

U N I V E R S I T Y O F P I T T S B U R G H

# FACETS

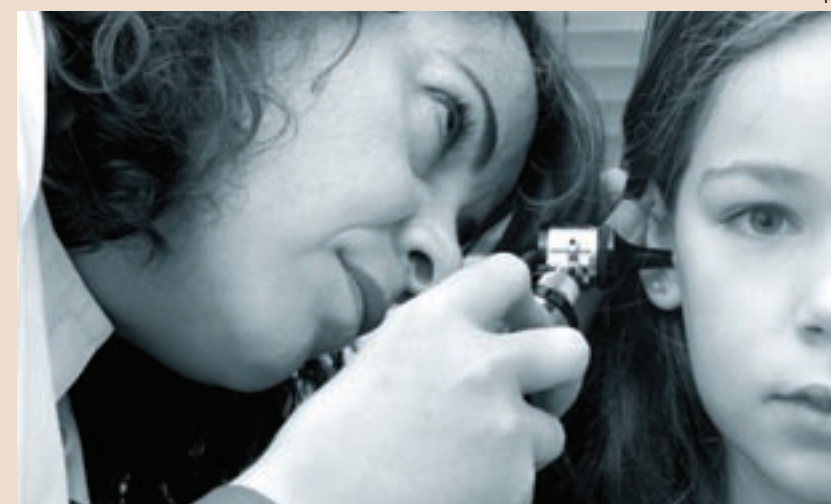
SCHOOL OF HEALTH AND REHABILITATION SCIENCES

FALL/WINTER 2007

**A Question  
of Ethics**



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FROM THE DEAN



Joyce. I urge you to read the Eulogy to Andy Kuzneski by Chancellor Mark Nordenberg that we have included in this issue of FACETS.

Our School had its best year ever in 2007: Enrollment well in excess of 900 full-time students, annual grant fund awards to SHRS faculty in excess of \$10.5 million, and development success of \$1.25 million. The latter total included five gifts in excess of \$10,000, capped by a \$500,000 scholarship from the UPMC Health System. The success of our development efforts for the past year has made it possible for us to stay on pace to meet our obligation of \$5 million for the current phase of the University's capital campaign.

I have spoken previously about the importance of our development efforts and the capital campaign, but something this important bears repeating with some frequency. While there are many reasons for requesting your support for our development effort – and all of them have merit – I believe that the most important one is to provide scholarship support to offset the ever-increasing cost of education for our students. This is our highest priority for support. I shall also remind you that we have established the SHRS Alumni Scholarship fund. The nominal goal for this scholarship was set at \$75,000 in order to establish an endowment fund that would provide scholarship support for SHRS students in perpetuity. We are very near to meeting that number, but fundraising for the Alumni Scholarship Fund will continue.

I urge you to consider contributions to this fund in whatever amount that you may be disposed. I also hope you will consider making periodic contributions so that the fund will continue to grow and provide support to more students.

We shall hope to hear from you with any thoughts you may have for promoting the Alumni Scholarship Fund, or for comment on any other thoughts or issues of interest to you.

With best wishes,

Cliff Brubaker  
cliffb@pitt.edu

I regret that I must begin on a note of sadness. Andrew J. Kuzneski, Jr., “Andy” to all who knew him, passed away most unexpectedly on June 10, 2007 while visiting family in Florida. Andy served as President of the Pitt Alumni Association and as a Trustee of the University of Pittsburgh, where he served on several important committees. He has served as the Chair of the SHRS Board of Visitors for the past seven years. It is in this latter role that most of us came to know Andy. I do not believe that there could ever be a more dedicated, persistent, or ardent advocate for our University. Andy was an equally passionate supporter of our School. To say that we will miss him does not begin to do justice to his importance and relevance to SHRS. He lit up the room when he entered. His good humor, sincere passion for life, and love of people – and particularly Pitt people – were infectious. It was not possible to harbor sadness or discontent when Andy was present. One of Andy's last gifts to SHRS was to establish an endowed scholarship with his beloved wife,

*“Our School had its best year ever in 2007: Enrollment well in excess of 900 full-time students, annual grant fund awards to SHRS faculty in excess of \$10.5 million, and development success of \$1.25 million.”*





# giving

**A**s I reviewed the list of SHRS donors for inclusion in this issue of *FACETS*, it struck me that so many of our alumni choose to support their alma mater with a gift. I also realized how many of our donors are repeat givers – writing that check or submitting a

credit card number every year as a way of giving back to the program, School, or University that helped in their career development. In light of this display of support, I would like to share with you a glimpse of where the development efforts stand at SHRS.

Looking at the last three fiscal years, FY 2005 – 2007, the school has shown marked growth in fund development. According to University records, SHRS raised almost \$300,000 in fiscal 2005. By 2006, we more than doubled that amount by raising more than \$762,000. Then again in fiscal 2007, we realized another positive increase by bringing in over \$1.25 million. Overall, SHRS has raised over \$7.3 million towards the University's \$2 billion capital campaign and we are poised to meet, or even exceed, our newest goal of \$5 million to assist the University in reaching its lofty target.

It is important to remember that we simply cannot be successful without you. The remarkable support we enjoy from our alumni, faculty, staff, and friends enables us to put up these positive results.

Some of our donors – alumni, faculty, retired faculty, friends – have elected to establish endowed funds to directly benefit our students, primarily through scholarship support. Others have set up current use travel funds and book funds. Still others have expressed their plans to include the School in their wills or in a planned gift.

If you would like information on how any of these funds or gift options work, please let me know. Such gifts provide valuable support to our students and offer a deserving method of recognition for the donor.

If you are able to continue making an annual or more frequent gift, that, too, is most appreciated. If you have not yet joined the ranks of SHRS donors, perhaps now is the perfect time. You can either make contact with me for more information or check out the University's Web site – [www.giveto.pitt.edu](http://www.giveto.pitt.edu) – for more details.

Sincerely,

Patty Kummick  
Director of Development

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## EM FACULTY SUPPORT STUDENTS IN NEW WAY

Students in the Emergency Medicine (EM) Program at SHRS may soon make application for new financial awards thanks to two of their faculty.

Tom and Anna Platt have taken steps to establish an endowed student resource fund which will generate an annual award for a deserving EM student. Tom is an assistant professor and vice program director in Emergency Medicine. Similarly, Dr. Walt Stoy, professor and EM program director, and his wife, Becky, elected to fund the endowed Walt A. Stoy Award for Scholarly Activity for EM students.

Both the Platts and the Stoyes are intimately aware of the growing need for financial support of students. With tuition costs rising annually and the price of books – new or used – on a steady climb, these new awards will likely bring out the competitive spirit of students enrolled in the EM program. The two couples plan to add future gifts to their endowed funds so that, in the future, more students may be awarded larger prizes.

SHRS is most grateful to Tom, Walt, and their spouses for their generosity. By instituting these funds, they have extended their legacies beyond academics at SHRS and Pitt. They have clearly demonstrated how faculty can impact student learning well beyond the classroom or clinical setting.



# ACCESS

DR. KATE SEELMAN

*It has been 17 years since the Americans with Disabilities Act (ADA) was signed into law by President George H.W. Bush. This wide-ranging civil rights law broadly prohibits discrimination based on disability. But has the ADA delivered on its promise?*

*I've asked Ruth Colker, featured speaker at this year's annual Thornburgh Family Lecture in Disability Law and Policy, to offer her perspective on the question. Colker, the Heck Faust Memorial Chair in Constitution Law at the Michael E. Moritz College of Law at The Ohio State University, is a nationally recognized expert in constitutional law and disability discrimination. She has been a recipient of the University's Distinguished Lecture Award, Distinguished Diversity Enhancement Award, and Distinguished Scholar Award.*

When Congress enacted the ADA in 1990, it did a masterful job of defining a statute that was reasonable – that didn't put too many burdens on the business community – but was effective in broadly assisting people with disabilities in the areas of employment and public and private sector access. While no statute is perfect, the ADA was well-crafted and balanced.

So it has been extremely frustrating to see how in a little more than a decade, the courts have essentially destroyed the core of the statute by narrowly interpreting the term "disability." Basically, they created a "Catch 22." No one could be both disabled and qualified for employment. You either had to be so disabled that you couldn't qualify for employment, or if you did qualify, then you really weren't disabled. It has been an enormous disappointment to see the courts pull the rug out from under Congress.

The civil rights and disability communities knew when the ADA was enacted that its definition of disability was ambiguous and open-ended. However, we consciously accepted it because it mirrored the definition that already existed in the law under Section 504 of the Rehabilitation Act. We felt comfortable that the courts would interpret the ADA consistent with the case law related to that statute. We were wrong.

The ADA is very different from any other civil rights statute, and the courts did not understand what is necessary to effectively assist individuals with disabilities.

For example, I don't know if the Supreme Court foresaw how its decision in *Sutton v. United Airlines* – where it ruled that mitigating measures such as medication and therapy must be considered when determining whether a person has a disability – would so unbelievably undermine the statute.

Interestingly, the courts have been more willing to enforce other disability rights legislation, such as the Individuals with Disabilities Education Act (IDEA). Admittedly, it is a different kind of statute and it provides a limited set of remedies, but the bottom line is that a lot of children are receiving an education today because of the IDEA.

The challenge comes when these children do get an adequate education and look at the two avenues available to them – entering the workforce or pursuing higher education. If they are to be protected against discrimination, they must be defined as a

person with a disability. However, the very fact that these students had a successful K through 12 experience means that it is unlikely they would meet the Supreme Court's definition of disability under the ADA.

This can pose real problems for those who want to work, particularly when they need only modest accommodation. It's difficult to show that you are a person with a disability in the workplace, and the statute is not very effective for them.

Some colleges and universities, on the other hand, are providing assistance even for those students who don't technically meet the definition of disability under the ADA, such as those with learning disabilities or attention deficit disorder.

A particular challenge for these schools, and an area in which I'm particularly interested, is how to accommodate these students when it comes to testing. It is obviously a huge issue for the students, since it is how we measure their work and allocate grades.

The growing trend at many colleges and universities is to provide these students with additional time; for example, if an exam is scheduled to take three hours, they're given an extra hour or two. It's thought to be a fair and appropriate method of accommodation. I'm looking at existing empirical research to see if it truly is the most appropriate remedy.

The research reflects that this is a much more complicated question than many colleges and universities seem to recognize. In some cases, providing students with twice as much time might actually be over-accommodating them compared to how other students are being treated. The schools also need to recognize that not all students who have disabilities have necessarily identified themselves. Some simply don't want the stigma of a label. Others may be unaware that they have a disability because they are so high-functioning that they've been able to self-accommodate.

To me, the more fundamental question is why we, as academic institutions, look at time limitations at all. I've come to the conclusion that if we moved away from time-pressured instruments, we would have a fairer system where all students could truly demonstrate what they've learned.

A lot of professors mistakenly assume that the smartest kids in the class – those who have learned the most – are those who work the fastest. In fact, the empirical research indicates that work speed and intelligence are not the same; that the students who have mastered the material may actually take longest to demonstrate their knowledge.

Dispelling the academic myth that speed equals knowledge could have enormous consequences for students with disabilities. In the business community, dispelling the myth that accommodation is expensive could reap similar benefits. We need businesses to perceive hiring a person with a disability as an opportunity rather than an expense. And perhaps if we could dissuade the courts that accommodation is a financial burden, they might be more inclined to define disability more broadly.



# SHRS Donors 2007

Thanks to all our alumni, faculty, staff, and friends for their generous support of the School of Health and Rehabilitation Sciences during fiscal year 2007. Their contributions enabled us to grow the SHRS Alumni Endowed Scholarship Fund, establish other endowed scholarship and student resource funds, provide student awards based on need and academic merit, and provide program support, graduate research assistance, and services to the community.

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& Stephen John Squires  
Barbara Ann Squires-Roehl  
Lori Lynn Stafford  
Heather Marie Stanczak  
Mary J. M. Stickley  
Rebecca  
& Walt A. Stoy  
Margaret Dean Summerville  
Shirley Folk Szekeres  
Linda Tessaro  
William R. Thomson  
Candice Wright Tofts  
Linda Marie Turner  
Norma Jean Ulery  
Giampietro L. Vairo  
Patricia Lawton Vaughan  
Mary Beth Ventrini-Burkett  
Patricia Verdi  
Anne M. Veres  
Cindy Ann Vrabel-Harness  
Donna Coldren Wainwright  
Jeannine Bowen Walker  
Linda Mary Wallace  
Mary L.  
& Daniel Louis Wargo  
Valerie Magliocca Watzlaf  
Robin & Bryan Weaver  
Kari Jo Weidner  
Donna Ray Weiss  
Christine Marie Whitacre  
Janet Loren Whitney  
Gail A.  
& Thomas S. Wiles  
Margaret Bartoli Wishart  
Lyndell Carlisle Wright  
& Kenneth William Wright  
Kimberly Ann Yankasky  
Laurel Elizabeth Zaks  
Phyllis H.  
& Joseph E. Zimmerman





## Student News

**Erin Lenhart**, Clinical Dietetics and Nutrition Class of 2007, won the Pennsylvania Dietetic Association's Outstanding Dietetics Student of the Year Award for 2007. The honor is awarded to students who show excellence in both academic performance and leadership.

Rehabilitation Science and Technology student **Joe Olson** received the Rory Cooper-Dion Johnson Best Paper Award for his work titled "*Iterative Design and Development of an Adjustable Folding Wheelchair for Completion of ANSI-RESNA Standards*." He presented his paper at the 2007 RESNA Conference.

**Sujata Pradhan** and **Jaime B. Talkowski**, doctoral students, Department of Physical Therapy, were both awarded the Promotion of Doctoral Studies II Award from the Foundation of Physical Therapy, which is a scholarship for outstanding research potential and academic performance.

Some 35 SHRS scholarship recipients, donors, and department chairs gathered at the Pittsburgh Athletic Association for the first **SHRS Scholarship Luncheon** in April (*right*). The event provided an opportunity for students and donors to meet and become acquainted. Guests of the luncheon heard how scholarships specifically helped two students, Anne Lasinsky, Athletic Training program, and Heather Snyder, Department of Physical Therapy. Last year, scholarships and awards were made to almost 30 deserving students from programs throughout the school.

**Richard Schein**, Rehabilitation Science and Technology graduate student and doctoral candidate, was awarded the American Telemedicine Association 2007 Student Paper Award for his research in telerehabilitation. The award was given in recognition of Schein's presentation, "*Telerehabilitation: Expanding Access to Wheelchair Provision and Service Delivery*," which was presented at the ATA Annual Conference in Nashville in May. This award is the first of its kind for the ATA.

Two students received the 2007 RESNA student scientific paper-competition award. **Michelle Spomer**, rehabilitation counseling student, won for "*Psychosocial Impact for Individuals with Disabilities: Do Service Dogs Help?*" and **Erin Mishey**, DPT student, won for "*The GAMECycle Exercise System: Feature Improvement*."

**Dorothy Yang**, undergraduate student in the Department of Communication Science and Disorders, was awarded a Chancellor's Undergraduate Teaching Fellowship for the Fall 2007 term by the University of Pittsburgh's Honors College. She also received the Southwestern Pennsylvania Speech-Language Hearing Association Student Honors of the Association award for 2007.

Students in the Athletic Training Program celebrated National Athletic Training Month by hosting a community service volunteer activity with the Family House of Pittsburgh. Family House is a not-for-profit organization that provides comfortable and affordable housing for out-of-town families who have a loved one at a UPMC facility. Students prepared lunch for the residents and awarded prizes to winners of an athletic training trivia game.



## PT Students Make History

For the 10th consecutive year, students in the Department of Physical Therapy earned first place in the 2006-07 Pitt-Marquette Challenge for the Foundation for Physical Therapy by raising \$103,000. In addition, they received the Biggest Stretch School Award for the largest increase in funds raised from last year.

*The goal of the Pitt-Marquette Challenge is to provide research grants and doctoral scholarships for physical therapy students.*

"It's such an outstanding achievement for us," says Dr. Anthony Delitto, professor and chair, Department of Physical Therapy. "I don't think anyone could have imagined the amount of work or the amount of money raised before we started this challenge."

The goal of the Pitt-Marquette Challenge is to provide research grants and doctoral scholarships for physical therapy students. A total of 57 schools participated in this year's challenge and set many new records, including the total amount raised in one year — \$244,110.

Ultimately, after raising a total of \$265,000 over 10 years and having set a precedent for future participants, Delitto announced that the department would end its involvement after this record-breaking year. "I think the time has just come for us to move on," he explains. "We believe we have achieved something great and we want to step aside after exceeding ours and everyone else's expectations."

Reflecting on the department's successes over the past decade, Delitto likens it to a championship performance. "I like to

think of us as the Lance Armstrong of fundraising," he exclaims. "Honestly, I don't think there would have been any other way for us to go out than on top."

Still, the University will remain an active participant in the challenge by becoming a co-sponsor for next year's event. Delitto hopes other schools will choose to follow Pitt's lead and set an ever-higher fundraising bar. "I'd like to see other programs challenge themselves the same way we have."



Delitto attributes the department's success to the entrepreneurial efforts of students **Jenny Menas**, **Cara Troutman**, **Katie Hendershot**, and **Jamie Miller**. "From the beginning, they were determined to do something special," he says. "I don't think words can accurately describe the level of commitment and dedication they've shown."

While other schools were hosting bake sales or golf outings, these students invested in their future by organizing four continuing education classes at Pitt. "What we really wanted to do was further the cause of physical therapy," explains Troutman. "We wanted to raise as much money and do as much as we could for our field."

The classes were a success, attracting physicians, physical therapists, and audiologists from across the country.

The vestibular course was the biggest bottom line booster, raising roughly \$80,000.

That one course, says Dr. Susan Whitney, associate professor, Department of Physical Therapy, changed the direction of the challenge. "When Katie told me she thought they could raise \$100,000 with the addition of the vestibular course, I thought they were being overly optimistic," she explains. "But it persuaded me to change what I had planned. I called in

favors from friends all over the country and as a result, over 22 faculty members participated in that weekend alone."

Raising that type of money would be an exhausting, full-time responsibility for anyone, least of all a full-time student.

"Being a physical therapy student is a 24-7 endeavor," Troutman says. "There were times when the Challenge was also becoming a 24-hour task. Sometimes, it was hard balancing the two."

But as Whitney points out, dedication is a key to success. "They had to be passionate," she explains. "To keep up with my emails, late night calls, and requests takes a lot of time and energy. I am very proud of everything they achieved."

Troutman hopes students at other schools give themselves the chance to experience that same pride of accomplishment. "This is just an example of four girls with one dream," she confesses. "We really hope other schools will follow our example and set high goals next year and continue to raise more money."





# Faculty News

SHRS welcomes five new faculty members: **Dr. John Abt**, assistant professor, Department of Sports Medicine and Nutrition; **Dr. Michael Dickey**, assistant professor, and **Dr. Deborah Moncreiff**, assistant professor, Department of Communication Science and Disorders; **Guy Guimond**, instructor, Emergency Medicine Program; and, **Rebecca Harmon**, assistant professor, Department of Health Information Management.

## Communication Science and Disorders

**Dr. John Durrant**, professor and vice-chair, attended and presented papers at the XX Biennial Symposium of the International Evoked Response Audiometry Study Group in Bled, Slovenia. The papers presented were derived from various collaborations between Durrant and fellow CSD faculty and graduate students including **Dr. Sheila Pratt**, **Dr. Diane Sabo**, **Dr. Malcolm McNeil**, and doctoral students **Abreena Tlumak** and **Jennifer Horn**, and **Lindsay Keough**, AuD student. Durrant also continues to serve on the IERASG governing council as vice-chair.

**Dr. Malcolm McNeil**, professor and chair, received a VA Rehabilitation and Research career Scientist Award. McNeil has been funded by the Department of Veterans Affairs for over 30 years and is one of the nation's foremost experts in the assessment and treatment of adult neurogenic language and motor speech disorders.

**Dr. Catherine Palmer**, associate professor, spent six weeks on an Erskine Fellowship teaching at the University of Canterbury, Christchurch, New Zealand. Palmer was

accompanied by two graduate students, **Nicole Beninati** and **Anga Lao**, who served as teaching assistants.

## Health Information Management

**Dr. Mervat Abdelhak**, chairman and associate professor, presented her paper entitled "*The e-HIM Work Force: How Prepared Are We?*" at the AHIMA Annual Conference in Philadelphia in October.

**Rebecca Harmon** has joined the department as an assistant professor. Harmon has a diverse background in health care and education and brings complementary skills to the faculty team. She is a 1998 SHRS graduate, holds a master's degree in public management, and is in the final stages of her doctoral program in higher education.

**Sharon Winters** (HIM '88, '91), adjunct instructor, is president-elect for 2007 for the Pa. Association of Cancer Registrars and will serve as president in 2008.

## Occupational Therapy

**Dr. Nancy A. Baker**, assistant professor, was awarded a grant from the Arthritis College of Rheumatology, Research and Education Fund to study "*Limitations Experienced by Persons with Rheumatoid Arthritis during Computer Use*." She was also awarded a chapter grant from the Arthritis Foundation, Eastern Pennsylvania Chapter, to study "*The Effects of Lumbrical Stretching on Carpal Tunnel Syndrome*."

Baker was invited to present her research on computer keyboards at the 8<sup>th</sup> Marconi Research Conference, Holland, Mi.

**Dr. Ketki Raina**, assistant professor, was awarded a University of Pittsburgh Foundation Grant to study "*Experiences of Living with Ventricular Assist Device for Destination Therapy: Patients and Caregivers Perspective*."

**Dr. Elizabeth Skidmore**, assistant professor, was awarded a University of Pittsburgh Foundation Grant to study "*Examining Cognitive and Affective Impairment Influences on Motor Recovery after Stroke*."

**Pamela Toto**, instructor, was elected chair of the AOTA Special Interest Section Council.

## Physical Therapy

**Dr. Anthony Delitto**, chairman and professor, has been selected as the 2007 recipient of the Lucy Blair Service Award by the American Physical Therapy Association.



Delitto was also chosen to deliver the 39th annual Mary McMillan Lecture at APTA's 2008 conference in San Antonio, Tx. The Mary McMillan Lecture Award, established in 1963, is APTA's highest honor.



**Dr. Susan Whitney**, associate professor, was recently named a Catherine Worthingham Fellow of the American Physical Therapy Association. Between five and nine people are chosen each year as fellows, and there are less than 100 in the US.

## Rehabilitation Science and Technology

**Dr. Rory Cooper**, distinguished professor and chair, was selected to receive the 2007 Da Vinci Lifetime Achievement Award from the National Multiple Sclerosis Society, Michigan Chapter. The award recognizes

individuals, organizations, and corporations in the engineering, construction, and technical fields whose design innovations have exceeded legally mandated requirements to further empower people with disabilities.

Cooper also medaled at the National Veterans Wheelchair Games this summer. He received gold medals in swimming, freestyle 50 yards; swimming, individual medley 100 yards; swimming, backstroke 50 yards; swimming, breaststroke 50 yards; and, silver in the slalom.

Cooper and **Rosemarie Cooper**, assistant professor and director of clinical services, received awards from the United States Marine Corp "*Marine for Life*" program for contributions to helping wounded Marines and their families.

**Dr. Katherine Seelman**, associate dean of Disability Programs and professor, presented "*Disabilities and Other Issues of Diversity*" at the SUNY

Downstate Medical Center, Brooklyn, N.Y., during an NIH-sponsored Summer Institute Program to Increase Diversity in July. She also presented on the World Health Organization's World Report on Disability at the Health and Human Services Office on Disability Quarterly Constituent Expert Input Meeting, Washington, D.C., in September.

She will attend the CIGNA-sponsored 2007 Northeast Long Term Disability Carriers of Vocational Rehabilitation Round Table in October, to present "*Ethics and Rehabilitation Counseling*."

Seelman was recently named to the Area Agencies on Aging Advisory Council by the Allegheny County Council.

## Sports Medicine and Nutrition

**Lori Cherok**, instructor, will serve as the nominating chair for the Pittsburgh Dietetic Association for 2007-2008.

## Calendar of Events

### NOVEMBER

November 15 – 17, 2007

**American Speech-Language-Hearing Association Convention, Boston, MA**

The Department of Communication Science and Disorders will host a welcome reception for CSD alumni, Friday evening, Nov. 16, time TBA. *Sponsored in part by the SHRS Alumni Society*

November 17 – 18, 2007

**The AOTA/NBCOT National Student Conclave Pittsburgh, PA**

### FEBRUARY

Friday, February 22, 2008

**Winter Academy, Ritz-Carlton, Naples, FL**

*Sponsored by the Schools of the Health Sciences Alumni Relations*

### MARCH

Saturday, March 15, 2008

**Winter Academy, Arizona Biltmore, Phoenix, AZ**

*Sponsored by the Schools of the Health Sciences Alumni Relations*





# Alumni News



SHRS alumni, including (left to right) **Helen Agresti** (CDN '00) and **Cheryl Buchanan** (MedTech '71), attended a University of Pittsburgh Schools of the Health Sciences reception in Erie, Pa., in May. Pitt research faculty presented updates on some of their latest work to the full-house crowd.

## Communication Science and Disorders

**Dr. Ryan Branski** (CSD '05) was recognized with the Award for Early Career Contributions in Research by the American Speech-Language-Hearing Association. Branski will be recognized at the ASHA annual conference in Boston in November.

## Health Information Management

**Joe Naretto** (HIM '07) accepted a position with Precyse Solutions, an HIM consulting/outourcing company. He serves as assistant director of medical records at Prince William Hospital, Manassas, Va.

## Physical Therapy

Graduates of the SHRS Class of 1947 were honored at their 60<sup>th</sup> reunion during SHRS Recognition Day this past April. Classmates **Chessie Kouba** and **Elsbeth Rapp** attended the Recognition Day ceremony at Soldiers and Sailors Hall, visited sites on campus, and toured Watson Institute, the site of the former D.T. Watson Home for



SHRS Class of 1947 (left)

Chessie Kouba and Elsbeth Rapp with Dr. Anne Pascasio (below left). With Dean Brubaker (below).



Crippled Children and Physical Therapy School. The women enjoyed their return to Pittsburgh, Oakland, and Sewickley, and reminisced about their time at Watson. Mrs. Kouba now resides in Hillsdale, N.J., and Mrs. Rapp lives in Reading, Pa.



**Dr. Anne Pascasio** (PT '53), SHRS founding dean, hosted **Dean Cliff Brubaker** (right) and **Dr. Takeo Kanade**, Carnegie Mellon University professor and director of the Quality of Life Technology Center, at an educational program on the Center held at Friendship Village of South Hills for residents there. Kanade highlighted the interaction between robotics and rehabilitation science and technology to the receptive audience.



## Rehabilitation Science and Technology

Working as a personal assistant to SHRS alumnus **Dr. Jongbae Kim** (HRS '05), **Matt Smith** (RS '07), traveled to Seoul Korea, for three weeks this summer. Smith accompanied Kim to lectures at medical schools and public universities, and experienced life in Korea. Smith will return to Korea for at least one year to teach English to kindergarten students in a private academy.



Alumni turned out in full force to attend the SHRS Department of Rehabilitation Science and Technology Alumni Reception held during the RESNA annual meeting in Phoenix, Az., in June.

## Sports Medicine and Nutrition

**Dr. David Perrin** (EDUC '85) was named Provost and Vice Chancellor for Academic Affairs at the University of North Carolina at Greensboro(UNCG). Perrin served as Dean of the School of Health and Human Performance at UNCG since 2001.



As is usually the case, a large number of alumni were on hand for the SHRS Athletic Training/Sports Medicine Alumni Reception held during the NATA annual conference in Anaheim, Ca., this past June. Among those attending were (left to right) **Leigh Weiss**, **Jason McIntyre**, **Tom Martin**, **Mike McCormick** and **Dominick Bennese** (all AT '04).

**Jose Rivera** (AT '85) medaled this summer in the Can-Am Games for martial arts. In addition to being part of the winning U.S. team, Rivera brought home four individual competitions medals: gold in weapons, forms and self-defense, and silver in sparring. In September, he competed in the Professional Karate Commission National Championships in Indianapolis and won first place in forms, and second place in weapons and self-defense. He also received a special recognition, the "Best Sportsmanship Award." Rivera is sponsored by Dr. Freddie Fu and UPMC Sports Medicine.

**Dr. Judith (Younginger) Lukaszuk** (CDN '94) is an assistant professor in the School of Family Consumer and Nutrition Sciences at Northern Illinois University (NIU), DeKalb. She recently received one of only three University Awards for Excellence in Undergraduate Teaching presented by NIU this year.



# Department News

For the second year, SHRS hosted a study abroad opportunity for undergraduate students. **Dr. Janice Vance**, assistant professor, CSD; **Amy Evans**, assistant director and special projects coordinator, undergraduate program in Rehabilitation Science; **Lynn Fitzgerald**, instructor, PT, and **Lisa McDermott**, instructor, SMN, traveled with 11 Rehabilitation Science students and three CSD students to Northern Ireland and the Republic of Ireland to observe and compare the health care delivery systems and rehabilitation professions there. A workshop was also conducted on intercultural communication as it relates to health care and ethnically changing populations.

Audiology faculty from the **Department of Communication Science and Disorders** hosted the second biennial "Teach the Teachers" audiology conference this summer. The focus was auditory rehabilitation. Among the presenters and attendees were professionals from Australia and Norway. The next "trade mark" conference will focus on practice management and is slated for June 2009.

In March, the department hosted a Career Options Workshop, where students learned about work settings, career options, and opportunities from a panel of speech-language pathologists and audiologists. In May, the department presented a Clinical Supervision Conference "Evidence-Based Practice and Clinical Supervision" for field faculty and clinical instructors. The conference was coordinated by **Dr. Barbara Vento**, assistant professor, and included presenters **James Coyle**, clinical instructor, and **Dr. Paula Leslie**, associate professor.

Faculty and students in the **Department of Occupational Therapy** organized and implemented an Assistive Technology Day for 110 students in the Pennsylvania Governor's School for Health Care in July. Participants included **Dr. Ketki Raina**, assistant professor; doctoral students **Ana Allegretti**, **Sana Abu-Dahab**,

**Razan Hamed**, and **Min-Mei Shih**, and MOT students **Amalie Andrew**, **Linda Ankney**, **Natalie De Rosa**, **Cynthia Gadway**, **Mary Martin**, **Anne McCue**, **Krista McFadden**, and **Kathleen Ward**.

The **Department of Rehabilitation Science and Technology's** Rehabilitation Counseling Program received an eight-year accreditation from the Council on Rehabilitation Education.

The **Department of Rehabilitation Science and Technology** hosted a Webinar on Advocating for Advanced Seating Interventions this summer. The event met with great success as some 100 practitioners, suppliers, and advocates from the U.S. and abroad participated.



**Dean Cliff Brubaker**, faculty from the **Department of Sports Medicine and Nutrition**, and **Patty Kummick**, SHRS development director, were on hand for the grand opening of the Fort Campbell Army Injury Prevention and Performance Enhancement Laboratory, Fort Campbell, Ky. The lab is the first of its kind in the military, applying to US Army soldiers the same state-of-the-art biomechanical instrumentation and techniques currently employed by elite athletes. Gathering after the press conference were (left to right) **Lt. Col. Rusty Rowe**, MD, division surgeon, 101<sup>st</sup> Airborne Division; **Dean Cliff Brubaker**; **Scott Gilstrap**, president, UPMC IMITs Center; **Maj. Gen. Jeffrey J. Schloesser**, commanding general, 101<sup>st</sup> Airborne Division and Fort Campbell; **Dr. Tim Sell** and **Dr. John Abt**, assistant professors, Department of Sports Medicine and Nutrition; and **Dr. Scott Lephart**, associate professor and chair, Department of Sports Medicine and Nutrition.





## Teaching *by* Example

**H**ow do you measure the success of a career spanning more than 30 years? For some, it's in the number of papers and treatises that were published, or the number of promotions that were earned. For others, it's the gold watch that commemorates years of service, or the dollars that were accumulated in a retirement account.

For Gretchen Probst, it can be measured in the hundreds of SRHS students who have gone on to become licensed audiologists.

Probst, herself a licensed audiologist specializing in pediatrics, is clinical services coordinator in the Department of Audiology at Children's Hospital of Pittsburgh. For the past three decades, she has helped students put into practice what they learned during their years of classroom training.

It's a role she describes as having continually evolved. "In the earlier years, I'd have an average of three students per semester. This was just one stop on their clinical rotation. They'd spend several days a week with me. While in that time frame I could provide a level of exposure and training, you really didn't have sufficient time to work with them in-depth."

Today, with a clinical doctorate as the entry level requirement for the audiology profession, she says the working relationship is much stronger. "I spend a year working with a single student. It's really more of an internship than a clinical rotation," she explains. "These students become part of our staff. They truly are colleagues."

Probst believes that technology has been the primary driver of this transition. "There has been so much growth in the kinds of equipment that are being used in testing and for hearing help," she notes. "There is a lot more to learn, so it takes a lot more time to train. My students used to be in their fourth year, getting a masters degree. Now, they're in their seventh year, working on their doctorate."

She's impressed with the level of commitment her students have to the profession, which she believes is due, in large part, to the fact that a majority of them have had some personal experience with deafness. "Audiology isn't an area that people just pick out of the blue," she emphasizes. "Typically, the students have had some contact with the profession, usually through a friend or family member. Most of those that I work with have a real interest in the assistive side of technology."

Nonetheless, Probst says that many of her students are surprised when they are first confronted with the reality of applying that assistive technology in a pediatric setting. "Putting a hearing aid on a child that is two or three and having them turn around when their mom calls them; that's very special. Their reaction is like, 'Wow, I did that!' It's one thing to fit a hearing aid on a person who has developed a hearing loss as they've gotten older, but it doesn't have that same 'wow' factor that you get with a child."

### Early Detection

Probst has had more than her share of those revelatory moments. She's spent virtually her entire career on the pediatric side of the profession. She's seen a dramatic improvement in the early detection of auditory problems, but also an increase in the number of children with the disability. The latter, she says, is in large part due to advances in pediatric medicine.

"We're now seeing infants surviving with as little as 25 weeks gestation.

These children are living, but they are living with problems. Hearing is often one of them. We're now able to test babies that are only a few hours old to determine how the hearing system is working."

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*"They need to educate the parents on the options that are available, then step back, and honor what the parents want."*

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Babies as young as six months are being fitted with amplification devices. "Research has shown that if the disability is identified early and addressed, then the child can generally develop speech and language skills consistent with their peers.

"Today, amplification devices are much improved and kids can get a much better auditory signal. And if conventional hearing aids don't work, cochlear implants are now being used with kids less than a year old – as soon as we determine that the child is not doing as well as we'd like with a hearing aid, or we determine that the hearing aids are not delivering an auditory signal with sufficient clarity that they can learn how to speak."

### Hearing an Option

Probst acknowledges that cochlear implants are not without controversy, particularly in the deaf community, where some see them as a threat to their culture. This can pose a dilemma for some of her students who believe assistive technology may be the best answer.

Probst says that personal feelings have to be set aside.

"I have to help the students understand that ultimately, it is the parents' decision. They need to educate the parents on the options that are available, then step back, and honor what the parents want."





ANDY KUZNESKI

CHANCELLOR MARK A. NORDENBERG

EULOGY FOR HIS GOOD FRIEND AND TRUSTEE ANDY KUZNESKI

Good afternoon. My name is Mark Nordenberg. I am the Chancellor of the University of Pittsburgh . . . an institution better known here in Indiana as Andy Kuzneski's university. Let me begin by saying how pleased I am to join you at this service celebrating Andy's rich and full and wonderful life. And I do want to thank Joyce and Andy's "kids" – a label that I use most respectfully— for asking me to share some thoughts about our very special friend.

An old musical standard is built around the lines: "When you're smilin', when you're smilin', the whole world smiles with you."

Those lyrics capture both the upbeat way that Andy moved through life and the uplifting effect he had on other people.

When I shared the news of his passing with his fellow Pitt Trustees and the members of our senior leadership team, what I received in return was a true outpouring of heartfelt testimonials for this man who not only was a treasure for Pitt and for Indiana County, but whose warmth seemed to touch everyone around him. This is just a small slice of what was said:

- "If there ever was a person who expressed the spirit of life and the University of Pittsburgh, it was Andy."
- "Andy was so full of life [that he] brightened the room as soon as he entered."
- "Andy was one of the most vibrant and 'down to earth' people I ever knew."
- "His enthusiasm and welcoming spirit were ever present and contagious."
- "Andy was someone special to all of us."

Our former Governor, Dick Thornburgh, also a Trustee, wrote: "Andy was so full of energy and enthusiasm, and his devotion to Pitt was legendary. We all have lost a great friend and a fine human being."

Cliff Brubaker, the Dean of our School of Health and Rehabilitation Sciences, whose Board of Visitors Andy chaired, said: "I know that you loved Andy, too, [Mark].

He was the happiest, most positive and passionate person I have ever encountered. Andy was all about family, Pitt, and life in general. Knowing Andy and having him as a part of [our School's] family has been the highlight of my career at Pitt."

And Andy's great friend, Sam Zacharias, added: "No one loved life and the University more than Andy K. And," Sam continued, as if this was one of Andy's great accomplishments, "he taught Eva Blum how to appreciate a good martini."

Whether martinis were being served or not, essentially everything about life was more fun when it was shared with Andy. For example,



it always was fun to hear him begin almost any personal tale by describing his humble roots as the son of a potato farmer from Indiana County. And it was fun to bask in his genuine pride when anyone brought up the fact, decades later, that, back in the early 1960's, he had beaten out his teammate, Mike Ditka, for the Pitt football team's Iron Man Award. He did,

by the way, send me a copy of the beat-up article reporting on that feat, essentially ensuring, as he well knew, that, with such proof in hand, I would mention this feat frequently.

Andy even brought some fun to the heat of the controversy sparked by the decision to tear down Pitt Stadium. In one very public setting, he reported that he had left some teeth on that field. Having described that rather personal and painful sacrifice (and he did describe being on his hands and knees, desperately looking for his teeth in the grass), he continued by wondering aloud: If tearing down the stadium was all right with a guy like him, who had spilled blood there, what gave people whose only connection to the facility was that they occasionally planted their big behinds in the bleachers to watch a game, any real standing to complain.

It was fun, in far deeper ways, to be with Andy and Joyce together—because they were so devoted to each other and loved each other so much. Andy and I sometimes made "guy trips" to Pitt road games. Though he never turned down an invitation and always had a good time, I also always knew that he would much rather be with "Joycee," as he called her. In similar ways, it was fun to see how proud Andy was of his four kids—and not just proud of what they accomplished but of the kind of people they had become.

Most recently, he was deliriously happy about the success of Chris' newest book. In fact, there is a good chance that Chris could have made it to the best-seller lists solely on the basis of the copies of the book that Andy bought and gave away.

From his youth to the time of his passing, Andy was a natural leader, a high achiever, and a success in virtually everything he did. To give just a partial list – at Pitt, he was a three-year letterman, his team's most valuable player, a varsity letter-winner of distinction, the president of the Pitt Alumni Association and a University Trustee. In business, he had been President of the Kuzneski Financial Group, Berkshire Securities Corporation, and the First National Bank of Spangler. He was an elected Commissioner of Indiana County. And within this community, he served as President of the VNA/Hospice Foundation, the Indiana Rotary Club, the Visiting Nurses Association of Indiana County, and the Indiana County Chamber of Commerce.

Andy also was a naturally generous man. He truly believed that all of his many successes could be traced to his Pitt football scholarship. Even when he was still young and did not have very much, he launched what became a never-ending quest to give back. One particular passion was raising money for scholarship funds, something he did, and did effectively, with Pitt Alumni Association Clubs from coast to coast.

Ralph Waldo Emerson said, "To laugh often and much; to win the respect of intelligent people and the affection of children . . . to leave the world a better place . . . to know even one life has breathed easier because you have lived. This is to have succeeded."

By these measures, few of us ever will know a person who was a bigger success in life than Andy Kuzneski. In the past, we were blessed to have been lifted by his company. In the present, our lives will be enriched by warm memories of the things we shared with him. And, whether we were young or not-so-young, in building our futures, we all can benefit from the lessons that are so easily drawn from his inspiring example.

When we were speaking together on the road, Andy often would end his remarks with a hearty "Hail to Pitt!" Today, then, let me end my remarks by reversing that expression of affection, loyalty, and respect with a heartfelt salute to a wonderful human being and one of Pitt's favorite sons— "Hail to Andy Kuzneski!"



# A World Away

Since graduating from SHRS in 2003, Josh Harding's degree in Clinical Dietetics and Nutrition has literally taken him farther than he could have ever imagined. Harding, a naval lieutenant, spent six months stationed in Kuwait, serving the dietary needs of U.S. sailors. "It was an unbelievable experience," Harding reflects. "I've been able to see so many places and experience more things than I could have ever thought possible."



Coming from a military family, Harding's introduction to the lifestyle began early. "I was exposed to military life when I was a kid," he explains, "so it was just natural for me to join."

What wasn't as natural was adjusting to life in Kuwait.

"It was tough at first," he admits. "You get used to living with certain comforts, and when you don't have them, you really start to miss the simple things."

Specifically, he's referring to amenities like his own shower, bedroom, and most important, air conditioning, which would have come in handy with daily temperatures topping 100 degrees.

"Being in that type of heat really makes you grateful for those things we take for granted back home," he laughs. "We spent our first weeks just staying hydrated as we got accustomed to the high heat."

## Common Problems

After getting acclimated, Harding focused his attention on combating many of the health and nutrition concerns on base, like obesity and smoking. The problems, he points out, aren't dissimilar to those seen in civilian life. The difference is in the consequences.

"I saw a lot of obesity, just like we have here at home," says Harding. "However, for those sailors, it was more than just trying to slim down for that class reunion. They face disciplinary action, including expulsion, if their weight prohibits them from passing physical tests."

While Harding notes that one of the Navy's priorities is to achieve a culture of wellness, he acknowledges that curbing many of the common indulgences among sailors can be challenging. He points to a smoking cessation program as an example. "Smoking is a big part of military life," he explains. "We can lecture and give away all the pamphlets in the world, but ultimately, it's up to each individual sailor to make the decision to kick the habit. You can't order a sailor to stop smoking."

Though much of his time spent in Kuwait was devoted to duty,



Harding still managed to explore the cultural aspects of what he sees as a misunderstood country. "Not all of Kuwait is war-torn, as it is so often portrayed in the media. There are some parts of Kuwait City where the scenery is truly incredible."

He notes that the climate wasn't the only warm part of Kuwait, either. "The people there were extremely friendly," he adds. "I think their culture is just more open to new people and learning about different cultures than ours."

While he relished the exposure to new cultures, people, and places, he missed being home. "Being away from my family was really tough at times," he remembers. "The hardest part was being away during Christmas. I was able to get gifts to my wife and family in time, but I wanted to be there on Christmas morning to see them open them."

He wasn't alone. "We all missed our families during the holidays, so we kept ourselves as busy as we could. We had a nice theatre area, so I was able to catch up on a lot of movies that I'd missed."

## A Military Career

Now back from his stint in Kuwait and settled into life in not-so-sweltering North Carolina, Harding says he plans to continue with the military. He appreciates the opportunities and the job stability it affords.

"In the military there aren't any surprises in what it takes to get ahead," he explains. "Everything you need to know to succeed is written out. You're expected to work hard and advance. The alternative is separation."

Harding has a renewed appreciation for the constancy of his family and his work routine, but when asked if he'd return to Kuwait, his response is quick and emphatic.

"Absolutely! It was such an amazing experience. If I had to do it all over again, I wouldn't change a thing."





When the Quality of Life Technology Engineering Research Center (QoLT ERC) was established in 2006, principals at the Center were quick to identify partners who could help develop, test, and implement new technologies in the real world.

QoLT, a unique partnership between the University of Pittsburgh and Carnegie Mellon University, is being funded with a \$15 million, five-year grant from the National Science Foundation. Its ambitious agenda includes the development of technologies that will help seniors and people with disabilities live independently and productively.

When QoLT discovered the McKeesport Independent Zone (McKIZ), they knew they had their real world laboratory. McKIZ is developing new, single-family, accessible, affordable homes on a 10-acre site in a community where 25 percent of the population is over age 60.

McKIZ also plans to include an accessible grocery store and group homes for seniors, people with disabilities, and veterans. Current structures within McKIZ, which include a YWCA, the Salvation Army, two churches, and eight homes, will be updated as part of the project.

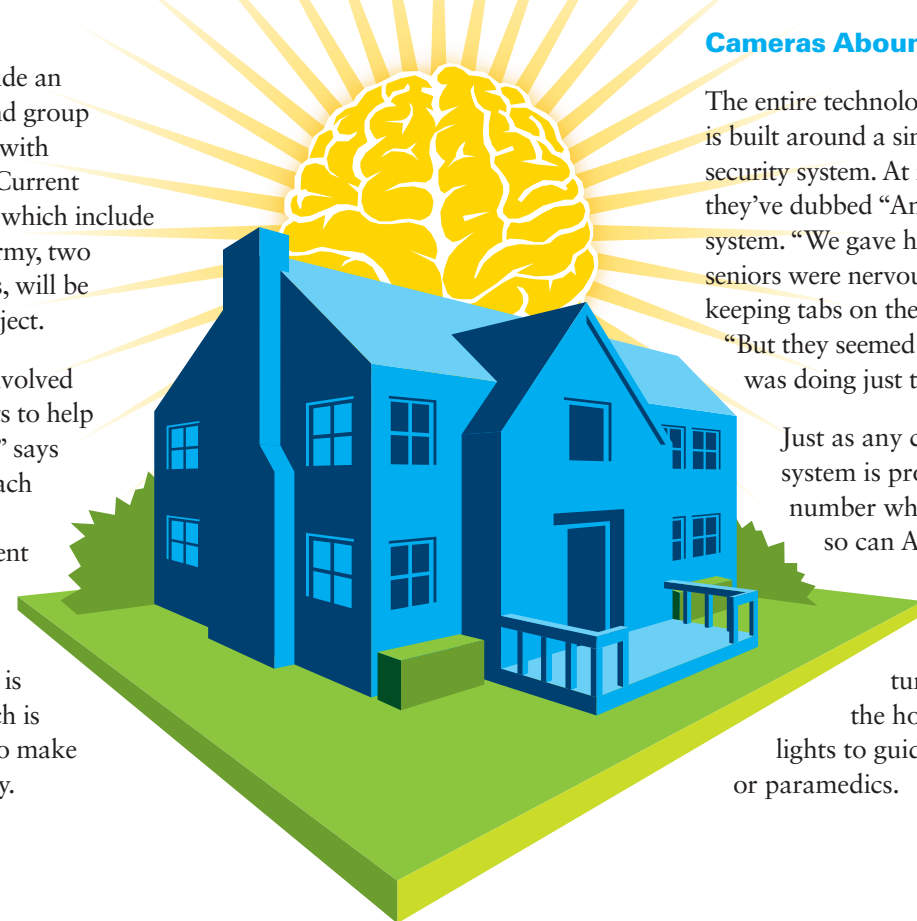
"We are delighted to be involved with McKIZ and its efforts to help people live independently," says Sondra Balouris, an outreach director for QoLT and an instructor in the Department of Rehabilitation Science and Technology.

At the heart of the project is the "Smart Cottage," which is chock-full of technology to make independent living a reality.

But technology can be intimidating to older adults who didn't grow up surfing the Internet; many of them have never even used a computer.

"The technology must be invisible," says John G. Bertoty, executive director of Blueroof Technologies, the nonprofit organization developing the smart homes. A retired McKeesport High School principal, Bertoty knows his community well. "McKeesport and neighboring White Oak are the two communities in Allegheny County with the largest percent of senior citizens," he points out. "The norm is a 75-year-old woman living alone with an annual income under \$12,000. And chances are, the home she is living in is anything but accessible."

## LIVING SMART



Blueroof principals conducted focus groups with seniors in the area to determine what they would want in a new home. Safety and security were the chief concerns of the group, along with a front porch, minimal upkeep, energy efficiency, and affordability. The Blueroof team also considered what additional features would improve the overall quality of life, or allow someone with an illness or disability to remain in their home without a caregiver.

Each need was assessed room by room, and early this summer, faculty, staff, and students from SHRS were treated to a tour of the smart cottage in McKeesport, which is currently serving as a demonstration and training center, with classrooms and labs on the lower level. They got to witness, first-hand, the results of Blueroof and QoLT's efforts.

The City of McKeesport also contributed to the effort, repaving the street, and adding a new sewer line and sidewalks, projects they are committed to doing throughout the McKIZ.

### Cameras Abound

The entire technology of the structure is built around a simple but sophisticated security system. At its heart is a computer they've dubbed "Amy," the voice of the system. "We gave her a name because seniors were nervous about a computer keeping tabs on them," says Bertoty.

"But they seemed comforted that Amy was doing just that."

Just as any current home security system is programmed to dial a number when something is amiss, so can Amy. But she can also call a loved one in addition to 9-1-1 or the security company, turn on lights throughout the house, and flash the porch lights to guide the way for police or paramedics.

### *At the heart of the project is the "Smart Cottage," which is chock-full of technology to make independent living a reality.*

Inside and out, the house is equipped with Internet Protocol (IP) cameras, which not only allow the resident to see who's on the front porch, but lets loved ones anywhere in the world check in on mom or dad via the Internet. When a visitor rings the doorbell, phones throughout the house ring as well. The resident can simply flip on the television to see who awaits. With the press of a phone button, the front door opens and automatically locks when the person enters.

Once inside, the open architecture family and dining room look pretty much like any other cozy bungalow, but hidden beneath the walls are data channels that carry fiber optic cables that keep the place humming. It is a pre-engineered building with significant insulation to keep energy costs down, and even includes windows with Low-E glass that clean themselves on the outside.

According to Bertoty, in all, there are about 100 devices and 70 sensors throughout the house. "Because of the research being conducted here by QoLT, there is more technology than an average person would likely require."

### It's Not Just About High Tech

Bertoty estimates that 80 percent of accidents involving seniors occur in the home, and of the falls that occur, 75 percent happen in the bathroom. Designers have paid particular attention to the flooring, which is made of recycled rubber and priced comparable

to ceramic tile. "This material is virtually slip-proof, but it also can accommodate a wheelchair. It's also eco-friendly." In the unlikely event a person does fall, motion sensors will detect their presence and their lack of movement, and an emergency call will be made.

They've also considered the plight of the absent-minded senior who turns on the shower to let it warm up and then forgets about it. Sensors monitor the length of time the shower runs and, again, Amy will make a call and shut off the water if necessary. She can even shut off the water to the commode if sensors indicate an overflow.

### All This for \$1,000

How would you like a computer that is also a television, an AM-FM radio, that can play and record CDs, DVDs, and MP-3's, and with so much memory it can record like a TiVo? The master bedroom in the smart cottage is equipped with just such a device to perform a variety of functions.

Bertoty also demonstrated a piece of exercise equipment that monitors heart rate and other vital signs that could be transmitted to a medical facility for evaluation.

A much simpler add-on: When a person gets out of bed and steps on a small area rug, low-level lighting appears, allowing him or her to move around safely in the dark.

There is another computer in the home, but this one operates on face and voice recognition software. Developed by Royal Phillips Electronics in Germany, it can read aloud news and respond to e-mail, take photos, and surf the Internet, all with vocal commands. "Seniors or people with disabilities may have difficulties using a keyboard or a mouse, so verbal commands may be an answer," Bertoty says.

The group is working with Royal Phillips to expand the technology's capabilities so that the resident could command it to start the dishwasher or lock the door.

### Evaluating the Activities of Daily Living

With the help of QoLT researchers, data are being collected that can be useful in assessing how well a person performs activities of daily living. For example, sensors in the kitchen record how often the refrigerator, freezer, and cupboard doors are opened. It also records stove and oven usage to help ensure that the resident is eating properly.

Taking medication can be a chore for many seniors; just remembering when to take them can be a challenge. The computer is programmed to give vocal reminders to residents. The IP cameras also ensure that mom or dad actually takes the medication, not arbitrarily disposes of them. This is essential information to know if the individual becomes ill or a preexisting condition worsens.

Technology can also help detect early signs of depression. "There are several early warning signs – reduced hygiene or staying in bed longer," notes Bertoty. "The data we collect can help identify whether the resident is exhibiting these behaviors and trigger intervention accordingly."

He notes that while Blueroof Technologies began with a focus on older Americans, "We have expanded our horizon to include people with disabilities, whether they happen naturally as you age, or through trauma or disease.

"I was so excited when we got involved with QoLT and honored that they have adopted McKIZ as the centerpiece of their research efforts," Bertoty proudly states.





**T**hat Jenny Menas would select physical therapy as a profession should not have been a surprise. She has an aunt, an uncle, and a cousin who are all physical therapists. One grandparent underwent physical therapy for various conditions after a motor vehicle accident, and Jenny herself received treatment for ankle instability in competitive sports. But Menas hadn't considered it – she wanted to be a physician – so she entered Pitt as a bio-premed major.

One event caused Menas to rethink her decision. “I had an opportunity to shadow physicians during a typical day at an acute care hospital,” she recalls. “I realized that a physician’s day can be so hectic and there are so many patients to tend to; lengthy individual patient care time does not always come easily.” She saw that the preponderance of their patient contact came during morning rounds, which are, by their very nature, brief encounters. “I knew that being a PT meant you could spend as much as an hour every time you saw a patient, and that really appealed to me.”



Elizabeth Betancourt is Jenny Menas' clinical instructor. They confer regularly on each of Menas' patients and her progress. “It's very helpful having Elizabeth available to answer questions on the fly,” she states.

# The Real World

The road to becoming a physical therapist is rigorous. Menas received her undergraduate degree in Rehabilitation Science from SHRS and then applied and was admitted to the Doctor of Physical Therapy (DPT) program. She faced two years of didactic and classroom study, in addition to clinical work, and another year in a full-time internship. Menas will complete her inpatient rotation at Children's Hospital of Pittsburgh (CHP) in October, and then rotate to one of the hospital's outpatient facilities through April, when she will graduate.

According to M. Kathleen Kelly, assistant professor and vice chair, Department of Physical Therapy, “Jenny has shown a sustained interest in pediatric PT for as long as she has been in the program, so it is not a surprise that she is doing very well in a pediatric setting. I am thrilled that she has chosen to work with children and families. I believe they will benefit greatly from her passion and enthusiasm about her work as a PT.”

There is nothing predictable about Jenny Menas' day as a physical therapy intern.

She can be virtually anywhere in the hospital. Children who have had surgery or an injury require PT to regain vital mobility skills. The colorful gym in CHP's Physical Therapy Department includes the usual equipment – treadmills, stair climbers, and elliptical trainers. “There are times, however, that patients who are not as healthy or who are on isolation precautions for various reasons cannot make their way to the gym,” notes Menas. So she makes room calls, armed with hand and leg weights, exercise balls, and other portable devices.

Typically, the playrooms scattered throughout the hospital are off limits – these are medical-free zones. The exception, Menas points out, is “if the child considers a PT activity fun. Then, it's allowed in the playroom.”

“I see so many different patients here with so many different diagnoses – I love that there are no two days that are the same. It's not routine, it's spontaneous,” she declares.

It's clear that Menas thrives on her current assignment, but says she does experience the highs and lows that virtually every health care professional falls prey to working at a pediatric facility. “I'm lucky to have a roommate who's also studying pediatric PT. I have the opportunity to talk with someone who understands what I'm going through, and then I can move on.”

As to where she's headed after graduation, Menas is keeping her options open; whether to remain in a hospital setting or move to an outpatient environment. She and her fiancé are also evaluating their geographical options. Both Philadelphia natives, their families would like to see them relocate back to the eastern part of the Commonwealth. But for Menas, it has to be a big-city environment with a good kick-boxing venue. “It keeps me on my toes.”



Seven-year-old Autumn Painter had a mysterious infection on her ankle, so her mom, Margaret, brought her to Children's Hospital for an evaluation. The diagnosis: osteomyelitis, requiring surgery. Margaret says Autumn has been a trooper through the experience, although understandably nervous prior to the procedure.



Ian Kolb receives physical therapy nearly every day, using hand and leg weights, an exercise ball, and other equipment to prevent de-conditioning while he's hospitalized. Menas alternates his PT between his room and the gym for a change of setting.





Little Baby Doe was just two when he was admitted to The Children's Institute (CI) in Pittsburgh. Born with cerebral palsy, he had undergone an orthopedic procedure at Children's Hospital before coming to CI. Baby Doe arrived accompanied by reams of paper – his medical records. Physicians and therapists at CI were able to discern everything that had been done for him at Children's.

His medical records were scanned into CI's computer system and his rehabilitation journey began. During his two weeks of in-patient rehab, every physician, nurse, and therapist Baby Doe saw accessed his computerized medical records and added to them very specific information about his condition, medication, and progress toward goals.

Inexplicably one night Baby Doe spiked a fever that the nurses couldn't seem to bring down. They phoned

the physician on-call, who remotely logged into CI's system and reviewed the patient's records. Since she had never personally seen Baby Doe, having access to detailed, up-to-the-minute, information made her job much easier.

The CI medical records system, which was brought on line in 2002, has proved a win-win, says Patricia Wotherspoon, director of health information management for CI, and a 1995 graduate of SHRS. "While initially people were slow to embrace the technology, I believe that virtually everyone recognizes that it's good for the patient and it saves money."

It's particularly good for patients like Baby Doe with chronic diseases who receive multiple services. "Administering therapy to a child like Baby Doe is a significant challenge," Wotherspoon maintains. "He might be seeing two or three therapists, plus a physician or two, all of whom need to be aware of his status."

Baby Doe, who has been discharged, will begin his outpatient physical and speech therapy. The therapists pull his records, see his medical history, his discharge summary, what has been ordered, and commence immediately with his therapy. "There is no need to repeat tests – something that used to frustrate parents in particular," states Wotherspoon. "The chances for regression or repetition are virtually removed."

"From the perspective of the patient, what could be better than going to see your doctor and having them be able to pull up your chart from your PT visit, and evaluate how well you are doing," she notes. "How good does that make a parent feel when the doctor knows exactly what happened during therapy? The physician can then plot the next course of treatment, which the therapist then executes."

### The Road to Computerization

The Children's Institute, which recently launched a \$30-million Campaign for an Amazing Future, had ample reason to computerize its medical records. Along with inpatient and outpatient rehabilitation services, CI runs a Day School, a Center for Autism, and a Prader-Willi Syndrome Program, which is the only hospital-based program of its kind in North America. In FY 2006, CI recorded 319 inpatient admissions, and nearly 2,000 outpatient visits. Since the majority of these patients have multiple disabilities, their medical records are extensive and vital to the long-term success of the patient.

CI began the computerization process by purchasing a module from QuadraMed Corporation of Reston, Va. It then began the painstaking process of adapting the software to CI's specific needs. Although well on its way to total computerization when Wotherspoon joined CI in 2003, she oversaw the refinement of the system. Each department convened a committee to oversee their portion of the computerization and selected one person who devoted anywhere from six months to a year to the process. Some traveled to Virginia to learn how to develop specialized templates that ensured the computer was user-friendly, while still gathering all of the information required to meet regulations.

"I believe that our templates are what make the system so efficient and effective," Wotherspoon indicates. "The level of detail that can be automatically input is remarkable – like whether a patient was able to throw a ball overhand – but it also offers a health professional the opportunity to add information, like reports from the parents regarding what happened since the patient's last visit."

That same individual can access another screen that details what was done in a particular session, which

then automatically goes to the billing department, eliminating one more paper trail. "We can also generate reports for the insurance company, the school, or the parents directly from the system," explains Wotherspoon.

### *Computerization can significantly reduce a hospital's costs for medical records storage.*

How does she ensure that it runs smoothly? "I randomly audit medical records regularly, even when I'm on the road. The system is so transparent that I can tell the exact day and time that information was entered, which helps keep everyone honest."

### Paper Records Still Exist

"Our computer system is different from Children's, which is different from West Penn-Allegheny, which is different from Conemaugh Valley," laments Wotherspoon. If a patient like Baby Doe arrives from another institution, he arrives with paper records. Should he return to the other facility, paper records of what happened at CI accompany him back.

She notes, however, that there are ambitious plans for interconnectivity; for various systems to be able to talk with one another. "Pennsylvania is very progressive in this regard and, statewide, the major players are coming to the table to determine ways that our systems can talk with one another. And I believe that it will happen in the next five to ten years."

Wotherspoon cautions that smaller hospitals and very few primary care physicians have computerized systems and may not meet the 2014 deadline set three years ago by the Bush administration to convert all medical data to digital format.

"There are degrees of electronic records," she suggests. "Some hospitals say they are computerized, but what they are really saying is that they've scanned information into a computer. Again, we have to scan certain items – anything that requires a signature – but that is just one element of the computerization process at CI."

### Portability of Patient Records

Suppose Baby Doe and his parents relocate to another city. "We provide them with an entire file of their medical records to pass on to the new physician," she offers. But Wotherspoon notes that it's not just parents who are relocating who want access to their children's records. "More and more, we're hearing parents say that they keep their children's medical records on hand. If their child was hospitalized or medication was administered, they want to know the child's reaction and progress during the process."

Computerization can significantly reduce a hospital's costs for medical records storage. Adult paper records must be kept for seven years; children's records must be kept until the child reaches 25 – seven years after their 18<sup>th</sup> birthday – even if they were seen when they were a month old, and never again.

"There is still debate in the HIM community about whether the electronic record can be considered the official record, and how long you need to keep the paper records if you have an electronic record," Wotherspoon points out. Organizations like the Pennsylvania Health Information Management Association are trying to reach consensus on these issues that meet all legal requirements. Until then, Wotherspoon relies on legal counsel for guidance.

"We have advanced rapidly in just the past five years or so. I'm looking forward to the next five," Wotherspoon concludes.







# A Question of Ethics

**T**hey call her their “Pillow Angel,” and her story ignited a firestorm of controversy when it was first documented in the *Archives of Pediatric and Adolescent Medicine* late last year.

Six-year-old Ashley has static encephalopathy, a disorder that leaves her unable to move and with the cognitive capacity of an infant. Her parents, fearing that she would be difficult to care for as she aged, convinced physicians at Seattle Children’s Hospital to administer high dosages of estrogen in order to

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*“We hold as non-negotiable the principle that personal and physical autonomy of all people with disabilities be regarded as sacrosanct”*

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close her growth plates and cap her prospective height at a little more than four feet. In addition, they removed her uterus to prevent possible discomfort from menstruation, or a pregnancy in the event of a rape. Her breast tissue was also removed because of a family history of cancer and fibrocystic disease.

In their blog, her parents write that her small, lighter size “makes it more possible to include Ashley in our typical family life and activities that provide her with needed comfort, closeness, security, and love.” Her lack of breasts, they say, make the harness straps that hold her upright more comfortable. “Ashley has no need for developed breasts, since she will not breast feed,” they point out. “Their presence would only be a source of discomfort to her.”

Her parents stress that the treatments and surgeries were not done for their convenience; rather, it was to “improve our daughter’s quality of life.”

While her parents say their decision was easy, the same wasn’t true for the ethics committee at Seattle Children’s Hospital. “It took time to get past the initial response – ‘wow, this is bizarre’ – and think seriously about the reasons for the parent’s request,” admits Dr. Douglas Diekema, who chairs the bioethics committee of the American Academy of Pediatrics and was brought in to consult on the case. Ultimately, the committee concluded that keeping Ashley small would have both medical and emotional benefits, including better circulation, digestion, and muscle condition as well as fewer sores and infections. “I felt we were doing the right thing for this little girl,” notes Diekema. But, he acknowledges “that didn’t keep me from feeling a bit of unease. And that’s as it should be.”



Disability rights advocates saw the treatment as a human rights violation. “We hold as non-negotiable the principle that personal and physical autonomy of all people with disabilities be regarded as sacrosanct,” the Disability Rights Education and Defense Fund said in a written statement. Julie Epstein, the group’s communications director and herself the mother of a child with disability, expresses empathy for the parents. “I know they love their daughter,” but, she notes, “they refer to her as their ‘Pillow Angel.’ I know that’s meant to be a sweet term, but it’s terminally infantilizing.”

## A Public Debate

Ashley is just the latest on a long list of high profile cases that have framed the public debate regarding ethics and disability treatment. Twenty-five years ago, Indiana Baby Doe, a boy born with Down Syndrome, died of starvation after his parents, on the advice of their doctors, refused treatment for an esophageal blockage. Around the same time, the parents of Baby Jane Doe chose death over disability for their daughter, who was born with spina bifida and hydrocephalus.

Karen Ann Quinlan, a young woman who in 1975 sustained a brain injury that left her in a minimally conscious state, breathing with a respirator and eating through a feeding tube, was one of the first bioethics cases. Its notoriety was matched nearly 30 years later by the Terry Schiavo case, whose end-of-life wishes became a congressional cause célèbre.

“Each of these cases,” notes Dr. Kate Seelman, associate dean, Disability Studies, “raised serious questions about the nature of health, normality, impairment, and disability.

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They also underscored the distrust between the disability community, which has endured years of abuse and injustice, and the medical establishment, which is seen as biased toward a criteria for quality of life that is far different from the criteria that would be used by the person who had the disability.”

Dr. Paula Leslie, an associate professor in the Department of Communication Science and Disorders, points out, “These are not situations that lend themselves to right and wrong answers.”

Leslie, a dysphagia (swallowing disorder) specialist with particular interest in the ethics of end-of-life decision-making in vulnerable populations, has confronted similar situations in her own clinical practice. “When you’re dealing with an elderly patient who is suffering from dementia or severe stroke and as a result, can’t or won’t swallow, it is a very difficult, emotional issue for the family,” she says.

“Should they or shouldn’t they okay the use of a feeding tube? As practitioners, our role is to advise on the available options and possible outcomes, and support the family in making the decision.”

How clinicians resolve such questions and apply their clinical science, says Leslie, “make up the nuts and bolts of ethically-sound, evidence-based clinical decision making. If we combine our informed clinical judgment with the best available external evidence, then factor in patient values and expectations, we can be confident that we’re adhering to ethical guidelines. On the other hand, if we omit or minimize any one of these components from the process, we risk ethical misconduct that may affect our patient’s safety, health, or both.”

### Guiding Principles

Each of the disciplines within SHRS has its own Code of Ethics, which guide practitioners in everything from clinical decision-making to vendor relations. Inherent in each, explains Seelman, are four core principles.

*Each of the disciplines within SHRS has its own Code of Ethics, which guide practitioners in everything from clinical decision-making to vendor relations.*

“These principles – autonomy, beneficence, non-maleficence, and justice – all require acknowledging the needs and desires of the patient,” she explains. “Autonomy mandates that patient wishes override all others; that the clinician hold the patient’s welfare paramount over all other considerations. Beneficence reflects the imperative for practitioners to do good, while non-maleficence underscores the importance of avoiding harming patients. The roots of these principles can be found in the Hippocratic tradition.

“The final principle, justice, refers to the equitable or fair distribution of resources. In other words, while we acknowledge that no society can provide everything that everyone needs, the principle of justice requires that health care practitioners – and society, in general – treat equal cases equally. Factors such as gender, ethnicity, age, or disability cannot be weighed in assessing treatment opportunities. For example, just because someone is old doesn’t mean he or she should not have the same

opportunity for intensive rehabilitation as a younger patient. Granted, not everyone benefits equally; but as long as the treatment opportunities are equitable, then the ethical imperative is met.”

Seelman notes that these principles are particularly important in clinical research, where human subjects are involved. “The ethical considerations extend beyond the usual scientific standards of validity and liability,” she explains. “We need to look at issues such as informed consent and risk and benefit. While scientific research has produced substantial societal benefits, it has also raised some disturbing ethical questions.”

In the 19<sup>th</sup> and early 20<sup>th</sup> centuries, poor patients in hospital wards were typically tapped as research subjects, while it was primarily wealthy patients who reaped the benefits of the research. For example, in the 1940s-era Tuskegee syphilis study, it was only rural African-Americans who were left untreated, though the disease affected broad groups of people. But Seelman says that it was the revelations of the abuse of human subjects in Nazi Germany that finally prompted widespread adoption of ethical research standards.

“Vulnerable populations, including Jews and people with disabilities, were forced to participate in experiments such as testing how long it would take to lower the body temperature to death, and then resuscitate the frozen victim. Twins, dwarfs, and other unique physical specimens were subjected to genetic experiments. During the Nuremberg War Crime Trials, the Nuremberg Code was drafted as a set of standards for judging the physicians and scientists who had conducted biomedical experiments on concentration camp



prisoners. This code became the prototype for later codes like the Helsinki Declaration, guidelines like the Belmont Report, oversight organizations like the Office for Human Research Protection, and Institutional Review Boards (IRBs) like we have here at the university.”

### Interpreting the Code

While a percentage of SHRS students will confront some of the more ethically complex issues in their careers, the majority will put their professions’ Codes of Ethics to the test in more real world situations.

A clinical dietitian, for example, working for a large medical group might be asked to counsel AIDS patients who have been prescribed megavitamin therapy, or cancer patients who have been placed on a severely restricted diet.

A physical therapist might feel that his patient requires additional sessions, but the patient has reached her limit on her insurance and can’t afford to pay for the services out of pocket.

An audiologist accepts a Clinical Fellowship position with an independent audiology practice, only to learn that her salary will be based, in part, on meeting a hearing aid sales quota.

While these scenarios may lack the drama of a Pillow Angel or a Terri Schiavo case, the ethical challenges they raise are no less significant. Within each department’s curricula, the issue of ethics is revisited multiple times.

“We introduce our Code of Ethics and the Guide for Professional Conduct that interprets the Code prior to our students going out on their first clinical rotation in the fall of their first year,” explains Lynn Fitzgerald, director of clinical education, Department of Physical Therapy. “Our students also have a specific Code of Conduct they are expected to follow that is based on the core values of the profession and the Code of Ethics. The subject is also addressed in our Physical Therapy Leadership and Professional Development courses, our evidence-based course series, and in all our clinical affiliations.”

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*The practitioner may have the best of intentions, but what could be considered acceptable to one company could be seen as fraud by the other."*



Dr. Ellen Cohn, associate professor, Department of Communication Science and Disorders as well as associate dean of Instructional Development at the School, describes a similar saturation strategy. "Ethics is integrated throughout our curriculum, including our clinical practice," says Cohn, who teaches a course on Professional Issues, where ethics is specifically addressed. "We also encourage our students to tap into the on-line resources available through the American Speech-Language-Hearing Association."

Catherine Palmer, an associate professor in the department, and Barbara Vento, assistant professor, delve even deeper into the subject, advising students on such grass roots issues as accepting lunches or promotional items from hearing aid companies. "At one time, hearing aid companies would provide private practice audiologists or clinical audiologists with cruises, audiometers, and other test equipment if they agreed to purchase a certain number of hearing aids," relates Vento.

"Our professional association has come out quite strongly against these practices. At our convention, the maximum value of any vendor giveaway cannot exceed \$100."

Judy Dodd, adjunct assistant professor, Department of Sports Medicine and Nutrition, uses case histories to bring the Code of Ethics to life. "They highlight specific ethical dilemmas and interpret various statements in our code of ethics," she explains. "For instance, a colleague gets in a crowded elevator with you and begins telling you, within earshot of others, the particulars of an unusual diagnosis she's just made. As practitioners, they need to recognize that such a discussion brings into question a key principle of our professional code related to privacy. Conversations with appropriate colleagues regarding clients or cases should take place only in a confined, professional environment."

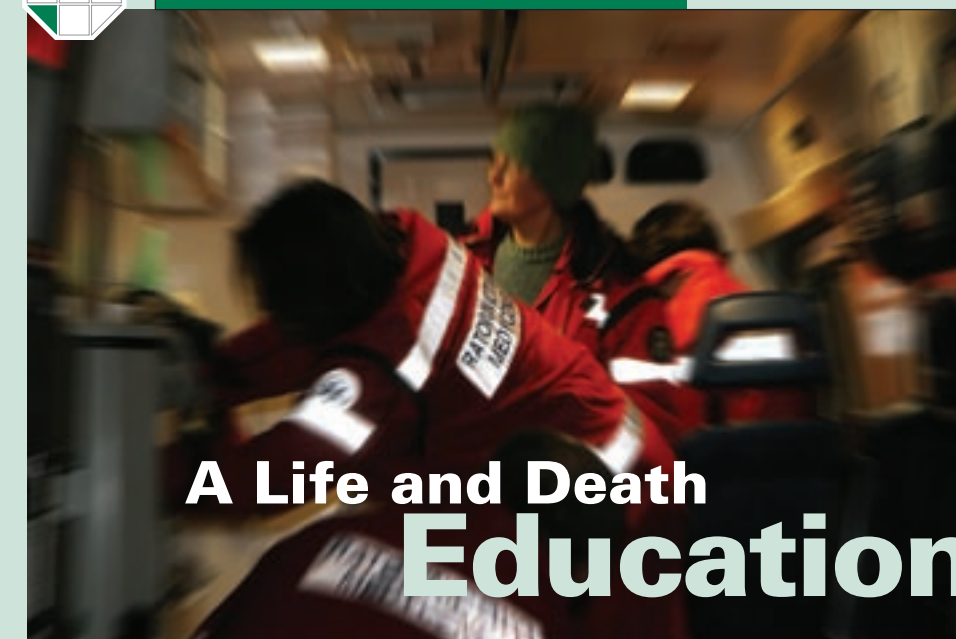
#### Common Issues

Seelman points out that on the practice side, there are elements that are common to virtually all of the disciplines represented at the school.

"I serve on a national certification board for practitioners, and I see a number of ethical issues that come up," she explains. "On the business side, billing issues are most predominant. You can have two different clients with two different insurance companies, and each will have different guidelines regarding the reimbursable level of care. The practitioner may have the best of intentions, but what could be considered acceptable to one company could be seen as fraud by the other."

The behavioral issues also cross disciplines, she says. "Everyone has to deal with things like improper sexual relationships or impaired providers. No one escapes human nature.

"This isn't an easy area," she adds, "and I don't think the average person understands or appreciates the practitioner's position. Every day, we face challenging situations. Every day, we face a question of ethics."



Knowledge isn't gained solely from a textbook. For students participating in an International Trauma Life Support (ITLS) education program, knowledge is a means of applying skills in life or death situations. "After completion of the educational program, students are able to assess the critical nature of the patient and apply lifesaving measures within 90 seconds," explains Robert Seitz, assistant professor and assistant program director, Emergency Medicine (EM).

ITLS is a global organization dedicated to preventing death and disability from trauma through education and emergency trauma care. Since its inception in 1982, over 330,000 EMS professionals have participated in the program.

ITLS is accepted internationally as the training standard for pre-hospital trauma care. ITLS courses are used for continuing education as well as in many Paramedic, EMT, and first responder training programs. Individual courses can range from pediatrics to military training. Each ITLS course includes a balance of textbook theory and hands-on practice in order to provide the necessary skills to properly handle trauma situations.

The ITLS program has been totally integrated into the EM program; during the first semester of the junior year, students combine didactic information,

lab skills, and scenario application with clinical experience in managing trauma patients.

#### Building from Basic

The ITLS program, originally known as Basic Trauma Life Support (BTLS), has its roots in Alabama. In 1984, Dr. Walt Stoy, professor and director of Emergency Medicine, brought the trauma education course for EMS professionals to Pittsburgh.

According to Seitz, Stoy was one of the driving forces behind the program's proliferation across Pennsylvania. "There would not be an ITLS here if it weren't for Dr. Stoy," he explains. "Much of what the program has become is a direct result of the work, dedication, and support he and others provided in the establishment of this educational program."

A significant factor in the success of the ITLS program is its simple, systematic approach to patient assessment, which promotes the implementation of critical thinking skills and actions based on patient presentation. "Having a sound program provides a basis of understanding, and keeps the students very much involved from the beginning," Seitz explains.

Textbook information is only one of the key elements in building a successful program. "What the classroom does

is lay the foundation for the rest of the course," Seitz continues. "Each element of the program, from the classroom to clinical simulations, are all important steps in preparing students for their work in the field. Students who develop a solid foundation of understanding are able to apply what they've learned."

Since real trauma situations aren't diagramed in a textbook, the program makes its simulations as real as possible. "There is not just one way to script what happens in a real-life trauma situation," Seitz explains, "Our simulations are very realistic and enable students to experience various types of situations they will be presented with in the field."

This combination of a comprehensive theory and clinical practice is what makes an ITLS course uniquely innovative. "The program provides a foundation for understanding and practicing trauma care," he stresses. "It enables students to both grasp the material fundamentally in the classroom and practically through work in the field."

Juniors in the EM program last year completed a combined 26,554 hours of clinical and field experience, assessing more than 200 percent more patients than the national average of other students in similar programs. Approximately one fourth of those assessments were with trauma patients.

#### Going Global

Over the past 25 years, the program has evolved into an organization with 74 chapters around the world. In 2005, its name was changed to ITLS to better reflect its global reach.

This year, for example, 37 doctors, nurses, and paramedics completed training in Pago Pago, American Samoa. In Cape Town, Southern Africa, 15 new instructors were certified. All of these graduates share a common element with the hundreds of thousands of graduates who came before them. They begin the ITLS program as students; they end as lifesavers.





**A**udrey has had her driver's license for over 60 years. Widowed three years ago, the still spry 83-year-old drives her 1997 Buick to church, the grocery store, and twice a week, to bingo. Her children have offered to take over driving duties for her, concerned that her reaction time is slowing, but Audrey has refused. She is determined to maintain her independence.

Still, she recognizes that driving isn't as easy as it once was. As her osteoporosis has progressed, she has found it increasingly difficult to see over the steering wheel. Her sightlines from her rear and side view mirrors are limited, and twice in the past three months, she scraped the side of the car pulling into her garage. Even in her younger days, she rarely used the passenger side mirror. Now, she's abandoned it completely. She's almost oblivious to the honking horns and squealing brakes from the startled motorists she doesn't see and frequently cuts off when changing lanes.

Of the more than 200 million registered drivers in the United States,

10 million are, like Audrey, over age 75. This group has more accidents per mile than any other group except teenagers, a statistic that can be attributed in large part to age-related physical impairments such as vision and hearing problems, physical disabilities, and medication-induced dizziness or confusion.

For instance, individuals with glaucoma or cataracts often have poor night vision. Arthritis or Parkinson's disease can decrease reaction time. Diabetes can cause a loss of sensation in the feet, which prevents drivers from gauging the amount of pressure they're applying to the brake and gas pedals. Drugs such as sleeping medications and tranquilizers, pain-killers, antidepressants, heart, blood pressure, and diabetic medications, and over-the-counter antihistamines also can have an impact.

Nonetheless, the number of older drivers is only expected to climb. By 2030, one in five drivers will be age 65 or older.

Anticipating this trend, the American Society on Aging, in collaboration with

the American Automobile Association (AAA), AARP, and the American Occupational Therapy Association, created CarFit, a community-based program that helps seniors learn how the effects of aging change the way they "fit" in their vehicle, and how their driving can be affected by those changes.

"CarFit provides a low-stakes opportunity to open a positive, non-threatening conversation about driver safety and wellness," explains Pamela Toto, an instructor in the Department of Occupational Therapy and a CarFit trainer. "It gives us an opportunity to provide the older drivers with specific, practical community resources that can help prolong safe, independent driving."

Toto says that occupational therapists are critical to CarFit's success. "We're trained to help people with various conditions or disabilities gain or retain independence in performing the tasks of daily living that are important to them. For many people, driving their own car is an instrumental daily living activity, or what we as occupational therapists refer to as a 'meaningful occupation'."

### A Dozen Safety Checks

Unlike other safety programs directed to seniors, CarFit does not assess their cognitive abilities and skills, focusing instead on whether the driver is seated properly in his or her vehicle, and if the driver's seat, seat belt, mirrors, steering wheel, head rest, gas and brake pedals, and other controls are positioned properly. "It's not unlike what you do when you're car shopping," notes Toto. "You check to see if you fit the car, and if the car fits you."

The assessment takes about 15 minutes, beginning with a simple yes/no question on whether the person behind the wheel is the car's sole driver, or if there are other seniors in the family who also get behind the wheel. If so, they're encouraged to complete their own CarFit assessment.

The technician, a community volunteer who has completed the CarFit training, then moves through the balance of the 12-point checklist.

The driver is questioned on whether he or she uses a seatbelt all of the time, and if not, why. "If they're not seatbelt wearers, we take the opportunity to make the driver aware of the safety benefits of buckling up," says Toto. "If they are belt-wearers, we make sure they are using the belt correctly, and that they are able to unbuckle and re-buckle it."

Toto says it's not uncommon for older adults to tuck the shoulder belt behind their back or under their arm, or to wear the lap belt on the stomach rather than tight across the hips or pelvis. "Many of these drivers grew up in the days when only lap belts we're used," she explains. "They find the shoulder belt uncomfortable, and they're unaware that there is a slider track on the side pillar of many vehicles that would adjust the belt for a better fit."

While the technician can point out the slider track, he or she doesn't make any permanent adjustments to anything on the car. "We can demonstrate it so that they experience how the change would feel, but we return it to the original position before they leave."

This same rule holds true for all other check points. For instance, some drivers don't know how to adjust the tilt of their steering wheel, or realize that the tilt is interfering with good forward vision or wheel control. Others don't realize that their head restraint is adjustable.

"While we want the driver to recognize the changes they need to make to improve safety, we also recognize that some of the changes may be confusing for the driver initially, and adjusting to the new positioning may take some time," Toto explains. "We don't want to compromise their safety as they drive home."

### Keeping the Correct Distance

Toto says it's not just seniors who can benefit from a car that 'fits'.

"How many drivers know that there should be at least two inches of space between the top of the driver's thighs and the bottom of the steering wheel so that leg movement isn't impeded, or that there should only be about two inches of space between the back of the person's head and the restraint pad," she says. "It's unsafe to be closer than 10 inches from an airbag, and your sight line should be at least three inches above the top of the steering wheel."

While most younger drivers can make a seat or steering wheel adjustment for a better fit, Toto says that seniors may need additional help. "If the technician observes a problem; for instance, because of a spine curvature caused by osteoporosis, the driver's head is far more than two inches from the head restraint, the situation is red-flagged on the evaluation form. This alerts the occupational therapist or driver rehabilitation specialist at the final check-out. We can recommend adaptive devices that will help compensate for many deficiencies, such as easy-locking seatbelts, visor extenders, and seat and back cushions."

Throughout the evaluation, if a problem is observed, the driver is advised why a remedy might be necessary. "We might see a driver stretching his or her toes to reach the

gas pedal or depress the brake pedal fully," she says. "In that case, we point out how tiring the stretch can be on leg and foot muscles, and the impact this can have on the speed and accuracy with which the driver moves the foot from gas to brake and vice-versa. Range of motion and strength directly impact reaction time, which compromises safety."

### Setting Sights

Neck mobility can be an issue for some seniors, so making sure that rear and side view mirrors are correctly set is critical to eliminating blind spots. Technicians are positioned behind and beside the vehicle in a sort of "can you see me now" test. If necessary, adjustments are made and the driver retested. Again, all mirrors are reset to their original position following the assessment.

Following a check on whether the driver is able to reach and operate controls such as turn signals, emergency flashers, headlights, the horn, and parking brake, the driver is asked to exit the car for a vehicle walk-around.

"This gives the technician a chance to check the driver's mobility," explains Toto. "We observe the relative ease with which the driver gets out of the car, whether he has an adequate sense of balance, or whether she is able to walk without difficulty. Once again, deficiencies are red-flagged so that they can be addressed by a professional at check-out."

Last year, approximately 300 senior citizens took part in a trial version of the program. Over one-third had at least one red-flag issue. Ten percent of participants did not have the right spacing between their steering wheel and chest, and almost 20 percent did not have the right line of sight over their steering wheel.

Thirty-five of Toto's graduate level students have completed the technician training and will be conducting a CarFit session near the Pitt campus in late Fall. Depending on demand, additional sessions could be planned.

# If the Car Fits, Drive It







# Building a Global Community

In 2003, the Centers for Medicare and Medicaid Services (CMS) unveiled Operation Wheeler Dealer, an aggressive, 10-point initiative to counter the pockets of fraud and abuse plaguing the power mobility industry. According to CMS, expenditures for power wheelchairs and scooters increased 2,705 percent from 1995 to 2003 – from \$43 million to a whopping \$1.2 billion. But in its zeal to root out the charlatans and the rampant over-utilization, CMS had unwittingly muddled the waters. People truly deserving of power mobility were left high and dry.

Industry stakeholders cried foul and CMS quickly retracted the murky Durable Medical Equipment Regional Carrier article, but asked for industry input to ensure that fraudulent manufacturers, suppliers, and even physicians would be reined in.

When the dust settled, one important industry-supported criterion to emerge was that, beginning April 1, 2008, CMS will require that the evaluation for certain power wheelchairs be performed by a certified Assistive Technology Practitioner (ATP). The Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), the certifying organization, has cranked up efforts to meet the mandate, and SHRS is lending a hand.

The new Medicare wheelchair policies virtually mirror UPMC rules, which were developed by the Center for Assistive Technology (CAT) a decade ago. According to Dr. Mark Schmeler, an instructor in the Department of Rehabilitation Science and Technology (RST) and former director of the CAT, there is now a “mad scramble” to take the exam, but test-takers aren’t adequately prepared. He and his colleagues created a one-day review course to help clinicians create a study



plan for the test, and have conducted sessions around the country.

The team is also using equipment purchased by the school last year that enables them to conduct Webinars directly from Forbes Tower. According to Kip Ruefle, director of information services for SHRS, “We surveyed the faculty and it was clear they wanted the flexibility to stream lectures and multi-media presentations ‘live’ or record them for later availability on demand.” Schmeler thought it could be an excellent tool for delivering continuing education programming. Webinars have been conducted once each month since February, and now go beyond the review course.

According to Dr. Rory Cooper, RST chair and distinguished professor, “Continuing education is an important activity for reaching out to professionals, and for recruiting students into our graduate programs.”

Schmeler monitors chat rooms and list serves to develop continuing education programs that meet the needs of professionals around the country – and the world. For example, Jamie Noon, a seating consultant from New Mexico working with the World Health Organization (WHO), conducted a Webinar from Forbes Tower on setting minimum standards for wheelchairs in developing countries that was watched live by 25 participants from all parts of the world.

“While well-intentioned, some organizations are purchasing standard-issue hospital wheelchairs and delivering to countries around the globe with little consideration given to the local needs,” Schmeler notes. Noon’s goal, through the WHO, is to expand training for professionals in those countries to design wheelchairs using indigenous products that are appropriate for the people who will use them.

## Supplier Community to be Certified

RST has just signed a letter of intent with the National Registry of

*“This is helping to make Pitt, SHRS, and RST ‘brand names’ in the rehabilitation technology community,”*

Rehabilitation Technology Suppliers (NRRTS) to develop a training curriculum. Previously, NRRTS registration requirements were fairly limited. Now, the new Medicare guidelines will also require suppliers of power devices and scooters to be certified as Assistive Technology Suppliers (ATS). In order to sit for that exam, which also is administered by RESNA, an individual needs to study and be prepared.

“When you have no specific curriculum, it’s difficult to ensure a level of competence and quality,” notes Schmeler. “NRRTS determined it needed to standardize procedures and up the ante for certification.” The organization is preparing a new, standardized curriculum, which Schmeler and his colleagues are helping to prepare.

“We will be delivering the courses on-line with in-person practicums, but in stages,” he says, noting that the 860 individuals currently certified by NRRTS will be grandfathered. Individuals new to the field, or the 1,000-plus suppliers not yet NRRTS-registered, will be required to take the courses if they want to become NRRTS-certified.

Pitt will be the first university to offer the curriculum, which Schmeler envisions developing into a new degree program, noting that the burgeoning field of rehabilitation and the aging population will require a more educated supplier community.

“This is helping to make Pitt, SHRS, and RST ‘brand names’ in the rehabilitation technology community,” Schmeler states, hoping to exponentially expand the continuing education offerings over the next few years.

*Continued on next page*





### Outreach Expands

For 23 years, assistive technology providers, suppliers, researchers, and educators have relied on the International Seating Symposium for their major continuing education opportunities. SHRS and the University of British Columbia alternate primary sponsorship. The 2007 Symposium, held in Florida, attracted nearly 1,000 registrants and exhibitors eager to learn the latest advances in seating and wheeled mobility.

Professionals in other parts of the world aren't so lucky. If they can't afford airfare to the U.S. or Canada, their options are limited, even in highly developed areas. But the opportunities are growing.

In 2003, recognizing the need in her own country, Ana Allegretti, a Brazilian SHRS graduate student, helped organize a two-day workshop for professionals at the Association for Assistance to Children with Disabilities, one of Brazil's largest pediatric rehabilitation hospitals.

While the country is relatively advanced in the area of wheelchair technology compared to its neighbors, there is much work to be done in defining policies and standards and developing funding streams. Buoyed by their workshop experience, several participants then attended the International Seating Symposium the following year, determined to accelerate the process.

In August 2006, Schmeler and Allegretti along with two other colleagues, Fabresia Ambrosio and Emily Zipfel, were part of the first Brazilian Seating Symposium, held in Sao Paulo. Cooper gave a lecture on wheelchair standards, via teleconference.

Nearly 400 people, including virtually every wheelchair manufacturer in the country, attended the symposium.

"The Brazilians have stepped up to the plate with regard to human rights, and disability rights are very important to them," notes Schmeler. "They know that wheelchair designs need to

be improved and they want to follow international standards. Rory talked about U.S. and international standards. He encouraged them to learn from our mistakes." Since his first trip there in 2003, Schmeler says he's seen significant improvement.

"The Brazilians are very serious about these efforts, and are being encouraged by the mobility community to launch a Brazilian version of the Americans with Disabilities Act and establish a rehabilitation engineering society in their country," says Schmeler. "A huge stumbling block in Brazil is that no one has been working together. We have stressed that even if you're competitors, you need to be united. Once you have everyone working together, you can collectively work for changes in policy."

### Advances in Europe

Several years ago, Schmeler was invited to deliver a keynote address to the British National Association of Pediatric Occupational Therapists

conference in Belfast. There he met Simon Hall, manager of the seating program at the Central Remedial Clinic in Dublin, who invited him to speak at what the Irish call 'professional study days' a few months later.

Hall and his group then attended the International Seating Symposium, quickly reaching the conclusion that Europeans needed their own conference. There were several initiatives underway in the developed nations, but there is little or no interaction. In Eastern Europe – Poland, Hungary, and Romania – where much of the manufacturing currently takes place, there was very little educational activity.

The International Seating Symposium organizers helped the group coordinate the first European Seating Symposium, bringing together clinicians, researchers, manufacturers, and users to one venue. The result: in May 2007, 400 stakeholders gathered at the Clontarf Castle in Dublin. About a dozen speakers from North America were

invited to share their learnings and help launch the European effort. Attendees represented every country in Europe, but more predominantly Ireland, England, France, and Germany. Grants were offered to people in developing European countries to ensure their representation.

Dr. Douglas Hobson, associate professor, and Elaine Trefler, assistant professor, RTS, gave the keynote presentation, "*A History in Progress: The Yesterday, Today, and Tomorrow of Wheelchair Seating and Mobility.*"

The goal of this effort is to develop European-wide standards, since current policies vary from country to country. "For example, in Ireland, there is no policy," marvels Schmeler. "I asked Simon Hall how they decide what to pay for and his response was 'if they need it, we figure out a way to get it. We do whatever we think we need to do.'"

"He knows that can't continue; it's just a matter of time before health policy makers and funding sources want

policies and accountability," Schmeler says. "They need to develop clinical practice guidelines. As with Brazil, they need to learn from our serious mistakes, like why Medicare finally had to crack down on the industry."

But the lack of standards has also meant that many patients in Europe have received substandard wheelchairs. Irish clinicians have looked at the UPMC Health Plan model developed by CAT and determined it was the model for them to emulate. Ireland is a small country with just over four million people, similar to that of the UPMC Health Plan coverage area.

"Ireland is taking the lead in Europe. As a small country, its regulations can be more manageable and, hopefully, can spread to the continent," Schmeler concludes.

*People interested in learning more about the SHRS one-day review course for the ATP test should visit [www.rstce.pitt.edu](http://www.rstce.pitt.edu). To learn dates for the credentialing exam administered by RESNA, visit [www.resna.org](http://www.resna.org).*

## Evaluation by Web Cam

When Falls Creek, Pa. native Marcia Turner needed a power wheelchair, the UPMC Health Plan required her to be assessed by a certified Assistive Technology Practitioner (ATP) before it qualified her for the device. But instead of having to travel to Pittsburgh for the assessment, Turner's daughter drove her to nearby DuBois Regional Medical Center (DRMC).

Angela Regulski, co-coordinator of the DRMC Wheelchair Clinic and an SHRS 2001 occupational therapy graduate, switched on a Web cam and a computer, then greeted Dr. Mark Schmeler, task leader in SHRS's Rehabilitation Engineering and Research Center (RERC) on Telerehabilitation, and doctoral candidate Richard Schein, who were on site at the RERC facility on

Pittsburgh's South Side. The three clinicians then interviewed Turner and had her demonstrate her range of motion, her ability to perform simple tasks like retrieving a notebook from the floor, moving from her wheelchair to another chair, and operating her wheelchair. These actions help to determine Turner's mobility limitations and wheelchair requirements.

Turner and her daughter were also able to discuss how her current chair was – or was not – working for her.

This consultation is part of a pilot study funded by the National Institute on Disability and Rehabilitation Research (NIDRR) to use telerehabilitation to assess and prescribe power wheelchairs and scooters. The need for the study grew in response to the geographical expansion of UPMC Health Plan and the health care system itself into the small towns and rural communities where there are few, if any, practicing ATPs.



Additionally, the U.S. Office of Management and Budget noted in its 2004 report that people with disabilities make up 23 percent of the population in non-metropolitan areas, compared to 18 percent in metropolitan areas.

As Dr. David Brienza, professor and co-director of the RERC on Telerehabilitation, observes, "Telerehabilitation bridges an all too prevalent gap confronted by individuals with disabilities and the elderly concerning access to health service, employment, education, and community living."

"When we began this program, we stumbled a bit in attempting to conduct the assessments independent of the on-site professional," Schmeler notes. "We very quickly learned that it had to be a peer-to-peer arrangement and demonstrate that we weren't trying to replace the occupational therapist with boots on the ground."

Schein points out that the first remote wheelchair prescription session was held in November of 2006. "We now conduct the clinics two or three times each month, depending on the number of patients who need to be evaluated."

Regulski says patients and DRMC physicians alike have responded very positively to the service, principally because of its expediency.

A second site has been established at Charles Cole Memorial Hospital in Coudersport, Pa., and hospitals in Meadville and St. Marys have requested their own clinics.

At a recent meeting of the American Telemedicine Association, Schein's paper, "*Using Telerehabilitation to Assess and Select Appropriate Wheelchairs,*" took the organization's award for the best student paper. "We're pleased that this relatively new application of telerehabilitation was recognized over some more prevalent avenues of telemedicine," says Schmeler.





Thanks to elite athletes and dramatic advances in sports medicine, America's soldiers could soon be receiving training that more effectively meets the needs of combat. "I've told my colleagues that this could be some of the most important research we will ever do," states Dr. Scott Lephart, chair and associate professor of Sports Medicine and Nutrition at SHRS and director of UPMC's Neuromuscular Research Laboratory. Lephart is heading up a new lab at Fort Campbell, Ky., that will bring technology normally reserved for athletes to the 101<sup>st</sup> Airborne (Air Assault) Division.

"While we help athletes get fit, feel better, train to avoid injury, and maybe shave a little time off their 40-yard dash, the consequences for soldiers are in a whole different stratosphere," Lephart contends.

*"Soldiers are, after all, tactical athletes, so they should train and be rehabilitated like athletes."*

Several years ago, the Department of Defense (DOD) issued a Request for Proposal seeking experts to study injury patterns in special operations and infantry soldiers that were occurring at problematic frequencies. The SHRS group responded because, in reviewing the epidemiology data of injuries to soldiers, they found striking similarities to those found in athletes. The researchers were seeing high-velocity injuries that occurred when the soldiers were running, cutting, or twisting, resulting in musculoskeletal damage. "These were injuries that we had studied and developed intervention programs for with athletes, and we knew they could be reduced.

"Our proposal was to develop a laboratory that would evaluate the soldiers, profiling their musculoskeletal and physiological characteristics. We would then develop intervention programs

## The New Warrior Athlete

to reduce the likelihood of injury and examine the efficiency and effectiveness of the interventions," says Lephart. "Soldiers are, after all, tactical athletes, so they should train and be rehabilitated like athletes."

The group was awarded a \$2.75 million, two-year grant from the DOD in October 2006, and began installing and calibrating the equipment at Fort Campbell in January of this year.

"It was a good marriage for us. The Army was recognizing that their training and rehabilitation were deficient, and we had a model for injury prevention that's been developed for athletes over the past 20 years, and very applicable to the soldiers," Lephart says. It took more than five years for the DOD to make a decision because such a paradigm shift is, by its nature, difficult, and the wars in Afghanistan and then Iraq put the project on the back burner.

"Had we been able to conduct the study when we were not at war, it would have been much easier," Lephart comments. "Our plan was to research and document current activities for two years, then devise new programs and test them for a year before full-scale implementation. That will still happen, but we have to consider the troops who are now deployed."

He pointed out that Major General Jeffrey Schloesser, commander of the 101<sup>st</sup> Division, is extremely supportive of the long-term implications of the project and the importance of its scientific nature, but wanted to ensure that current soldiers get the best training possible. He has been quoted as saying, "That was my challenge to them: give us short-term results, even though they are doing a long-term study."

It didn't take Lephart and his colleagues long to determine that Army training was similar to that of athletes – 20 years ago.

"The programs currently used by the military have been around for decades and, unfortunately, aren't very

effective. Even more troubling, they are often injury-inducing," says Lephart. Think about the last military training scene you saw in a film, and chances are, nothing's changed. "A lot of running and marching in poor footwear, a lot of sit-ups and push-ups, things that probably don't make more effective soldiers, but do create stresses that can result in debilitating injuries."



He notes, however, that this is the same mentality he and his colleagues encountered in sports medicine 25 years ago. "Coaches were using old training methods. If an athlete got muscle cramps, he got a salt pill because coaches thought the athlete had sodium deficiency rather than being dehydrated because water was being restricted. That's now contraindicated."

Now, because of sports medicine and sports science, athletes train better and when they do get injured, can be rehabilitated and return to play like never before. It took coaches time to adjust, as it will the military. "Change is slow and it has to be scientific. We are fortunate that the DOD was interested in the scientific approach to

training soldiers. That's the excitement of this project."

### All-Volunteer All the Time

Not only is the military all volunteer, so are these soldier research subjects. "One of the great things about this project is the compliance, the interest, and the intrigue displayed by the soldiers involved," Lephart remarks. "I spoke to one soldier headed back to Iraq and asked him what he thought of our testing program. His response was 'the reason I'm here is the better I do my job, the less likely I'll be blown up doing my job.'

"We're used to working with athletes for whom wins and losses and gold medals are at stake. For a soldier, what's at stake is protecting his country while protecting himself. If we can make them a little more fit, if they don't fatigue as quickly, if they're fueled better, if it makes them more effective and helps get them back safely, that is a very powerful incentive for us."

For the past few months, four to five soldiers a day have been tested and preliminary data suggests that there is a great deal of improvement that can be made in strength and power development.

Each soldier is put through a battery of tests that includes a complete musculoskeletal evaluation for strength, endurance, power, and flexibility, because, according to Lephart, deficiencies in these areas have a high degree of correlation with the likelihood of injuries.

The researchers also do three-dimensional biomechanical analysis of functional tasks that are related to injury. The soldiers under study are air assault tacticians, so they do a lot of fast rope work and rappelling that can result in shoulder and lower leg injuries. "We want to replicate those activities and do biomechanical studies to look at the forces being created in the shoulder, upper, and lower extremities and to look subsequently at the muscles in that area to determine if they are

*Continued on next page*





well enough developed and effectively protecting the joints while enduring these demanding tactical operations.”

The researchers go into the field to analyze the soldiers’ activities under simulation. The subjects wear gas analyzers, and the frequency and intensity of activities is measured. Back in the lab, aerobic and anaerobic capacity is evaluated, which provides an indication of their ability to perform high-intensity, short-duration tasks, long-endurance tasks, and how efficiently their body responds. Soldiers also receive body composition analysis, which measures lean and fat body mass.

“Based on our experience in the field, we know what they are tactically being asked to do. The soldiers currently do a lot of endurance training – marching and running distances of five or more miles – but they’re not training to perform very high-intensity, short-term activities that are required of them in combat. So our early recommendations include adding what we call in sports ‘interval training’ to adequately prepare them for the real world.”

### This is Not Brain Surgery

Some conclusions didn’t require much science. “The early morning physical training looks a lot like an antiquated physical education class, or what you might have seen football players doing

in the 1950s – basically calisthenics and running that have no relationship to a soldier’s tactical duties.

Squat thrusts, chin ups, pull ups – these are things that we have moved far away from in sports science and medicine.”

Air assault soldiers attend a 12-day school and must be certified. Lephart observed the first day, which was essentially an obstacle course, climbing rope ladders, scaling 10-foot walls, rappelling from a trapeze – just like an old war movie, unchanged for decades.

He also lamented, “Their nutrition is atrocious. Soldiers tend to eat a high-fat diet with lots of red meat and very few good carbs.”

Unlike stereotypical scenes of crowded mess halls portrayed in film, many soldiers use them infrequently.

“They begin their morning two-hour exercise regimen at 6:30, with little or no nutrition – not even an energy drink or a power bar – and very little hydration during the activities,” Lephart observes.

“Rather than properly refueling with good carbs, proteins, and foods low in fat, training is usually followed by a greasy breakfast sandwich from one of the fast food restaurants located on the base.”



He notes that the researchers plan to use some of their current funding to purchase healthful options to help optimize the training, so at least the soldiers will have fruit and something for hydration. But more funding will be needed to adequately address the nutritional needs, so they plan to partner with industry on several fronts, including sports drink producers.

### The Right Fit

“Another significant problem we have seen is with footwear, both running shoes and boots. The Division Surgeon specifically asked if we could look at the structure and geometry of the soldier’s feet and their gait and prescribe proper footwear, whether it be for the structure or anti-pronation.”

Lephart indicates that teaming up with a footwear manufacturer would make sense, and envisions working with them to develop less expensive shoes specific to four or five different foot types. While soldiers are given an allowance for running shoes and boots, saving a little money is always important. “Unfortunately, the shoe that feels the most comfortable may not be the most structurally appropriate for a soldier.” And just as athletes need to regularly replace footwear to perform better and reduce injuries, so too, should soldiers.

He thinks the moniker of “The Official Shoe of the U.S. Army” might carry some caché.

Lephart concludes, “The command of Fort Campbell is extremely committed to their soldiers; it’s like a family, and they want to do the right thing. I was observing the General with some of the soldiers during testing and it really was a father-son thing. They know these young men are headed in harm’s way and will do virtually anything to make sure soldiers return with as few injuries as possible. They are 100 percent behind our effort.”



# Dialogue

A Conversation with Rosemarie Cooper

## Rosemarie Cooper

Director, UPMC Center for Assistive Technology (CAT)

Rosemarie “Rosi” Cooper is the director of the UPMC Center for Assistive Technology (CAT) as well as an instructor within the Department of Rehabilitation Science and Technology.

A RESNA-certified Assistive Technology Practitioner, she is a recognized expert in wheelchairs and seating and provides clinical services at the CAT.

**In November of last year, the Centers for Medicare and Medicaid Services (CMS) put into effect guidelines that limit the type of wheelchairs that would be paid for by Medicare to only those that would assist in “mobility-related activities of daily living in the home.” What impact has this had on clinical practices at the CAT?**

The CMS guidelines primarily affect what is termed ‘Group 4’ wheelchairs. These are chairs that are designed to take the user outside the four walls of his or her home. They typically are heavier duty, have greater capacity, and are more customized to the needs of the individual.

Admittedly, we don’t have many clients who require a Group 4 chair. But when we do encounter such a situation, it puts us as therapists in a difficult position. On one hand, we want our clients to have the best possible quality of life; to be active members of their community. This means prescribing the type of wheelchair we believe is most appropriate for their situation. However, the practical implication of the “in the home” guideline is that it narrows the scope of the mobility need that can be taken into account when doing an evaluation. If not managed correctly, it could lead to prescriptions that are inadequate.

Our position is that while we have to be respectful of funding limitations, in the end, our obligation is to the needs of the client.

**Do you anticipate that these guidelines will limit the mobility options that are available to your clients?**

It has that potential. There are companies that could decide to only manufacture to the guidelines. Twenty years ago, virtually every chair was custom-built. It could be that way again. Those with the economic power could access the higher-end assistive technology, while our population, many of whom are severely disabled and on the low end of the income ladder, could be left out.

Fortunately, the CAT is a full-service clinic. We have good relationships with a variety of qualified suppliers who are willing to work with us to address the situation.

**What do you think prompted these restrictions?**

The simple answer is funding. Whenever government funding is tight, our client population seems to be the most vulnerable to restrictions and limitations.

But there is the broader question of when medical health and safety stops and quality of life begins. You have to remember that CMS has funding responsibility for technology that addresses functionality, safety, and medical necessity. When you move into quality of life areas like community access, adaptive driving and transportation, computer access, environmental controls, and home and workplace accommodation, these are typically funded by the Office of Vocational Rehabilitation.

CMS’s position is that these new guidelines do not prohibit people from doing any community-based tasks or participating in community life. They say that people can take their equipment outside the home if they’re able.

But the reality is that products that are designed for “in the home” activities only are often inappropriate for extended outdoor use. The guidelines could be precluding people from engaging in important activities of daily living. As therapists, we want our clients to maintain lives that extend beyond the four walls of their homes. We want them to be able to engage in community activities, go to the grocery store, pick up prescriptions at the pharmacy, keep doctor appointments.

Three or four years ago, we faced a similar situation. At the time, Medicare was limiting reimbursement of program-mable power chairs. Funding of non-programmable power chairs of poorer quality was easier to obtain. Rather than comply with the guidelines, we set out to prove that the restriction was a mistake.

It took us three years of testing and refusing to prescribe the lower quality product, but ultimately, product comparison studies conducted at the Human Engineering Research Laboratories (HERL) convinced CMS that our assessment was correct.

**Will you take similar action in this situation?**

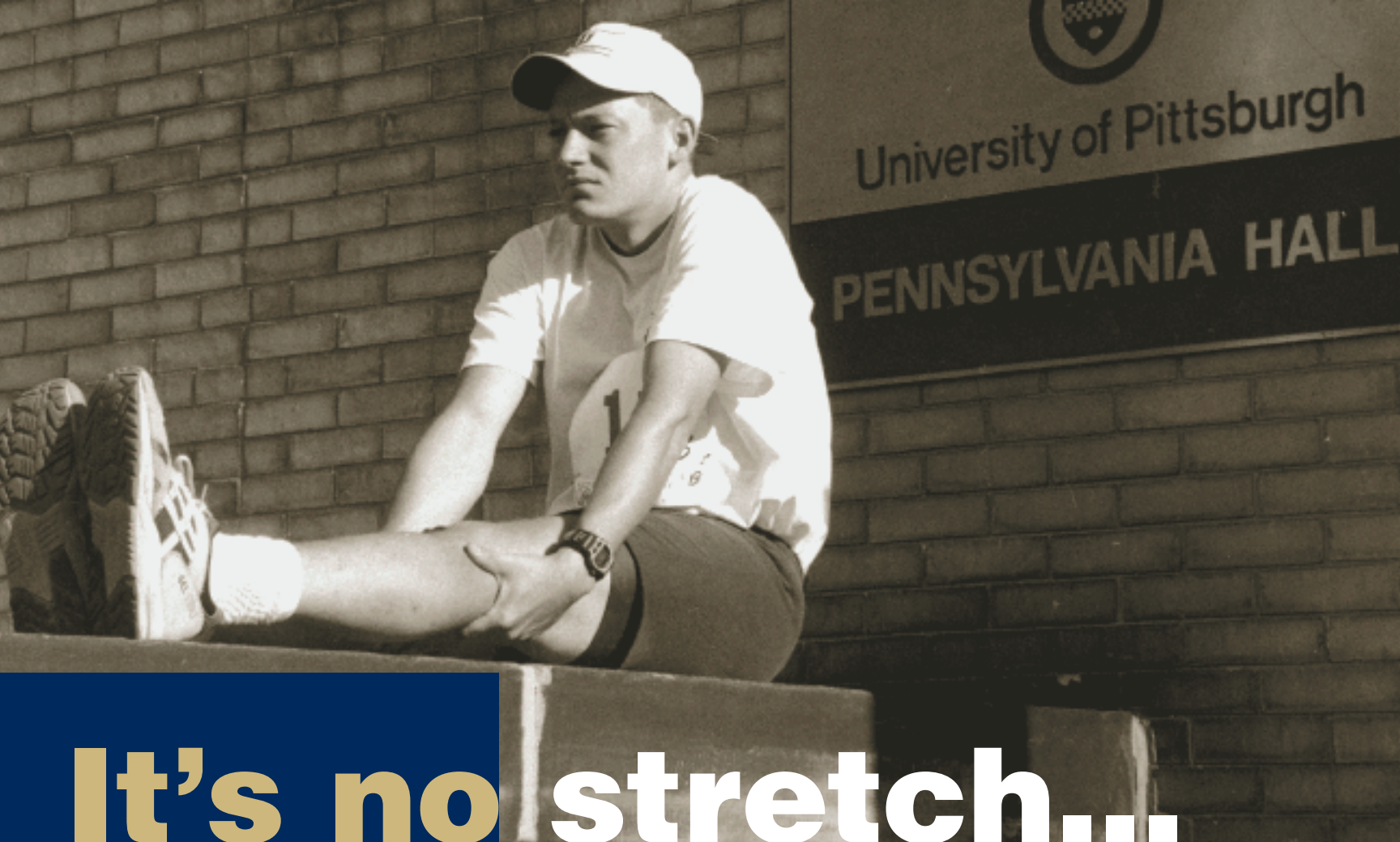
This is an issue that must be nipped in the bud. CMS sets the tone, and then other payers, such as Medicaid and private insurers, follow their lead. We need to convince the policy makers that people with mobility disabilities shouldn’t be denied their right to full community participation simply because of budget restrictions.

**How do you help students prepare to balance client needs with funding realities?**

If they’re in our program, they know that they have to be an advocate for their client. They have an obligation to recommend the appropriate technology, regardless of funding guidelines. We also want them to recognize that they don’t have to deal with these situations alone. The strength of our program is that we embrace a team approach. We have educated suppliers who are all RESNA certified. We have access to rehab engineers, physicians, and researchers. And, of course, they have to understand that the client is at the center.

We emphasize to the students that the client is an active member of the team. As therapists, they have to recognize that they have an obligation to educate their clients about all of the assistive technology options that are available. The therapist makes a recommendation, but ultimately, it is the client who makes the final decision. The clients must be knowledgeable about their options. Not only must they understand how their choice will affect them; they also need to recognize how their decisions could affect other consumers in the future. Often, an appeal of a CMS or insurance company funding decision is necessary. Our clients must be prepared to be active participants in that process.





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