sample collected in a lithium heparin tube that is separated via centrifugation. The plasma must be tested within two hours of the blood draw or the test results are invalid. If the sample is not tested within two hours, the uncentrifuged specimen may be stored at four degrees Celsius for up to 24 hours and the troponin T levels will remain stable. Sixty patient specimens will be tested. The specimens will be separated into three categories, twenty specimens in each, to reflect the three different categories of troponin T levels at Spectrum Health Regional Laboratory (SHRL). The levels are less than 0.03ng/ml which indicates no cardiac damage, 0.03-0.09ng/ml which indicates possible damage and greater than or equal to 0.09ng/ml which indicates definite cardiac damage. By using samples from all three categories the results will be representative of all ranges of troponin T levels. Larger reference laboratories, like SHRL, often perform troponin T

blood level testing for smaller laboratories. During transport specimen integrity is lost if the specimen does not reach the testing laboratory within the two hour time limit. If the results of the study indicate there to be minimal to no change in troponin T levels after the specimen is stored at room temperature for two hours or greater, a greater amount of time will be available to transfer the specimen to the testing laboratory and less specimens will be rejected for testing.

Nesheim, Meghan

April – June FY12

84th Midwestern Psychological Association (MPA) Conference

"Body Parts and Early-Learned Verbs in Children"

We commonly believe that verbs are about action, but are they also about body parts? We kiss with our lips, kick with our legs, and think with our heads. Our question is whether children systematically associate verbs to specific body parts. So far, theoretically, the original components of verbs include: contact, path, goal, source, state of mind, and manner (Kemerer, 2008). Our study adds the component of body parts. Sixty children were tested, 20 verbs at a time, with a total of 102 verbs. They were asked which body part they use with a given verb. The results indicate that 91 verbs out of 102 (86.6%) were related to one body region by 50% of the participants. Further, a correspondence analysis (a dimension reduction technique) showed that children systematically associate verbs with five main body regions: hands (55% of the verbs), legs (13%), mouth (14%), eye (6%), and ear (2%) and these correspond to the exact same regions proposed by adults from a previous study.

Pradko, Emily

April – June FY12

International Symposium on Osteoporosis

"Characteristics of Those with Humeral Fragility Fractures"

Background: As the most common bone disease, osteoporosis is estimated to cause fragility fractures in 50% of females and 25% of males over the age of 50 years in the U.S. Although the most common fragility fractures are located in the spine, hip, and wrist, osteoporosis can affect almost the entire skeleton. The objective of this study was to characterize individuals over age 50 who have sustained a humeral shaft fragility fracture requiring surgical fixation.

Materials and Methods: This study is a retrospective case control study of patients 50 years of age or older who were surgically treated for a humeral shaft fracture from a low-energy fall during the period of December 2002 through March 2011 at a Level I trauma center and treated at a large orthopaedic private practice. Patients were excluded who had known metastatic disease, periprosthetic fractures, and incomplete medical records. 299 subjects were identified by CPT codes followed by a retrospective record review regarding the type of fracture, osteoporotic risk factors, and diagnostic and treatment modalities.

Results: Sixty-eight patients included 21 (31%) males, mean age of 73 years (range 55-90), and 47 (69%) females, mean age of 72 years (range 50-92). The average BMI was 30.0 with a range of 18.4 to 50.1. AO/OTA fracture classification included: 20 (29%) 11A, 30 (44%) 11B, 10 (15%) 11C, and 8 with missing injury films. Prior to the current fracture, 18 (27%) had a previous fragility fracture, 13 (19%) were receiving a resorptive therapy for osteoporosis, 12 (18%) had a prior diagnosis of osteopenia/osteoporosis, and 16 (24%) were taking calcium, and 14 (21%) were taking vitamin D. Only 1 of 51 (2%) were evaluated for osteoporosis prior to the implementation of an osteoporosis clinic; whereas 12 of 17 (71%) were evaluated after the clinic was available. As a result of fragility fracture the following diagnostic procedure or treatment was prescribed: weight bearing exercise (38, 56%), calcium (16, 24%), vitamin D (15, 22%), bone scan (10, 15%), medication (10, 15%), and a fall prevention program (3, 4%). The most common identified risk factors for osteoporosis included: history of smoking (30, 44%), arthritis other than rheumatoid (20, 29%), diuretics (20, 29%); thyroid medication (16, 24%), diabetes mellitus (14, 21%), history of corticosteroid use (14, 21%), stroke (14, 21%), COPD (11, 16%), asthma (9, 13%), dementia (8, 12%), and inflammatory bowel disorder (8, 12%).

Quiney, Emily

April – June FY12

2012 Midwest Nursing Research Society (MNRS) Research Conference: Onnovative Transition Care Models

"Evaluating Access to Health Care Services for the Medically Underserved Residents of a Small Lakeshore Community in West Michigan"

Background: Providing health care to the uninsured is a growing problem in our country. Many different programs have been implemented nationally in an attempt to alleviate access to care for the uninsured including community clinics, free clinics, mobile health clinics, and nurse-managed centers. Before a solution can be reached, each community at risk needs to evaluate the specific needs of the population in order to provide adequate access to care. Factors involved in this decision are demographics, number of uninsured, specific health care needs, and modes of transportation available in the community. In addition, a critical consideration is who will assume the financial responsibility in order to enhance the sustainability of the health care services.

Purpose: To evaluate care received in a free clinic to determine if there is satisfaction perceived improvement in access to health care services for the medically underserved residents of a small lakeshore community in western Michigan.

Methods: A community coalition was formed to address the growing problem of lack of access to health care for medically underserved adults in this area. With the help of the local community hospital and a large charity organization, a pilot clinic was opened in the local health department one evening per week, managed solely by volunteer providers, nurses, and social workers. A literature review was completed evaluating what has been done in similar communities to address the limited access to health care for the medically underserved. The evidence shows that the best model of providing care to this population needs to be one that incorporates community collaboration and financial sustainability.

Results: This project took place from September 2011 through January 2012. Data collection tools included: a utilization of health care services tool and patient satisfaction survey developed by the Michigan Academic Consortium (MAC). Modifications of the original survey, developed by the MAC, were made based on the type of care provided in the free clinic. The data was analyzed and presented to characterize the status of patient satisfaction and utilization of health care services as it relates to clients being seen in the free health clinic.

Conclusion: Through the translation of evidence to this community initiative, access-patient satisfaction and utilization of health care services, was improved for this population.

Sanchez, Mayra

April – June FY12

24th Annual Convention for Association for Psychological Science

"Emotion Displays in Hispanic- and Euro-American Children's Book"

Children acquire cultural models of appropriate emotion expressions through socialization. Beside parents as socialization agents, children books may provide an important resource of culturally appropriate emotions. Tsai, Louie, Chen and Uchida (2007) demonstrated that the desired positive affective state varied between Taiwanese Chinese and European Americans, and this difference was also reflected in children's books.

This study aims to expand the study by Tsai et al. (2007) in three ways: Positive and negative emotions are included, facial and posture features are analyzed, and focus is made on the comparison between Caucasian and Hispanic-American children's books. Caucasians favor an individualistic emotion model, i.e., expressing emotion in a more open way, whereas Hispanics may favor a relational emotion model, i.e., expecting more moderate expressions (Friedlmeier, Corapci, & Cole, 2011). Matsumoto (1993) found that Caucasians compared to Hispanics were more willing to express disgust and fear but no differences in positive emotions. Therefore, we expect that Caucasian books portray a greater variety of emotions and that Caucasian books also display negative expressions more openly than Hispanic children books.

A content analysis was performed on illustrations in 10 popular Euro-American and 10 popular Hispanic children's books to determine facial expressions and body posture. The illustrations were coded according to the action units for six emotions (surprise, fear, disgust, anger, happiness, and sadness) (Ekman & Friesen, 1975). The posture coding system consisted of 31 criteria and referred to ten emotions (Kudoh & Matsumoto, 1985), e.g., shame and pride. Finally, a global emotion expression code was given for each image to test validity. Two independent coders coded all books and interrater agreement was sufficiently high.

Preliminary analyses showed that fear and sadness were expressed more often by the figures in the Euro-American books, while happiness contrary to our expectation was expressed more frequently in the Hispanic books. The images in the Euro-American books displayed surprise and sadness more strongly than those in Hispanic books. Two significant differences of emotion expression by posture occurred: Shame and anger were expressed stronger in the Euro-American books. To conclude, the study demonstrates some differences of emotional displays in children books for these two ethnic groups and the results only partly confirm the ethnic emotion models mentioned above.

Sepsey, Amber

April – June FY12

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"Body Parts and Early-Learned Verbs in Children"

We commonly believe that verbs are about action, but are they also about body parts? We kiss with our lips, kick with our legs, and think with our heads. Our question is whether children systematically associate verbs to specific body parts. So far, theoretically, the original components of verbs include: contact, path, goal, source, state of mind, and manner (Kemerer, 2008). Our study adds the component of body parts. Sixty children were tested, 20 verbs at a time, with a total of 102 verbs. They were asked which body part they use with a given verb. The results indicate that 91 verbs out of 102 (86.6%) were related to one body region by 50% of the

participants. Further, a correspondence analysis (a dimension reduction technique) showed that children systematically associate verbs with five main body regions: hands (55% of the verbs), legs (13%), mouth (14%), eye (6%), and ear (2%) and these correspond to the exact same regions proposed by adults from a previous study.

Sharp, Michael

April – June FY12

2012 Association for Psychological Science (APS) Annual Convention

"Ratings of Prosocial Personality Traits are Contaminated by Religious Stereotype Bias"

Participants rated religiously-labeled targets (e.g., Christian, Atheist) on personality adjectives. Participants higher in religiosity attribute greater Agreeableness to religious targets, an effect mediated by stereotypes about the nonreligious and lessened when the perceiver is more agreeable. Ratings of Agreeableness are affected by stereotypes of religious prosociality and religious in-group bias.

Sheppard, Samantha

April – June FY12

National Council of Teachers of Mathematics (NCTM) Annual Conference 2012

"Using Ten Frames to Promote Number Sense"

In this session we will share different ten-frame games and activities that promote number sense and fact knowledge, key concepts in the Common Core. Experience first hand how ten frames can be an effective representation for helping learners visualize numbers and discover number relationships.

Sikora, Meghann

April – June FY12

American Academy of Physician Assistants (AAPA) IMPACT 2012 National Conference

"Timeliness of Antibiotic Administration on Neutropenic Patients at Risk for Sepsis"

Background: Infection is a complication in patients receiving treatment for cancer that results in an increase in morbidity and mortality. One of the contributing factors to the development of infection is treatment induced neutropenia. The promptness of treatment of cancer patients with an infection is imperative as greater than 50% of patients with severe neutropenia will die if untreated during the first 48 hours of infection. The purpose of this study was to analyze the relationship between infection and timeliness of antibiotic administration in neutropenic cancer patients with stratification based on admission status, caregiver characteristics and ordered blood cultures.

Methods: This study was a retrospective study which involved a medical record review of hospitalized oncology patients diagnosed with neutropenia during the months of July through December of 2008. Information obtained from the medical record included: admission status (admission through the emergency department, inpatient, and direct admission), laboratory values (WBC, ANC, and blood cultures), antibiotic information, clinical presentation (temperature and sepsis parameters), medical co-morbidities, and nurse characteristics. In addition, a survey was sent to all nurses who were involved in the care of cancer patients. The survey requested information regarding educational status, oncology certification, and years of experience.

Results: 106 patients and seventy-six nurses were identified in the six month period. After analysis, it was found that forty-four patients received antibiotics before presentation of their fever. Leaving sixty-two patients with seven corresponding nurses with survey information pertaining to certification, experience, and education status. There was no statistical significant difference in time of fever to antibiotic admission when stratified by admission status ($p=0.561$), blood cultures ($p=0.338$), and oncology certification status ($p=0.934$). Time frame for antibiotic administration is as follows: fever to physician notification ($n=11$), range 0-510 minutes, and standard deviation of 175.18; physician notification to antibiotic order ($n=62$), range 0-6897 minutes and, standard deviation of 885.76; finally antibiotic order to antibiotic administration

(n=62), range 0-1445 minutes, and standard deviation of 192.88. 95.2% of the sample presented with severe neutropenia, defined as an ANC, 1500 microL.

Conclusions: The findings of this research indicate that there is no significance between antibiotic timeliness and admission status, blood cultures, and oncology certification status. The most influential time frame (greatest time frame in fever to antibiotic admission) is time between physician notification and antibiotic order with a 0-6897 minute range, or almost five days. Antibiotic administration timeliness for severity of infection dependent on ANC levels is not predictable in this study as 95.2%, have severe neutropenia. Finally, due to the low return from nurses who cared for these patients (n=7) there is no significance between years of nursing experience, years of oncology experience, nursing education, oncology certification and timeliness of antibiotic administration.

Summers, Nicole

April – June FY12

24th Annual Convention for Association for Psychological Science

"The Effects of Culture and Gender on Hispanic-American and European-American Mothers' Conceptions of Child Competence"

Children acquire cultural models of appropriate emotion expressions through socialization. Beside parents as socialization agents, children books may provide an important resource of culturally appropriate emotions. Tsai, Louie, Chen and Uchida (2007) demonstrated that the desired positive affective state varied between Taiwanese Chinese and European Americans, and this difference was also reflected in children's books. This study aims to expand the study by Tsai et al. (2007) in three ways: Positive and negative emotions are included, facial and posture features are analyzed, and focus is made on the comparison between Caucasian and Hispanic-American children's books. Caucasians favor an individualistic emotion model, i.e., expressing emotion in a more open way, whereas Hispanics may favor a relational emotion model, i.e., expecting more moderate expressions (Friedlmeier, Corapci, & Cole, 2011). Matsumoto (1993) found that Caucasians compared to Hispanics were more willing to express disgust and fear but

no differences in positive emotions. Therefore, we expect that Caucasian books portray a greater variety of emotions and that Caucasian books also display negative expressions more openly than Hispanic children books.

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Taylor, Jacqueline

April – June FY12

Society for Freshwater Science Annual Meeting 2012

"Predicting the Effects of Land-Use and Climate Change on Michigan Stream Ecosystems"

Increases in human activity can change the physical, chemical, and biological integrity of stream ecosystems. This study focuses on disturbances that are significant to the health of the watershed, specifically agriculture, urbanization, and climate change. Our objective in this study is to use macroinvertebrate community structure and function to assess stream ecosystem health in

response to both climate change, and the effects of agriculture and urbanization under current and future scenarios. Our experimental design includes a comparison of pristine vs. agriculturally impacted tributaries of the Muskegon River below Croton Dam. Macroinvertebrates were collected using both qualitative and quantitative methods (spring/fall). Preliminary results indicate Chironomidae being the most abundant taxa in pristine and impacted sites. The dominant land cover types surrounding the streams are forest and agriculture.

Tryc, Lindsay

April – June FY12

Eighth International Congress of Qualitative Inquiry

"Facilitating self-reflection: The integration of photovoice in graduate education"

This presentation discusses the integration of a four-phased photovoice assignment in an introductory graduate social work course. Each phase included different prompts exploring social work as a profession, students' values, and interpersonal styles for students new to the field of social work. Upon completion of the assignments, students met in groups of four to discuss their work. This presentation will address the assignment design, thoughts about using a research method as a pedagogical tool, and the inclusion of three of the students who will share their perspectives of the photovoice method and teaching implications. Photovoice demanded that students think creatively and symbolically, rather than completing traditional writing assignments. As instructors we found that the assignments using photovoice challenged students in ways both expected and unforeseen, but ultimately helped them find their voices as they enter a new profession.

Vander Wege, Briana

April – June FY12

24th Annual Convention for Association for Psychological Science

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Van Tiflin, Elizabeth

April – June FY12

American Alliance for Health, Physical Education, Recreation, & Dance (AAHPERD) Midwest District Centennial Celebration Conference

"How Do You Role? Future Professionals Tumble On In!"

How do you role? And we're not talking somersaults. Future professionals have the opportunity to amp up their professional development by discussing the importance of regional workshops, state & national conventions, community involvement and professional networking.

Veldkamp, Daniel

April – June FY12

National Council of Teachers of Mathematics (NCTM) Annual Conference 2012

"Using Math Games to Motivate Learning and Differentiate Learning"

Math games provide an engaging context for differentiating learning. In this session, we will play and evaluate a variety of games, exploring ways to implement Common Core Standards, engage students, differentiate instruction, and focus attention on the processes and concepts needed for making sense of number and operations at school and home.

Ver Wey, Amy

April – June FY12

24th Annual Convention for Association for Psychological Science

"Ratings of Prosocial Personality Traits are Contaminated by Religious Stereotype Bias"

Participants rated religiously-labeled targets (e.g., Christian, Atheist) on personality adjectives. Participants higher in religiosity attribute greater Agreeableness to religious targets, an effect

mediated by stereotypes about the nonreligious and lessened when the perceiver is more agreeable. Ratings of Agreeableness are affected by stereotypes of religious prosociality and religious ingroup bias.

Wischmeyer, Leah

April – June FY12

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ACF 2012 July - September Presentations

Delamar, Austin

July – September FY12

3rd Globalization Symposium: Globalization of Knowledge: Economics, Ecology, and Humanities

"Evolution of Photography and Advertising: How They Impacted Society"

It has been shown that students who know a second language are told to be more cognitively advanced than those who only know one language. Studies show that knowing a second language, or even starting to learn one, helps improve and increase brain activity, thus growing one's knowledge. In addition to this finding, it is also known that children have the best potential to learn a second or third language with the most ease and least of difficulty. In America, some K-6 grades are just starting to implement foreign language classes to boost their students' capabilities. In regards to other countries like China, where children in kindergarten already have

started their studies in foreign languages, America is far behind. They are not teaching children foreign languages early enough. Americans are staying put with English as their favored language and some citizens may even refuse to learn a new language because of the assumption that "English is the universal language". Why are Americans less motivated to learn another language than people in other countries? With the increasing spread of Western influence around the globe, other countries are learning English in order to trade with American companies to better themselves. This spread is causing smaller countries to slowly lose their unique language and causing Americans to lose motivation to learn a new language. This also is contributing to the establishment of a universal language, which may wipe out many cultures and minor languages. This should not happen. Every country needs to protect their own culture and to rid of any contenders for a universal language, by teaching foreign languages to their children and at the same time teach their own native language to preserve their culture and identity.

Fedewa, Amanda

July – September FY12

3rd Globalization Symposium: Globalization of Knowledge: Economics, Ecology, and Humanities

"Evolution of Photography and Advertising: How They Impacted Society"

Within the last few decades there have been increased attempts to fight human trafficking. Many non government organizations have formed in order to battle human trafficking and to educate people affected by human trafficking. However, instead of the human trafficking problem decreasing, it is exponentially increasing due to globalization. Many countries around the world are now interconnected through the vast movement of globalization. Globalization has increased the trades of goods and services throughout the world and while this can help improve the lives of people, it can also hurt people. The people responsible for human trafficking will have the knowledge and expertise of globalization that makes human trafficking possible. In addition, not having the knowledge of globalization is what makes humans vulnerable to human trafficking. By increasing the knowledge of globalization to vulnerable humans, we can help prevent people from being caught in the human trafficking ring. Plus, by using this knowledge of globalization,

we can also arrest the people who are committing these horrible crimes. This article will examine the affects that knowledge of globalization has on human trafficking.

Goggins, Jamie

July – September FY12

"Strive Baby Strive, Building a Better Chapter"

No Abstract.

Kreinbrink, Jennifer

July – September FY12

2011 Breast Cancer Symposium

"Clinical presentation of breast cancer: Age, stage, and treatment modalities in a contemporary cohort of Michigan women"

D. R. Smith, J. Caughran, J. L. Kreinbrink, G. K. Parish, S. M. Silver, T. M. Breslin, J. E. Pettinga, A. M. Mehringer, C. A. Wesen, H. Yin, D. Share, A. T. Davis, F. T. Pleban, T. A. Bacon-Baguley; Grand Valley State University, Grand Rapids, MI; Richard J. Lacks Sr. Cancer Center, St. Mary's Health Care, Grand Rapids, MI; University of Michigan, Ann Arbor, MI; University of Michigan Comprehensive Cancer Center, Ann Arbor, MI; Spectrum Health, Grand Rapids, MI; MiBOQI, University of Michigan, Ann Arbor, MI; Michigan Breast Specialists, Grosse Pointe Woods, MI; BlueCross BlueShield of Michigan, Southfield, MI; Grand Rapids Medical Education Partners, Grand Rapids, MI; Health Sciences Consultant and Freelance Medical/Health Writer, Macomb, MI

Abstract Text:

Background: The U.S. Preventative Services Task Force (USPSTF) revised their breast cancer screening recommendations in 2009 changing their stance on age and frequency of mammography screening to biannual exams starting at age 50. The purpose of this study is to

analyze data from a statewide breast cancer registry managed by the Michigan Breast Oncology Quality Initiative (MiBOQI) to determine the impact of these new recommendations on diagnosing and treating breast cancer. Methods: De-identified data were collected on women participating in the MiBOQI registry at seventeen statewide institutions from 2006-2009. Data included method of detection, cancer stage, age at detection, treatment type, and patient demographics. Participants were stratified based on age, and data analyzed using NCSS software (chi-square and t-tests). Results: 5903 women with breast cancer with an average age at diagnosis of 59.4 years were included. 65.5% of breast cancers were detected via mammography, 29.8% by palpation, and 4.7% by other methods. In women under 50 years of age, cancers were detected by mammography in 48.3% (69.3% >50yr) and by palpation in 46.1% (24.1% >50yr). Patients with palpable presentations were younger (55.8 yr vs. 61.2 yr; $p < 0.001$). Cancers with a palpable presentation were diagnosed at higher stages (50.0% stage II) than with mammography (52.5% stage I; $p < 0.001$). Breast conservation surgery occurred more frequently than mastectomy (palpation 54.2%; mammography 72.9%, $p < 0.001$) but cancers detected through palpation were more likely to undergo mastectomy procedures. Conclusions: Results of this study validate the importance of annual screening mammography in women older than 50 years, and women aged 40 to 49 years recently omitted from screening guidelines. There was an increased prevalence of palpation for the method of detection in women less than 50 years of age. If screening mammography is omitted in this group, cancers when detected may be of a more advanced stage and result in more mastectomies. This study also supports the use of palpation as a method of detection despite recent recommendations against teaching self breast exams by USPSTF.

Louden, Patrick

July – September FY12

The Midwest Undergraduate Computational Chemistry Consortium

"Molecular Dynamics Simulation of the Condensation Coefficient of Water"

Experiments have found the condensation coefficient for water condensing onto pure water to be between 0.1 and 1 with more recent experiments having found a value of 0.2 ± 0.1 . However,

molecular dynamics simulations of water result in a condensation coefficient of 1. These deviations could result from assigning condensed phase parameters to the bulk, surface, and gas phase water molecules in the simulations. We varied the charges and the Lennard-Jones parameters for a gas phase water molecule in a condensation simulation using the SPC/E model. We have concluded that to obtain a simulation condensation coefficient of 0.2, unrealistic parameters must be assigned to the water molecules.

Marcincavage, Rachel

July – September FY12

2011 International Ceramic Symposium in Japa

"International Ceramic Art Exhibition & Annagama (Wood Kiln) Firing Demonstration"

The GVSU Ceramics program received an invitation to attend the 2011 The ISCAEE (International Society for Ceramic Art Education and Exchange) International Ceramic Art Symposium in Japan. The symposium is one of the largest international ceramic symposia and this year 32 universities from 15 countries were invited to participate in the symposium, including GVSU. Five students will be attending this international event for two weeks to take part in the symposium by exhibiting their work, giving a demonstration, and participating in many activities during the symposium.

PURPOSE: To introduce and share research findings - at an international level - on ceramic forms and ways of expression throughout the history of mankind, as well as on the development of ceramic techniques, from a historical point of view. In addition, we are looking forward to stimulating and internationalizing well-known ceramic production centers in Japan, through the presentation of their ceramic culture and industry.

Smith, Daniel

July – September FY12

2011 Breast Cancer Symposium

"Clinical presentation of breast cancer: Age, stage, and treatment modalities in a contemporary cohort of Michigan women"

No Abstract.

Tan, Cheng

July – September FY12

3rd Globalization Symposium: Globalization of Knowledge: Economics, Ecology, and Humanities

"Evolution of Photography and Advertising: How They Impacted Society"

Photography is one of the most useful and persuasive technologies ever invented in our world. Photographers can capture images that can still preserve the essence of reality in it. Photography can capture images that hold memories for us, and when we look back at it, it gives us a sense of nostalgia. For this reason, we can be persuaded by photographs because of the connections it can present to us. Advertisement is also similar to photography. It also has a strong influential concept that can attract and persuade consumers. Advertising is a form of communication that allows companies to persuade us into buying their products, ideas, and services. Photography in advertising is a powerful duo and is an important tool that many corporations use to lure in consumers. People are not always aware of the emotional and nostalgic connection that a photograph can give us because they are surrounded by advertisements and commercials. Companies use photography in their advertisements to persuade us to buy their products and tell us what we should and should not do. Big corporate companies also like to target younger generation people because they are easier to influence. Photography in advertisement has a big impact on our society, without photography, corporations may not be as successful in connecting with their audiences. We may not see it as essential, but photography in advertisement is very influential to us as a society. Photography together with advertisement is more powerful, persuasive, emotional, and meaningful, than advertisement without photography; commercial advertisement would never be successful in persuading society to buy their items or ideas if they didn't use photographs.

Wallace, Kimberly

July – September FY12

Kappa Kappa Psi and Tau Beta Sigma National Convention 2011

"Strive Baby Strive, Building a Better Chapter"

No Abstract.

ACF 2012 October - December Presentations

Albright, Chaz

October – December FY12

Shakespeare in Paradise Festival

"Bard To Go-Traveling Theatre as a Cultural Connector"

A 6 day visit to Nassau, the Bahamas, in order to promote a cultural and educational dialogue in the theatre area. As a part of this exchange my fellow actors and I would perform "Lovestruck" a 50-minute professional-quality touring play comprised of various Shakespearean scenes based on the theme of magical enchantment; this piece is the 2011 Bard to Go production of the Grand Valley Shakespearean Festival, and will play to over 1200 students in Michigan in the fall of 2011. As part of this exchange we will be videotaping our experience. The videographer is a film and video major at Grand Valley and this project is going to be her senior thesis project. Based on our experience with previous international tours, we hope to offer approximately three performances in local secondary schools, and two performances at the Festival. In addition to these performances, the 8 students who would be traveling on this exchange would be interested in participating in the Festival activities, including workshops and viewing international theatre productions. Our participation in this Festival would benefit everyone involved by making valuable connections and working relationships abroad, as well as sharing the beautiful gift of Shakespeare in a fun, interactive, and educational format with the children of another culture.

Benkert, Lydia

October – December FY12

Shakespeare in Paradise Festival

"Bard to Go-Traveling Theatre as a Cultural Connector"

The Grand Valley State University theatre program's production of Bard to Go, the touring Shakespearean Theatre program, has been invited to the Shakespeare in Paradise Festival.

It is a 6 day visit to Nassau, the Bahamas, where we promote a cultural and educational dialogue in the theatre area. As a part of this exchange the cast of Bard to Go will perform "Lovestruck" a 50-minute professional-quality touring play comprised of various Shakespearean scenes based on the theme of magical enchantment; this piece is the 2011 Bard to Go production of the Grand Valley Shakespearean Festival, and will play to over 1200 students in Michigan in the fall of 2011. As part of this exchange we will be videotaping our experience. The videographer is a film and video major at Grand Valley and this project is going to be her senior film project. Based on Bard to Go's experience with previous international tours, we hope to offer approximately three performances in local secondary schools, and two performances at the Festival. In addition to these performances, the 8 students who would be traveling on this exchange would be interested in participating in the Festival activities, including workshops and viewing international theatre productions. My job on this trip to the Bahamas will be as the Stage Manager. I will be the organizer of the group. This is something I have never done before but was asked because of my want to work in Childrens Theatre/Applied Theatre (Theatre for social change).

Bennett, James

October – December FY12

46th Midwest 39th Great Lakes Joint Regional American Chemical Society (ACS) Meeting

"Isotachophoretic Focusing of Bacteria and Fungi for Analysis"

In this experiment we attempt to use the isotachophoresis mode of capillary electrophoresis to focus and potentially separate bacterial and fungal species. Isotachophoresis is typically used in biochemistry to concentrate and separate protein samples based on their electrophoretic mobilities as compared to the other components in a multi-electrolyte system. The same basic principle may be applied to the analysis of whole cells by exploiting their differences in size and surface charges. Different bacteria such as gram positive and gram negative have different surface characteristics as well as being vastly different from that of fungi. By focusing the cells into distinct zones based on these surface characteristics it would be possible to differentiate between species and thus have a fast and inexpensive test to determine the cause of sample contamination. Initial data shows success in focusing individual samples of gram positive (*Bacillus subtilis*) and gram negative bacteria (*Escherichia coli*), as well as single cell fungi (*Candida albicans*) in a two electrolyte system. In this system, the cells themselves act as a third electrolyte component which is highly focused between the leading and terminating electrolytes. Cell focusing typically was accomplished in under 10 minutes of isotachophoresis. Current work focuses on the separation of these model species in a mixed bacterial or fungal sample. This may be accomplished by utilizing an electrolyte system with increasing numbers of components having mobilities that bracket each species in the sample. The speed of this test could potentially allow for faster analysis in many settings such as medical centers, food processing facilities, and water treatment plants.

Breen, Laura

October – December FY12

2011 National Conference for Peer Tutoring in Writing

"Bridging the Gap: An Exploration of Frustrations Facing Consultants"

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Caillaud-Jones, Alyson

October – December FY12

Shakespeare in Paradise Festival

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Festival, and will play to over 1200 students in Michigan in the fall of 2011. As part of this exchange we will be videotaping our experience. The videographer is a film and video major at Grand Valley and this project is going to be her senior thesis project. Based on our experience with previous international tours, we hope to offer approximately three performances in local secondary schools, and two performances at the Festival. In addition to these performances, the 8 students who would be traveling on this exchange would be interested in participating in the Festival activities, including workshops and viewing international theatre productions. Our participation in this Festival would benefit everyone involved by making valuable connections and working relationships abroad, as well as sharing the beautiful gift of Shakespeare in a fun, interactive, and educational format with the children of another culture.

Colmenares, Cesar

October – December FY12

New Music Ensemble Capital Region Tour

"New Music Ensemble Capital Region Tour"

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November 8: Shenandoah University Conservatory, Winchester, Virginia Meetings with students and faculty, post-concert discussion, performance. November 9: Mobtown Modern Music Series, Baltimore, Maryland Pre-concert discussion, performance November 10: Atlas Performing Arts Center, Washington, DC Pre-concert discussion, performance November 12: Settlement Music School, Philadelphia, Pennsylvania Present a workshop entitled "Improvisation in 21st Century Classical Music", performance

Crabtree, Kathryn

October – December FY12

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Davis, Adam

October – December FY12

Geological Society of America Conference 2011

"Stable Isotopic and Minor Evidence for Early Formation of Dolomite in the Mississippian Michigan Formation, Subsurface of Western Michigan"

Gypsum in the Michigan Formation in Kent County has been separated into six units. Each contains a thick bed of gypsum capped by beds of shale and dolomite. This study focuses on dolomite found in the second to the youngest unit. This bed contains finely crystalline dolomite rhombs, is rich in detrital grains, and largely lacks benthic fossils. Electron microprobe and x-ray diffraction analyses indicate the dolomite is ferroan, non-stoichiometric, and poorly ordered. Reflected light and scanning electron microscopy have revealed a significant presence of pyrite. The pyrite is concentrated in laminae rich in siliciclastic material and is largely framboidal. Stable isotopes indicate the dolomite is heavy in $\delta^{18}\text{O}$ (up to +5.30) and light in $\delta^{13}\text{C}$ (-4.0 to -0.60) relative to Mississippian, marine dolomite. The fine crystal size and heavy $\delta^{18}\text{O}$ are consistent with dolomite forming syndepositionally in an evaporitic environment and may indicate crystallization at relatively low temperatures without significant recrystallization at depth. The light $\delta^{13}\text{C}$ may be due to penecontemporaneous incorporation of light, organic carbon through the metabolic action of sulfate-reducing bacteria. These bacteria are thought to play a key role in the formation of protodolomite. The reducing environment created by these bacteria likely resulted in the early formation of the pyrite, and the lack of oxygen may account for the general scarcity of benthics associated with the dolomite. Thus, both evaporitic conditions and organogenic processes are likely keys to the origin of the dolomite, which is interpreted to have formed during or soon after deposition.

DeLisle, Charles

October – December FY12

Argonne Undergraduate Symposium

"Development of Cabamoylmethyl Phoshine Oxide Chelating Agents for Use in Medical Resonance Imaging"

No Abstract.

DeWitt, Ashley

October – December FY12

American Society for Cell Biology (ASCB) Annual Meeting

During cytokinesis, physical separation of one cell into two identical cells occurs through constriction of a protein-rich ring structure, called the contractile ring. The contractile ring is composed of F-actin, type II myosin and more than 100 cytokinetic ring proteins. In fission yeast, the anillin-related protein Mid1 plays a critical role in organizing the early steps of contractile ring formation and functions as a scaffold to bridge the cell cortex with the contractile ring. Cells lacking mid1 form off-centered, highly disorganized ring structures and exhibit severe cytokinesis defects. Coincident with its cortical accumulation, Mid1 becomes hyper-phosphorylated. Our previous research demonstrates that cyclin-dependent kinase, Cdc2, and the polo-like kinase, Plo1, directly phosphorylate Mid1. In addition to consensus phosphorylation motifs for Plo1 and Cdc2, Mid1 contains several RXXS motifs, which fit the phosphorylation consensus sequence for Sid2 kinase. Sid2 is the most downstream kinase in the Septation Initiation Network signaling cascade, which signals from the spindle pole body to trigger constriction of the contractile ring. To identify specific sites of phosphorylation, a combination of site-directed mutagenesis (serine to non-phosphorylatable alanine) with mass spectroscopy and two-dimensional phosphopeptide mapping were used. Both methods identified multiple Sid2 phosphorylation sites within Mid1. To analyze the significance of Sid2 phosphorylation in vivo, phospho-site mutants were generated at the endogenous mid1 locus and examined for cell division defects. Interestingly, phospho-site mutants displayed cell division defects, including sensitivity to low dose latrunculin A and disorganized actin localization. While phospho-site mutants maintained the mitotic spindle checkpoint, the majority of cells exhibited severe polarity phenotypes and Mid1 protein levels increased when compared to checkpoint activated cells expressing wild-type Mid1. Given that Mid1 departure from the contractile ring coincides with Sid2 relocalization to the division site, Sid2 may temporally regulate the interaction of Mid1 with the membrane or other contractile ring components; our initial experiments favor Sid2 regulating Mid1 dissociation from the cell cortex.

Dreyer, Joshua

October – December FY12

New Music Ensemble Capital Region Tour

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Eno, Kyle

October – December FY12

Geological Society of America Conference 2011

"The Genesis of Cenozoic Apishpa Quadrangle Dikes Near Spanish Peaks and Dikes From Northeastern New Mexico"

Linda L. Davis, Kyle E. Eno, and Austin Westhuis

A wide variety of dikes, plugs, and sills exposed east of the Spanish Peaks magmatic complex in south-central Colorado are the focus of a continuing investigation into the origin and magmatic

melting triggers for minettes intruded between about 55 and 33 Ma. Minette magmatism within this age range is documented at Spanish Peaks, Colorado, along with minettes (and similar alkalic rocks) between about 10-25 Ma. Only two of the rocks discussed here have been dated; one is approximately 10 Ma and one is approximately 22 Ma. The minettes exposed significantly east of the Peaks, in the old Apishipa quadrangle are mainly intermediate to felsic minettes, with a few unaltered mafic minettes. Similar to Navajo and Two Buttes minettes, minettes in the Apishipa area are greatly enriched in the highly incompatible trace elements with Ba abundances about 100 times Yb abundances. Dissimilar to the Navajo and Two Buttes minettes, minettes at Apishipa show a broad central hump on a rock/chondrite incompatibility plot, similar to OIBs, but with approximately 100 times greater elemental abundances (Sm, Eu, Gd, Tb) than oceanic OIBs. The Apishipa minettes do not show a significant depletion in Nb, Ta, P or Ti; however, this may not be unusual with respect to typical minettes, given that none of the minettes analyzed yet have more than 9.25 wt% MgO. More mafic minettes are likely to have the expected strong depletions in the HFSE, P, and Ti. The minettes analyzed to date appear to have a strong component from non-depleted mantle and a lesser component of the expected ancient metasomatized mantle lithosphere enriched in LILE by crust-forming events and subduction during the Proterozoic.

Gebre-Eqziabher, Kibrom

October – December FY12

Annual Biomedical Research Conference for Minority Students

"Exposure to hypergravity during pregnancy and early lactation alters abundance of cytoskeletal and extracellular matrix proteins in a rat model"

Kibrom Gebre-Egziabher 1, James Resau 2, Karen Plaut 3, Osman Patel 1

1 Department of Cell and Molecular Biology, GVSU, 1 Campus Dr, Allendale, MI 49401-9403, USA

2 Program for Biospecimen Science, Van Andel Institute, 333 Bostwick Ave N.E, Grand Rapids, MI 49503, USA

3 College of Agriculture, Purdue University, West Lafayette, IN 47907, USA

Exponential growth of the mammary gland and differentiation of secretory epithelium are most evident pre-partum. This dynamic epithelial differentiation and secretion is dependent on an integral cytoskeletal and extracellular support structure and modulated by changing hormones. Previous studies have revealed that there is a down-regulation of PRL receptor (PRLR) and reduced lipogenesis in the mammary gland of dams exposed to hypergravity (HG). It is known that intact cytoskeletal architecture is pivotal for PRLR-mediated signaling in the mammary gland. We hypothesize that the decreased PRLR-mediated signaling in HG exposed rats is associated with aberrant abundance levels of cytoskeletal and extracellular support proteins. Therefore, the objective of this study is to determine the effects of HG exposure from mid-pregnancy to early lactation on pre-partum /postpartum abundance of the cytoskeletal and extracellular components in the rat mammary gland. Pregnant rats were exposed to either twice the level of gravity (2g) (HG) or 1g (control) from days 11 to 20 of gestation (G20) through Postnatal days 1 (P1) and 3 (P3). On G20 (n=4/treatment), P1 (n=4/treatment) and P3 (n=4/treatment), mammary tissue was collected and processed for immunohistochemical quantification of alpha-smooth muscle actin, tubulin, cytokeratin and vimentin proteins. Four random low power (10X) micrographs/slide were taken and the antigen amount per lobule (n=3-7 lobules/micrograph) was measured using the Nuance spectral imaging software. The HG and control groups were compared using analysis of variance and a P-value of <0.05 was considered significant. At G20, significant amounts (Mean \pm SEM) of actin (p<0.001: 1.4 ± 0.09 vs 0.6 ± 0.09), tubulin (p<0.001: 5.0 ± 0.2 vs 3.4 ± 0.2), and vimentin (p<0.05: 2.7 ± 0.5 vs 1.0 ± 0.5) were detected in HG rats compared to control animals. Interestingly, the only observed change at P1 was an increase in vimentin (p<0.001: 4.5 ± 0.6 Vs 2.9 ± 0.5) in rats exposed to HG compared to controls. At P3, more quantities of actin (p<0.001: 2.0 ± 0.09 vs 1.2 ± 0.09), tubulin (p<0.001: 5.8 ± 0.2 vs 2.5 ± 0.2), vimentin (p<0.05: 13.5 ± 0.6 vs 8.1 ± 0.5), and cytokeratin (p<0.001: 0.6 ± 0.04 vs 0.4 ± 0.03) were detected in HG rats compared to controls. These results suggest that changes in quantity of cytoskeletal and extracellular support proteins contribute to

the reduced postpartum mammary metabolic activity in rats exposed to chronic HG. (Supported by NASA NNA05CP91A)

Hollandsworth, Hannah

October – December FY12

Obesity 2011

"Anthropometric, Dietary and Psychosocial Characteristics of Under-Reporters of Energy; A Study Among Middle-Class, African American Women"

Hannah Hollandsworth, Yeni Nieves Allendale, MI; Sandra Gomez Chicago, IL; Christina Beaudoin, Debbie Lown Allendale, MI

Background: Studies focusing on energy under-reporting in African-American women are limited. Under-reporting varies by study, depending on the population and definition of under-reporting. The purpose of this study was to determine the degree of under-reporting and the anthropometric, dietary and psychosocial characteristics of under-reporters in middle-class African American women. Methods: Physical activity level (PAL) was measured over a 7-day period by accelerometer and subjects were assigned 1 of 3 PAL values from the Institute of Medicine (IOM). Energy intake (EI) was determined by three 24-hour recalls using a multiple pass approach. Predicted energy requirement (pER) was derived from the DRI equation from the IOM. Using the Goldberg equation, a %EI/pER outside the ± 1 SD range was considered a non-plausible intake. In this study, under-reporters were those with an EI $\leq 78\%$ of the pER. Information on subjects demographic, dieting, dietary, anthropometric and psychosocial characteristics was also assessed. Results: Participants (n=53) were middle age (mean=59;range 21-76 years), obese (55% with BMI >30 kg/m²) women with low physical activity (80%, n=45). Seventy-four percent (n=39) were classified as energy under-reporters. Under-reporters did not under-report food items consistently with significantly greater reported percentage of protein calories, and a significantly greater score on discretionary fat and lower sodium and grain scores using the Dietary Quality Index Revised (DQI-R). In multivariate analysis, only restrictive eating practices independently predicted energy under-reporting, explaining 13% of the variance in

EI/pER. Conclusion: This study indicates that there was under-reporting of unhealthy foods and restrictive feeding behaviors predicted energy under-reporting in middle-class African-American women.

Jackson, Ryan

October – December FY12

Shakespeare in Paradise Festival

"Bard to Go-Traveling Theatre as a Cultural Connector"

The touring Shakespearean Theatre program Bard to Go has been invited, as an international cultural exchange and educational opportunity, to the Shakespeare in Paradise Festival.

A 6 day visit to Nassau, the Bahamas, in order to promote a cultural and educational dialogue in the theatre area. As a part of this exchange the six member student cast would perform

"Lovestruck" a 50-minute professional-quality touring play comprised of various Shakespearean scenes based on the universal themes of love and match-making. Based on similar previous experiences with international tours, we hope to offer approximately three performances in local secondary schools, and two performances at the Paradise Festival. In addition to these performances, the students would be participating in festival activities, and workshops while gaining an once in a lifetime opportunity to view other international theatre productions. This piece will also be performed for the Grand Valley Shakespearean Festival and the cast and crew will play to over 1200 students while touring in Michigan in the fall of 2011. As part of this year's production we will be videotaping our entire experience. The videographer is a film and video major at Grand Valley and this project will be her culminating senior film project.

Johnson, Sara

October – December FY12

2011 National Conference for Peer Tutoring in Writing

"Bridging the Gap: An Exploration of Frustrations Facing Consultations"

With a vast number of different learning styles, along with many consulting techniques, personalities and styles, the largest obstacle facing writing consultants is adapting to students needs. The four presentations within this panel will focus on different aspects of consulting and aims to help consultants bridge the gap with students.

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Johnson, Dale

October – December FY12

2011 National Conference for Peer Tutoring in Writing

"Bad at Writing: How Writing Consultants Support Student Writers Through Self-Efficacy"

Inevitably, writing consultants and professors will at some point be approached by a student who self-identifies as bad at writing. When a student voices reluctance or opposition to the writing

process, the relationship between student and consultant is immediately altered. The consultant is placed in an uncomfortable position of power and viewed as an expert rather than a peer. This not only alters the dynamic of the consultation, but also the students response to advice. One lens through which to examine this difficult situation is that of self-efficacyones perception of his or her ability based on various factors. In this presentation, well examine what self-efficacy is and how its determined. Well also present results of our primary and secondary research on how self-efficacy influences writing ability and the dynamics of a consultation. Finally, well discuss consulting strategies that can help writers build self-efficacy. Attendees will be encouraged to share their own writing center practices that support and apply self-efficacy theory. By approaching consultations with these researched strategies, consultants and professors can foster self-efficacy in students and create stronger writers

Jones, Erica

October – December FY12

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Kaseska, Philip

October – December FY12

Midwest Microbial Pathogenesis Conference

"Analysis of a Cyclic Peptide Library to Identify Proteins That Effect *hilA* Expression and Invasion in *Salmonella enterica* serovar Typhimurium"

Salmonella enterica serovar Typhimurium is a gram-negative bacterium that produces a self-limiting, localized gastroenteritis in humans upon ingestion of contaminated food or water. Pathogenesis demands *Salmonella* recognition of multiple environmental conditions which activate a 40 kb region of DNA known as *Salmonella* Pathogenicity Island 1 (SPI-1). The expressed SPI-1 proteins manipulate normal host cell function and direct the uptake of the bacteria into targeted cells. The expression of the SPI-1 genes is controlled via the sensing of various environmental conditions through multiple pathways. When conditions are optimal for invasion, these various inducing signals are directed toward the SPI-1 transcriptional activator *hilA*. In collaboration with Brad Jones at the University of Iowa, we have acquired a plasmid library that produces small random cyclic peptides. Currently we have identified some plasmids which reduce expression of a *hilA::lacZY* reporter in *E. coli* and in *Salmonella* Typhimurium. The effects of these plasmids have also been quantified through in vivo invasion assays.

Kelley, Sean

October – December FY12

Shakespeare in Paradise Festival

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Knochenhauer, Kase

October – December FY12

American Geophysical Union Fall 2011 Meeting

"Lichenometry and Cosmogenic Surface Exposure Dating of Possible Fossil Talus Deposits, Devil's Lake State Park, Wisconsin"

Lichenometry and cosmogenic surface exposure dating have been highly successful in deciphering landform evolution in tectonically active regions, but have not been widely applied in mid-continent settings. We propose to test the idea that many of the talus deposits in Devil's Lake State Park (DLSP) are ancient, fossil, periglacial deposits that have been frozen in space and time not moving since ~18,000 years ago. Our results may provide valuable information that could be applied to other settings and may also offer information on the effects of 2nd order climatic events such as the Little Ice Age of the 16th-19th centuries, and also help determine the relation between the last glacial maximum about 18ky ago and its related timing to major mass sediment movements. Our preliminary data was collected methodologically offering tight, unimodal peaks of lichen diameters/ages for *Aspicilia cinerea* and *Dimelaena oreina* most consistent with the idea that the deposits have not moved since the last ice age. A growth curve for *Dimelaena oreina* was established through the use of a neighboring cemetery giving a local growth rate of 67.13mm/100yr with R=68. Size-distribution results for DLSP peaked at only 65.2mm. This suggests that current talus block lichen cover is not a record of the first generation. We will pair our lichenometric results with the future use of ¹⁰Be cosmogenic surface exposure dating to determine the ages of the 3 major talus deposits themselves (as opposed to lichen initialization ages) which should allow us to test our initial hypothesis, enhance our lichenometry data set, and begin to develop a more robust sampling strategy for further work. Deciphering the landform evolution of this area would offer insight to past landslides and mass debris flows.

Laarman, Patrick

October – December FY12

18th Annual Conference of the Wildlife Society

"Habitat Use, Home Range, and Hibernaculum Sites of the Eastern Box Turtle in Northern Michigan"

Pat Laarman Undergrad Natural Resource Management Program (GVSU),

Chris Schumacher Wildlife Biologist® (USFS), and Paul Keenlance Ph.D. (GVSU)

Populations of eastern box turtles, *Terrapene carolina carolina*, are declining throughout much of their North American range. Despite protection under CITES Appendix II and a state listing of special concern, to our knowledge only one study has been published on this species in its Michigan range. According to the Michigan Natural Features Inventory, eastern box turtles occur in 20 Michigan counties. In 2010, personnel from the Manistee Ranger District (USFS) radio collared and monitored two adult box turtles in the Manistee National Forest. Presently, USFS wildlife personnel are increasing efforts to locate and monitor additional individuals. During the summer of 2011, 15 adult turtles were monitored using radio telemetry. Turtles were radio collared in Manistee, Mason, and Lake Counties. Based on current distribution information, turtles in these counties represent the most northerly population of box turtles in the world. Methods of locating turtles for capture included road sightings and visual searches. During April-October, in 2011, turtles were monitored on federal land. Turtles were tracked to their exact location allowing for additional observations. Data regarding locations, macro and micro habitat use, proximity to water, use of cover objects, age (1-20, or 20+), and location of hibernacula is to be statistically analyzed using SPSS 18™ software. Telemetry points will be plotted in GIS software to map seasonal movements, home range, and hibernaculum sites. Mapping the locations of female turtles during nesting season may provide managers with clues about the movements and locations of female turtles during this critical reproductive period. Results will be provided to the USFS to inform future decisions regarding forest management and harvest strategies in areas where box turtles occur.

Leffring, Jera

October – December FY12

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Leigh, Elaine

October – December FY12

Sigma Theta Tau International-41st Biennial Convention

"Increasing Access to Hepatitis C Treatment Using a Multidisciplinary, Community-based Approach"

Hepatitis C virus (HCV) is the most common blood-borne infection in the United States and it carries with it an estimated financial burden of 10.7 billion. HCV ranks as the leading cause of liver disease according to the National Institutes of Health. Infection with the hepatitis C virus is complex and individuals can remain asymptomatic for extended periods of time, making accurate prevalence rates difficult to estimate. According to the Centers of Disease Control and Prevention, 3.2 million people are affected with HCV within the US and worldwide totals approximate 170 million. Yet in spite of the burden of HCV, dedicated programs for HCV screening, diagnosis, and treatment are relatively uncommon.

HCV exposure results in a chronic infection in approximately 85% of individuals and 10-20% of those will develop cirrhosis. Chronic hepatitis C accounts for 8,000-10,000 death per year. Vulnerable and disadvantaged populations are at the highest risk for development of HCV because of their more frequent association with risky behaviors. Positive HCV virology may be

found in up to 95% intravenous drug users and as many as 20-30% of persons with mental illness. The primary goal of HCV treatment is sustained eradication of virus which leads to a reduced progression to hepatic fibrosis, decompensated cirrhosis, or carcinoma of the liver.

HCV treatment lasts 6 to 12 months depending on viral genotype. Monitoring of laboratory values, side effects, and medication compliance is time intensive and requires dedicated and informed providers to manage HCV therapy. Nurse practitioners working in collaboration with physician partners in infectious disease, psychosocial services, pharmaceutical services, and primary care providers can offer HCV education and support with individualized treatment management and achieve better outcomes. This multidisciplinary approach will increase effective treatment for greater numbers of people in vulnerable populations with hepatitis C.

Marotti, Anna

October – December FY12

International Studies Association Midwest 2011 Conference

"Maritime Piracy: Macroeconomic effects with microeconomic solution"

Until recently, most people believed that the problem of maritime piracy was eradicated at the turn of the 19th century, but like all organized crime, piracy is a trend it either increases or decreases, but never completely disappears. Although maritime piracy is not in any way new, in its modern form it has arguably become the most sophisticated and successful means of carrying out organized criminal activity. Modern literature on piracy is following a dangerous trend of decentralizing the crisis. A crime of such magnitude can have many socio-economic spillover effects, the likes of which negatively affect neighboring states and the region at large.

A complex development still lacking in literature is an analysis of the secondary costs to the region such as the affects on trading patterns, foreign investment and spatial economic spillover effects on neighboring states. Recent attempts to suppress piracy at sea have been costly and unsustainable, adding significant non-tariff trade barriers to small operator shipping. This paper examines the most recent costing analyses of piracy to the shipping industry, consequently

addressing the necessity of forming sustainable regional policies to combat piracy, as it is a multifaceted phenomenon with a direct effect on regional trading economies.

Martin, Alynn

October – December FY12

North American Symposium on Bat Research (NASBR)

"Genetic demography of *Perimyotis subflavus* reveals regional population trends"

Alynn Martin, Amy Russell, Maarten Vonhof

Grand Valley State University, Allendale, MI; Western Michigan University, Kalamazoo, MI.

White-nose syndrome (WNS) is an epidemic affecting hibernating bats across eastern North America. It is generally associated with the presence of a white, soil dwelling fungus, *Geomyces destructans*, which usually grows on the nose, ears, and patagial membranes of infected individuals. Since its discovery in New York in 2006, WNS has been responsible for hundreds of thousands of bat deaths. Mortality rates of affected individuals have reached 90-100% in some hibernacula. Many of the studies regarding WNS focus on little brown myotis, *Myotis lucifugus*, which has experienced an 87% decline through 2010 in states including New York, Vermont, Massachusetts, New Hampshire, and Pennsylvania. Though attention has focused on *M. lucifugus*, at least five other species (*Perimyotis subflavus*, *M. septentrionalis*, *Eptesicus fuscus*, *M. leibii*, and *M. sodalis*) have also been significantly affected. Tri-colored bats, *Perimyotis subflavus*, have experienced an 85% decline in the northeastern states, yet little work has been done involving *P. subflavus* and the genetic data available for this species is lacking. Questions exist for this species regarding the accuracy of roost counts and the contribution of unsurveyed hibernacula to population counts, as well as the level of gene flow among colonies and potential patterns of spread of *G. destructans* that may result from likely bat-to-bat transfer. We present phylogeographic analyses of mitochondrial sequence data from *P. subflavus*, focusing on patterns of population genetic structure and estimates of effective population size.

McDonald, Hollie

October – December FY12

2011 National Conference for Peer Tutoring in Writing

"Bridging the Gap: An Exploration of Frustrations Facing Consultations"

With a vast number of different learning styles, along with many consulting techniques, personalities and styles, the largest obstacle facing writing consultants is adapting to students needs. The four presentations within this panel will focus on different aspects of consulting and aims to help consultants bridge the gap with students.

Presentation one will identify why students in upper-level, discipline-specific courses may not use the resources writing centers offer. We will use this information to discuss ways that writing centers can potentially better equip themselves to help these students.

Presentation two will report on the collision that occurs when indirect consulting does not match a student's direct-advice expectations, and provide strategies to effectively work in these situations.

Presentation three will examine the different dynamics involved when consultants work with students they know well versus work with students they have just met.

Presentation four will discuss how the dynamics of a typical session are changed when a consultant conducts a session with another consultant.

Participants will be engaged in partner work and group discussion. From this panel, we hope that fellow consultants will learn how to bridge the gap between themselves and the students they are working with during their consultations.

Miara, Sheila

October – December FY12

18th Annual Conference of the Wildlife Society

"Winter habitat characteristics and behavior of southern flying squirrels in Southwest Michigan"

Miara, Sheila (primary author); Colyer, Andrew; Keenlance, Paul; Jacquot, Joseph; Larsen, Angela; Canaan, Melissa

Although southern flying squirrels (*Glaucomys volans*) are present throughout the Great Lakes region, there are limited studies on the winter ecology and behavior of this species. The objective of this study is to describe winter activity patterns and habitat characteristics for a population of southern flying squirrels in Southwest Michigan. This study specifically examines (1) home range size and microhabitat attributes, (2) group dynamics and relatedness, and (3) characteristics of den tree selection. Flying squirrels were captured using live-traps from October-November, 2010 and monitored daily from November, 2010-February, 2011 using radiotelemetry techniques. Den trees were located daily to determine exact dates of movement to different trees by squirrels. Samples of DNA were derived from ear tissue and epithelial cells. A total of 13 squirrels (6 males, 7 females) were monitored from October 2010 through March 2011. A total of 19 den trees were identified. Preliminary results suggest that squirrels used an average of 3.53 den trees throughout the winter. Den trees had an average DBH of 48.58in and were predominately sugar maple (*Acer saccharum*). Den trees for males and females averaged 3.17 and 4.57, respectively. Home range size of males and females averaged, 2.2 ± 0.41 and 1.99 ± 0.18 ha, respectively and were calculated using minimum convex polygon. Findings of this study should demonstrate seasonal differences in the ecology and behavior of southern flying squirrels in their northern range during winter months. Furthermore, the information gathered may be useful in managing forested habitats where this species persists.

Miller, Jessica

October – December FY12

2011 National Conference for Peer Tutoring in Writing

"Man v. Thesis: Surviving consultations with entry level composition students who have misplaced theses"

Jessie Miller and Hollie McDonald

In entry level composition classes, students struggling with their thesis and organization of their paper actually have an identifiable thesis they just don't know it. Their thesis is almost always a culmination of ideas found in their conclusion. The question that faces writing consultants is how to appropriately address this issue in consultations. Should they take a more direct approach or should they have the students attempt to find it themselves? We have found that there are many different ways to address this issue, which we will explore through surveying professors and writing consultants around the nation, as well as observing writing consultations within our the Fred Meijer Writing Center at Grand Valley State University. We will then compile the data that provides fellow consultants with tools on how to handle this within tutoring and use that to drive discussion amongst the participants of this presentation. We will break people up into groups and have them look at sample papers, some with the thesis in the intro and some with it in the conclusion and have consultants compare the effectiveness of the tools we presented. We will then rejoin and discuss the responses together.

Moeggenborg, Hannah

October – December FY12

2011 National Conference for Peer Tutoring in Writing

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Mulling, Adam

October – December FY12

Geological Society of America Conference 2011

"Mass and rate of Storage of Post-Settlement Soil Organic Carbon in Alluvial Soils, Ottawa County, Michigan"

MULLING, Adam D.¹, HOWARD, Samuel M.¹, and COLGAN, Patrick M.², (1) Geology, Grand Valley State University, 118 Padnos Hall of Science, Allendale, MI 49401-9403, mullinga@mail.gvsu.edu, (2) Geology, Grand Valley State University, 132 Padnos Hall of Science, 1 Campus Drive, Allendale, MI 49401-9403

Humans cause erosion through deforestation, urbanization, and poor agriculture practices, filling many stream valleys with sediment and storing soil organic carbon (SOC). This project has two primary goals: first, to estimate the mass of SOC in post-settlement (~1830 CE) alluvium in Ottawa County; and second, to calculate the rate of deposition and SOC storage since 1963 to 1964. About 230 samples were collected in stream valleys filled with the Sloan Loam. Percent SOC was estimated by the loss on ignition method, and using a calibration curve developed for fine textured glacial parent materials. Cesium-137 activity in soil profiles was measured to estimate the thickness of sediment deposited since 1963 to 1964.

Our preliminary data show that mean percent SOC in the Sloan Loam is $2.0 \pm 2\%$, and dry densities averaged 1300 ± 230 kg per m³. Sloan Loam covers an area in Ottawa County of about 2.4×10^7 m². Thickness of post-settlement sediment ranges from 0.5 to 2 meters, yielding 1.2 to 4.8×10^7 m³ of sediment in Ottawa County. We estimate that a total mass of 0.3 to 1.3×10^6 tonnes of carbon has been stored in the Sloan Loam in Ottawa County since settlement (~1830 CE). The thickness of sediment deposited since 1963 to 1964 in three profiles is about 180 mm, 360 mm, and 500 mm based on Cesium-137 activity. This yields a sediment deposition rate of 3.8 to 10 mm per year, or a rate of SOC storage of approximately 2.4 to 6.5×10^3 tonnes per year in the Sloan Loam. Our data demonstrate that post-settlement alluvial soils contain significant stores of SOC.

Nodge, Eric

October – December FY12

National Collegiate Honors Conference

"Staff and Students Collaboration: Developing and International Cultural Exchange and Service-Learning Program"

This session will detail how a group of students initiated a project in Ghana in collaboration with Academic and Student Affairs professionals. These students advocated for global issues and service-learning in and beyond Honors which led to the creation of a formalized interdisciplinary service-learning study abroad program.

Janaan Decker, Leena Karsan, and I will be jointly presenting at this session and elaborating on the issues in the article "Honors in Ghana: How Study Abroad Enriches Students' Lives" published in the Journal of the National Collegiate Honors Council (Volume 12, Spring/Summer 2011, pp. 33-36).

Nyzkodub, Anastasiya

October – December FY12

New Music Ensemble Capital Region Tour

"New Music Ensemble Capital Region Tour"

In the 21st Century, improvisation is found now more than ever in Classical Music. For musicians to be the most marketable and employable they can be, they must be familiar and comfortable with improvising. This workshop will introduce, through discussion and performance, examples of 21st Century classical music where a variety of improvisational skills are called for from the musicians.

November 8: Shenandoah University Conservatory, Winchester, Virginia Meetings with students and faculty, post-concert discussion, performance. November 9: Mobtown Modern Music Series, Baltimore, Maryland Pre-concert discussion, performance November 10: Atlas Performing Arts Center, Washington, DC Pre-concert discussion, performance November 12: Settlement Music School, Philadelphia, Pennsylvania Present a workshop entitled "Improvisation in 21st Century Classical Music", performance

Peruzzi, Michael

October – December FY12

Argonne Undergraduate Symposium

"Investigation of Carbamoylmethyl Phosphine Gadolinium Chelating Agents"

Michael T. Peruzzi¹, Charles F. DeLisle¹, Shannon M. Biros*¹, Eric J. Werner², Grand Valley State University¹, Department of Chemistry, Allendale, MI 49401, The University of Tampa², Department of Chemistry & Physics, Tampa, FL, biross@gvsu.edu.

One method of Medical Resonance Imaging (MRI) is to use Gadolinium (Gd) metal as a contrast agent to achieve high quality images used for making a diagnosis or treating a disease. However Gd is toxic to the human body which makes a chelating agent necessary to prevent harm to patients undergoing an MRI procedure. An ideal chelating agent is water soluble, stable, and increases the relaxivity rates of nearby water molecules. Our lab is developing several chelating agents using a carbamoylmethyl phosphine oxide (CMPO) motif. Several facets of potential agents are being explored to determine how chelation of the Gd, or other potential metals, can be maximized. Some of these aspects include varying the side groups of the CMPO ligands, number of carbon atoms in the scaffolding, positioning of lone pair electrons on the cap of the chelating agent, and the functionality of the cap itself.

Rhode, Daniel

October – December FY12

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School, Philadelphia, Pennsylvania Present a workshop entitled "Improvisation in 21st Century Classical Music", performance

Rosenau, Audrey

October – December FY12

International Conference on Business, Hospitality & Tourism Management

"Sharing the Caribbean Slavery Experience-The Caribbean Heritage Tourism Project"

Many tourists want to experience the unique heritage of place (Nicholls, Vogt and Hyun Jun, 2004). Destinations have the opportunity to showcase the elements of heritage and culture as it is these that make each destination unique (Timothy and Boyd, 2006). National tourism organizations (NTO) are destination marketing agencies which promote the unique tourism experience and attraction of each destination (Webster and Ivanov; 2007). The Caribbean Tourism Organization (CTO) is the regional agency responsible for among other things, the marketing of the Caribbean region globally in conjunction with the NTOs.

Content analysis (Amaquandoh and Brown, (2008); Chen, Kerstetter and Graefe (2001)) is a research technique whereby materials are analyzed and key themes extracted and compiled from documents/webpages. The 33 websites from the CTO member NTOs were subjected to content analysis. This analysis categorized the findings into the built, natural and cultural heritage; entertainment; and other attractions. These attractions are further analyzed to determine the number and proportion that reflect the vestiges of slavery and the heritage that this economic, social and political system produced.

All 33 Caribbean countries researched experienced the institution of slavery and this project demonstrates that few tourist attractions showcase and interpret this fundamental experience. Based on these findings it is the purpose of this presentation to stimulate discussion on a regional, Caribbean Heritage Tourism project, which develops and presents the slave heritage of the Caribbean region.

Simonson, Scott

October – December FY12

Geological Society of America Conference 2011

"Using Total Suspended Sediment Data to Evaluate the Impacts of Storm Water Diversion to a Constructed Wetland at Grand Valley State University, Allendale, Michigan"

Grand Valley State University (GVSU), a mid-size liberal arts university located in western Michigan, was founded in 1960. Over the last fifty years, the Allendale campus of GVSU has expanded by adding over 120 acres of new buildings, walkways, and parking lots. Storm water runoff from these impermeable surfaces was channeled into a series of ravines and has resulted in erosion, slope instability, and sediment discharge into the Grand River and eventually Lake Michigan.

In 2007 GVSU formed the Storm Water Advisory Group (SWAG) comprised of students, faculty, consultants, and facilities managers to develop runoff reduction strategies. In June, 2011 construction of a new library began on the Allendale campus of GVSU. As part of this project approximately eighty percent of the storm water from Little Mac Ravine will be redirected to a new wetland west of campus. Little Mac Ravine is a second order stream with a bankfull discharge of approximately 7.1 to 8.5 m³/s.

Five hundred milliliter water samples from over 10 storm events have been collected prior to storm water diversion using a 6712 Isco automated water sampler triggered by a piezometric water level measurement device. Samples were collected at five minute intervals when the water level exceeded ten centimeters above base level. Twenty five milliliter subsamples were analyzed for total suspended solids (TSS) and volatile suspended solids (VSS) using a modification of the Environmental Sciences Section (ESS) method 340.2 Turbidity, specific conductivity, pH, and salinity were measured in the lab using hand held instruments.

Once water has been diverted from the Little Mac Ravine to the wetland in July, 2011, samples will continue to be collected to quantify the change in TSS. TSS data will be combined with

historic and modern flow data to develop a TSS rating curve for pre- and post-diversion flow regimes, and estimate sediment load reduction resulting from the diversion. Preliminary results suggest moderate to low flow conditions typically have TSS values less than 1.0 mg/L. During a flood event June 21, 2011, that exceeded bankfull, TSS values were as high as 6.7 mg/L and remained greater than 3.0 mg/L over a 60 minute period.

Staley, Allison

October – December FY12

Shakespeare in Paradise Festival

"Bard to Go-Traveling Theatre as a Cultural Connector"

The Grand Valley State University theatre program would like to offer a production of Bard to Go, the touring Shakespearean theatre program, abroad, at the Shakespeare in Paradise Festival, which they have been invited to. A 6 day visit to Nassau, the Bahamas, in order to promote a cultural and educational communication in the area of theatre. As a part of this cultural conversation the student players would perform "Lovestruck" a 50-minute professional-quality touring play comprised of various Shakespearean scenes based on the theme of magical enchantment; this piece is the 2011 Bard to Go production of the Grand Valley Shakespearean Festival, and will play to over 1200 students in Michigan in the fall of 2011. As part of this exchange we will be videotaping our experience. The videographer is a film and video major at Grand Valley and this project is going to be here senior film project. Based on our experience with previous international tours, we hope to offer approximately three performances in local secondary schools, and two performances at the Festival. In addition to these performances, the 8 students who would be traveling on this exchange would be interested in participating in the Festival activities, including workshops and viewing international theatre productions. This is an invaluable educational experience that will greatly enhance the knowledge and communication skills of all the students involved.

Stanley, Ashley

October – December FY12

New Music Ensemble Capital Region Tour

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Stoyka, Lindsay

October – December FY12

2011 National Conference for Peer Tutoring in Writing

"Bad at Writing: How Writing Consultants Support Student Writers Through Self-Efficacy"

Inevitably, writing consultants and professors will at some point be approached by a student who self-identifies as bad at writing. When a student voices reluctance or opposition to the writing process, the relationship between student and consultant is immediately altered. The consultant is placed in an uncomfortable position of power and viewed as an expert rather than a peer. This not only alters the dynamic of the consultation, but also the students response to advice. One lens through which to examine this difficult situation is that of self-efficacyones perception of his or her ability based on various factors. In this presentation, well examine what self-efficacy is and how its determined. Well also present results of our primary and secondary research on how self-

efficacy influences writing ability and the dynamics of a consultation. Finally, we'll discuss consulting strategies that can help writers build self-efficacy. Attendees will be encouraged to share their own writing center practices that support and apply self-efficacy theory. By approaching consultations with these researched strategies, consultants and professors can foster self-efficacy in students and create stronger writers.

Thatcher, Meghan

October – December FY12

International Studies Association Midwest 2011 Conference

"Economic Development: The Changing Consensus"

The course of economic development has been greatly changing during the past decade. The failures of the so called Washington Consensus and the neoliberal policies of the Bretton Woods institutions and western countries were showcased through the Asian Financial Crisis of 1997, the Argentinean Crisis of 2001, and most recently through the Financial Crisis of the late 2000s. These failures sent many developing nations to seek after their own solutions to development, and seemingly, the most successful emerging economies owe much of their success to their denial of these western policies and the adoption of their own forms of economic development based on their individual contexts. Particularly since the Seoul Development Consensus in 2010, the IMF and World Bank seem to be moving towards realizing there are different paths to success, and no one size-fits-all formula for economic growth and development. This can be most recently seen through the IMF's reaction towards the new budget created by the transitional government of Egypt. The West also needs to look to the developing world and grassroots ideas for economic growth and development such as microfinance and the MicroConsignment Model, bringing more creativity and cooperation into their policies and mindset.

VanderMolen, Kelly

October – December FY12

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Vanderhoof, Bridget

October – December FY12

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A 6 day visit to Nassau, the Bahamas, in order to promote a cultural and educational dialogue in the theatre area. As a part of this exchange the students would perform "Lovestruck" a 50-minute professional-quality touring play comprised of various Shakespearean scenes based on the theme of magical enchantment; this piece is the 2011 Bard to Go production of the Grand Valley Shakespearean Festival, and will play to over 1200 students in Michigan in the fall of 2011. As part of this exchange we will be videotaping our experience. The videographer is a film and

video major at Grand Valley and this project is going to be her senior film project. Based on our experience with previous international tours, we hope to offer approximately three performances in local secondary schools, and two performances at the Festival. In addition to these performances, the 8 students who would be traveling on this exchange would be interested in participating in the Festival activities, including workshops and viewing international theatre productions.

Weihe, Brynhild

October – December FY12

Shakespeare in Paradise Festival

"Bard to Go-traveling theatre as a cultural connector"

Bard to Go, a touring Shakespearean theatre program from GVSU, has been invited to the Shakespeare in Paradise Festival, and we would like to travel there and perform for them. The Festival takes place in Nassau, the Bahamas, and we will be there for six days, promoting an educational and cultural experience in theatre. Currently we are working on a play called "Lovestruck", which is a 50-minute compilation of Shakespeare touring plays. The scenes are from various Shakespeare plays, and they all share the same themes; magical enchantment and love. This year, 2011, we will be touring around Michigan with our play, performing for over 1200 students during the fall. This entire experience will be recorded by a Grand Valley film and video major, and it will be her senior project.

Based on previous international Bard to Go experience, we will most likely perform twice at the Festival, and three times in the local schools. In addition to all of that, we (the eight students) would like to participate in the Festival activities, which will include workshops and watching other international theatre productions.

Wolf, Kevin

October – December FY12

American College of Emergency Physicians (ACEP) Research Forum

"Incidence and Risk Factors of Post-Rewarming 'Rebound Hypothermia' in Cardiac Arrest Patients Undergoing Therapeutic Hypothermia"

Study Objectives: Guidelines recommend initiating therapeutic hypothermia as soon as possible after return of spontaneous circulation in patients with witnessed cardiac arrest. However, the incidence of complications, such as overcooling and rebound hyperthermia may increase without careful monitoring of temperature. Post-rewarming 'rebound hyperthermia', defined as a temperature of 38.5°C or greater, may worsen survival and outcome. The purpose of this study was to determine the incidence and risk factors associated with post-rewarming rebound hyperthermia (RH).

Methods: This retrospective, cohort study was performed using a database of visits to the ED chest pain unit of a tertiary referral center. During a four-year study period, all patients undergoing therapeutic hypothermia (to a central target temperature of 33°C, using endovascular cooling) following cardiac arrest were eligible for the study. Patients less than 18 years old, trauma cases, pregnancy and cardiogenic shock cases were excluded. Electronic dispatch, patient care reports, and hospital records were reviewed by three independent reviewers. Our main outcome was the incidence of post-rewarming RH within 48 hours after cooling withdrawal. Analysis of risk factors was performed as follows: 24 potentially relevant risk factors for RH were assessed by univariate analysis with chi-square test for categorical variables and simple logistic regression for continuous variables. Collected data also included the rate of medical complications, death or severe disability (modified Rankin Scale 4-6).

Results: During the study period, 93 consecutive adult patients were treated with therapeutic hypothermia following out-of-hospital cardiac arrest (70% male, age 56.8 + 17 years). RH was documented in 23 patients (24.7%; 95% CI 16.0-33.5) within 48 hours after cooling withdrawal. Post-rewarming RH was associated with an increased risk of death (70% vs 41%, $p < 0.001$) as well as severe disability (93% vs 68%, $P < 0.001$). Infectious complications were observed in 8 patients with RH (34.8%; 95% CI 15.3-54.2), but no patient developed severe sepsis or septic shock. The biological changes that occurred during rewarming manifested principally as

hypokalemia (< 3.5 mmol/l) in 74% of patients with RH ($p=0.06$). No statistical correlation was found between predictor variables and the incidence of RH in this population.

Conclusions: Post-rewarming RH was observed in 25% of patients within 48 hours after cooling withdrawal and was associated with significant disability and mortality. No statistical correlation was found between predictor variables and the incidence of RH in our population.