CERMUSA will be hosting the Rural Telehealth and Advanced Technologies Conference on September 4, 2009, from 7:30 a.m. - 3:30 p.m. at the new DiSepio Institute for Rural Health and Wellness on the campus of Saint Francis University. The inaugural conference will focus on Chronic Care issues, Traumatic Brain Injury (TBI)/Post Traumatic Stress Disorder (PTSD), and applied telehealth technologies.

Distinguished conference speakers will include Brigadier General Loree Sutton, MD, Michael Collins, PhD, and James P. Kelly, MD.

Keynote Speaker Brigadier General Sutton, MD, is the Director of the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury in Arlington, VA. She will address issues warriors and their families may face after deployment, the services available to them, and the center’s efforts to remove the stigma that prevents some warriors from seeking the help they need and deserve.

Michael Collins, PhD, is the Assistant Director of UPMC’s Sports Medicine Concussion Program and a Clinical Consultant to the Pittsburgh Steelers. Dr. Collins is a co-founder of ImPACT, a computerized neurocognitive testing system that evaluates the severity of a concussion.

James P. Kelly, MD, is the Director of The National Intrepid Center of Excellence, a new Department of Defense center in Rossalyn, VA, which is scheduled to open in spring 2010. Dr. Kelly is the co-author of the sports concussion guidelines of the American Academy of Neurology and the Standardized Assessment of Concussions that is widely used in athletic and military settings.

Conference attendees can earn up to six credit hours of continuing education based on their participation and credentials. For additional information and/or to register, please visit our web site: www.cermusa.francis.edu/conference or call 814-472-3389.

CERMUSA Obtains Continuing Nursing Education Provider Status for Saint Francis University

Saint Francis University (SFU) has become an approved provider of continuing education in nursing by the Pennsylvania State Nurses Association (PSNA). PSNA is an accredited approver by the American Nurses Credentialing Center’s Commission on Accreditation.

In April 2009, CERMUSA’s telehealth staff completed the application process and submitted the required documents necessary to apply, through the University, for provider status. In June 2009, CERMUSA received approval for a three-year period beginning June 12, 2009 to June 12, 2012.

As an approved provider, SFU may award contact hours to Registered Nurse participants of Continuing Nursing Education activities conducted directly by the University and/or co-provided in conjunction with another entity.
Eighteen Occupational Therapy Practitioners from Camco Physical & Occupational Therapy, LLC, participated in on-site and remote percussion training sessions in May as part of CERMUSA’s Autism study. The focus of the research is to evaluate the two different training methods and determine if it is possible to teach percussion techniques from a distance.

The on-site training session was held on May 9 at CERMUSA's John P. Murtha Rural Telehealth Research Center located at Saint Francis University in Loretto. James Donovan, SFU Instructor of Music, conducted face-to-face training with nine therapists using a wide variety of acoustic percussion instruments and devices. The remote training session was held on May 10; a group of nine different therapists gathered at CERMUSA's satellite office, the National Telerehabilitation Service System, located in Johnstown. Mr. Donovan conducted training remotely via video teleconferencing (VTC) from CERMUSA's Distance Learning Prototype Laboratory located in Loretto.

At the conclusion of each training session, participants, as well as Mr. Donovan, completed a survey evaluating their experience. On-site participants overwhelmingly rated the training method, the instructor, and course materials as excellent. “Great presentation! I loved the informal setting,” wrote one therapist. Off-site participants also evaluated their training session positively. “Once we started, I forgot at times that it was a video conference—you feel like Jim [Donovan] is in the room,” one participant commented.

Two additional training sessions are planned for August. Mr. Donovan will instruct the therapists in the use of a variety of electronic percussion instruments and devices, and the participants, as well as Mr. Donovan, will again evaluate the sessions. At the conclusion of the project, study findings will be analyzed and submitted for publication.
**Medical Simulation Class Conducted for SFU Nursing Students**

Seven Saint Francis University nursing students participated in a medical simulation class developed and conducted by CERMUSA Telehealth and IT staff on April 21, 2009. The class afforded the students the opportunity for practical application of the theory they learn in the classroom, while allowing CERMUSA staff to research operating a medical simulator remotely. Materials, including a pre-test, PowerPoints, and a patient case history, were made available to the students via WebCT prior to the class. On the day of the session, the students worked in groups, acting out two different medical emergency scenarios developed by CERMUSA staff. The events were filmed to allow the students to evaluate their performance. After the class, the students completed a post-test and satisfaction survey. Overall, the post-test scores were higher and the satisfaction surveys were positive. CERMUSA staff plan to conduct additional classes in the future and submit their research findings for publication.

**NEWs In Brief**

**CERMUSA Participates in Research Luncheon**

On April 16, 2009, Eric Muncert, Telehealth Research Specialist, presented at Saint Francis University's Spring Faculty Development Research Luncheon. Muncert's presentation, *Maintaining the Quality of Life While Preserving Independence*, detailed CERMUSA's research into integrating a variety of technologies into smart living environments to monitor and rehabilitate older adults, helping them to either avoid or postpone institutional care.

**ELITE Faculty Development Program**

On May 5, 2009, CERMUSA staff participated in the University of Pittsburgh's Emerging Learning and Integrated Technologies Education (ELITE) Faculty Development Program. The program consisted of three workshops covering a wide range of topics, including: learning technologies, distance education, emerging informatics technologies, telehealth technologies, and high fidelity human simulation. Presentations were given by Barbara Demuth, Assistant Director for Telehealth (and member of the ELITE Executive Committee) and Robert Griffin, Assistant Director for Distance Learning.

**CERMUSA Recognized as Great Place to Work!**

The June issue of Johnstown Magazine recognizes CERMUSA as one of the ten great places to work in the region. Other recipients include Northrop Grumman, Lockheed Martin AeroParts, Inc., Windber Research Institute, University of Pittsburgh at Johnstown, Home Nursing Agency, Dr. Patti Stefanick’s Office, Wessel & Company, Donna Christopher's State Farm Office, and Hoss's Steak and Sea House.

CERMUSA Director Jay Roberts is quoted in Johnstown Magazine as saying he believes that one of the reasons CERMUSA is such a great place to work is because of the great working relationship between CERMUSA and Saint Francis University. "With the atmosphere and the collaboration between the research and the academic side of the house, especially the collaboration with our partners, I think the challenges day-to-day are something these people like. They feel that they're making a difference," Roberts said.

**CERMUSA Staff Participate in ATA**

CERMUSA Telehealth Research Specialists Camille Wendekier and Brenda Guzic, and Wireless Communications Specialist Dave Wolfe recently presented at the *American Telemedicine Association 2009: 14th Annual International Meeting and Exposition*, held in Las Vegas, Nevada on April 26 - 28. Both oral and poster presentations were given. Topics included: medical simulation at a distance, school nursing services, mesh networks for disaster communication, percussion therapy training via video teleconferencing, quality of life issues, and smart house in a box.

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**Upcoming Events**

**July**

23 National Institute for Occupational Safety and Health Disaster Scenario, Seldom Seen Mine, Patton, PA

29 Campus Technology 2009, Boston Convention and Exhibition Center, Boston, MA (Presentation)

**August**

5-8 American Association of Diabetic Educators Annual Meeting, Atlanta, GA (Presentation)

19-21 ARMTech Showcase of Industry and Technology, Belmont Complex, Kittanning, PA (Booth Exhibits)

**September**

3-4 Rural Telehealth and Advanced Technologies Conference, Saint Francis University, Loretto, PA
So wrote my favorite rock lyricist, Neil Peart, for Canadian power trio Rush’s 1996 song “Virtuality.” Though I doubt Neil was trying his hand at predicting the future of portable computing, his words are prophetic nonetheless. Today’s computing environment is mobile, fast, and lightweight and will indeed fit in the palm of your hand. Nowhere are these characteristics embodied more completely than in the quickly-emerging genre of devices known as “netbooks.”

Netbooks are pint size computers meant to be used on the go. Through the use of low-profile operating systems and smaller capacity drives, these devices offer serious work capabilities in a slim package. Netbooks are often based on solid state drives (the same technology that USB or “thumb” drives use), which means quicker booting times and no moving parts. Most netbooks use 8-16 Gigabit drives (though there are exceptions), include built-in robust wireless networking capability, and are constructed upon the assumption that most users will utilize online storage and office applications (Hello, Google Office!).

The two dominant operating systems for netbooks are Windows XP Home (essentially a dumbed-down, quicker-booting version of XP) and Linux. Attention non-gearheads: Don’t let the Linux label scare you! We gave one of our least-tech-savvy staff members a Linux based ultra-compact netbook, and he was up and operating in five minutes with NO INSTRUCTIONS. Many netbooks even provide the user with pre-boot operating modes, meaning that you have access to specific applications before the computer has even finished loading the OS (which is especially helpful on XP-equipped machines). One Linux-based netbook we evaluated even included an “easy mode” to limit user options and prevent non-techies from screwing up any major functions. Generally, most netbooks make use of Intel’s Atom processor. Although much less powerful than a standard PC processor, Atoms are energy-efficient and have a smaller OS to contend with. As a result, battery life for the average netbook can range from 3-5 hours, depending on usage. Within my office, our staff has evaluated a few different manufacturers’ offerings, ranging from $200-$450, for everyday office productivity and entertainment use. From surfing the web and doing online collaboration (including Skype Video and virtual classroom software) to downloading and watching videos, most of the netbooks performed in a matter comparable with full-featured Pentium PCs. Additionally, most models we’ve tested include built in 1.3 megapixel (and greater) resolution cameras.

So, netbooks are cheap, they boot quickly, and they come with a ton of features. “So what’s the catch?” I can hear you ask. Well, the netbook form factor means that the user also has to contend with a smaller keyboard and screen, which can feel cramped for the standard laptop user. As netbooks are made “on the cheap,” read user reviews before investing (one manufacturer, who will remain nameless, neglected to put shift keys on both sides of the keyboard…which could be a problem if you enjoy occasionally using capital letters!). Processor limitations also make Netbooks less-than-ideal for gaming or graphics work, and with relatively tiny hard-drives, users should not plan on storing their entire body of work on the machine itself. That being said, corporate users probably should become accustomed to online backups (i.e. better data survivability) and drive space management anyway. The potential savings from deploying netbooks versus standard laptops throughout an organization could also produce enough liquid budget to bulk up network storage within an organization, thereby centralizing data storage and backup tools.

As our workforce is primarily mobile, we are considering migrating to netbooks for most staff (combined with docking stations for office use) when laptops need to be replaced. Some professionals, such as those working with high-end graphics, video, or processor-intensive programming, may never be able to make the switch, but for general office employees, the future looks lighter and smaller!