



## Rock Research Expo

### Spring 2011

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- Research Projects and Grant Acquisition (title, authors, brief introduction),
- Recent conference presentations of faculty members and students,
- Announcement of grant opportunities,
- Announcement of visiting scholars on campus and a short biography for each scholar,
- Announcement of research related activities on campus.

## WELCOME

### Aims

Rock Research Expo is published online twice yearly, in spring and fall. Rock Research Expo (RRE) serves as a newsletter that keeps our campus informed of the exciting accomplishments, scholarly endeavors and potential research opportunities for both faculty members and students. Specifically, Rock Research Expo aims to:

- Introduce new knowledge of different disciplines to campus students,
- Provoke students' interests and curiosity in knowledge exploration,
- Promote long term academic communication and collaboration on campus, and most importantly,
- Develop a success-driven environment of learning for both professors and students.

### Scope

- Recent publications of faculty members and students on campus (title, authors, and short abstract),

### Policies

- Information submitted should be an in-depth elaboration in layman's terms to excite the readers,
- Anyone on campus can submit their information online or by email. Student submissions need to have a supporting letter or email from a faculty member,
- The basic submission standards for the newsletter will be that the submitted material be legible, pertinent, and appropriate to present to the campus community,
- Authors are responsible for the accuracy of their submissions. Newsletter editors and SRU will NOT be responsible for the verification of the submitted information.

### Editorial Board

Dr. Jeffrey Forrest, Department of Mathematics  
 Dr. Jialing Wang, Department of Geography, Geology, and the Environment  
 Mr. Philip Tramdack, Bailey Library  
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## FEATURE STORY

### Hard ROCK Research

Petrology, or the study of the nature and origins of rocks, has a natural home at SRU. For the last eight years, Dr. Michael Zieg of the Department of Geography, Geology, and the Environment has been working together with SRU geology majors to understand the diversity and evolution of igneous rocks from around the world.

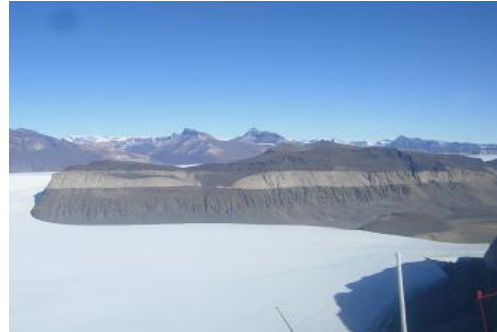
Dr. Zieg focused his early work on the formation of meteorites and a meteorite impact melt sheet in Sudbury, Canada. This area is home to one of the world's most important copper-nickel-platinum deposits. Recently, petrologic investigations at SRU are focused on rocks from the McMurdo Dry Valleys of Antarctica, and Nipigon, Ontario.



#### Antarctica

Slippery Rock's research in Antarctica is centered on a series of igneous intrusions (bodies of magma that were injected and then cooled deep beneath Earth's surface) called the Ferrar Dolerite. The Ferrar intrusions were emplaced approximately 185 million years as Antarctica, South America, and Africa split

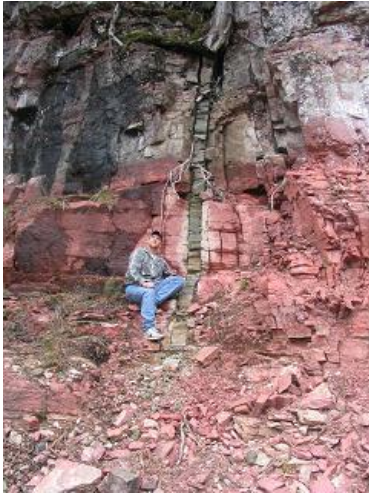
apart. They are very similar to another series of intrusions in eastern North America, including the Gettysburg sill (from which Union forces repelled Pickett's Charge during the Civil War).



In the summer of 2007, Zieg and SRU student Clint Forsha (BS Geology, 2007) were each appointed to Visiting Researcher positions at Johns Hopkins University in Baltimore in order to study the Penepine and Beacon sills, two of the lesser-known intrusions in the Ferrar complex. Forsha presented his research results from that summer at the American Geophysical Union annual meeting in December, 2007.

#### Nipigon, Ontario

The second major thrust of research (and the one that has involved the most students) is an investigation of the Nipigon diabase sills in northern Ontario, Canada. This research began with preliminary field investigations in the summers of 2004 and 2005. During these two field seasons, Forsha, Brad Erney (BA Environmental Geoscience, 2003), and Zach Schmitt (BS Geography, 2008), all participated in field sampling, and later laboratory analysis of rocks from the Nipigon intrusions. Forsha presented the results of this work from this project at the 2007 Annual Meeting of the Institute on Lake Superior Geology in Lutsen, Minnesota.



Levi Markwood (BS Geology, 2011) became involved in the project with a trip to Nipigon during the summer of 2009. During this trip, Markwood collected a complete profile through a minor sill and the Ontario Geological Survey supplied SRU with access to approximately 250 meters of drill core through one of the major sills.



Markwood's research involves characterizing the variation in rock textures through the sill using multiple image analysis methods. With both reflected and transmitted light microscopy, he has been able to document that the smaller sill was injected as a single pulse of magma rather than inflating gradually through repeated, small injections. This is a fundamental question in igneous petrology, with critical implications including: understanding volcanic eruption frequencies; exploration for nickel, copper, and platinum ores; and efficient development of geothermal energy. He has presented the results of his work at the last two Institute on Lake Superior Geology conferences (2009, 2010) and at the Pittsburgh Geological Society Student Night (2010). Why do we care about sequencing.

In the past year and a half, Markwood has been joined by Andrew Ryan (BS Environmental Science, 2011), Andrew Franze (BS Environmental Science, 2013), and Cal Spigler (BS Geology, 2013). The research completed by this group has been recognized by several prominent awards, including Outstanding Student Poster (Ryan: Institute on Lake Superior Geology, 2010) and Outstanding Student Presentation (Markwood: Pittsburgh Geological Society, 2010).

In the next several years, we hope to move this research to the next level by integrating mathematical models of the cooling process; thermodynamic models of the crystallization of the magma; and laboratory analysis of the

chemistry, mineralogy, and textures of the rocks in these sills. Through this multidisciplinary approach, we hope to both answer fundamental scientific questions about igneous processes and to develop new tools that can be used to enable more efficient (and therefore less disruptive) extraction of mineral resources.

We are very proud of the students in the Department of Geography, Geology, and the Environment. Through our commitment to providing meaningful research opportunities in geology, we believe that we are not only teaching our students the core concepts of the discipline, but are also training and mentoring the next generation of scholars and professional geologists who will be responsible for meeting our society's resource and energy needs efficiently and responsibly.

## RECENT PUBLICATIONS

**Amatucci, Frances M. and Richard Grimm (School of Business)** (2011) "Reinventing the Business Plan Process for Start-Ups" Paper presented at the United States Association for Small Business and Entrepreneurship (USASBE) annual meeting, Hilton Head Island, South Carolina, January 13-16, 2011. ACCEPTED FOR PUBLICATION IN *Journal of Strategic Innovation and Sustainability*, 7(2).

**Amatucci, Frances M. (School of Business)** and Daria C. Crawley (2011) "Financial Self-efficacy among Women Entrepreneurs," *International Journal of Gender and Entrepreneurship*, Vol. 3 Iss: 1

**Bouchat, Rachelle R. (Department of Mathematics)**, Huy Tai Ha, and Augustine O'Keefe (2010). "Path Ideals of Rooted Trees and Their Graded Betti Numbers." *Arxiv E-Prints*. August 2010.

Bradely, D., Morgan., J., and **Debra Wolf (Department of Nursing)** (2011). Nursing Professional Development Specialists as Change Agents and Innovators. *Journal for Nurses in Staff Development*, p.3.

**Burkhart, Patrick (Department of Geography, Geology, and the Environment)**, Christine Iksic, Nichole Litzinger, Lisa Andresky, and Ronnie Underwood (2011) "Evaluation of Potential Baseflow-Wetland Impacts From Mining of The Jacksonville Esker, Butler County, Pennsylvania." *Geological Society of America Abstracts with Programs* 43(1): 118.

**Chai, Sangmi, Patricia Joseph, and Paul Mullins (Department of Computer Science)** (2010) "The Empirical Investigation of a Wiki based group system in organizations." *AMCIS 2010 Proceedings*. Paper 317.

**Cleary, Michael J. (Department of Public Health and Social Work)**, and Albert J. Scott (2011) "Developments in Clinical Neuropsychology: Implications for School Psychological Services." *Journal of School Health* 81, no. 1 (January 2011): 1-7.

**Conlon, Michael P, and Paul Mullins (Department of Computer Science)** (2010). "Creating and Using a Computer Networking and Systems Administration Laboratory Built Under Relaxed Financial Constraints" *2010 Information Systems Educators Conference* 27.1328: 1-8.

**Crow, Brian (Department of Sport Management)**, Dennis Phillips (2010) "Improving the fan experience through mystery shop observations." *Sports Entertainment and Venues Tomorrow* (2010): 80.

Docherty, Beth A., Laura J. Alport, Kunwar P. Bhatnagar, Anne M. Burrows, and **Timothy D. Smith (Department of Physical Therapy)** (2010) "Tongue Morphology in Infant and Adult Bushbabies (*Otolemur* Spp.)." *Evolution of Exudatory in Primates*. New York: Spring Science, pp. 527-272.

**Forrest, Kimberly Y.Z. (Department of Public Health and Social Work)**, and Wendy L. Stuhldeher (2011) "Prevalence and correlates of vitamin D deficiency in US adults." *Nutrition Research* 31, no. 1 (January 2011): 48-54.

**Abstract:** Mounting evidence suggests that vitamin D deficiency could be linked to several chronic diseases, including cardiovascular disease and cancer. The purpose of this study was to examine the prevalence of vitamin D deficiency and its correlates to test the hypothesis that vitamin D deficiency was common in the US population, especially in certain minority groups. The National Health and Nutrition Examination Survey (NHANES) 2005-2006 data were analyzed for vitamin D

levels in adult participants (N= 4,495). Vitamin D deficiency was defined as a serum 25-hydroxy-vitamin D concentrations  $\leq$  20 ng/mL (50 nmol/L). The overall prevalence rate of vitamin D deficiency was 41.6%, with the highest rate seen in blacks (82.1%), followed by Hispanics (69.2%). Vitamin D deficiency was significantly more common among those who had no college education, were obese, with a poor health status, hypertension, low HDL cholesterol level, or not consuming milk daily (all p-values < 0.001). Multivariate analyses showed that being non-white race, not college educated, obese, having low HDL cholesterol, poor health, and no daily milk consumption were all significantly independently associated with vitamin D deficiency (all p-values < 0.05). In summary, vitamin D deficiency was common in the US population, especially among blacks and Hispanics. Given that vitamin D deficiency is linked to some of the important risk factors of leading causes of death in the US, it is important that health professionals are aware of this connection and offer dietary and other intervention strategies to correct vitamin D deficiency, especially in minority groups.

**Significance of This Research:** Due to vitamin D's beneficial effects, the Institute of Medicine (IOM) recently released updated recommendations regarding vitamin D intake: 600 IU per day for people aged 1 to 70 years (200% increase for age 1 – 50 years and 50% increase for age 51 – 70 years) and 800 IU for people aged 71 and older (33% increase). Our research depicting the vitamin D deficiency situation in the US population provided data-based evidence for health intervention for this condition. Because of the significance of this research and the timing of the revised Vitamin D recommendations, our paper was accepted with 10 days after submission, and has generated a lot of attention from the field. Since publication of this paper, numerous scholars and health professionals have requested the reprint from us.

Furong Xu, Jepkorir Chepyator-Thomson, **Wenhao Liu (Department of Physical Education)**, and Robert Schmidlein (2010) "Association between social and environmental factors and physical activity opportunities in middle schools." *European Physical Education Review* 16, no. 2: 183-194.

Highland, Whitnie, Amy Davis, **Beth Larouere (Department of Exercise and Rehabilitative Science)**, and Paul Reneau (2010) "The Effects of Wind Resistance While Running on RPE and Heart Rate" *Medicine & Science in Sports & Exercise*. 42, no. 5: 668-9.

Jakicic, John M., Amy D. Otto, Wei Lang, Linda Semler, **Carena Winters (Department of Exercise and Rehabilitative Science)**, Kristen Polzien and Kara I. Mohr (2011) "The Effect of Physical Activity on 18-Month Weight Change in Overweight Adults" *Obesity*. 19, no. 1: 100–109.

Jianyu Wang, Darla M. Castelli, **Liu Wenhao, Wei Bian (Department of Physical Education)**, and Tan Jiangong (2010) "Re-Conceptualizing Physical Education Programs from an Ecological Perspective." *Asian Journal of Exercise & Sports Science* 7, No. 1: 43-53.

Jianyu Wang, **Wenhao Liu (Department of Physical Education)**, and Jeffrey Moffit (2010) "What Skills and Tactics Are Needed to Play Adult Pick-Up Basketball Games?" *ICHPER -- SD Journal of Research in Health, Physical Education, Recreation, Sport & Dance* 5, no. 2 (Winter2010): 41-47.

Jianyu Wang, **Wenhao Liu, Wei Bian (Department of Physical Education)**, and Jiangong Tan (2010) "Perceived Motivators and Constrains among Regular Players of Pick-Up Basketball Games". *Asian Journal of Physical Education & Recreation*, 16, no. 2, 25-31.

**Jones, Diana and Debra Wolf (Department of Nursing)** (2010). Shaping the Future of Nursing Education Today Using Distance Education and Technology. *ABNF Journal*, 21(2).

Klug, Eric R., **Patrick Burkhart, Tamra A. Schiappa, and Jack Livingston (Department of Geography, Geology, and the Environment)** (2011) "On a Bimodal Geomorphic Age of Stream Morphology in the Glenshaw Quadrangle, Allegheny County, Pennsylvania." *Geological Society of America Abstracts with Programs* 43(1): 114.

**Lim, Min Soo (Department of Chemistry)**, Katelyn J Smiley, and Ellen S Gawalt (2010). "Thermally driven stability of octadecylphosphonic acid thin films grown on SS316L." *Scanning* 32, no. 5 : 304-311.

**Livingston, Jack (Department of Geography, Geology, and the Environment)** (2011) "Engaging Undergraduate Students Through Multidisciplinary International Field Experiences: A Case Study of SRU's Bahamas Program." *Geological Society of America*.

**Loudiy, Fadoua (Department of Communication)**. (2010) "Facing a Bloody Past: Discourses and Practices of Transitional Justice." *Communication Yearbook* 34: 391-426

**Marchand, Richard J. (Department of Mathematics)**, and Timothy J. McDevitt (2011) "Computational analysis of rates of energy decay in elastic beams." *Nonlinear Analysis* 74, no. 4 (February 15, 2011): 1061-1072.

**Melago, Kathleen (Department of Music)** (2011) "Working with Student Teachers." *The Instrumentalist* 65, no. 7 (February 2011): 21-25.

**Melago, Kathleen (Department of Music)** (2011) "Writing Prompts for Middle School or

High School Music Classes." *Triad: Official Publication of the Ohio Music Education Association* 78, no. 2 (December 2010/January 2011): 47-49.

**Melago, Kathleen (Department of Music)** (2010) "Preparation for a Successful Performance." *Flute Talk* 30, no. 2 (October 2010): 22-23.

**Mickle, Katherine (Department of Art)**, Paul Baldauf, and **Patrick Burkhart (Department of Geography, Geology, and the Environment)** (2011) "Collaborative Field Research: Geology and Art in the White River Badlands." *Geological Society of America Abstracts with Programs* 43(1): 139.

**Mickle, Katherine (Department of Art)**, Paul Baldauf, **Patrick Burkhart (Department of Geography, Geology, and the Environment)**, and Eli Blasko (2011) "Integrating Fine Art and Science to Better Understand the South Dakota Badlands." *Geological Society of America Abstracts with Programs* (42) 5: 663.

Organ, J. M., Deleon, V. B., Wang, Q. and **Smith, T. D. (Department of Physical Therapy)** (2010), From Head to Tail: New Models and Approaches in Primate Functional Anatomy and Biomechanics. *The Anatomical Record: Advances in Integrative Anatomy and Evolutionary Biology*, 293: 544-548.

**Paradis, Lia (Department of History)** (2010) "Manly Displays: Exhibitions and the Revival of the Olympic Games." *International Journal of the History of Sport* 27, no. 16-18: 2710-2730.

Parker, Richard, and **Anindya Chatterjee (School of Business)** (2010). "Who Are the Time-Sensitive Consumers? Findings from Exploratory Surveys." *Business Research Yearbook: Global Business Perspectives*. Ed. Rodney A. Oglesby, H. Paul LeBlanc III, and Marjorie G. Adams. 1st ed. Vol. 17. Beltsville,

MD: International Academy of Business Disciplines, 159-164.

**Peacock, Sunita (Department of English)** (2010) "*Phoolan Devi: The Primordial Tradition of the Bandit Queen in Transnationalism and the Asian American*



*Heroine*", *Essays on Literature, Film, Myth and Media*. Ed. Lan Don. Publisher: McFarland and Co. London, October 2010.

**Abstract:** In this essay, a comparison between transnationalism between Indian and Chinese cinema is shown by examining the gender erasure of females, the victimization of women and the effects of class, national and political agendas coinciding with the identities of women in their struggle for a voice in their nation. The essay, though, specifically examines the Indian film director Shekar Kapoor and his 1996 film *The Bandit Queen* which can fall into the category of transnationalism because through the story of the warrior, bandit queen Phoolan Devi, one sees the growth of the Indian nation, the question of gender in the lives of Indian women, the effects of class, caste, history politics, and social revival in the lives of women in India as the country moves from being a national to an international phenomenon in the global marketplace.

Rofey, Dana L., **Ethan E. Hull (Department of Physical Education)**, Jennifer Phillips, Kristen Vogt, Jennifer S. Silk, and Ronald E. Dahl (2010) "Utilizing Ecological Momentary Assessment in Pediatric Obesity to Quantify Behavior, Emotion, and Sleep" *Obesity (Silver Spring)*. 18(6): 1270–1272.

**Sanftner, J. L (Department of Psychology)** (2011) "Quality of life in relation to psychosocial risk variables for eating disorders in women

and men". *Eating Behaviors: An International Journal*, 12, 136-142.

**Sanftner, J. L. (Department of Psychology)**, and Tantillo, M. (2010) "Measuring Perceived Mutuality in College Women: Further Validation of the Connection Disconnection Scale". *Journal of Creativity in Mental Health*, 5, 344-357.

Sanger, T. D., Chen, D., Fehlings, D. L., Hallett, M., Lang, A. E., Mink, J. W., Singer, H. S., Alter, K., Ben-Pazi, H., Butler, E. E., Chen, R., Collins, A., Dayanidhi, S., Forssberg, H., Fowler, E., Gilbert, D. L., Gorman, S. L., Gormley, M. E., Jinnah, H. A., Kornblau, B., Krosschell, K. J., Lehman, R. K., MacKinnon, C., Malanga, C. J., Mesterman, R., **Michaels, M. B.**

**(Department of Physical Therapy)**, Pearson, T. S., Rose, J., Russman, B. S., Sternad, D., Swoboda, K. J. and Valero-Cuevas, F. (2010) "Definition and classification of hyperkinetic movements in childhood." *Movement Disorders*, 25: 1538–1549.

**Schiappa, Tamra (Department of Geography, Geology, and the Environment)** (2011) "Enhancing the Impact of Stratigraphy and Paleontology Undergraduate Research on Student Learning." *Geological Society of America*. 22 Mar. 2011

**Schiappa, Tamra (Department of Geography, Geology, and the Environment)** and Sarah A. Schattauer (2010) "New Pennsylvanian Somoholitid Species from White Pine County, Nevada." *Geological Society of America*. 22 Mar. 2010.

Seeber, Christoph, **Heike Hartmann (Department of Geography, Geology, and the Environment)**, Wei Xiang, and Lorenz King (2010) "Land use change and causes in the Xiangxi catchment, Three Gorges Area derived from multispectral data" *Journal of Earth Science* 21:6.



Seeber, C., **Heike Hartmann (Department of Geography, Geology, and the Environment)**, Wei Xiang, and Lorenz King (2010). Spatial and temporal assessment of driving and conditioning factors and their impact on land use / land cover change in the Xiangxi Catchment, Three Gorges Region. *Geophysical Research Abstracts*, 12, EGU2010-1533.

**Smith, Timothy D. (Department of Physical Therapy)**, James B. Rossie, Gregory M. Cooper, Robin M. Schmiege, Christopher J. Bonar, Mark P. Mooney, and Michael I. Siegel (2011) "Comparative microcomputed tomography and histological study of maxillary pneumatization in four species of new world monkeys: The perinatal period." *American Journal of Physical Anthropology* 144, no. 3: 392-410.

**Smith, Timothy D. (Department of Physical Therapy)**, John C. Dennis, Kunwar P. Bhatnagar, Eva C. Garrett, Christopher J. Bonar, and Edward E. Morrison. (23 February 2011). "Olfactory marker protein expression in the vomeronasal neuroepithelium of tamarins (*Saguinus spp.*)." *Brain Research* 1375, no. 23: 7-18.

**Smith, Timothy D. (Department of Physical Therapy)**, Burrows, Anne M., Dumont, Elizabeth R. (2010) "Microanatomical assessment of nasomaxillary suture patency." *Anatomical Record* 293, no. 4:651-7.

**Snow, Julie A., Jack Livingston (Department of Geography, Geology, and the Environment)**, and P .S. Weiss-Penzias (2010) "Using GIS and NOAA HYPLIT trajectories to create meaningful airsheds in Pennsylvania" *American Geophysical Union*. Fall 2010.

**Snyder, R. (Department of Elementary Education and Early Childhood)**, & Johnson,

J. (2010) 'Do You Hear What Horton Hears?', *Science & Children*, 48, 2, pp. 68-70.

**Strain, Steven R. and Jerry G. Chmielewski (Department of Biology)** (2010)"A Simple Computer Application for the Identification of Conifer Genera." *American Biology Teacher* 72, no. 5 (May 2010): 301-304. (This article was given an Editor's Choice award by Plant Science Bulletin, a publication of the Botanical Society of America.)

**Tallapally, Pavani (School of Business)**, Michael S. Luehlfing, James J. Cochran, and Gene H. Johnson (2010) "The impact of split bond ratings on accounting research results: some additional evidence and some preliminary insights." *Academy of Accounting and Financial Studies Journal* 14, no. 3.

Tantillo, M., & **Sanftner, J. L. (Department of Psychology)** (2010). Measuring perceived mutuality in women with eating disorders: The development of the Connection Disconnection Scale. *Journal of Nursing Measurement*, 18, 100-119.

**Vallin, R. W (Department of Mathematics)** (2011) "Creating Slowly Oscillating Sequences and Slowly Oscillating Continuous Functions." *Acta Mathematica Universitatis Comenianae*. LXXX, no. 1:71-78.

Vollum, Matt, Jennifer Toebbe, **Gary E. Clark (Department of Physical Education)**, John Magnotta, Brian Culp, Robert Schmidlein, and Shawn Ladda (2011) "Ideas Exchange." *Strategies* 24, no. 3: 6-9.

Wiegand, M., C. Seeber, **Heike Hartmann (Department of Geography, Geology, and the Environment)**, Wei Xiang, and Lorenz King (2010). Assessing internal biophysical vulnerability to landslide hazards – a nested catchment approach: Xiangxi Watershed /

Three Gorges Reservoir. *Geophysical Research Abstracts*, 12, EGU2010-11987.

Wiegand, M., C. Seeber, **Heike Hartmann (Department of Geography, Geology, and the Environment)**, Wei Xiang, and Lorenz King (2011). Landslide Hazards in the Xiangxi Watershed / Three Gorges Reservoir, China: Assessing internal biophysical vulnerability. *Geophysical Research Abstracts*, 13, EGU2011-13193-2.

**Wolf, Debra M. (Department of Nursing)**, Amar Kapadia, and Pam Selker Rak (2011) "Extending Care: Voice Technology." *Nursing Informatics*, part 4 (2011): 303-319.

**Wolf, Debra M. (Department of Nursing)**, Huber, W., Bookwalter, A., & Anton, B. (2010) "Exploring Student's Learning Environment When Enrolled in a Distance Education Program". In D. Gibson & B. Dodge (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference*. pp. 3002-3007. Chesapeake, VA: AACE.

**Wolf, Debar M. (Department of Nursing)**, Amar Kapadia, and Pam Selker Rak (2011) "Chapter 18: Extending Care: Voice Technology". In Ball, M., et al. (Eds.) *Nursing Informatics: Where caring and technology meet*, 4<sup>th</sup> Edition, pp. 303-319.

**Wolf, Debar (Department of Nursing)** and Nellis, D., (2011). Informatics: Helping LNC adjust to electronic medical records. Understanding the Transition – Part 1: Moving from paper to electronic records. *Journal of Legal Nurse Consultant*, 22(1), pp. 9-12.

**Wolf, Debar (Department of Nursing)** and Nellis, D. (2011). Informatics: Helping LNC adjust to electronic records. Being Prepared - Part II: Knowing what to expect with electronic health records. *Journal of Legal*

*Nurse Consultant* Accepted for publication 3/2011.

**Zhou, H. (Department of Computer Science)**, Mutka, M. W. and Ni, L. M. (2010), Secure prophet address allocation for MANETs. Security and Communication Networks, 3: 31–43. doi: 10.1002/sec.126

**Zieg, Michael J. (Department of Geography, Geology, and the Environment)**, Andrew J. Ryan, Andrew E. Franze, and Callahan Spigler (2011) "Geochemical and Petrographic Constraints on the Formation of a Nipigon Diabase Sill, Ontario, Canada." *Abstracts With Programs - Geological Society Of America* 43, No. 1 (March 20, 2011): 63.

## RECENT PRESENTATIONS

**Amatucci, Frances M. and Richard Grimm (School of Business)** (2011) "Reinventing the Business Plan Process for Start-Ups" **Paper presented** at the United States Association for Small Business and Entrepreneurship (USASBE) annual meeting, Hilton Head Island, South Carolina, January 13-16, 2011.

**Clark, Gary E. (Department of Physical Education)**, Jere D. Gallagher, Carl Johnson and Mary E. Duquin (2010) "Effect of Acute Activity on Cognitive Processing in Children" Proceedings of 2010 AAHPERD National Convention and Exposition (March 16-20, 2010), Indiana, Indianapolis.

**Clark, Gary (Department of Physical Education)**, and Wagner, Allen (2010) "Children are not miniature adults! Considerations in an aquatic environment" Proceedings of National Drowning Prevention Alliance, 9<sup>th</sup> annual drowning preventions symposium (April 2010) Pittsburgh, PA.

**Clark, Gary (Department of Physical Education)** and Nicole Clark (2010) "Nutrition and motor development in children with autism spectrum disorder." Proc. of Pennsylvania State Association for Health, Physical Education, Recreation and Dance Conference (November 11-13, 2010), Champion, PA.

**Clark, Gary (Department of Physical Education)** and Nicole Clark (2010) "Motor behavior for everyday physical education, identifying constraints" Proc. of Pennsylvania State Association for Health, Physical Education, Recreation and Dance Conference (November 11-13, 2010) Champion, PA.

Clark, Nicole and **Gary Clark (Department of Physical Education)** (2011) "Nutrition's impact on autism and motor development of autistic

children." Proceedings of Eastern District AAHPERD Conference (February 16-19, 2011), Long Branch, NJ.

**DeNicola, Dean M. (Department of Biology) and Michael G. Stapleton (Department of Geography, Geology, and the Environment)**. "Changes in periphyton communities in a watershed receiving passive treatment for acid mine drainage over an 11 year period." 95th Annual American Ecological Society Meeting. 3 Aug, 2010.

**Hartmann, Heike (Department of Geography, Geology, and the Environment)** (2010) "Medium-term Forecasts of Precipitation for the Yangtze and Tarim River Basins: Experience and Outlook". Sino-German-Workshop on "Comparing Strategies of Sustainable Water and Land Management in Germany and China due to Climate Change", 7-12 December 2010, Munich, Germany.

**Abstract:** Both, the Yangtze and the Tarim River are known to show highly variable discharges caused by a strong seasonal variability of precipitation. Thinking of the Yangtze River may draw pictures of floods in our minds, considering the Tarim River the opposite, namely droughts. Both situations can be mitigated by reliable medium-term forecasts as these facilitate an adjusted water management: They enable an increase of the warning time until a possible flood situation starts allowing for an improvement of the preparation for floods; they also facilitate an extended warning time for droughts allowing an adjusted water resources management.

The basic idea is to generate medium-term predictions of precipitation by means of different approaches including linear (multiple linear regressions) as well as non-linear (artificial neural networks) models. The latter are supposed to be more suitable for reliable forecasts, as the relationships between climatic

variables are known to be complex and often nonlinear.

**Hathaway, James T. (Department of Geography, Geology, and the Environment)**

(2010) "Putting the local food systems in the Pittsburgh, Pennsylvania Region in perspective", presented at the International Geographical Union Commission on the Dynamics of Economic Spaces conference, Toledo, OH, USA (August 3-7, 2010).

**Abstract:** Popular and academic interest in local food has grown rapidly in recent years. This chapter breaks new ground in two interrelated ways. One is to elucidate the network of food producers, intermediaries, consumers, and supporting organizations in a particular region, with Pittsburgh serving as a case study. The other is to create a series of benchmarks that allow us to compare the Pittsburgh region's local food system against a backdrop of nine other local food systems in the traditional US manufacturing belt and three in non industrial regions. My main sources are census and Internet data on the production, marketing, and consumption of local food along with information from academic and popular literature. The local food systems in Pittsburgh and the US manufacturing belt display growth and vigor across various marketing channels, although they remain very small in overall food provisioning and vulnerable to disruptive forces. Going beyond the local may help them prosper.

**Liu, Wenhao (Department of Physical Education)** (2010) "Children's Physical Activity Distribution: Before, During, and After School." Proceedings of 2010 AAHPERD National Convention and Exposition (March 16-20, 2010), Indiana, Indianapolis.

**Liu, W., Nichols, R. A., & Zillifro, T. D. (Department of Physical Education)** (2011, March). "Three-year Tracking: Changes in middle school children's BMI-for-age

*percentile*," Paper presented at 2011 National Convention of the American Alliance for Health, Physical Education, Recreation and Dance, San Diego, CA.

**Liu, W., Zillifro, T. D., & Nichols, R. A. (Department of Physical Education)** (2011, March). *Prediction of PACER performance from BMI-for-age percentile in sixth graders*. Poster session presented at 2011 National Convention of the American Alliance for Health, Physical Education, Recreation and Dance, San Diego, CA.

Lorenzi, David and **Gary Clark (Department of Physical Education)** (2011) "The sensory system and students with autism in physical education." Proc. of Eastern District AAHPERD Conference (February 16-19, 2011), Long Branch, NJ.

**Manuel Valera, Athula Heart (Department of Physics)**, and Ethan Corle. (2011) "Molecular Dynamics of Colloidal binary mixtures in an electric field." American Physical Society's Annual Meeting (March 2011), Dallas, TX.

**Nichols, R. A., Zillifro, T. D., Liu, W. (Department of Physical Education)**, and Smith, J. L. (2010, June). "Two-year Fitness Outcomes Comparison: PE4Life Academy vs. Traditional PE". Paper presented at 6<sup>th</sup> Annual International Conference on Kinesiology and Exercise Sciences, Athens, Greece.

**Nichols, R. A., Liu, W., & Zillifro, T. D. (Department of Physical Education)** (2010, March). *Effects of PE4life program on students' MVPA in PE classes*. Paper presented at 2010 National Convention of the American Alliance for Health, Physical Education, Recreation and Dance, Indianapolis, IN.

**Paradis, Lia (Department of History)** (2010) "The Ghost of Gordon: Reconciling Expectation and Experience in the Sudan Political Service, 1920-1939," paper presented at the North

American Conference on British Studies,  
Baltimore, MA.

**Paradis, Lia (Department of History)** (2011)  
“Gordon’s Ghost: Imagining the Sudan after the  
Fall of Khartoum,” paper presented at The New  
York Public Library Research Scholars Lecture  
Series, New York.

**Peacock, Sunita (Department of English)  
and P. Krishnakumar (retired Emeritus  
Professor of Business School)** (2010)  
“Images of Women in Advertisements:  
Perceptions from the East and the West,”  
presented at the Association for Global  
Business, New Orleans (November 11-14,  
2010), published in Journal of Current  
Research in Association for Global Business,  
November 2010.

**Abstract:** In the United States for many  
years, a great deal of discussion has been  
generated in the business literature concerning  
the poor portrayal of women in advertisements.  
Similarly in India, the portrayal of women in  
advertisements has been conflicted because of  
the colonial thinking of past British colonizers  
ingrained into the Indian psyche further  
contrasting Indian cultural and spiritual ideals.  
The paper thus does a comparative analysis of  
the images of women in advertisements that  
are prevalent in the US and India and the  
conclusions derived from the analysis are that  
the negative image of women in  
advertisements is not an isolated issue in one  
culture but a common phenomenon in both  
eastern and western cultures.

**Peacock, Sunita (Department of English)**  
(2010) “Anime: Aesthetically Japanese?” New  
England Conference of the Association for  
Asian Studies. University of Vermont,  
November 6, 2010.

**Abstract:** The essay explores how Japan’s  
popular culture has changed, but yet remained  
the same despite moving away from literary  
cultural productions, such as haiku, and Zen.  
Inevitably, Japan has still been able to  
incorporate certain aspects of its “high cultural”  
arts into anime and in turn produce a narrative  
art form that has “thematic and philosophical  
structures to produce a unique aesthetic world”  
(Napier). It could be argued that what Napier  
refers to “high culture” was probably  
considered as merely popular culture during  
the time period. By drawing comparisons and  
contrasts between the late 17<sup>th</sup> century  
Japanese high culture and modern day anime  
films, one can see a thread of continuity  
between past and present popular culture of  
the day.

**Peacock, Sunita (Department of English)**  
(2010) “Integration, Assimilation and the  
Choice of a Spouse: An Indian  
Experience.” New England Conference of the  
Association for Asian Studies. University of  
Vermont, November 6, 2010.

**Abstract:** The paper shows how marriage is  
an exchange process among Indians with the  
specific objective of examining the effect of  
immigration and assimilation on the choice of a  
spouse with a focus on the “characteristics”  
that are used in the choice decision. Two  
unique marriage markets are considered: the  
domestic Indian market (people living in India)  
and the diasporic market (Indians living in USA,  
Canada, UK). The research analyzed the  
matrimonial advertisements from newspapers  
published in India and abroad. A cultural study  
was also done to show the effects of not only  
national Indian ideals in India, but its effects on  
Indian immigrants outside their native home.

Wang, Jianyu, **Wenhao Liu, Wei Bian**  
**(Department of Physical Education)**, and Li  
Yan (2011) “Perceived Competence,  
Motivation, and Physical Activity Participation

Among College Students" Proceedings of 2011 AAHPERD National Convention and Exposition (March 29-April 2, 2011).

**Zillifro, T. D., Nichols, R. A., and Liu, W (Department of Physical Education)** (2010, March). "*Three-year fitness outcomes comparison: PE4life program versus traditional PE program.*" Paper presented at 2010 National Convention of the American Alliance for Health, Physical Education, Recreation and Dance, Indianapolis, IN.

**Zillifro, T. D., Nichols, R. A., Liu, W. (Department of Physical Education), and Smith, J. L.** (2010, June). *Three-year Comparison of students' attitudes toward PE and PA: PE4Life Academy PE vs. Traditional PE.* Paper presented at 6<sup>th</sup> Annual International Conference on Kinesiology and Exercise Sciences, Athens, Greece.

## RECENT AWARDS

This list is adopted from Year in Review 2009-2010, Office of Grants and Sponsored Research. Only funded projects with start date in 2010 are included in this issue.

### Outside Funding

#### **Dr. Robert Arnhold, Physical Education**

"I Can Do It, You Can Do It"

*Funding Source: Foundation for the National Institutes of Health*

*Amount Awarded: \$10,000*

*Project Dates: Jan. 1, 2010 to Dec. 31, 2010*

Overview: This funding will provide the opportunity to expand the "I Can Do It, You Can Do It" Program's physical activity and mentoring program for children with disabilities to sites north of SRU, specifically at the Grove City YMCA.

#### **Dr. Robert Arnhold, Physical Education**

"VIP Camp: Inclusive Communities"

*Funding Source: Grable Foundation Amount Awarded: \$3,550*

*Project Dates: June 1, 2010 to Aug. 31, 2010*

Overview: The purpose of this proposal is to bring children without disabilities to participate with children with visual impairments and blindness at the annual VIP Camp.

#### **Dr. Robert Arnhold, Physical Education**

"Developing Evidence-Based Outcomes in Physical Activity for Persons with Mental Retardation"

*Funding Source: Edith L. Trees Charitable Trust*

*Amount Awarded: \$41,211*

*Project Dates: Jan. 1, 2010 to Dec. 31, 2011*

Overview: This research model focuses upon five steps that the teacher or coach implements with children. This strategy provides SRU the

ability to provide high quality teacher preparation instruction in the field working one-on-one with children with disabilities. The second strategy to be implemented is our continued participation in the "I CAN DO IT, YOU CAN DO IT" mentor/mentee model of physical activity for children and adults with intellectual disabilities. This is a mentor/mentee model matching persons with intellectual disabilities with persons without disabilities as their mentors in physical activity, recreation and other physically active pursuits. This funding is for Year 01 of a two-year award.

#### **Deborah Baker, University Events**

"Ailey II Performance"

*Funding Source: Mid Atlantic Arts Foundation*

*Amount Awarded: \$3,250*

*Project Dates: Oct. 28, 2010 to Oct. 29, 2010*

Overview: SRU received funding to assist in the presentation of the Ailey II Dance Company. The group's visit to SRU will include a public performance as a part of SRU's Performing Arts Series, two master classes and a "meet-the artists" opportunity following the performance.

#### **Ms. Renee Bateman, Health Services**

"Pennsylvania State System of Higher Education Statewide Coalition for the Prevention and Reduction of Underage and Binge Drinking"

*Funding Source: U.S. Department of Education through the Pennsylvania State System of Higher Education*

*Amount Awarded: \$6,490*

*Project Dates: Jan. 1, 2010 to Sept. 30, 2011*

Overview: The Pennsylvania State System of Higher Education, in collaboration with the state Agency for Alcohol Education and the Bureau of Alcohol Education of the Pennsylvania Liquor Control Board, proposes to reduce underage alcohol consumption and binge drinking over a two year period. This "PASSHE Alcohol Coalition," comprised of all

of the PASSHE universities, PLCB and other key entities, will specifically target first-year resident students.

**Dr. Richard Grimm, School of Business**

"Slippery Rock Center for Entrepreneurial Leadership and Learning"

*Funding Source: Pennsylvania State System of Higher Education*

*Amount Awarded: \$224,498*

*Project Dates: May 31, 2010 to May 31, 2013*

Overview: Grant proceeds will be used to fund the Center for Entrepreneurial Development and Business Advancement at SRU. This center will help those seeking information about starting a new business, promote entrepreneurship on campus and in the community and facilitate a project-based learning initiative on campus. The goal is to enhance student learning experiences while contributing to economic development in the region.

**Dr. Susan Hannam, Dean's Office**

"Leading, Engaging and Retaining a Multi-Generational Workforce"

*Funding Source: The IBM Center for the Business of Government*

*Amount Awarded: \$20,000*

*Project Dates: May 1, 2010 to Oct. 31, 2010*

Overview: The purpose of this project is to prepare a report to address the unprecedented unique challenges government executives are facing to engage and retain top talent in a multi-generational workforce. There are three parts to the methodology of how this report will be researched and presented: 1) utilization of the authors' workplace engagement model which provides a framework for the report, 2) mining data from national surveys/benchmarks and 3) incorporating best practices from business into government. The report will provide executives with an expanded way of thinking and a portfolio of leading-edge best

practices that can be effectively applied to transforming the workforce.

**Dr. Carol Holland, Counseling Center, Ms. Kristina Chiprean, Health Services**

"Healthy Lifestyles Initiative: Yoga for Faculty and Staff"

*Funding Source: Pennsylvania Faculty Health & Welfare Fund*

*Amount Awarded: \$1,500*

*Project Dates: Sept. 15, 2010 to May 15, 2011*

Overview: Stress is both additive and cumulative in its negative effects on individuals, the workplace and societies. Research supports that yoga is one method that promotes physical, emotional and spiritual resilience. With this in mind, SRU faculty and staff will be provided with the opportunity to study and practice yoga under the guidance of trained and certified yoga instructors. Weekly 75-minute yoga instruction and practice enable participants to learn life-long skills to manage stress. The intended outcome for this skill set will decrease the effects of workplace stress, improve work productivity, increase resilience and overall health. This grant is a collaborative effort between the SRU counseling center and student health services to benefit all faculty and staff.

**Ms. Jennifer Keller, Dance**

"Rock Dance Company in the Community: A Community Service Project"

*Funding Source: Pennsylvania State System of Higher Education*

*Amount Awarded: \$7,879*

*Project Dates: Aug. 23, 2010 to May 10, 2011*

Overview: This project will permit joint faculty-student public service by providing the funds necessary to prepare and take a 15 member undergraduate dance troupe, "Rock Dance Company," into 14 area elementary schools to give high-quality, free performances that expose children to dance as an art form. Through a 30 minute interactive program with



lively discussion, Rock Dance Company will expose children to selections of hip hop, tap, contemporary partnering and modern dance to impact the values of listening, cooperation, individuality and creativity to its K-6 audiences. In addition, this grant will allow two members of Rock Dance Company to team-teach a 30 minute activity in the local elementary school for grades K-5 that takes place in the classroom and relates to a curricular topic for that grade. Through these community service activities, the project director and student participants will enrich the cultural offerings available to elementary children in counties underserved by arts outreach activities.

**Dr. Catherine Massey,**

**Psychology**

**Dr. Colleen Cooke, Parks and Recreation,  
Environmental Education**

"Consultant Services"

*Funding Source: Pennsylvania Commission on  
Crime and Delinquency through VOICe, Inc.*

*Amount Awarded: \$600*

*Project Dates: July 1, 2010 to July 31, 2011*

Overview: The project directors' consulting responsibilities include providing multicultural training to VOICe agency personnel working directly with a diverse population. There are many issues that LGBT individuals and persons of color face that the majority of people are unaware of or do not understand. Via the four hour Safe Zone and Welcoming Diversity workshops, concerns relevant to these populations, and to others as well, are addressed to raise levels of awareness and understanding of these issues. It is expected that those who participate in these workshops will have a higher level of cultural sensitivity and understanding to better assist their clients.

**Dr. Jessamine Montero, President's Office**

"Building a Community of Social and Political Reform: A Professional Development Series on Diversity and Inclusion"

*Funding Source: Pennsylvania Department of*

*Education through West Chester University of  
Pennsylvania*

*Amount Awarded: \$3,100*

*Project Dates: May 7, 2010 to Nov. 30, 2010*

Overview: This Frederick Douglass Collaborative Initiative grant will provide four professional workshops focused on issues of social equity and political reform, within the disciplines of 1) disabilities, 2) LGBTQI, 3) race and ethnic diversity and 4) women. The funding will provide a vehicle for universitywide diversity programming, ensuring that the four president's commissions, including their additional respective, discipline-related, campus programs and resources, intentionally collaborate in their diversity and inclusive efforts for the fall 2010 semester. The president's commissions have individually, and, at times collectively, collaborated on recommendations for university curriculum changes, services, programming and professional development opportunities for the campus community. However, previous collaborations including pulling the financial and human resources together have occurred by chance and circumstance rather than through strategic and systemic efforts. This funding will allow the presidential commissions and the multiple diversity campus resources to build a more cohesive, stronger and socially-just community.

**Dr. Paul Mullins, Computer Science**

"Creating an Environment Supportive of Diversity in Computing Courses"

*Funding Source: Pennsylvania Department of  
Education through West Chester University of  
Pennsylvania*

*Amount Awarded: \$1,899*

*Project Dates: May 7, 2010 to Nov. 30, 2010*

Overview: The ability of undergraduate computing programs to attract and retain women and minorities is abysmal. There are ways to create a more supportive environment for these students. One is through the

assignments used in the course. Assignments are often created on an ad hoc basis and generally without regard to issues of multiculturalism or gender neutrality. This is due, at least in part, to the lack of suitable examples of process that might be applied to evaluate or create suitable assignments. This project will result in a sample set of assignments that support multiculturalism and gender neutrality for courses across the computing curriculum, a methodology for evaluating and creating such assignments, and a snapshot of assignments currently in use in all major computing courses at SRU and a set of assignments, two per course, directly applicable to the courses at SRU.

**Dr. Timothy Smith, School of Physical Therapy**

"Making Monkey Faces: An Investigation of Bone Growth Patterns that Shape the Forward-Facing Eyes of our Primate Relatives"

*Funding Sources: Pennsylvania State System of Higher Education*

*Amount Awarded: \$2,487*

*Project Dates: May 1, 2010 to April 30, 2011*

Overview: The purpose of this study is to use an innovative amalgam of modern and traditional imaging techniques to study growth of the orbits in small, rare samples of primates. Specifically, two genera of non-human primates will be studied at the newborn stage by a combination of micro computed tomography (CT) and histology. An innovative advantage of this dual approach is that CT scans reconstructions of bone can be combined with information from the soft tissue structures that are only available by microscopic study--notably the cells that make bone or remove bone during growth. Specifically, the study will investigate growth patterns in a posterior portion of the orbit, where controversy exists regarding the information of the posterior wall.

**Ms. Melissa Teodoro, Dance**

"The Examination of Afro-Colombian Dances and their Representation of Morality, Sexuality and Race in the Context of Pre-Lenten Carnival"

*Funding Source: Pennsylvania State System of Higher Education*

*Amount Awarded: \$4,086*

*Project Dates: Dec. 28, 2010 to May 28, 2011*

Overview: The project director will travel to various locations in Colombia to pursue ethnographic research of traditional Afro-Colombian dance forms in the context of pre-Lenten carnival celebrations. The following dance forms that emerged during Colombia's colonial period and are still practiced today will be examined: the *Son de Negros* dance group and their portrayal of inversion at the level of race, where ethnic boundaries are challenged and confronted; the *Monocucos* and their politically charged satirical performance; and both the *Marimondas* and *Pilanderas* with their underlying performance of sexual behavior by means of mask, costume and body gesture. The project director will also observe the role of dance and movement in the general carnival context, and comparatively analyze these in three established events that emerged in different Colombian cities in the 1800s: the *Carnaval de los Blancos y Negros*, the *Carnaval del Diablo* and the *Carnavale de Barranquilla*. Additionally, how the Catholic conception of morality has endured, transformed or perished within the carnival scenario, and how the subsisting traditions are stored in the body and collective memory of the carnival participant and expressed through movement and dance will be studied.

**Dr. David Valentine, Computer Science**

"Design and Construction of a Pedagogical Computer Cluster"

*Funding Source: Pennsylvania State System of Higher Education*

*Amount Awarded: \$7,320*

*Project Dates: May 1, 2010 to Dec. 31, 2010*

Overview: The world of computing has “gone parallel” with the advent of dual-core and quad-core desktop machines. Today’s standard PC has multiple processors in a single CPU, yet very few software programs run on the desktop are utilizing the latent power of the multi-core technology. Developers have been slow to upgrade their products because the traditional approaches to program design do not apply in a parallel environment. Undergraduate students in computer science simply must be exposed to this new architecture. While the multi-core desktop gives one platform, students must also gain experience in the more powerful realm of “cluster computing” where the researcher will harness many separate machines together on a single problem. The researcher will design and construct a permanent computer cluster for undergraduate instruction. Advanced computer science students will have access to the immense power of the cluster and experience the dramatic change in approach required to solve problems in a parallel environment.

**Dr. Christophas Walker, Academic Services**

"Developing an Interdisciplinary Minor in Ethics Studies"

*Funding Source: Pennsylvania State System of Higher Education*

*Amount Awarded: \$1,400*

*Project Dates: Feb. 1, 2010 to April 30, 2010*

Overview: The goal of this project is to develop more diversity academic programs and courses at SRU. Academic workshops for faculty interested in teaching courses in the new proposed minor and to enhance current courses that would count toward the minor along with developing a few new diverse courses will also be developed. After the courses are designed and the curriculum is in place, the program will be evaluated by student learning outcomes along with student interest in the programs.

**Dr. A. Lee Williams, Elementary Education/Early Childhood**

"Gate Opener Innovation Grant"

*Funding Source: Pennsylvania Department of Education*

*Amount Awarded: \$20,000*

*Project Dates: Aug. 30, 2010 to June 30, 2011*

Overview: The project is to facilitate a hybrid (combination online/classroom) classroom education for teachers who are required to have early childhood education as part of their participation in Keystone STARS, PA Pre-K Counts and/or Head Start programs. SRU will offer online education classes to teachers and will assist them to prepare and pass the Praxis test. Technical support will be provided to the practitioners during fall 2010 to address the fear and anxiety barrier many face as they prepare to begin their online classes in the spring 2011. The goal is to increase area teachers' flexibility to obtain early childhood education certification while minimizing interference with their normal classroom activities.

**Faculty/Student Research Grants**

**Dr. Robert Arnhold, Physical Education  
Dr. Elizabeth Kemeny, Exercise and Rehabilitative Sciences**

*"Comparative Effectiveness Research of Health Promotion Mentoring Interventions for Persons with Disabilities"*

*Jan. 1, 2010 to Dec. 31, 2010*

*\$5,000*

Mentoring has been used as an intervention in programs for youth development and leadership within organizations and personnel preparation programs. However, little known research focuses on the health promotion outcomes for individuals with disabilities. Less is known about the qualifications and training needed for a mentor to be effective. "I CAN DO IT, YOU CAN DO IT" is a health promotion mentoring program for children and youth with

disabilities in the community. This research seeks to compare various conditions of mentoring in order to determine the relative effectiveness in outcomes for the mentee. The mentoring effectiveness of certified personnel will be compared with undergraduates with adapted physical activity preparation and typical undergraduate volunteers. Analysis will include a factorial ANOVA with repeated measures. Student investigators will actively participate in research design, data collection, analysis and dissemination of this pilot project with the potential for external funding from the National Institutes of Health.

**Dr. Susan Hadley, Music**

*"The Use of Music Technology as an Adaptive Tool in Music Therapy"*

Jan. 1, 2010 to Dec. 31, 2010

\$4,998

This research study will examine the use of music technology as an adaptive tool in music therapy. A survey of U.S. music therapists will be conducted to determine the current uses of music technology in music therapy clinical work, the degree of competence and training in the use of music technologies for use in therapy, the perceived need for guidelines for use of music technology as an adaptive tool in music therapy. An exploration of music therapy and related literature will be conducted to determine current uses of music technology in music therapy settings. The researchers will develop new uses of music technology as an adaptive tool which will be evaluated by music therapists with expertise in this area. Finally, a manual of the use of music technology as an adaptive tool in music therapy including these newly developed techniques will be developed for use in music therapy training programs.

**Dr. Stacy Hrizo, Biology**

*"Examining the Effects of Reducing and Oxidizing Agents on the Progression of a Neurodegenerative Disease Using a Fruit Fly Model"*

Jan. 18, 2010 to Dec. 17, 2010

\$4,996

Glycolysis is a metabolic pathway that turns sugar into chemical energy that can be utilized by the cell. If this process is disrupted it can cause a disease in humans called glycolytic enzymopathy that manifests in patients as low red blood cell count, progressive impairment of movement, neurodegeneration (brain cell death) and premature death. One particular glycolytic enzymopathy is caused by a single mutation in the TPI gene. The causes of the disease symptoms are not well understood and there are no treatments available. A previously identified mutation in the TPI gene in the fruit fly called sugarkill mimics the symptoms of the human TPI glycolytic disease; therefore, the flies with the mutant sugarkill gene are a good model to study the progression of the disease and identify possible treatments. This research project aims to identify chemicals that alleviate or exacerbate disease symptoms in a fruit fly model.

**Dr. Robert Snyder, Elementary Education/Early Childhood**

*"Connecting Quality Science Lessons with Children's Literature to Enhance Science and Reading Skills"*

Jan. 1, 2010 to March 31, 2010

\$3,402

Many teachers are concerned with achieving high scores on student reading tests. Often, science and other subjects are compromised in that quest. This project will develop ideas for connecting children's literature with hands-on science that emphasizes inquiry-based learning and reinforces important reading skills simultaneously. The students involved with NSTA-SRU are researching children's books and developing effective demonstrations and hands-on activities among the most common elementary science topics to integrate with the literature selection. The goal is for the students to research and develop the most effective use

of science activities to build an active thinking process for students that utilize the inquiry-based philosophy of the National Science Education Standards. The culmination of their effort is to present their work at the National Science Teachers Association Conference in Philadelphia, Pa. The presentation has already been accepted by the NSTA conference committee.

**Dr. Michael Zieg, Geography, Geology and the Environment**

*"Insights into Rift Magmatism: The Chemical and Physical Evolution of Nipigon Sills"*

Jan. 1, 2010 to Dec. 31, 2010

\$4,980

Continental rifting and breakup are important processes controlling Earth's tectonic development. Nearly every documented rift is associated with extensive igneous activity, including voluminous lava flows erupted onto the land surface and numerous intrusions emplaced beneath the surface. In this project, we will evaluate the chemical and physical processes involved in the development of intrusive magma bodies emplaced in a rift environment. Using rock samples obtained from field sampling and from a drill hole that intersects a thick sill emplaced in the 1.1 billion year old midcontinent rift in Nipigon, Ontario, we will analyze chemical, textural, magnetic and mineralogical variations through the body in order to quantify the significance of several common processes (including crystal settling, compaction and reinjection) in the development of these intrusions. This project will provide insight into the early development of the midcontinent rift and better understanding of processes common to all igneous systems.

**President's International Professional Development Grants**

**Dr. Diane Galbraith, School of Business**

To present a paper entitled "*Strategic Twittering: A Conceptual Model*" at the 2010

Costa Rica Global Conference on Business and Finance, San Jose, Costa Rica, May 25-28, 2010.

**Dr. Cindy LaCom, English**

To develop Women's Studies Summer International Internship Programs. Three women's studies minors will participate in the pilot program internship at Joy2theWorld, a non-profit which distributes micro-credit loans to women in four villages, in Ghana, Africa, Aug. 1-15, 2010.

**Dr. Derrick Pitard, English**

To present a paper on "*Speech, Writing and Venues for the Vernacular in Late Medieval England*" and to chair a panel on "*The Friar's Discourse*" at the New Chaucer Society Conference, in Siena, Italy, July 15-19, 2010.

**Dr. Colleen Reilly, Theatre**

Support of student touring production for the Edinburgh Festival Fringe, the world's largest international performing arts festival. Responsibilities will include marketing, public relations and promotion of the performance; management of box office statements and receipts; administration of travel and safety documents and general production support as needed, in Edinburgh, Scotland, United Kingdom, Aug. 3-16, 2010.

**Dr. Kimberly Smith, Exercise and Rehabilitative Sciences**

To present two student/faculty collaborative research papers, "*Comparison of Eight Abdominal Exercises using EMG, RPE and Exercise Preference*" and "*Accuracy of the Omron HJ-720 ITC Pedometer when Worn at Four different Locations on the Body*" at the 6th Annual International Conference for Kinesiology and Exercise Science with student research assistant, Ms Sarah Lillvik, in Athens, Greece, June 26 to July 2, 2010.

**Dr. Langdon Smith, Geography, Geology and the Environment**

Research a 16-acre, mixed-use community development project call Dockside Green as a case study for sustainable development within North America, in Victoria, British Columbia, Canada, Fall 2010.

**Dr. Deborah Whitfield, Computer Science**

**Dr. David Dailey, Computer Science**

To present a paper on the computationally efficient construction of random polygons in the Web browser (useful for scientific modeling and interactive multimedia) along with undergraduate student, Mr. George Shirk at the SVGopen, in Paris, France, Aug. 29 to Sept. 2, 2010. (shared award)

**Dr. Traci Zillifro, Physical Education**

To present two papers on “*Three-year Comparison of Students’ Attitudes Toward PE and PA: PE4Life Academy PE vs. Traditional PE*” and “*Two-year Fitness Outcomes Comparison: PE4Life Academy vs. Traditional PE*” at the 6th Annual International Conference on Kinesiology and Exercise Sciences, in Athens, Greece, June 28 to July 1, 2010.

**Grants for Student Research, Scholarly, Creative, Entrepreneurial and Civic Projects**

**Mr. Christopher Abbott (U), Geography, Geology, and the Environment**

Cooperating Faculty Member: Dr. Jack Livingston

“*Examination of Plantation Period Boundaries on San Salvador, Bahamas*”

Jan. 19, 2010 to April 20, 2010

\$500

This study will explore the spatial characteristics of land ownership between 1760-1919 on the island of San Salvador, Bahamas, with respect to temporal and historic political changes; providing further understanding on land ownership trends in post colonial island states. Historical abstracts will be referenced to identify plantation period

agriculture practices and the effects on the abolition of slavery on social and economic relationships between planters and slaves. Remotely sensed features such as stone walls, plantation period roads and land ownership boundaries will provide the basis of spatial analysis to determine changes in parcel size during three time periods.

**Ms. Alicia Garrity (U), Dance**

Cooperating Faculty Member: Ms. Nola Nolen-Holland

“*Scholarly Research on Dance Technique*”

June 12, 2010 to May 31, 2011

\$500

The goal of this project is to research dance technique by studying with a master teacher and choreographer at the 2010 American Dance Festival in Durham, North Carolina. The student will integrate the information that she learns from this nationally recognized artist in a solo that she will choreograph in fall 2010. The student will then perform this solo at the 2010 Department of Dance Adjudication concert.

**Mr. Sean Murphy (U), Music**

Cooperating Faculty Member: Dr. Jason Kush

“*United States Naval Saxophone Symposium*”

Jan. 1, 2010 to Jan. 31, 2010

\$500

The SRU saxophone studio will attend the U.S. Naval Saxophone Symposium in Washington, D.C., perform on an international stage, attend educational clinics and view performances by renowned saxophonists by Dr. Timothy McAllister and Seamus Blake.

**Technology Fee Proposals--awarded**

**Dr. Stephen Barr, Music**

\$59,169

Students will have access to a state-of-the-art computer and music technology lab with hardware capable of meeting the demands of

intensive computer music applications. New software and hardware technology will enable students to digitally record, edit, analyze and present assignments that relate to numerous aspects of their education. Students' ability to analyze and perform music will become more efficient and yield more integrated and cohesive learning experiences. Future music educators will gain experience with a variety of software tools that are often being used in music programs in schools today.

**Ms. Martina Haines, Bailey Library**

\$45,324

The library requests funds to offset student wages to staff Bailey Library's laptop lending service, which loans technology fee-funded laptop computers to students for use within the Bailey Library facility. Bailey Library's laptop lending program began in 2003 with 36 laptops purchased using student technology fee funds. In 2004 and 2006, Tech Fee requests were funded for additional laptops and replacements, and the program has grown to include 130 Tech laptops. The laptop lending service is a vitally important library function. Provision of the laptops has tripled the number of computers available for use in the building. The laptops help alleviate crowding in the building because they can be used anywhere within the facility on the wireless network. They allow students to work collaboratively and creatively in ways that would not be possible were the laptops not available, thereby extending the functionality of the building. The library total yearly student assistant allocation is \$250,000, approximately one-fifth of which is allocated to staffing the laptop lending area. Granting of this request will relieve pressure on the library student budget.

**Dr. Meg Michaels, School of Physical Therapy**

\$6,255

The GSPT requests funds to purchase 25 Flip MinoHD Camcorder (Flip) for student use during their clinical internships to develop case studies for clinical and peer teaching. Physical therapy (PT) students during their final and third year of study complete two internships each lasting 15-weeks during the fall and spring semester. While on internships, students have the opportunity to examine and treat patients with various PT problems. Through provision of Flips, students will be asked to develop a video case study that integrates evidence based practice with clinical practice. This will then be shared with their clinical site during the students' mandatory teaching to clinicians. In addition, key faculty in the department will serve as a resource for these students to develop video case studies that can be used during the first two-years of PT classes and/or during the final class for third year students. *Year*

**Dr. James Preston, Elementary Education/Early Childhood**

\$24,567

This proposal supports the College of Education's goal to graduate teachers who are capable of utilizing the most up-to-date technology as an instructional tool and to support our teacher candidates in their efforts to compete in a very difficult job market after graduation. The technology purchased through this grant has the potential to benefit all teacher candidates but especially elementary, secondary and special education majors (900 students in fall 2008). The intended outcomes are that teacher candidates will be better prepared to utilize the technology found in the public schools and to utilize technology to a greater degree during their field experiences and student teaching. In order to achieve these outcomes, this proposal requests the purchase of the technology similar to the technology received by many Pa. school districts via the Classrooms for the Future (CFF) technology grants. The proposal supports the university's

mission as well as a number of PASSHE Performance Indicators, including support for outreach into the community.

**Ms. Judy Silva, Bailey Library**

\$15,500

The Bailey Library proposes to purchase a 6 TB server to securely archive and back up electronic files. Over the past few years, the university archives has amassed a large collection of digital material. These unique items include films of football games, homecoming events and the 1937 North Hall fire, oral histories, student radio broadcasts, theses and newspapers, yearbooks and hundreds of scanned photographs. Also included are born digital items such as The Green & White and RockPride, which are no longer issued in print and must be preserved electronically or lost. These digital files are growing exponentially and are currently saved on computer hard drives and portable hard drives, four networked drives and scores of CDs and DVDs. They represent a tremendous resource for student research, and students find them enormously engaging. Beyond that they capture our institutional memory. It is critical that these e-resources be safeguarded for long-term access and use.

**Dr. Robert Snyder, Elementary Education/Early Childhood**

\$6,270

This proposal supports the integration of video camera technology into off-campus elementary education field experiences. The study will impact 120 students enrolled in two sections of the Block 2 (Teaching Elementary Math and Science) in each of the two semesters. Based on the outcome of the study, it has the potential to impact all students in elementary education programs that enroll in the Block 2 required course work (approximately 120- 150 students per semester). The proposal will provide technology that will enable teacher candidates

to utilize technology when they are placed in local schools for field experience. Outcomes of this proposal will be an increase in the number of elementary teacher candidates who utilize technology, the enhancement of these candidates' technology skills and reflective practices, as well as, increased support for program accreditation requirements related to technology. The proposal supports the university's mission as well as a number of PASSHE Performance Indicators. The video lessons will also be available for students to utilize in electronic portfolios and job interviews making SRU teaching candidates more marketable to public school districts.

**The Green Fund**

**Mr. Scott Albert, Facilities and Planning**

*"PT Electric Meter"*

May 1, 2010 to Sept. 1, 2010

\$9,390

The project goal is to measure the effectiveness of energy initiatives implemented in campus buildings which in turn will help reduce electricity usage.

**Mr. Scott Albert, Facilities and Planning**

*"Lighting Control at NKT Stadium"*

May 1, 2010 to Sept. 30, 2010

\$5,800

The project goal is to reduce the use of electricity on campus and to measure the effectiveness of using lighting control to achieve this goal.

**Mr. Scott Albert, Facilities and Planning**

*"Swope Electric Meter"*

May 1, 2010 to Sept. 1, 2010

\$4,170

The project goal is to measure the effectiveness of energy initiatives implemented in campus buildings which in turn will help us to reduce electricity usage.



**Ms. Cathy George, Cooperative Activities****Ms. Diana Wolak, Cooperative Activities****Mr. Thomas Reynolds, Macoskey Center****Mr. Tyson Johnston (U)***"The Bus Bungalow Project"**March 18, 2010 to May 10, 2010*

\$8,000

The goal of this project is to expand the SGA mass transportation system by building two eco-friendly, sustainable living roof bus shelters. This sustainably-progressive project is a partnership with the Robert A. Macoskey Center for Sustainable Systems Education and Research to use recycled materials, resawn timbers and drought and wind resistant native plants to provide much needed bus shelters on campus while continuing to provide attractive green spaces wherever possible.

**Mr. William Rudloff, Environmental Health and Safety***"Purchase of Cardboard Bailing Unit for Boozel Dining Hall"**May 1, 2010 to Sept. 30, 2010*

\$8,125

The goal of this project is to reduce costs for the recycling of cardboard on campus. Presently, SRU is leasing two cardboard balers. If that cost can be cut down by purchasing a baler, the university can become more effective and will reduce the costs.

**Mr. Thomas Reynolds, Macoskey Center****Mr. James Stitt (G)***"The Inflation Station: A Portable, Solar Powered Tire Inflation System and Educational/Informational Project"**April 10, 2010 to Sept. 30, 2010*

\$1,801

The goal of this project is to design and build portable self-contained, solar powered tire pressure monitoring and inflating station. The inflation station will then be used during special events, activities and programs to raise awareness and educate the university community about the importance of monitoring and maintaining proper tire pressure in their vehicles thereby improving fuel mileage.