

SCHOOL OF HEALTH AND REHABILITATION SCIENCES

FALL 2004

35 YEARS OF TOUCHING LIVES

FACETS SCHOOL OF HEALTH AND REHABILITATION SCIENCES









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Has it really been 13 years? I arrived at Pitt to become dean of the School of Health Related Professions on July 1, 1991. Some days it seems like only yesterday, on others forever, but on balance the time has passed so quickly. It is difficult to comprehend that I am in my 14th year at Pitt, a period that extends for more than a third of our collective 35-year history.

We are now the School of Health and Rehabilitation Sciences (SHRS). We have changed very substantially over the past 13 years. Although I was not here to observe the earlier years, it is readily

apparent that they too were periods of substantial changes. More comprehensive accounts of our history are presented in this issue of *FACETS*. I trust that many of you will be reminded of events during the times that you were students of SHRP and more recently SHRS. While time can blur the intensity of some of our memories, I suspect that you will all have some vivid recollections of events. Some even improve with age.

We celebrated our 25th anniversary in 1994. I can recall our anxiety over some of the financial commitments we were obliged to make as we planned this event, wondering if enough of our alumni would attend. You did indeed respond, and it was a wonderful and salutary occasion. We believe that it is again time to summon our community to celebrate the 35th anniversary of the founding of our School. We are a school with 800 students, on a trajectory for more than 1,000 in the very near future; we had annual research expenditure in excess of \$8.8 million in 2004 (fiscal year) with anticipated increases to more than \$10 million for the current year—a remarkable 30-fold increase since 1992. Many of our faculty are acknowledged national and

international leaders in their respective fields; our alumni are high achievers across the

Cliff Brubaker

entire spectrum of professional, academic, and entrepreneurial enterprise. Our programs are now consistently ranked in the top echelons of their respective disciplines, some in the top 1 or 2 percent nationally and all within the top 10 percent of their disciplines, and professions. I shall conclude this perhaps somewhat immodest litany of accomplishments for our School and its community by noting that we are indeed one of the very best schools of health and rehabilitation.

Yes, I do believe that it is timely and appropriate to again invite everyone to gather to celebrate our past accomplishments and anticipate what we may become in the future. The 35th anniversary of our School would seem a proper and timely occasion. We shall renew our friendships and celebrate all that we have accomplished together as the community of SHRS. If you have not contacted us lately, please write a short note to tell us about your recent activities, and to share your thoughts and ideas for the celebration of our School in this 35th year. Please read this issue of *FACETS* for information on our history and our plans.

I look forward to hearing from you and, most important, to seeing you for a 35th anniversary gathering of our community.

With kindest regards,

Sept & Brubalan

Cliff Brubaker

cliffb@pitt.edu



Most people view rehabilitation and disability policies and programs as relatively recent phenomena. The passage of the Americans with Disabilities Act (ADA) in 1990 is most often cited as the seminal event. However, while the ADA certainly is landmark legislation, the roots of rehabilitation policy can be traced backed to the 1920s. The foundation for the vocational rehabilitation programs that we have today was laid immediately following World War II.

Prior to World War II, people with disabilities were a distinct minority and, for most Americans, virtually invisible. Those born with a disability often did not reach adulthood. Many were shunted to institutions. A person whose disability was created by trauma often succumbed to the injury.

This changed during the World War II era. Thanks to advances in antibiotics, there was a higher survival rate for soldiers critically wounded on the battlefield. As the soldiers returned to their communities, rehabilitation engineering was born out of their demand for prosthetics and orthotics.

The polio epidemic of the 1950s also made disability a mainstream issue. Newspapers and magazines were filled with images of formerly healthy children and young adults seemingly trapped in leg braces or iron lungs. The prospect of paralysis was a very real fear for those of us who grew up in that era.

What made polio unique was that many of its victims survived. They were visible in the community, and they faced enormous obstacles, particularly in the workplace. It was in large part due to the pioneering work of polio survivors in the 1960s and 1970s that the three legs of the policy stool—income and benefits, service, and civil rights—were finally put into place.

It was during that period that we saw the advent of research engineering centers and advances in rehabilitation medicine. We saw shifts in policy regarding education and employment. In fact, the first disability-related civil rights legislation dates back to 1972, to Section 504, which mandated that all federal contractors offer equal employment opportunity for people with disabilities. The Architectural Access Act, which was passed in the late 1960s, was the first federal legislature to address structural accessibility. Granted, it wasn't necessarily enforced, as evidenced by the very recent Supreme Court decision regarding equal access in courthouses. Nonetheless, public policy relating to disability dates back much further than most people imagine.

However, it was the ADA that put the disability movement on the map. For generations, disability had been an acute care issue. From the 1960s through the 1980s, the focus was rehabilitation. But with the ADA, we entered a new phase. Today, the issue is reintegration. And it is the challenges posed by reintegration that we are beginning to address here at the School of Health and Rehabilitation Sciences (SHRS).

In 2001, we introduced a graduate program in disability studies. Rather than viewing disability just from the medical perspective, it looks at it as a product of the interaction between the person with a disability, the attitudes of society, and the physical barriers in the environment. In 2002, in conjunction with the School of Law, we began offering a Master of Studies in Law with a Concentration in Disability Law. This program was created primarily for professionals in either the administration or the provision of disability programs. Core courses include the law of disability discrimination, constitutional law, health law and policy, introduction to law and legal reasoning, mental health law, and torts. Last year, we introduced a new elective, Practical Issues in Disabilities, which offers students a firsthand look at the day-in, day-out challenges faced by people with disabilities as they move toward full integration into the community and the workplace.

As we move forward, we'll see an even greater emphasis in this area. For example, I'm now teaching an ethics course that looks at the assumptions that underlie disability policies and practices. We're also encouraging our students to take a closer look at the codes of ethics in their professional disciplines. We believe it is critical that they not only understand and internalize these credos, but become advocates for change.

Early on, Dean Brubaker recognized that disability as a cultural movement needed to be embedded in our programs. He understood that it was not enough to simply train our students in the respective disciplines; rather, they needed to understand the culture of disability—socially, economically, and politically—and their role in it. It is this vision that guides the growth of SHRS.

SHRS Scholarships Endowments

School

Anne Pascasio Scholarship Fund Dean's General Development Fund

Physical Therapy

Alice Chagnot Oulette Scholarship Dorothy Bradley Brown Nationality Room Scholarship Dorothy Bradley Brown Scholarship D. T. Watson Alumni Scholarship Jessie Wright Award Pat Croce Scholarship Patricia Leahy Memorial Scholarship Pearl Mann Scholarship Victoria Green Memorial Scholarship Scully Visiting Scholar Program

Communication Science and Disorders Emeritus Award Jack Matthews/Herbert Rubin Endowment Fund

Lisa Levy Memorial Scholarship

Rehabilitation Science and Technology

Department of Rehabilitation Science and Technology Endowment

Human Engineering Research Laboratories Endowment

The Rory A. Cooper/Dion Johnson Endowment Thomas J. O'Connor Scholarship Fund

Sports Medicine Freddie Fu Scholarship Tim Kerin Memorial Scholarship





Think back to when you were a student. In most cases, you were away from home for the first time, making

new friends, finding your way around a new campus and community. You were determined to do well because receiving a degree was very important to you and your family. In fact, just a relatively few years ago, families often couldn't afford to send every child to college. Advanced education was a privilege as well as an additional financial burden on the family.

Many of our students are facing the same challenges you faced at their age. They're maintaining a full course load. They're working two, sometimes three, jobs to cover some of their expenses. And they hope and pray that scholarship support ... in any amount ... will be awarded to them.

The School of Health and Rehabilitation Sciences (SHRS) has identified student scholarship as one of its top priorities. In order to remain a highly ranked school, we must attract the best students. We must compete with our notable academic colleagues by providing sufficient scholarship support that encourages students to select SHRS as their school of choice.

I invite you to consider a gift to enhance student scholarship and support. SHRS has a number of already-existing funds in need of additional dollars. You may choose to support one of these funds or to establish an endowed scholarship fund in your own name or in recognition of another.

SHRS is truly fortunate to have students who are dedicated, determined, and focused. They're hard-working and steadfast—eager to conquer their particular field of concentration. They're just like so many of you who recognize and appreciate that drive and tenacity. Wouldn't it be rewarding to know you helped make their educational journey a little easier?

For more information about scholarship giving, please contact me by telephone at (412) 383-6548, by email at pkummick@shrs.pitt.edu, or by mail at 4031 Forbes Tower, Pittsburgh, PA 15260.

Sincerely,

Vary

Patty Kummick Director of Development



Stacey Friscia, Joy Holte, Bridget Mayger, Erin Switzer, and **Lindsay Thelin**, master's degree students in the Department of Occupational Therapy, participated in the Woodlands Foundation's Kennywood Day on July, 7 2004. The student volunteers assisted 31 adults with spina bifida to access the rides and other attractions. The Woodlands Foundation's mission is to enrich the lives of all children and adults with disability and chronic illness in Western Pennsylvania.

William Hula and Christine Matthews, doctoral students in the Department of Communication Science and Disorders, were selected as Student Fellows to attend the second annual Research Symposium in Clinical Aphasiology (RSCA) in conjunction with the annual Clinical Aphasiology Conference in May. Hula and Matthews were awarded a grant by the National Institute of Deafness and Other Communication Disorders (NIDCD) and presented their research in a special poster session. They were among 15 students chosen for the quality of their research abstracts and statements.

Amy Lustig successfully defended her doctoral dissertation and earned her PhD in Communication Science and Disorders in June. Lustig is employed as a Project Coordinator at the University Center for Social and Urban Research.



Bridget Novey is the first doctoral graduate of the new AuD program.

Ian Rice, a master's degree student in the Department of Rehabilitation Science and Technology, competed in the Paralympic Games in Athens, Greece, in September. Rice competed in the 100m, 200m, 400m, and 800m wheelchair races. He also competed in the 2000 Sydney Paralympics and qualified in the final 100m, 200m, and 400m races.

Yusheng Yang, a master's degree student in the Department of Rehabilitation Science and Technology, received the American Society of Biomechanics (ASB) travel award to attend the 2005 ASB annual meeting in Portland, Oregon.

Jeanne Zanca, a doctoral student in the Department of Rehabilitation Science and Technology, is a new student representative to the Health Sciences Committee of the Board of Trustees for the fiscal year 2005. Zanca was appointed by the Vice-President of the Graduate Students Professional Association in August.



Santorum Pays the



Center for Sports Medicine *a Visit*

VERSETY OF PETTSICKON

United States Treasury

ATTACAMPTO DE LA COMPANYA DE LA COMP

(L to R) Dean Cliff Brubaker, Dr. Scott Lephart, US Senator Rick Santorum, Dr. Freddie Fu

One Hundred Thousand & 00/100 Dollars



"This important and generous award serves female athletes at a critical time as we continue our ongoing Female ACL Injury Prevention Project agenda, initiated in 1995, aimed at examining the epidemic of ACL injuries in female athletes and exploring methods to prevent the injury," said Lephart. "This research has significant women's health care implications as studies have shown that female athletes are up to eight times more likely to injure an ACL than their male counterparts."

The NMRL's Female ACL Injury Prevention Project has included a series of studies to



The NMRL team has developed a physical training and conditioning program that was proven capable in altering these differing characteristics and risk factors for females.

Further continuing research has validated the effectiveness of this interventional training program and has favorably assessed its role in reducing the likelihood of injury.

August 24, 2004

\$100,000,00

Supported by the new federal funding, present and upcoming research will seek to determine if the differences between genders are inherent or the result of developmental and/or societal influences. Currently, there are no data to suggest an appropriate age for initiating intervention training programs related to ACL injury. The NMRL investigators will assess boys and girls at various stages of development to see how the modifiable neuromuscular and biomechanical characteristics change from childhood to adulthood in both genders. Researchers hope these data will assist in determining the appropriate age at which to implement intervention training programs in order to optimize their effectiveness in ACL injury prevention.





Sleeping Through Kidney Dialysis



Peter DeComo (HRP '77and '80)

When it comes to start-up life sciences companies, Peter DeComo seems to have the magic touch. After spending the better part of his twenty-plus-year career as a senior executive at a handful of large health services companies, DeComo has gone on to take a leading role in three highly innovative health care start-ups. And his most recent venture, Renal Solutions, Inc., is the crown jewel of them all.

Founded in 2000, Renal Solutions has developed a pioneering medical product with the potential to dramatically shift the paradigm of health care delivery for patients with chronic or acute kidney failure receiving hemodialysis treatment. In a leap of medical technology, the company will soon bring dialysis treatment from the clinic into the home, effectively turning a once time-consuming, highly exhausting treatment into one that can be administered while patients sleep.

The kidneys are the body's primary filters and are as integral to life as a heartbeat. When they cease to function—a condition known as renal failure—patients must immediately prepare to receive a kidney transplant or begin a machine-driven blood cleansing process called hemodialysis.

And while dialysis treatments are critical to keeping people with chronic and acute kidney failure alive, the process is not without a downside; overall, it's a physically and mentally draining experience. Conventional hemodialysis methods require patients to spend three to four hours a day, three days a week, undergoing treatment. Factor in the time spent commuting to and from the clinic, the time spent receiving dialysis, and then consider recuperation which can last throughout much of a patient's downtime—and the exhausting nature of the treatment begins to materialize.

"Dialysis is extremely stressful," explains DeComo. "It takes valuable time out of people's lives and is harsh on the body. So when we set out to develop a better technology for kidney dialysis patients, we focused heavily on improving quality of life. Not only did the new dialysis system have to be safer and work better, it had to reduce complexity and professional intervention, be more portable, and leave people walking away more healthy.

"The system that we ultimately were able to develop does all this and more," he continues.

The Allient[™] Sorbent Hemodialysis System is a striking achievement in health care delivery technology. The system utilizes a sorbentbased toxin separation technique and a revolutionary pulsar dual ventricle blood pump to allow patients to receive dialysis treatment virtually anytime, anywhere.

Whereas traditional dialysis treatment uses 120 liters of purified water for one four-hour treatment, the Allient System requires just six liters of water from a household tap and can deliver dialysis treatment for twice the time. The new blood pump also allows for longer, slower dialysis treatments that can be administered during sleep, leaving patients more refreshed and with fewer symptoms compared with the conventional four-hour



treatments given in a clinic. The ventricle pump is also gentler on the blood, veins, and arteries than conventional dialysis.

And to make the system even more adaptable, it requires no more than a standard 110-volt household outlet. Essentially, all a patient needs is a water supply and a power source and they can receive treatment.

While the Allient System has yet to receive Federal Drug Administration (FDA) approval, DeComo is confident that Renal Solutions can bring the system to market as early as 2005. The company is in its second round of venture capital funding, having already raised over \$26 million, and has major Western Pennsylvania health care players University of Pittsburgh Medical Center (UPMC) and Highmark Blue Cross Blue Shield on its list of financial backers.

But DeComo also says he owes much of his success to the University of Pittsburgh and the faculty of SHRS-predecessor School of Health Related Professions, where he earned bachelor's and master's degrees. Former Dean Anne Pascasio and faculty members like Dr. Fran Giegle-Benz and his first professional mentor Bella Eross, also a graduate of SHRS, had a huge impact on his development and leadership style. He explains, "I learned so much about the fundamentals of health care management from the faculty at Pitt, and I'll never forget their role in my development."

He continues, "The faculty stressed that health care management is about people—not just the staff, but the patients. Empathy is critical to success, and if you understand that your role is to help make people's lives better, you'll never go wrong."

Greetings Fellow Alumni:

Although we're celebrating our 35th anniversary, alumni of programs within the School of Health and Rehabilitation Sciences (SHRS) and its predecessors, the School of Health Related Professions and the D.T. Watson School of Physiatrics, represent over 60 years of history among the more than 6,600 graduates of our programs. Graduates can be found throughout the United States and in many foreign countries, and today there are approximately 700 graduate and undergraduate students enrolled in SHRS.

The School is represented by an outstanding cadre of faculty, and several of the programs have been recognized for their excellence by *U.S. News & World Report*. You also represent the school every day in your professional careers. Through your commitment to excellence, and achievements in your chosen field, you create a positive reflection on the School! Your achievements are important to us, so please take a few minutes to let us know if you have been recognized for special accomplishments or have achieved milestones in your professional career. We often will include items such as these in *FACETS*.

As president of the SHRS Alumni Society Board of Directors, I ask for your continued support of the School, and of your individual professional program. That support can take many forms. Tax deductible contributions, which you can designate to the program of your choice, are the most common form of support. Patty Kummick, our Director of Development, will be happy to help ensure that your gift goes exactly where you designate. She can be reached by telephone at (412) 383-6548, by postal mail at SHRS, 4031 Forbes Tower, Pittsburgh, PA 15260, or by e-mail at pkummick@shrs.pitt.edu.

There are other ways to show your appreciation for your School. You can serve as a mentor or clinical instructor for an intern, or give guidance to a high school student interested in your profession. You can communicate with your local media about personal achievements, noting the University of Pittsburgh's SHRS as the site of your professional education. This is an opportunity to educate the public about SHRS, and encourage prospective students to consider us when selecting a school. By attracting the best students into our professional programs, SHRS can continue the legacy that you have established.

Please know that the University of Pittsburgh is proud of you and the ways in which your service to society positively reflects on the School of Health and Rehabilitation Sciences.

With best regards,

Race Rogimon PTMS

Karl R. Gibson (PT '76 and '83)



Dr. Carol Frattali knew how to make an impact. Over the course of her illustrious career, she held some of the most prestigious jobs in her field, authored numerous peer-reviewed articles and book chapters, edited three textbooks, and conducted important research to treat brain tumors and intractable epilepsy and help people with dementia and head injuries to better communicate.

Frattali became an indelible part of the SHRS community after earning her doctorate in speech–language pathology from the Department of Communication Science and Disorders in 1987. She went on to spend almost 10 years at the American Speech-Language-Hearing Association, where she worked on health care reimbursement and in several speech–language pathology practice units.

While her career was far too short, it ended near the pinnacle of the speech–language pathology field. She worked as research coordinator in speech and language pathology at the National Institutes of Health Clinical Center in Washington, DC, and served as adjunct professor in the Department of Hearing and Speech Sciences at the University of Maryland at College Park, and research professor in the Department of Hearing and Speech Sciences at The George Washington University.

She was a valued member of the speech–language pathology community and of the SHRS family. Her friends and colleagues will dearly miss this "talented and remarkable individual."



Discovery" could be the best word to describe Dr. Catherine Palmer's summer sojourn in China. During her five-week stay, she helped Chinese ear, nose, and throat (ENT) physicians discover the intricacies of amplification; she helped her two young sons to discover that some things in life are universal; and she discovered how gratifying it is to introduce audiology education to a country where physicians have had little access to such training.

In May of this year, Palmer, associate professor in the Department of Communication Science and Disorders, together with two clinical doctorate students and her family, traveled to Chengdu, China, where she taught a one-month, advanced course in audiology to ENTs at the West China Medical School (WCMS) at Sichuan University. Palmer's course was part of the AudioChina Program, created in 2000 by leaders from Dalhousie University in Canada and WCMS to bring advanced audiology education to the country's ENT physicians.

According to Palmer, audiology as we know it in the United States does not exist in China. "ENT physicians treat patients with hearing impairments caused by medical conditions, but those who have non-medically treatable hearing loss are not receiving the care they may need," states Palmer. Medical students are not being specifically trained to diagnose problems, develop treatments, or fit patients for hearing aids. "It's fascinating to be in a place that hasn't developed this profession yet and to watch it start developing," Palmer continues. "They're certainly working hard at it and putting a lot of resources into it."

Palmer and her students, Jessica Green and Annette Mazevski, taught 28 first- and second-year students the essentials of hearing aids. The intensified course, held five days a week, was just part of the year-long curriculum that educates students about hearing testing, rehabilitation, and diagnostic testing. At the end of the program, students will have a specialty in audiology.

Although language was not a barrier because Chinese medical students are required to speak English, there were other challenges to overcome, such as the size of ears. "All of our normative data are on American adult male ears," explains Palmer, "and that's really quite inaccurate when you start working with the Chinese population. Size-wise, they are very different. Generally, the Chinese have much smaller ears."

On the other hand, Palmer's husband, Mark Rauterkus, and sons, Grant, 6, and Erik, 9, had to confront the reality of speaking only English in a nearly all-Mandarin world. But by participating on a swim team and taking violin lessons, the two boys bridged the language gap. "It didn't really matter that my children didn't speak Mandarin," says Palmer. "Music and sports are very useful because they are universal languages."

Following her teaching stint, Palmer and her family stayed an additional week to explore more of the country. They toured Beijing and Xi'an, home of the Terra Cotta Warriors (7,000 soldier and horse statues from the Qin Dynasty, 211–206 BC, unearthed in 1974) and visited the Wolong Panda Reserve in the Sichuan Province, the single largest population of pandas in the wild.

"China is so much larger than the U.S. and yet they only have one time zone—it's a very organized country," Palmer notes. "We felt very comfortable and very safe and welcomed the whole time—we didn't feel intimidated or nervous about being Americans."

Palmer has stayed in contact with the supervisors of the program and some of the Chinese students since she returned in early June. Several of the students are considering attending the School of Health and Rehabilitation Sciences (SHRS) to pursue their doctorate, while Palmer may collaborate in research projects with the faculty at WCMS.

Palmer believes that the experience in China benefited her as much as it did her students. "It's interesting to go beyond your front door, to explore," she explains. "And it's exciting to be a pioneer in your profession. I'm lucky to have had this opportunity."

Adventures in Audiology





Faculty and Staff Update

Dr. Donald Angelone, a new faculty member in the Department of Rehabilitation Science and Technology, was honored with the establishment of an award by the Transitional Employment Consultants to be given in his name to future students at their 20th celebration at the Hilton Garden Inn South Pointe in September. The award recognizes Angelone's past and continued work in the rehabilitation field and is given to an individual who exemplifies his drive and spirit in providing rehabilitation services and advocacy to people with disabilities.

Dr. Nancy A. Baker, assistant professor, Department of Occupational Therapy, was an invited participant in an AHRQ-supported American Occupational Therapy Association/ American Occupational Therapy Foundation (AOTA/AOTF) International Conference on Evidence-Based Occupational Therapy in July. Participants from 13 countries assembled to identify global activities and define international initiatives in occupational therapy practice.

Dr. Kim Crawford, program director and instructor, Department of Sports Medicine and Nutrition, successfully defended her doctoral dissertation, "Validation of the Sensewear Pro2 Armband to Assess Entergy Expenditure of Adolescents during Various Modes of Activity."

Judy Dodd, adjunct associate professor, Department of Sports Medicine and Nutrition, received the Medallion Award for her outstanding service and leadership in the American Dietetic Association in October.

Dr. Donald Angelone, a new faculty member
in the Department of Rehabilitation Science
and Technology, was honored with the
establishment of an award by the TransitionalDr. Kelley Fitzgerald, assistant professor,
Department of Physical Therapy, received the
Knee Stability Training in Individuals with
Knee Osteoarthritis grant to fund his research
from April 2004 to March 2008.

Annmarie Kelleher, research associate, Department of Rehabilitation and Technology, recently passed her RESNA-ATP Credential for her demonstration of professional competence in the service provision of assistive technology.

The Department of Occupational Therapy welcomed **Mary Lou Leibold** as its new academic fieldwork educator. Leibold, an experienced educator and administrator, specializes in adult physical rehabilitation, particularly in neurorehabilitation and acute and subacute care. Her contribution as a co-author of the seminal textbook, *Willard & Spackman's Occupational Therapy*, was focused on orthopedic dysfunction and sensorimotor techniques.

Lori Murray, instructor, Department of Sports Medicine and Nutrition, received the Recognized Young Dietitian Award in April for her leadership qualities and performance in the profession, on the job, and in the community.

Department of Emergency Medicine faculty members **Dr. Walt Stoy**, associate professor and chair, **Thomas Platt**, assistant professor and associate program director, and **Debra Lejeune**, instructor, returned to Qatar to test 150 students in October. **Dr. Walt Stoy**, associate professor and chair, Department of Emergency Medicine, will be in China conducting a technical assessment of the EMS system in November.

Dr. Alicia Koontz, assistant professor, and **Dr. Don Spaeth**, adjunct assistant professor, Department of Rehabilitation Science and Technology's Human Engineering Research Laboratories (HERL) investigators, recently earned their certification as Rehabilitation Engineering Technologists after completing the Rehabilitation Engineering and Assistive Technology Society of North America (RESNA) Standards of Practice exam in June.

Dr. Catherine Palmer, associate professor, Department of Communication Science and Disorders, was given the Konkle Award by The Pennsylvania Academy of Audiology. The award is given annually to an outstanding audiologist in Pennsylvania.

Dr. Ashli Molinero, system analyst, Department of Information Systems, successfully presented her field project, "Standards Compliance: Reliability of Automated Evaluation Tools for Web Accessibility." She received her doctorate in May.

Dr. Janice Vance, undergraduate advisor, Department of Communication Science and Disorders, successfully presented "The Effect of Semantic and Contrastive Pitch Accents on Prosodic Phrasing." She received her doctorate in April.

The Comeback Trail

Rehabbing from surgery for a debilitating sports injury is no small task. For most athletes, it's enough just to be able to return to the field of play. But not for **Donnie Jones**, a high school wrestler from Greensburg Salem High School.



After receiving surgery on an injured elbow in 2002, Jones began working with **Jesse Townsend**, MS, ATC (SMN '00) to get back on the road to recovery. Working with Jones for 90 minutes five days a week, Townsend began slowly working Jones back into shape. Within six months of his surgery, Jones was back on the mat and closed the 2002–2003 season with a state championship. The next year he repeated, earning him the Comeback Athlete Award from *Training & Conditioning* magazine.

Thanks to all our alumni and friends for their generous support of the School of Health and Rehabilitation Sciences during fiscal year 2004. Your contributions enabled us to award scholarships based on need and academic merit, and to provide program support, graduate research support, and services to the community.

Sharon Rogers

Corporations, Foundations, and Organizations

3M Foundation, Inc. Arthritis Foundation Arthritis Foundation National Office CIGNA Foundation East Suburban Sports Medicine Center, LTD. Empi, Inc. Eye Ear Foundation FISA Foundation Ford Motor Company Fund Hewlett-Packard Company Johnson & Johnson National Athletic Trainers Association National Football League Pennsylvania Advocates SoftMed Systems, Inc. Spinal Cord Research Foundation United Way of Allegheny County Verizon Foundation

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Robert Anthony Rosati Craig Wilson Rowitz Dorothy M. Ruttle Meagan Sampogna Murray Saucier Jr. Mary Ann Scialabba Rosanne P. & Timothy D. Shovlin Mary Ellen Overmier Smith Patrick Joseph Sparto Arlene Robin Spiegelman Carolyn Wukitch Staudenmeier & Paul L. Staudenmeier Wayne J. Steibel C. Port Sterne Jr. Walt Alan Stoy Kay Shuster Strigle & Joseph P. Strigle Sue Currie Tarplee Regis H. Turocy Stephen F. Uhlman Andrea Cornell Veenis & Blake C. Veenis Bruce C. Weston Steven A. Whitman Mary M. Wick Christine M. Wiesen Claire L. Williams Sonya Mugnani Wilt Mildred L. Wood Susan Jane Wright R. Lee Young Kathleen McClain Zak Kathryn Haffner Zavadak & Daniel G. Zavadak \$50 - \$99 James C. Amicucci Carol Gober Anthony Tracy Gail Augustine Clara Lozano Ayala & Paul E. Ayala Karen Sue Backstrom Barbara Wicke Balas Helen S. & Brooks M. Bartlett Carmela M. Battaglia Tressa Marie Bitonti James Dennis Bojarski Christine E. Heard Bonacci & Ronald P. Bonacci Caroline Robinson Brayley Jill Brehm Carol Gentile Bresticker Dana Reinsel Buches &

Thomas A. Buches

Stephen Patrick Burke

Jean Kohlhaas Byers &

Charles M. Byers

Robert J. Burns

Donna Clark Ellen R. Cohn Jill M. Conley Sandra R. Copeland Colleen K. & Joseph A. Corella Sue Cooperman Cox James L. Coyle Henrietta Smith Cruikshank James Paul Csonka Kate Matta DeComo & Peter M. DeComo Anna P. Degabriel M. Lucille Moore Dettor Catharine Merritt Dixon Rhoda E. & Richard S. Dorfzaun Diane Levy Eger Donald F. Eisaman Jane Henderson Eversole & Ronald Eversole Benjamin Evan Fein Sheila Renee Feldman Susan A. Fuentes Pamela Ann Gentile Karen Collins Gibson Jo-Ann Gigliotti Vicki Gartenberg Ginsburg Patricia Dannhardt Goodwin Gloria Jean Neubeck Graver Lisa Beth Greenblatt Dawnyel Renee Grenke Edward Jacob Grisnik Donna Marie Gruber Jane A. Hale Angela Rahn Halpern Amy Helke Todd Charles Henkelmann Merry Ann Hildebrand Kimberly A. & David F. Holsinger Anne Brinton Holton Nichole Marie Irwin Kevin Varde Jandreau Valerie Alberts Johns Marjorie C. Johnson Jerome B. Jonkowski Robert Richard Kamenic Cynthia Peifer Kamide Mark T. Kessler Karen Therese Khan Colleen O. King Victor Paul Kupfer Maryann Gilmartin Landers David E. Leary

Harriett Smith Bynum

Elaine Love Civic &

Thomas J. Civic

Barbara Mellott MacDonald Patricia Joan Madler Juliet Mengon Mancino & Joseph F. Mancino Jr. Nikki Sopcisak Marhefka Deborah J. Markle Denise Lyons McCloy & James L. McCloy Anne Slaugenhaupt McDermott & Robert T. **McDermott** Irene Frances McFadden Gary Patrick McFarland Cynthia Ann & Patrick A. McKenzie Jennifer M. McKenzie Gynthia Grygier McMillen Malcolm R. McNeil Floyd Franklin Mechling III Scott Andrew Mills Constance Marie Molecke Carol Mutschler Moya Matthew J. Mrazik Tracy Pfister Murray & Joseph A. Murray David Edward Nowotarski Patti Donley Olson Kathy H. & Andrew W. Oravetz Paula J. & Paul D. Palmer Amy Marie Pandolph Beth Nypaver Parks Amy D. Perchick Lee Ann Pickering Janice Marie Price Brenda Marie Punako Rodney Rager John J. Ravnikar Sandra Lee Read Dorothy Pflasterer Reiber Mary D. Riley John R. Rotko Mark P. Sampogna Deborah Anne Sanchioli Christie Sue Savor Kathleen Schlough Janice King & Glenn E. Schneider Karl John Shaeffer Nancy Kulikowski Shipe Michael Shlyamberg Maria Monaco Shomaker Richard Callaghan Simpson Amy Virtue Siverling Cynthia J. & Albert W. Skrabski Mary Jo Smith Ralph Lynn Staggers Donna Dettra Steigerwalt Cynthia Wagner Steiner Colleen D. Sweeney

Iennifer B. Tate Cynthia White Tomazich & James W. Tomazich Pamela E. Bandalo Toto Kevin Edward Urbansky Sabrina L. Van Fleet Mark Daniel VanVolkenburg Nancy Allshouse Varley Katherine Verdolini Christopher Andrew Vereb Joyce L. & Erik N. . Videlock Carol B. Viktorin Jeannine Bowen Walker Richard B. Wardrop Mark Allen Weakland Elizabeth Springer Weibel Maureen Smuro Wellman N. Jill Davies Wenstrom Gail A. & Thomas S. Wiles Maria Caste Willoe Katherine Rockar Winters Michael W. Yeager Ronna Bernstein Young Under \$50 Dorothy Ahearn Allis Susan McCracken Alrutz William Thomas Altimus

Noma Bennett Anderson Arthur A. Ardire Leslie Billow Atkins Michele Lynn Ausman Lisa Parenti Bablak Carleen Susan Babyak Karen Sue Backstrom Marie E. & Richard M. Bagay Sue Ann Baker Allen Wavne Barbaro Thelma Barbara Barbary Marcia Iane Barna Kathleen L. Batykefer Veronica Kerlick Bayer & Thomas E. Bayer Rina Ann Bellotti Kimberly Smith Belsterling Barbara Murphy Benedict Randy Bier Martha Hiett Blasier & Cole Blasier Kathy Yurchak Blazer Ina L. Block Sharon & Karl C. Boone Diane & Robert G. Borello-France Denise Obrien Bourg Steven Kenneth Bowers Ann Kaiser Brehm

Lori R. Brown Mary Behling Browne Tina Fiorini Bruns Raymond J. Brzezinski Dawna Sander Buckhout M. Jean Buffardi Rosemary Ulyan Burke Jill Kester Cahalan & Matthew J. Cahalan Michael Anthony Calabrese Mary Deitrich Capra Charlotte Polesiak Carey Cathi Carroll-Davis Lynette S. Chandler Gail Harmon Chitty & Alton L. Chitty Jr. Barbara M. Ciambotti Colleen Romesberg Ciavola Gail Alspaugh Clark Deborah Ann Rau Cleary Charlotte Lynne Clements Lynn Coward Clifford Donna Jeanne Colaianni Christine Colantoni Charlotte Young Colledge Linda M. Collins Beth A. Colosi Karen Lee Costello Gail Falkenstein Counts Christine Cox Patricia Malloy Crupi Elizabeth Eisenlohr Cypres Daniel William Daliman Mary Ann S. Danley Caroline R. D'Aurora Helen Lutkus Denne Amy L. Beale Derlink & Damian J. Derlink Lisa Jarvis Devine Marsha Royer Diller Beverly Schuler Diurba Eileen Ann Dobbins Iames Frank Doeberling Elizabeth Ann Dolby Gretchen Barone Donahoe Ellizabeth I. Doster Dorothy K. Dougherty Bernice Sirota Dressler Mark Vincent Drnach Linda Candee DuBois Mary Kay Dunaway Louis Duane Durigon Kathleen Eckert-Mehaffey Julie Beth Eckles Grace Schmitt Ellison & Charles E. Ellison Stephanie Ray Emert Sandra Grolock Frksa

Crystal Bagley Broadhead

Donna Fabian Brosky

David Michael Fast Andrea Gorney Feeney Michelle Mary Ferketic Robert C. Findlay Theresa Skripps Fisher G. Kelley Fitzgerald Lynn Mary Fitzgerald Laura S. Follmer Virginia Hulshult Franz Joan Yurick Fucci & Donald J. Fucci Susan Evanick Fuhr Bobbi Johnson Furnas Christopher Gabriel Julianne Gasperi Lisa Lynn Gay Jean Marie Gehringer Spiros John Giannoutsos Kathleen McLeigh Gilbert & Craig A. Gilbert Henry Gillespie Mary Flo Leathen Giventer & Lawrence L. Giventer Diane Beth Gowaty Robin Leigh Gries Jacqueline T. Grimenstein Kathleen Schultz Hagerty Mary Jane Harris Allen W. Hartman Jacalyn Molino Hartmann Deborah Speck Hazlett & David R. Hazlett Barbara Marie Heath Joanne Mary Heidkamp Sherry Perozich Heiser Susan Shook Heller & Dean S. Heller Margaret West Hemmerle Craig S. Hendershot Cynthia Glosner Henry Robert D. Henry William Herb Susan Churilla Hessom Howard Hill Beth A. Hinog Gordon Hollis Pamela Schlegel Howe Glenn S. Hughes Patricia A. Irvin Pollv Eberle Irwin Wendy Barron Jaffe Karen Superior Kafka Margaret K. Kalupanov Ruth & Robert S. Kamenski Susan Wickstrom Kane & James S. Kane Susan Ann Kane Gayle S. & Ronald M. Kaplan Arthur Sebastian Keehnle M. Kathleen Kelly

Mary Jane Parker Kelly Elizabeth Weber Kendle John Kernic Walter A. Kerr Paul Kleindienst Theodore A. Kopczyk Mary Katherine Korona Doris Kopler Koskos Sandra Marie Kozielec Doris D. Kuhns Constance F. Kurash Susan J. Landers-Simon Jill Silverman Langue Christine Marie Stoltz Lapina Linda Chubon Larkee Marie Berton Lasher Susan Lynch Lawrence David Lecce Andrea B. Levine George Arthur Lindley IV Dorothea Jane Linn Stephen Gerald Lloyd Georgann Lombardi Brenda K. Long Jack Macner Mary Anna MacQueen Sandra Chidsey Magaw Terence J. Maloney Marilyn Hornyak Marchick Wanda Lea Beatty Mayhew Kathryn Porter McBeath Angela Paula McCann Nancy Janssen McCorkel Jean Lu McCrory John Edward McCune Marybeth Baker McCutcheon Marilyn R. McGowan Linda D. McHugh Peggy Armburger McKinlev Patricia Gould McMinn Ruth Braymer McNamara Frank Meloy Gust C. Menas Betty C. Menser Douglas Arthur Mickey Alisa Ann Miller Cari McNelis Miller Kathleen Alcorn Miller Linda C. Miller Mary M. Miller Marcia L. Moner Dennis C. Montet Dora B. Morales Deborah Holtz Mostert Lori Ann Mousetis Stewart D. Munn Iris M. Murdoch

Dawn Michelle Murphy Jean K. Murray John Kerr Musgrave IV Dorothy Brallier Noble Barbara L. North Blaise Anthony Obritz Victoria Joan Orr Mary Nasser Owen Tracy A. Brown Partridge & James E. Partridge Lauren Wendy Pasekoff-Russ Douglas Gilbert Patch Bharti Vinodkumar Patel Ann Curtis Peel Wendy Neiner Pelhan & William J. Pelhan Kathleen Donley Pennesi Delores Ann Perrotta Leslie R. Peters Evelyn Gibas Petrash Mary Kathleen Phillips Ryan Phillips Joanna Stipanovich Pierce Becky S. Posh Gregory C. Powanda Patricia Hazen Querry Barbara Schick Raju Elsbeth Beaver Rapp Deborah Lynn Recker Elizabeth Anne Reicherter Cathleen Reighn Yvette Meitner Reiner & Frank Reiner Wendy Boyd Rich Rosemarie B. Rick Laura Smolko Rizzo Suzanne Burdick Roberson Jean Swallop Rochford Jill Yvonne Rogers-Iacaszek Susan Stancyk Roice Janis C. Roszler Victoria Louise Santa Mary Alice Drew Schafer Susan Uber Schaffer Lisa M. Schell Roberta McNaughton Schomburg & Frederick L. Schomburg Christine Ann Schroeder Betty Payne Schwartz Linda R. Scislowicz Stephen A. Scott Mary Beth B. Shafer Joan Kramer Shames & George H. Shames Ron Shiwarski Karen Devine Sharig Joan L. Simmons Donald George Sims Gayla Miller Skroupa

Lina Slim-Topdjian Barbara T. & M. Douglas Slusser Betty Josephine Smith Cynthia Ann Smith Kathryne King Smith Dennis Hugh Soles Angela K. Sorg Barbara Ann Squires-Roehl Lori Lynn Stafford Krista Marie Stauffer Jo Apple Steinhart Thomas J. Stengel Kimberly Kozar Stephan Mary J. M. Stickley Beth Anne Stiff Judith Audrey Stitley Betty Mae Mutschler Stone Nancy Edwards Stortz Julie A. Strand Claudia Ann Sullivan Amy Marie Killeen & John Raymond Szarnicki Cheryl Wozniak Timmer Candice Wright Tofts Susanne M. Trinchere Mary Patricia Triulzi Linda Marie Turner Mary Eleanor Ubinger Norma Jean Ulery Kathleen Valerio Barbara Ann Vento Pamela Sue Verbin John Vicchio Scott Harry Voshell Charles Robert Waite Emily Sue Walker Evelyn Kwasnik Walker Lynetta Ann Walker Kelly Keane Walter & George J. Walter Jr. Mary Louise Pollino Wargo & Daniel L. Wargo Katherine M. Watson Kari Jo Weidner Donna Ray Weiss Karen Matusavige Welch Christine Marie Whitacre Janet Loren Whitney Therese Marie Willkomm Deborah Menk Wilson Thomas D. Winner Donna Marie Winters-Head Paige Falatek Wisnoski Lynda Spotts Witt Audrey E. Rudolph Yanco Patricia C. Yoder Michael H. Zang Joseph E. Zimmerman





Dear Editor,

FACETS is a wonderful publication. I enjoy it very, very much. As I read the conversation with Dr. Studenski in the summer issue, I had several thoughts. First, we are fortunate to have her as one of our faculty members. Second, I have a question for her. I live in the independent section of a retirement community, drive my own car and go back and forth as I wish. I'm lucky, however, in that the community in which I live has a safety net composed of assistance-in-living (with two registered nurses and six certified nursing assistants) and a health center with 89 beds. In other words, I live in Friendship Village of South Hills, an accredited continuing care community.

My question is this: where do I, and others like me, fit into Dr. Studenski's terminology, e.g., community-dwelling older adults, long-term-care settings? I'd appreciate a definition of her terms.

My hat is off to Dr. Studenski and the whole school. Cliff Brubaker has done, and is doing, a tremendous job.

Anne Pascasio

Dear Dr. Pascasio,

Your letter brings up a key issue; human aging varies widely and the health, functional and living arrangements of older adults are consequently quite diverse. Since health and function differ so much between older adults, and can change over time within each older adult, older people often interact with many types of settings. The terms "community dwelling" and "long term care" are simplifications of a complex network of living and caring environments, which also includes continuing care communities, in-home and day programs, assisted living and numerous others. One of the major emphases of our work is to promote optimal mobility and independence in a wide range of older adults in diverse settings.

Stephanie Studenski

ALUMNI NEWS

Thomas Burzynski, MS, RHIA (HIM '96) recently received the American Health Information Management "e-HIM Triumph Award." The award is a national recognition for individuals who have made advances in e-HIM, supporting the vision of health information as electronic, patientcentered, comprehensive, longitudinal, accessible, and credible.

Rebecca Harmon, MPM, RHIA (HIM '98) was recently promoted to associate dean, Allied Health Programs, Community College of Allegheny College.

Meagan Sampogna, (HIM '00) has been singing the national anthem at the SHRS Recognition Day each year since her graduation four years ago.

Eric Wallis, MS, RHIA (HIM '03) was presented the LTC Paul Hatkoff Award of Excellence in recognition of the top Company Grade PAD Officer in the Army. Wallis deployed to Iraq with the 44th MEDCOM in October.

Bob Richardson (DT Watson, '59) was recently named a fellow of the American Physical Therapy Association.

DEPARTMENT NEWS

The **Center for Assistive Technology** (CAT) received the "Advocacy and Awareness Award" on September 29. **Mark Schmeler**, instructor and director of clinical services at the CAT, accepted the award at the United Cerebral Palsy of Pittsburgh's 12th Annual Community Heroes Dinner.

The Health Information Management Department

has added a Registered Health Information Administrator (RHIA) option to the HIS emphasis. Students who pursue the program must complete 15 to 19 additional credits. Completion of the HIS curriculum and RHIA option courses qualifies students for the American Health Information Management Association's Registration Examination to become credentialed as a RHIA.

The **Center for Emergency Medicine** and the WISER Center (Winter Institute for Simulation Education and Research) hosted 18 Japanese medical students this summer. Overseen by Dr. Tom Platt, assistant professor and associate program director, Emergency Medicine Program, the two-week program offered clinical and didactic training to the medical students.

hirty-five years ago, the audiology and speech pathology landscape was far different than it is today. For example, other than a brief period in the 1940s when mechanical engineers tried to create talking machines, speech pathology was rooted in psychology.

A Higher Standard

And until the 1970s, when the US Food and Drug Administration finally classified hearing aids as medical devices, audiologists were prohibited from dispensing them. The fear—largely promulgated by the medical community—was that audiologists might over-prescribe the devices if they both diagnosed hearing losses and sold hearing aids.

Today, roughly one out of seven Americans—more than 42 million people—suffer from some sort of speech, hearing, language, or swallowing disorder, and that number will only grow with the graying of the baby boom generation. So, too, will the demand for well-trained professionals.

Fortunately, the Department of Communication Science and Disorders is well-positioned to meet the need. In the most recent *U.S. News & World Report* graduate school ranking guide, the department's speech–language pathology program was named one of the top 10 programs in the country, and the department's audiology program earned a number 13 ranking.

The department also boasts one of the largest PhD programs in the United States, and its recently introduced professional doctorate in audiology will only bolster its standing in the speech, language, and hearing community.



A More Educated Class

According to Dr. Catherine Palmer, associate professor, Department of Communication Science and Disorders, technology has played the biggest role in driving advances in the profession of audiology, and subsequently, the department. "Audiology bears little resemblance to how it was 35 years ago," she explains. "In terms of technology, it's like night and day. Compared to today, amplification [hearing aid] technology was almost rudimentary." This, she says, explains why the education requirements for entry in the profession were relatively nominal. "Basically, a bachelor's degree was sufficient to handle the professional demands."

Dr. Christine Dollaghan, professor, Department of Communication Science and Disorders, says the story was the same in speech–language pathology. "Speech–language pathology was often grouped with programs such as rhetoric, theatre arts, psychology, and voice," she explains. "At the University of Pittsburgh, we were part of the Department of Communications. It was really only in the mid-1980s, when speech–language pathology became more clinically based, and focused on clinical research and practice, that we were recognized as a health science."

Clinical demands coupled with technology advances drove both disciplines to raise the educational ante for entry into the professions. "As hearing aid technology and diagnostics improved, competent practitioners needed far more training time to stay on

the cutting edge of the profession," explains Palmer. "In a relatively short period, we've gone from a bachelor's degree to a master's to our current requirement, a clinical doctorate."

Palmer acknowledges that with the clinical doctorate has come a change in the type of students attracted to the profession. "At one time, students who entered audiology or speech pathology usually had some personal connection to the disorder," she explains. "Either they or a family member had a hearing or speech problem. But today, we're getting more and more students from pre-med or psychology backgrounds in our master's and doctoral programs. These students are attracted by the clinical nature of the profession as well as the burgeoning career opportunities.

"They're looking for a career, not just a job," she continues. "Four years of education beyond the undergraduate level is a significant investment. Our students are more mature and more dedicated than ever."

Palmer says career aspirations have also changed. While in years past most graduates would go to work in hospitals or clinical settings, today an increasing number are going into private practice. "We've actually begun offering business classes," she notes. "This fall, we're offering a practice management course, so they understand the business side of the profession. We'll also be offering vital information on reimbursement. We're committed to providing a curriculum that best prepares students for the opportunities ahead of them."

Combining Research and Clinical Education

Dr. John Durrant, professor, Department of Communication Science and Disorders, points out that this new breed of clinician must have a thorough understanding of the research driving the profession, not just so that they can provide cutting-edge care, but because insurers are demanding a move toward evidence-based practice. "Outcome data has become increasingly important to third-party payers," he explains. "However, there has been a decided lack of efficacy data in our field."

Durrant says that the department is working to overcome that deficiency. "Our AuD students and our PhD candidates are working side by side," he notes. "We want the researchers to understand how their work will be applied in the field, and, likewise, we want the clinicians to be educated consumers of the research."

Adds Dollaghan, "We've been accelerating into evidence-based medicine in speech–language pathology for the very same reasons as other clinical disciplines: we want to deliver quantifiable results. Demonstrating that our clinical practices are based on good science will increase the field's respect in the eyes of the consumers, other health professionals, and third-party payers."

Palmer says that in order to address reimbursement realities, the profession is moving away from bundling the diagnostics with the devices. "Third-party payers are generally only focused on the cost of the device—in our case, an expensive hearing aid. However, the knowledge and the service that we provide as audiologists is just as imperative to proper hearing as the device itself. This is another reason we put emphasis on research and evidence-based practices. It demonstrates value."

Durrant believes unbundling must also be accompanied by direct access—allowing consumers to self-refer to audiologists and speech pathologists. "Under current Medicare regulations, access is restricted to physicians. The consumer will only begin to value our service—and as audiologists, we will only begin to be justly compensated for that service—when patients can make their own informed decisions about whom to go to for treatment."

Craig Coleman

Most recent college graduates expect to labor for years before landing what they anticipate will be their dream job. But not Craig Coleman. Just two years after earning his master's degree in speech–language pathology, the 2000 graduate was named co-director of the Stuttering Center of Western Pennsylvania. An added bonus was that he shared the post with his mentor, Dr. Scott Yaruss, associate professor, Department of Communication Science and Disorders. "A lot of what I've learned from both an academic and clinical standpoint in stuttering comes from Scott," Coleman says.

Coleman's work at the center includes research and education as well as the evaluation and treatment of children who stutter. In addition, in August of this year, Coleman was named a Clinical Coordinator in the Stuttering Center at Children's Hospital. "I'm in a great field," says Coleman, explaining why he doesn't find the burgeoning workload overwhelming. "It's important to do something that you really love."

Despite his relatively limited time in the field, Coleman says he has gained valuable insight into how to care for children with stuttering disorders. "You need to treat the whole person, not just the disorder," he explains. "There are so many ways that stuttering affects a child's life. It's not just how many times they stutter or how their stuttering is perceived from a perceptual standpoint."

Currently, Coleman treats about seven to nine children a day. Many of them stutter at a severity level that inhibits them both academically and socially. But Coleman embraces the opportunity to help them. "I try to help them overcome their inhibitions. I want to help them develop social skills and let their personality shine through. This is definitely the most rewarding part of my job."

Coleman acknowledges that stuttering is difficult to treat and that frustration—even among experienced practitioners—is common. But he says that his clinical experience at the School of Health and Rehabilitation Sciences (SHRS) helped prepare him for the realities of the profession. "At SHRS, I had the opportunity to work at so many good local clinical placements and hospitals. I was exposed to a wide variety of treatment and assessment cases," Coleman says.

Like any profession, speech–language pathology has its downside. For Coleman, it's insurance. "So often, I'll see a child that I know I can help, but their insurance gets denied," Coleman notes with dismay. "When I started working four years ago, this didn't seem to be the case. Increasingly, insurance is preventing children from receiving treatment—the treatment they need."

Coleman sees this as an issue that students entering the field will need to confront. "Students need to be a lot savvier regarding insurance and reimbursement," he says. Coleman's feelings on the subject are so strong that he recently volunteered to be a member of the National Insurance Advocacy Initiate and he is also the chair of the National Stuttering Association Insurance Advocacy Committee.

Regardless of the challenges, Coleman has no regrets about his career choice. He says, "Even during frustrating times, you can always find your way through when you're doing something you love."

EMERGENCY MEDICINE

War has been the catalyst for some of the most impressive scientific and technological innovations in history. The wheel, which is thought to have first been used as a wartime device, can be traced back 6,000 years to ancient Mesopotamia, and the precursor of modern communications technologies, the telegraph, was honed during the American Civil War to keep Abraham Lincoln abreast of developments on the field of battle.

Modern emergency medicine's origins are no different. Its roots can be traced to 900 BC and the high water mark of Greek and Roman civilization. However, the discipline was not conjured up by the great thinkers of the Classical Age. The practice of emergency medicine was conceived on the battlefield, where chariots served as the first ambulances, and hammocks were the modern-day hospital bed.

A Discipline Takes Form

Little changed for more than a thousand years after man first found expedient ways to remove soldiers from the field of battle. Early caregivers could give soldiers relatively safe haven from further injury, but, depending on the severity of their wounds, could do little to ease their pain or save their lives.

Emergency Medicine

The first real signs of change came during the 11th Century Crusades. The Knights of St. John, a semimilitary order accompanying the Christian armies, began administering first-aid treatment that they had learned from their Arabic counterparts to both sides of combatants. They took their newly found knowledge to Europe, and the Normans soon

organized the first known ambulance service, shuttling battle victims on a litter strung between two horses. King Ferdinand and Queen Isabella of Spain—who had another notable contribution to history—are credited with naming the ambulance, derived from the

ambulancias, or field hospitals, in which wounded soldiers were treated. While medical treatment remained primitive at best, these developments showed significant progress.

The revolutionary moment in the early practice of emergency medicine came in 1792 when Dominique-Jean Larrey, Surgeon-in-Chief of the French Grand Army, organized the first army medical corps. Larrey brought the hospital wagons to the front lines,

where they were henceforth known as

ambulances volantes, or "flying ambulances," due to their proximity to the artillery, and began conducting triage on patients directly on the battlefield.

Unfortunately, use of this new method of treating battlefield trauma victims was not widespread. In the first battle of the American Civil War, the Battle of Bull Run, injured soldiers walked 27 miles to Washington, DC, for medical treatment. As the war waged on and casualties mounted at an unprecedented rate, it became clear that a new system for the collection and treatment of wounded men had to be devised. Under the direction of Dr. Jonathan Letterman, surgeon general of the Army of the Potomac, a regimented system was established that included stretcher-bearers, rudimentary ambulance wagons, and railroad cars and boats to transport the wounded to general hospitals around the country.

From Soldiers to Citizenry

Around the time the Civil War was drawing to a close, the era of modern emergency medicine arrived.

At the Geneva Convention of 1864, the international community reached consensus on the neutrality of wounded soldiers, their caregivers, and the field hospitals in which they were treated. The Red Cross that signaled their protected status serves as a reminder of this contemporary new perspective on human rights.

But the great leap came when surgeon Edward B. Dalton began an ambulance service in 1869 at New York City's Bellevue Hospital. Dalton's service had 1,401 service

Marches On at Pitt

calls in 1870, and in two decades the number had tripled, even with competition from five other hospitals in the area offering the new services.

Motorized ambulance services began appearing in the United States around the turn of the century, and when the country mobilized for World War I, 1,000 specially adapted Model-T Fords landed in France with the troops.

For the remainder of the century, emergency services slowly proliferated in America. By the late 1970s, ambulance services and emergency rooms dotted the landscape, and today people are as reliant on paramedics as they are on firefighters or the police.

Emergency Medicine 3,000 Years Later

The Emergency Medicine program at the School of Health and Rehabilitation Sciences (SHRS) continues the long tradition of training high-quality first responders for the "front lines" of critical care delivery. While the program has only been part of SHRS since 1997, it has been housed in the Center for Emergency Medicine, a joint venture between the City of Pittsburgh and University of Pittsburgh School of Medicine, since 1978, Presently, the center is a consortium with six member hospitals—Altoona Hospital, Children's Hospital of Pittsburgh, Mercy Hospital, UPMC Presbyterian, UPMC Shadyside, and Western Pennsylvania Hospital.

Says Dr. Walt Stoy, program director, Emergency Medicine program, "While emergency medicine has come a long way as a discipline, our students and their perceptions of how they can utilize their training continue to evolve. There are still many students who are working toward a career as an EMT, but we've seen more and more students using the degree as a stepping stone for medical and nursing school. A large percentage of our students are also earning a baccalaureate degree in order to move up the career ladder and transfer into academics or administration.

"Pre-meds, for example, have tremendous training opportunities in the Emergency Medicine program. They can get most of their primary courses covered and they have plenty of hands-on training, having assessed trauma in medical patients, started IVs, intubated patients, and dealt with cardiac arrest. It's a clear-cut advantage when applying for medical school for students to have already been treating patients on a consistent basis."

But as much as emergency medicine has evolved over the years, Stoy believes that changes in the profession are far from complete. He envisions the emergency medicine practitioners moving beyond just emergency situations and into other aspects of health care in the field. "Eventually our students will be engaging in preventive medicine, treating patients in the field. They'll be drawing blood, getting urine samples, helping with home dialysis treatment, and participating in other facets of health care delivery. Our field has the potential to play an integral role in health care delivery, and I believe that the professionals in our field are up to the challenge."

Leonard Robinson

For Leonard "Lenny" Robinson, emergency medicine is a family business. It was his mother, a former paramedic with the city of Pittsburgh and an employee at the Center for Emergency Medicine, who encouraged him to take his first EMT course. After that, the then– Pennsylvania State University sophomore was hooked. In 1999, Robinson transferred into the Emergency Medicine program and, he genuinely notes, "began one of the greatest experiences of my life."

He explains, "The faculty is the best in the field and takes a very hands-on approach to education, which gives students a very realistic idea of what to expect from the profession. I came away feeling extremely confident in my abilities and was eager to put my learning to work."

After graduating from the program in 2001, Robinson began working for an ambulance service in Washington, Pa., and quickly became a supervisor. He soon moved on to his current job as supervisor at the Peters Township Ambulance Service, just outside of Pittsburgh. Robinson oversees all of the operations at the station, from dispatching and general training programs to OSHA regulation compliance. He is also the HIPAA privacy officer.

"There is certainly plenty to do," he admits. "While we're not getting a huge number of emergency calls, our station responds to 10 to 12 calls each day, and it's my responsibility to make sure everything runs smoothly."

He continues, "I really love my job. It's exciting and energizing with new challenges and experiences every day."

But Robinson is still looking ahead to the next challenge. His ten-year plans include medical school, where he believes his degree from the SHRS Emergency Medicine program will give him an advantage over students with more traditional pre-med degrees. Says Robinson, "The instructors, facilities, and clinical rotations between the University of Pittsburgh, Mercy Hospital, and the City of Pittsburgh EMS gave me a degree of experience that is unmatched. An emergency medicine background is not the conventional approach to medical school, but it's put me in a unique position to succeed.

"I took most of the pre-med prerequisites, but rather than spending the majority of my time in the classroom, I spent my time working with medicine in real-life situations in real time. Pitt's Emergency Medicine program gave me a solid foundation in medicine that textbooks can't replicate."

On _{the} Record

When the American Health Information Management Association (AHIMA) completed a recent workforce study of its 48,000 members, surprising information surfaced. Health Information Management (HIM) professionals are now found in 40 different work settings with 200 different titles ranging from health information director to compliance officer. That's a far cry from the one setting HIM graduates generally sought in 1973—the acute care hospital—with a title like health records administrator.

Nineteen seventy-three was the year the University of Pittsburgh graduated its first class from a department then called health records administration. That was the year that HIM Chair and Associate Professor Dr. Mervat Abdelhak graduated, one of a class of four. Unlike the School's first three departments that had been relocated from elsewhere in the University, health records was manufactured out of whole cloth and was one of just a handful in the country.

Despite the fact that more than 30 years have elapsed, there are still only about 40 accredited baccalaureate programs in the country and fewer than five graduate programs. One reason: clinical resources. "Our students have access to 200 facilities, including UPMC, in which to take their clinical education," says Abdelhak. "This is in contrast to some areas of the country, where departments may have to rely on just one or two facilities in which to further educate their students, restricting the number of students who can take advantage at any one time."

AHIMA predicts that the U.S. will require an additional 6,000 HIM professionals each year for the next decade to handle the burgeoning field of health information management. Abdelhak, who will assume the presidency of AHIMA in January 2005, says she will focus her efforts on an innovative approach that will address the shortage of clinical resources plaguing some programs. "I plan to focus on the concept of a virtual laboratory during my tenure," she explains. Plans are for the association to work with vendors, educators, and others to develop this laboratory that would be available to students around the country.

The Computer Age

The impetus behind this explosive demand for HIM professionals can be summarized in one word: computers.

According to Abdelhak, the influence of computers was first felt in the late '70s. Prior to that, she says, "The department had a single, very primitive computer that was so important, the University built a special box with a padlock."

Today, the department has access to the school's computer laboratory containing 28 terminals, which are open to students to use during class, or for independent study. "Because the majority of students are very sophisticated in the use of the computer, we no longer have to offer a course in computer basics," she continues.

And because of the Internet and other resources that are readily available to students, medical terminology is no longer offered as a for-credit course. However, it is available as an independent study course for those students who require the structure of classroom learning.

HIPAA's Influence

Some of the most dramatic changes in the profession have come more recently with the adoption of the Health Insurance Portability and Accountability Act (HIPAA) of 1996, which has been phased in over an eight-year period. "With the introduction of HIPAA, the health information professional became even more important in an expanding number of settings," Abdelhak points out. HIPAA doesn't apply just to hospitals and doctors' offices. Dentists, pharmacists, and optometrists are just some of the professionals who must comply with the law.

HIPAA also has spawned a consumer element of health information management. AHIMA's Web site now includes a section called "MyPHR" (personal health record), designed to help individuals better understand their health information rights. It also offers tips on maintaining personal health records, and details what should be included in adult and child health records. The Web site offers sample forms, along with ways to keep records electronically. "The Association is working with the AARP and other groups to educate consumers about this important issue," says Abdelhak.

In his State of the Union address in January 2004, President George W. Bush reiterated his commitment to develop electronic health records (EHR) for all Americans, an initiative that could take a decade and cost \$10 billion. But according to details released in July by Health and Human Services (HHS) Secretary Tommy Thompson, the adoption of EHR systems nationally could save 10 percent of the nation's current annual \$1.7 trillion health care bill.

Dr. David Brailer has been dubbed the "first-ever national health information technology czar," and, according to the magazine *Health IT World*, his appointment has been warmly received by the "clinical informatics" community. "This is a massive undertaking and will require incentives for physicians to computerize their offices," states Abdelhak, and one of the reasons that so many more HIM professionals will be needed.

One recent concern for the profession is the outsourcing of some activities, particularly medical transcription and coding, that may require associate, rather than baccalaureate, degrees. "While there is some concern about outsourcing, it is also forcing us to plan for a more globalized approach to education," she notes. The department's student population, which now numbers about 60 undergraduate and 40 graduate students, is decidedly international. "When we posted admissions applications on the School's Web site, our international applications increased dramatically."

Certainly the surroundings for faculty, staff, and students have changed dramatically over the years. With the move to the modern Forbes Tower from antiquated Pennsylvania Hall on the upper campus, HIM was able to expand its computer laboratory and increase the number of students that it could admit. "I also thought that our new location near Forbes Avenue would mean easier access to restaurants, and I'd get a chance to eat lunch," quips Abdelhak. Hardly. Running a growing department precludes time for meals.

Gerald Sandidge

Over his 25 years in the profession, Gerald Sandidge has seen enormous changes in the field of health information management (HIM). For someone less dedicated, the scope and speed of the changes might have prompted a career switch. But Sandidge takes them in stride, even as the landscape of HIM changes almost daily.

Since graduating from SHRS with a BS in 1977 and an MS in 1985, Sandidge has worked in health information management at some of the area's leading medical institutions, including St. Francis Medical Center and Franklin Regional Medical Center. Currently, he is director of medical records at The Western Pennsylvania Hospital, where he manages, analyzes, and utilizes data vital to patient care, making it accessible to health care providers when needed and appropriate.

While it's been years since his graduation, Sandidge doesn't believe his education will ever be complete; he is always challenging himself to learn more. He explains, "I want to have a solid grasp of the most recent technology and policies in HIM so I can best serve my organization, ultimately resulting in better patient care."

In the past few years, health care professionals have had to deal with sweeping regulation changes, the most notable being the Health Insurance Portability and Accountability Act, or HIPAA. The main goals of HIPAA are to improve efficiency in health care delivery by standardizing electronic data exchange and to protect confidentiality and security of protected health information.

Facing the challenges of implementing privacy regulations and monitoring privacy policies, Sandidge accepted the responsibility of privacy officer at West Penn. He oversees 40 employees, directing them on how to best operate within the state, federal, and accreditation agencies' rules and regulations.

Sandidge explains, "We work hand-in-hand with physicians and other health care providers to collect patient data and store it in such a way that will be useful and accessible to them in the future." But HIPAA guidelines add an additional, crucial element to the mix. As a result, Sandidge is very diligent in his oversight, making sure that physicians, nurses, and other health care professionals have access to the data that allows them to provide ongoing patient care. New regulations offer new challenges, and he is aware that decisions made today could set a precedent for the future.

Instead of being daunted by the pressure of setting a good example for successors in the field of HIM, Sandidge pushes forward, offering suggestions about how the coordination of regulations could improve. "I would like to see health care take greater strides in pursuing electronic medical records," says Sandidge. "There have been great strides made in the field of HIM in the past 25 years, but it can't stop now. Current students need to become proficient in the latest technology, and the industry needs to become more aware of how technology can improve patient care."

He believes that the University of Pittsburgh's Health Information Management program is one of the best programs in the nation in preparing students for careers in health information management and provides them with the necessary tools, knowledge, and drive to be successful in their chosen arena.

Deep Roots, Strong Branches

here are two important yet divergent qualities that characterize today's occupational therapist. He or she must be patient-centered—preserving the field's historic commitment to highly personalized care. Yet the therapist must be scientific, making evidence-based treatment decisions that derive from leading-edge research.

This may sound like the makings of an epic conflict between the art and science of occupational therapy—between old-school and new-school ways of thinking. Instead, led by the visionary work of occupational therapists like Dr. Joan Rogers, Dr. Margo Holm, and their colleagues at the University of Pittsburgh, the field is moving toward an exciting synergy that elevates both practitioners and the profession.

A Look Back

Occupational therapy traces its roots back to the 18th century. It became a formalized profession in the United States with the formation of the National Society for the Promotion of Occupational Therapy in 1917.

The next 50-plus years were an important, formative era for both the practice and the teaching of occupational therapy. During the World War I era, practitioners used a vocational model and capitalized on important links to the arts and crafts movement to shape therapies. This allowed them to focus on clients' individualized needs for meaningful occupation. In the '50s and '60s, the field moved toward the medical model, working with specific impairments and structures of the body. As recently as the 1980s, the field began an important shift back to the occupational model, in which therapist and patient incorporate meaningful occupations—like preparing food, dressing, or operating the tools or implements of daily work—into the treatment model.

The Means and the End

Assistant Professor Dr. Nancy Baker describes this revitalized approach as "using occupations as both the means and the end for therapeutic treatment." First, the occupational therapist looks at using daily functions as a means to remediate impairment. For example, doing certain activities strengthens muscle or increases range of motion. "Then, we look at how a patient can do these activities in a better way—by using appropriate devices or better techniques that can help patients perform daily tasks more easily at home or at work," says Baker. "Ideally, occupation as a means and an end coexist." While these important philosophical and practical changes were taking place, the profession was striving for recognition and respect in the academic realm. In 1982, at the apex of this time of changing paradigms, the University of Pittsburgh

established the Department of Occupational Therapy, then housed in the School of Health Related Professions.

As the number of professionals grew, some therapists returned to school to obtain master's degrees and doctorates. To meet this need, the University of Pittsburgh began offering a post-professional master's degree in occupational therapy in 1992, and started mentoring students in the doctoral program in 1998.

In the late 1990s, the profession mandated a post-baccalaureate degree for entry-level practitioners, with the transition to be completed by 2007. In response, the School established a master's degree entry-level program in 2000. Beginning with the class of '05, the entry-level professional degree program will be at the master's level only. This move is a direct reflection of the demand for higher skills and knowledge in the occupational therapy job market.

From Lab to Clinic

As professional qualifications and academic standards for occupational therapy grow more rigorous, the demand for quality research and evidence-based practice increases. The need to incorporate research into practice has raised concerns among clinicians—they worry that science will eliminate that fine art of developing a client-centered treatment plan.

Yet clinicians are recognizing the need to develop evidence to support practice, and they are getting the same message from third-party payers, from clients, and from within the medical community, as well as from the halls of academia. At the same time, occupational therapy academicians recognize this concern and are working to incorporate client-centered practice into research. "The University of Pittsburgh Occupational Therapy program is moving research out of the lab and into the clinics, helping managers build research programs that support their work," says Baker. "We are educating clinicians that they don't have to give up—or even compromise—their focus on the individual client in order to be involved in research. It can help them measure clinical outcomes in a meaningful way. But it doesn't mean we will end up with cookie cutter diagnostic and treatment models."

Instead, research produces treatment guidelines. Occupational therapists use these to create treatment plans based on their clients' unique and individual needs. Thus client-centered principles remain at the heart of evidence-based practice.

"In some ways it's counter-intuitive for occupational therapists to say they can collect data and use it to describe our overall practice, when their focus is so clientspecific," Baker continues. "But it can be done to great effect."

Clinical Reasoning

Today's occupational therapy students have the double challenge of learning clinical and research skills in order to be prepared for the job market. But, equally as important, "our students have to learn the art of clinical reasoning," says Department Chair Rogers. "That is, they need to learn to use judgment, set priorities, and employ outcome measures to make evidence-based decisions."

It was a little over 20 years ago that the term 'evidence-based' was first uttered in relation to any medical practice, and it is an emerging concept in the field of occupational therapy. The SHRS occupational therapy curriculum fully embraced evidencebased practice within the last five years, led primarily by Rogers and Holm. Both professors have been honored with an invitation to deliver the Eleanor Clarke Slagle lecture, the American Occupational Therapy Association's highest academic award. Rogers lectured on the subject of clinical reasoning in 1983, and Holm on evidence-based practice in 2000. These presentations reflect the foundation of evidence-based practice as it has developed in this field.

Part of what defines a profession is the body of knowledge related to it. "Our department is very fortunate to have a faculty who understand that occupational therapy must not only be taught in the classroom and demonstrated in the clinical setting, but also that it has to be backed up by evidence-based outcomes," Baker says. "We need quantitative evidence to demonstrate our effectiveness, with studies that can be understood outside our profession. It's a function of the marketplace. It's what will drive referrals to our practitioners and inform the reimbursement system of our value."

Baker describes the ideal occupational therapy student as one who can employ both inductive and deductive reasoning in the learning process. "As a department and as a discipline, we are moving in two directions. We are strengthening our roots in client-centered care that focuses on quality of life. And we are growing new branches of knowledge through research and standards."

The goal is to achieve a sense of equilibrium between the art and science of occupational therapy.

Emily Eckel

From 1994, when Emily Eckel earned her undergraduate degree, to 2003, when she completed her master's, the Department of Occupational Therapy went through a dramatic change in its faculty leadership and its philosophical outlook.

"When I went back for my master's, the department was much more involved in research," says Eckel. "It took some convincing, but I realized how much the research side of OT expanded my options."

In the intervening years, Eckel had completed the rigorous process of earning a Certification in Hand Therapy (CHT) and planned to use her advanced degree to specialize her clinical practice. What she found was that a greater depth of knowledge offered her a much broader range of professional activities and personal satisfaction.

As a clinician at UPMC Rehabilitation Hospital in Squirrel Hill, Eckel has carved a rather unique specialty area in neurological hand therapy, working with adult patients who have had traumatic brain or spinal cord injuries, strokes, or other diseases that affect the nervous system. But a growing number of fascinating opportunities has Eckel thinking about moving to part-time status in the clinic and expanding her participation in research projects at the University of Pittsburgh, at Carnegie Mellon University, and even in the private sector.

"The clinical setting is very fast paced," says Eckel. "Research allows me to be more methodical with each patient, and it gives me more time for reflection. It's also given me an opportunity to look at the nature of my contribution to the profession."

Eckel has already played the role of rater, therapist, and consultant on various projects. She has worked with Dr. Michael Munin at UPMC on a project that is aimed at winning FDA approval for Botox as a means of reducing spasticity—a condition caused when the brain incorrectly signals muscles to go into abnormal contractions. "The Botox therapy creates a window for therapeutic intervention," Eckel explains. "My role has been as a rater, observing patients and evaluating their range of motion in relation to an assessment scale."

Northstar, a venture capital firm, employed Eckel's therapeutic skills on a study of new brain implant technology for stroke patients. At UPMC—one of several sites participating in the study—she provides intensive and highly standardized functional hand therapy to post-surgery patients. The implanted device stimulates the cortex with a light electrical charge, allowing neurons in the brain to fire more effectively. "The study will look at how stimulation in combination with intensive therapy improves functional outcomes," says Eckel.

"My specialization in hand and upper-extremity therapy opened the door to a really unique opportunity with the CMU Robotics Department," adds Eckel. She is consulting on a robot/human interaction project, and her expertise fills a void in the study's body of knowledge.

Like many experienced OTs, Eckel is finding ways to strengthen the evidencebased practice of her profession while maintaining a vital connection to patientcentered care. "While I head in this new direction focused on research, I've also started working with a home health care provider," says Eckel. "I'm working with people locked in their own bodies, and it gives me the chance to really slow down, spend time, and make a difference."

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Touching Lives: A 35-Year Saga

he year was 1969. Astronaut Neil Armstrong took his "one small step for mankind." Four hundred fifty thousand people flocked to a muddy pasture in New York to experience Woodstock. *Butch Cassidy and the Sundance Kid* and *Midnight Cowboy* were playing at local theatres.

That same year, the University of Pittsburgh launched the School of Health Related Professions (SHRP), as it was then known, with just three departments: physical therapy, medical technology, and child development and child care. But in a university that was founded 217 years ago, a school celebrating its 35th anniversary is just a pup.

Since its inception, through its metamorphosis into the School of Health and Rehabilitation Sciences (SHRS), there has been steady leadership at the helm. Founding Dean Dr. Anne Pascasio served for 13 years, followed by Physical Therapist Dr. Jerome Martin. Interim Dean Edison Montgomery held the reins while a search committee scoured the U.S. for a new dean. (See "Dialogue" on pages 38–39 for the early history of the School.)

In 1990, the year before Dr. Cliff Brubaker took the helm, Congress passed and President George H. W. Bush signed into law the Americans with Disabilities Act, identified by the White House as "one of the most compassionate and successful civil rights laws in American history."

A quiet revolution supporting people with disabilities erupted, spawning increasing emphasis on education, research, and assistive technology, positioning SHRS for a dramatic shift in emphasis.

"We and the disability community have evolved together," states Brubaker. Before his arrival at the School, there was no Department of Rehabilitation Science and Technology (RST). "My career had been in rehabilitation engineering, and my focus at the University of Virginia was on the biomechanics of wheelchair propulsion and pressure-relief seating," notes Brubaker. "But when I interviewed for the position of dean, I looked around the School and didn't see a place for me."

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So, a quid pro quo was established. Thomas Detre, MD, former senior vice chancellor for the health sciences, wanted the School to have greater clinical and research components, and Brubaker knew that rehabilitation science and technology was the key.

Brubaker got his new department, began recruiting faculty, and opened doors at the National Institute of Disability and Rehabilitation Research (NIDRR) and the Veterans Administration, where he knew funding was available.

The year he assumed the deanship, grants to the School totaled about \$320,000, most of which belonged to the Department of Physical Therapy under a grant from the Veterans Administration. The following year, 1992, that number jumped to \$1,823,426.

Today, there is nearly \$9 million in research being conducted at SHRS, a testament to the quality of faculty who have been recruited—and one of the reasons that several programs within the School now score extremely well in rankings published by *U.S. News & World Report*. These and other significant changes have transformed SHRS into a research and clinical dynamo. Funding sources include the NIDRR, the VA Health System, the National Institutes of Health, and the National Science Foundation.

If You Build It, Will They Come?

But recruiting faculty and students was a problem: Pennsylvania Hall was sub par, at best, and downright dangerous at worst. Just as Pitt's new sports facilities on campus, the South Side, and Heinz Field were needed to ensure recruitment of some of the finest athletes, SHRS required modern classrooms and research facilities to entice faculty and students. After years of no movement, construction of Forbes Tower was finally under way, but still some faculty members were skeptical. New space had been promised before and never materialized. "Even as we were packing boxes," says Physical Therapy Chair Anthony Delitto, "some colleagues wouldn't believe it—the comment was 'invite me to the grand opening.'" And they were—the building was opened in 1996 with about 450 students and 40 full-time faculty. Those numbers today are nearly 800 and 76, respectively.

Along with SHRS, Forbes Tower also houses programs and centers that the School runs jointly with the University of Pittsburgh Medical Center (UPMC), programs that enhance the clinical aspects of the students' experience and provide important and often unique services, such as the Center for Assistive Technology (CAT).

This collaborative venture is just one of many in which SHRS faculty are involved. Brubaker, who himself holds additional appointments in the Schools of Engineering and Medicine, strongly advocates this cooperative spirit, which has resulted in active involvement by the faculty in the Comprehensive Spine Center, a collaboration between the Department of Physical Therapy, the UPMC Center for Sports Medicine, and the Facial Nerve Center, another physical therapy initiative in conjunction with several of UPMC's clinical departments.

The Human Engineering Research Laboratories (HERL) was the brainchild of Dr. Rory Cooper, chair and professor of RST, and is designed to build on the science of rehabilitation engineering and assistive technology. Recognition of the work done by Cooper and his colleagues since HERL was established in 1994 has resulted in the awarding of the VA Pittsburgh Healthcare System Center of Excellence for Wheelchair & Related Technology grant of \$3,750,000.

"Because we are a small school, we need to utilize all of the region's resources," states Brubaker. "I try very hard to position our people with others within UPMC and the VA who have complementary interests, skills, and talents."

A casualty of the move to Forbes Tower was the Department of Clinical Laboratory Science. "The UPMC agreement with the City of Pittsburgh for construction of Forbes Tower precluded animal research and any activities that would produce toxic effluents. Space elsewhere within the University would have cost an additional \$1 million." This additional cost and the associated difficulties in maintaining this program led to its eventual closure.

Evolving Program Offerings

Every academic program within SHRS has been enhanced during Brubaker's tenure, and additional programs have been added.

- In 1997, a new program in emergency medicine was created.
- In 1998, the transfer of the Department of Communication Science and Disorders from the Faculty of Arts & Sciences was completed.
- In 2000, a certificate program in disabilities studies was added.
- Sports medicine and athletic training became a part of SHRS in 2001, moving from the School of Education, and were then combined with clinical dietetics and nutrition in 2003 to become the Department of Sports Medicine and Nutrition.
- Doctoral programs in physical therapy and audiology were approved in 2002.

In addition, Brubaker recognized that there were areas for working with people with disabilities that were lacking appropriate behavioral and social dimensions. "In attracting Kate Seelman to be associate dean of disability programs, SHRS now has the skills and talents of an individual who has brought a new awareness of nontraditional disability populations," the Dean states.

With an Eye on the Future

The speed of change at SHRS has merely accelerated. Modifications in the health care system as a whole have been part and parcel of the change, from reimbursement caps to medical malpractice.

In addition, the conflicts in Afghanistan and Iraq have accelerated the need for advanced work with prostheses and orthotics. Cooper has been working with the US Army and the Department of Defense, in conjunction with the UPMC Sports Medicine Center and the Department of Orthopaedics, on advancing prosthetic design and functionality and improving the quality of life for amputees. Brubaker believes that there will be increasing opportunities for additional funding for both research and training.

"Twenty years ago, research in rehabilitation science and technology was engineering driven," says Brubaker. "Able-bodied people would engineer wheelchairs that could do things like walk up stairs, but not do anything else very well." Now with the disability community actively involved in all phases of research and development, "... research agendas have become more closely associated with the needs and desires of people," he concludes.

Physical Therapy Vies for Number One

On a scale of one to five, the top four physical therapy programs in the country are rated as follows:

University of Southern California	4.3
Washington University	4.1
University of Pittsburgh	4.0
University of Delaware	3.9

"I think, frankly, we're underrated," Dr. Anthony Delitto, associate professor and chair, Department of Physical Therapy, notes modestly. He believes that, while the program has a great reputation among peers around the country, the University of Pittsburgh itself is not on the radar screen of many other universities and colleges, particularly west of the Mississippi where there is a preponderance of faculty members who receive the questionnaires used in the *U.S. News & World Report* reputation rankings. But he's happy to take the designation as the third best program in the United States.

The profession of physical therapy has changed significantly in the past 35 years. "In the 1960s, a physical therapist was viewed as someone carrying out the treatment orders of the physician," states Delitto. "Over the years, we began to play a more consultative role and have evolved into what we are today, first-contact practitioners who can diagnose and treat a patient's neuro-musculoskeletal condition."

These changes have dramatically impacted the curriculum offered by the School. Initially, PT was a junior/senior-level undergraduate program. Today, there is a certain irony to what is referred to as the "Entry Level Program"—it's a doctorate in physical therapy that takes students nine terms to complete and requires successful completion of 109 credits. As of 1990, SHRS no longer offered an undergraduate degree in PT, moving to a master's of PT in 1991 and, most recently, the DPT. The School also offers a post-professional Master of Health and Rehabilitation Science for physical therapists with a focus on advancing their knowledge and skills in physical therapy.

In all of the plans of study, the courses themselves are constantly being reviewed and refined. "Curriculum development is, for us, a continuing process," says Delitto. "We need to graduate students who are prepared to practice in any state."

For example, while the Commonwealth of Pennsylvania only adopted direct access in 2004—allowing patients to see a physical therapist without a physician referral—34 other states had already allowed the practice dating back to the 1980s, so students had to be taught evaluative procedures necessary to be competent and safe first-contact practitioners.

"Students learn to recognize problems outside of their scope of practice," states Delitto. "We call them 'red flags.'" For example, there are classic signs of serious diseases, such as cancer, or symptoms that could suggest that surgery for a knee problem might be the appropriate course of action. For 15 years, SHRS students have been prepared in evaluative procedures necessary to recognize such conditions that require referral to other health care providers.

The Pendulum Swings

Like many other health professions, physical therapy has its peaks and valleys as far as interest and availability of jobs. For example, third-party reimbursement changes can have a profound effect on the profession. "At one point in the late 1990s, there was talk of Medicare placing a \$1,500 cap on physical therapy services, per person, per year," says Delitto. "It never actually materialized, but we did see a drop in applications," which at one time were as high as 800 per year for 40 slots. "We were priced right and, at the time, tied for third among the top-ranked programs," he continues. The Pitt program was getting—and admitting—the cream of the crop.

The number of applicants today stands at around 130 per year. Some of the decrease reflects a decline in overall interest among prospective students, but some of this reflects an increase in the number of physical therapy programs. Pennsylvania alone went from three to 14 graduate programs. And while Pitt's tuition rates remain very competitive for Pennsylvania residents, the out-of-state tuition rate rivals that of many private universities. "In the past, I have heard comments from prospective students and recent graduates that there was an oversupply of PTs, and that they were having a hard time finding a position," he notes. "In reality, there were certain parts of the country where there was less demand for PTs. Perhaps our graduates weren't able to 'name their own price' at the time, or may have had to accept a position that was not their first choice, but jobs were always available." Unemployment rates for physical therapists have always been well below those of the national average.

Nowadays, the pendulum looks to be swinging once more back to shortages of physical therapists, with concomitant increases in starting salaries. "We are confident that we will see a rebound in the application rate once more."

Speaking of jobs, however, Delitto says there are occasions when a graduate is offered a position that seems to be too good to be true. "And, it probably is," he declares. "We teach and preach evidence-based practice, but in some assembly line practices, physical therapists will be paid considerably more, but at what price? Rather than being able to spend the time necessary with patients, the saying in the profession is 'rack 'em and crack 'em.'" That is a far cry from the conscientious practice of modern PT.

Evidence-based practice (EBP) is the integration of best research evidence with clinical expertise and patient values. According to the Centre for Evidence-Based Medicine, when these three elements are integrated, clinicians and patients form a diagnostic and therapeutic alliance that optimizes clinical outcomes and quality of life. It's a trend in virtually all of medicine and one that SHRS has spearheaded.

Collaborative Programs Key to Clinical Training

The Department of Physical Therapy works closely with the entire UPMC, including the Centers for Rehabilitation Services (CRS), as well as the Veterans Administration, to provide a variety of clinical experiences for students and research opportunities for faculty. In fact, all of the clinical education in the program's plan of study is carried out at these facilities. Included in the clinical education are available experiences in some of the Centers of Excellence, including the Comprehensive Spine Center, a collaboration between PT and the UPMC Center for Sports Medicine, and the Facial Nerve Center, an initiative in conjunction with several of UPMC's clinical departments. At the Jordan Balance and Vestibular Laboratory, otolaryngologists and physical therapists work side by side treating people with balance and dizziness problems.

"We are currently investigating the option of offering fellowship programs," say Delitto. "Down the road, I'd like to see three or four in all of the areas where we excel in our UPMC and CRS partnerships, including sports medicine, manual therapy, and perhaps women's health or balance and vestibular."

No doubt the fellowship program will be just the ticket to earn the four-tenths of one percent required for Delitto and the faculty to secure the number one slot for physical therapy.

Joe DiVincenzo

Edgar Bergen once said, "Hard work never killed anybody, but why take a chance?" Fortunately, Joe DiVincenzo held a much different philosophy, in terms of both his work ethic and his willingness to take risks.

In 1973, he completed his degree in Physical Therapy at the University of Pittsburgh. But his journey along this career path began in high school, fired by the comments of a coach and physical education teacher who spoke of his regret that he did not become a physical therapist.

After high school, DiVincenzo was drafted into the Army. While serving his country in Vietnam, he witnessed the carnage of war. "Soldiers were getting severely wounded—many were losing limbs—and eventually they were sent home for rehabilitation. The guys who wrote back to our unit always spoke glowingly about their physical therapists." recalls DiVincenzo. "The recovery process from such catastrophic injury—the way these guys were able to get back their independence in doing everyday activities—really intrigued me. It was then that I knew becoming a physical therapist was my calling."

Once he returned to the United States, the combat veteran completed his first undergraduate degree and began looking for a university that offered an excellent program in physical therapy. "There weren't a lot of choices at that time, and most gave preference to in-state students," says the New Jersey native. "Pitt was the program I wanted—the only one I applied to. But I knew that with a 'C' in chemistry and barely a 3.3 GPA, my chances were slim—I was even told so in my pre-admission interview."

DiVincenzo took the chance, risking disappointment—and the highly competitive program at the University of Pittsburgh in turn took a chance on him. He received the good news that he had been accepted. He went on to prove to himself and everyone else that it was the right decision.

Physical therapists were in great demand in the mid-'70s, and upon graduation, DiVincenzo immediately began talks with a young Texas-based practice. "At the time, I had two children, and a flight to Texas was more than I could afford. But they called me and insisted I come to visit. They sent me a plane ticket, I joined the practice, and, as it turned out, I stayed until I retired," he says. In fact, he became one of nine major shareholders, and he was able to retire in style after selling the practice in 1992.

Today in the Tampa Bay area, DiVincenzo stays busy golfing, traveling, and freelancing as a home-care physical therapist. And he keeps his eye on advances in his beloved profession.

DiVincenzo notes that job opportunities in the field are on the rise, due in large part to new markets for professional physical therapy services. Physical therapists have moved beyond hospitals and clinics, into health clubs, professional sports teams, and even corporations. The field has changed to meet the medical, social, and financial needs of the times, and DiVincenzo feels proud to have been a part of that evolution for over three decades.

He is looking after the future as well, by providing extremely loyal and financially generous support to his alma mater. "Giving back to SHRS is extremely important to me. I owe everything to them, considering the chance they took on me," says DiVincenzo.

From Intervention to Prevention

By the 1970s, dietitians had been an essential part of the hospital health care team for many years. But major changes were about to take place—changes that would shape the study and practice of nutrition, making it a cultural phenomenon for the 21st century.

At that time, the American Dietetic Association (ADA) began a credentialing program for registered dietitians, and dietitians' traditional role of consulting with patients who were already diagnosed with major health problems was expanding to include health promotion and disease prevention.

Just a few risk factors account for a large percentage of chronic disease. Many of these factors—such as high cholesterol, high blood pressure, and obesity—are exacerbated by poor dietary habits that evolved as we became a more industrialized and urbanized nation. The result is a food supply no longer made up of basic "raw" foods. Our nation consumes a high percentage of processed, "convenience" foods that are often higher in fat, sodium, and added sweeteners.

It was common sense—backed up by clinical research—that led to big changes in the practice of dietetics. "Today, we focus on prevention as well as intervention," says Judy Dodd, adjunct assistant professor, Department of Sports Medicine and Nutrition. "And as a result, our curriculum and teaching methods are vastly different today than in years past. We teach our students to focus on how nutrition affects health and how it can prevent future disease, from the pre-natal stage throughout the entire life cycle."

The study of nutrition has always been grounded in science, so it didn't take long for the concept of "wellness" to be integrated into the discipline—backed up by a growing volume of academic research. Among the research priority areas identified by the ADA are "prevention of obesity" and "nutrition and lifestyle change intervention." The ADA's goal is that research in all areas be applied to evidence-based practice in the field.

Wellness has also become a cultural obsession. The phenomenon of the Internet and the flood of mass media outlets have fueled the market for dietary health information. A Google search for "healthy diet" turns up no fewer than 5,040,000 hits, and Amazon.com lists over 44,000 books under the heading "nutrition."

"This explosion of interest in wellness and healthy eating has had repercussions in the classroom and made us refocus on the way we teach," says Dodd, who joined the department in the mid-1980s. She explains that students entering the program today have a strong science background. They are more prepared and focused than ever before. But they also come with a high level of dependence on technology, and a disdain for the traditional classroom environment. "I believe the best method for learning is still being involved in the classroom and attending lectures, then conducting the search and discovery process independently," says Dodd.

The Internet has dramatically changed the way students conduct their independent research. What once took hours in the library now takes minutes on the Internet. "However," warns Dodd, "as adept as they are at web-based research, students must be very vigilant that their sources are science-based and that any academic papers and studies they make use of are peer reviewed."

Kathy Gonzalez

Kathy Gonzalez is a firm believer that "change is good." In a time when health care policies and procedures are becoming increasingly complicated and consumers are becoming increasingly frustrated with the system, Gonzalez has introduced an appetizing innovation that is making patients' mouths water.

For the past eight years, Gonzalez, a registered dietitian and divisional vice president of health care at Metz and Associates, has been doing a job she never envisioned when she graduated from the Department of Clinical Dietetics and Nutrition (CDN).

"After high school, I thought I wanted to be a home economics teacher. But marriage and children came into my life first," admits Gonzalez. "When I finally got the chance to go to college, Pitt was just starting the CDN program and I thought it sounded really interesting. I was in the first graduating class, ever."

Even after her graduation from the University, Gonzalez thought she would be involved in the clinical side of dietetics. Earlier in her career she had been an x-ray technician, and that experience made her feel extremely comfortable in the clinical setting.

"It made a huge difference in the clinical sites," notes Gonzalez. "I just had more world experience and I knew how to relate and talk to patients."

But she says the opportunity at Metz and Associates, a contract management company based in Dallas, Pa., was too good to pass up. Gonzalez oversees operations and patient services for all of the company's health care clients in four states—New Jersey, Ohio, Pennsylvania, and West Virginia. Some of her clients include such wellknown names as West Penn Allegheny Health System hospitals and Albright Care. Gonzalez and her team oversee all aspects of dietary services, from setting budgets to serving quality meals, managing employees, budgets, and services to provide quality dining for patients. In addition, she oversees a team of nutrition educators for Metz's school division that provides nutrition education in classrooms.

One of her most noteworthy accomplishments has been the development of Metz's Preferred Dining Program. Its goal is to increase patient satisfaction by allowing them to choose their meals rather than being served a standard menu. Hosts and hostesses visit patients to take their meal order, ensuring that they will enjoy what they're served. Thanks to Preferred Dining, there is better communication with patients and less waste after mealtime.

"For the longest time hospital food was viewed in the same light as airline food," laughs Gonzalez. "But with our program, it's not anymore. Our goal is to be on the forefront of issues and concerns that may arise with our patients regarding food and nutrition services. Most of the people aren't feeling very well, so if we can cater to their exact needs, it allows us to achieve high customer satisfaction, which is paramount." In an effort to keep up with escalating competency requirements in the profession, SHRS regularly analyzes and enhances its course offerings. "There is also a growing emphasis on experiential learning getting our students out in the clinical setting or involved in community health initiatives," says Dodd. "And we are working to integrate classrooms with the other SHRS departments, so that future dietitians and their colleagues in sports medicine, physical therapy, and other health fields gain a greater understanding and appreciation of how their work interrelates."

Today's graduates have a much broader range of career options. They are being hired by hospitals, nursing homes, and clinics as well as HMOs, daycare centers, health clubs, and even supermarkets. And there are a growing number of registered dietitians in private practice.

"The dietetics professionals who will graduate from our department are the key to turning a healthy living trend into a true lifestyle change."

Cheryl Ferris

To hear Cheryl Ferris tell it, her route to a career in sports medicine is fairly typical. A sports injury led to the training room and the training room led to an interest in sports medicine. But how she has applied that interest is anything but ordinary. Ferris earned her undergraduate degree in sports medicine in 1994, then a master's degree in education from the University of Virginia. But after three years as instructor and assistant athletic trainer at Waynesburg College, she discovered her passion was in the academic and research side of sports medicine. In 1999, she left the working world and returned to her alma mater, becoming a PhD candidate in Rehabilitation Sciences. A doctorate, she believed, would offer unparalleled career flexibility.

Ferris acknowledges that some of her colleagues questioned her decision to return to the classroom. Some wondered why she chose the School of Health and Rehabilitation Sciences (SHRS). But Ferris couldn't be happier with her decision or the school. "With my doctorate from SHRS, my opportunities are limitless," says Ferris. And as for SHRS: "Very few universities offer a clinical setting where physician offices, outpatient physical therapy, and research laboratories are all housed in the same building," she explained. "The facilities are top notch."

Ferris also says she was impressed at how much the school itself had changed in the six years since her undergraduate graduation. "The transformation and growth at SHRS was amazing. Seeing it was truly exciting. "

Underscoring the promise of her PhD, Ferris recently shifted her focus to a new trend in sports medicine and athletic training—online medical database management. She's a consultant for Expert Medic, a company whose system for creating accurate and updated patient files via the Internet will improve communication between doctors and specialists.

"I help with the design and functionality of the system," Ferris explains. "I offer recommendations and help to customize the system to suit my clients' needs."

She acknowledges that her current role has only a peripheral connection to her degree. "I didn't go to school to do what I'm doing now." Nonetheless, she still maintains close ties with the SHRS faculty. "I always feel comfortable going back to my professors for insight or advice."

For Ferris, this relationship is what makes her SHRS experience so valuable. "They're not just professors; they're researchers and clinicians," she emphasizes. "Their wide range of experience benefits students and alums like me tremendously. I'm constantly learning from them."

Creating the New Benchmark

he last 10 years have been good for the Department of Rehabilitation Science and Technology. From a relatively inauspicious start in a field itself still in its infancy, the department has matured into a wellrespected, robust leader in rehabilitation technology. Its three research centers—the Center for Assistive Technology (CAT), the Human Engineering Research Laboratories (HERL), and the Rehabilitation Engineering Research Center (RERC)—have become national models for disability and rehab research. Its faculty regularly travel around the world offering lectures and training seminars. And after only a decade, the department is awarded more grant and contract dollars annually than any of its peer programs in the School of Health and Rehabilitation Sciences (SHRS).

While the department's ascent to the top tier of rehab sciences programs in the world has been rapid, it has been closely monitored by Dr. Rory Cooper, distinguished professor and chair, Department of Rehabilitation Science and Technology, and other faculty members who have seen the program's potential almost from the start. They haven't worked for the past 10 years just to get to the lead. They've worked to stay there.

Creating a Vision

At its inception in 1994, the Department of Rehabilitation Science and Technology was a fledgling rehabilitation engineering program with a handful of students and professors. Following still–newly hired Dean Cliff Brubaker's philosophy that health-related disciplines should be handson and patient-centric, the department was born with a strong clinical focus, which, as Cooper explains, remains the cornerstone of the program to this day. Initially, almost all of the program's faculty and students had traditional engineering backgrounds and most had a personal connection to disability. They all wanted to help improve the lives of people with disabilities. Given the job market in the mid-'90s, all of the department's graduates could expect a job in research and development with an engineering or manufacturing firm, but there were few other opportunities.

The department was also a draw for nontraditional students, many of whom had been working in the assistive technology field for years and were anxious to get the validation of an advanced degree.

"In the beginning, our strength was fairly limited. The department was predominantly made up of engineers, so we excelled at rehabilitation technology research, especially in the realm of wheelchairs and seating. Faculty like Doug Hobson, who co-directs the RERC, and Elaine Trefler, our director of Continuing Education, played keys roles in those early days," Cooper explains. "As we began to come into our own as a department, we broadened our focus. For example, our assistive technology teams that worked on rehabilitation devices attracted students from disciplines throughout the School and even the University."

Going Clinical

As students' perceptions of the Department of Rehabilitation Science and Technology began to change, so did the faculty's view of itself. The University of Pittsburgh Medical Center (UPMC) became more intimately involved with CAT, and physicians from around the Pittsburgh area began referring their patients for treatment there. "We began to be valued for our clinical focus and I think this was the seminal moment for the program," Cooper remembers. "Rehab science and technology had an identity not only in our eyes, but in the eyes of the public. Mike Boninger, executive director at CAT, and his team have done an extraordinary job in connecting the School with the broader community. And research and development work like that conducted by Dave Brienza and Tricia Karg in the area of wheelchair seat cushions has been invaluable for uses of assistive technology."

Cooper also utilized a wider view of rehabilitation science to create one of the department's largest outgrowths, the rehabilitation counseling graduate program, headed by Associate Professor Dr. Michael McCue. "The median income for people with disabilities is only \$13,000 a year, and the vast majority are unemployed or

As the department gained more widespread exposure, it drew students from more diverse academic backgrounds. Cooper—who became the department's chair in 1997 responded by branching out into other areas of the rehabilitation sciences, hiring professors of epidemiology, political science, occupational therapy, physical therapy, and psychology to keep pace with the changing perspectives of students and to maximize the effectiveness of its clinical teams.

"We have instilled such a strong clinical focus in our department that our students have a real competitive advantage over their peers."

underemployed. People with disabilities face many challenges, and we didn't just want to be limited to building the best assistive devices. We wanted to add an equally strong psycho-social component to the department," he explains with conviction.

The program has proved to be a tremendous success, especially after the Rehabilitation Act of 1973 was amended to mandate that all services for people with disabilities be provided by qualified rehabilitation professionals. Rehabilitation counseling requires a graduate degree.

Cooper acknowledges that, to some, rehabilitation counseling appears to have little in common with rehabilitation engineering. But he firmly believes that an understanding of both the technical and the counseling sides of rehab science is essential. "The core courses for both of our programs are nearly identical," he emphasizes.

Cooper and others also began to realize that the long-term success of the department's research and its effectiveness in helping people with disabilities would hinge on the public policy in place to facilitate these changes. He notes, "As our department began to create better and better solutions for people with disabilities, our thoughts turned to how they would be implemented and how they would be accessed by people with disabilities. Policy decisions are ultimately what improve the quality of life for people with disabilities, and we want our students to understand the importance of advocacy."

In the decade since the department was created, the student base has changed almost as dramatically as the curriculum, in large part because of the wealth of career opportunities that have followed the field's Herculean growth. Most students now enter the program because they hear about the discipline—either while at Pitt or studying as an engineering undergraduate at other schools throughout the country—and it sparks their interest. As Cooper eagerly puts it, "Rehab science and technology has finally started to go mainstream."

He continues, "The job market now offers so many choices for a graduate of our program. We have instilled such a strong clinical focus in our department that our students have a real competitive advantage over their peers. We require at least 300 hours of clinical work in the master's degree program, which is unmatched to my knowledge. Compare our students to a student traditionally trained as a mechanical or electrical engineer who still needs extensive training on the job and there's no competition."

Heather Rushmore Koren

The line between theory and practice can be difficult to bridge in the academic world. What is taught in the classroom is not always what occurs in the real world. But Heather Rushmore Koren, a 1997 master's degree alumna from the Department of Rehabilitation Science and Technology, has crossed the line so many times it has become all but invisible. In her short career, she has gone back and forth between the clinical setting and the academic no less than four times.

After graduating from California University of Pennsylvania in 1994 with an undergraduate degree in language pathology, Koren began working with adults with cognitive disabilities. However, she quickly noticed the disconnect between the technology that was on the market and the technology that was available to her clients. "I wanted to find a program that taught students about the technology that was needed in the field. While assistive technology for those with disabilities was widely available at the time, I didn't know what all existed, but I knew it could make a difference," she explains.

Her searching led her to Dr. David Brienza, associate professor, Department of Rehabilitation Science and Technology, and the School of Health and Rehabilitation Sciences. "The school offered training in all the forms of assistive technology that I knew I would need, from augmentative communication devices to new forms of mobility devices," she remembers.

Koren found all she was looking for and more in the Department of Rehabilitation Science and Technology. She continues, "The faculty members took a fresh approach to teaching, in part, I think, because it was a new program, but also because of their intense commitment to finding solutions to the challenges they faced."

"I'll never forget a course in which Dr. Cooper instructed us to engineer a wheelchair with nothing but PVC piping and work with it in the Wheelchair Testing Lab. That's problem-solving on more than one level," she states.

Having gained the technological expertise she had been lacking, Koren immediately got to work, beginning her new career as a technology specialist at United Cerebral Palsy in Washington, DC, where she was in charge of training its staff and clients in the use of assistive technology. But her marriage to a Marine officer wouldn't keep her in the same place for long. She spent the next several years working in a variety of settings helping people to better utilize technology in the workplace.

Koren's most rewarding—and longest tenured—job came in 2000 when she accepted a teaching position at East Carolina University. She was a visiting instructor in the school's special education department and director of the assistive technology lab. Koren also developed an online graduate certificate program for the school. The opportunity "was the culmination of my academic and professional career," she notes. "My experiences in the workforce coupled with my advanced knowledge of the field enabled me to create some dynamic courses."

Koren now lives in Columbus, Ohio, and is working for a company that provides professional development opportunities for school personnel on how to use basic computer technology. But she has stayed committed to her roots in assistive technology. On a consultative basis she provides assistive technology training through the Tech Act Grant, a federally funded program meant to provide information technology resources within each state.

A Conversation with Dr. Anne Pascasio

Dr. Anne Pascasio was the founding dean of the School of Health Related Professions, now the School of Health and Rehabilitation Sciences (SHRS), from its inception in 1969 until 1982. She retired from the University in 1986. As part of this special 35th anniversary issue of FACETS, we asked Dr. Pascasio to take us back to the school's early years.

Q How did you first become connected to the School?

A The University was exploring establishing a 'health school' and created a committee to evaluate the feasibility of the project. I had just completed my doctorate at Pitt, had been a consultant with the Division of Education of the American Physical Therapy Association, and prior to that had been head of physical therapy at the Hospital of the University of Pennsylvania and an instructor at Penn's Graduate School of Medicine. The committee, with Nursing Dean Marguerite Schaeffer as chair, asked me to work with them.

I had previously accepted a three-month position at the University of Illinois Medical Center as a member of the Interprofessional Task Force on Continuing Education. Dr. Schaeffer said, 'We'll wait for you,' and they did. So from January through June of 1967, I held an associate research professorship in the School of Nursing and served as staff/consultant to the committee.

Q How did you become the founding Dean of the School?

In July 1967, I became an assistant to the newly appointed Vice Chancellor of the Health Sciences, F. Sargent Cheever, M.D., and, for the next 18 months, continued planning for the new school. Chancellor Wesley W. Posvar asked me to be dean and officially opened the School of Health Related Professions on January 1, 1969.

2 How did the various departments come together?

A Hospital programs were being phased out across the country in physical therapy and medical technology. DT Watson asked Pitt to take over the academic program in physical therapy. The University Health Center hospitals [now UPMC] wanted to divest themselves of the responsibility for the degree in medical technology. The College of Arts and Sciences (CAS) willingly shed its role as the degree-granting school for both of the programs. The School of Medicine housed a master's degree in child development and child care—two of its great proponents were Drs. Benjamin Spock and Henry Brosin.

Those three programs were the first ones in the school. Original plans also called for health records administration, occupational therapy, and clinical dietetics and nutrition. During each of the first 10 years, we added a new program, or at least a portion of a program. We worked closely with other parts of the university, but also with the Community College of Allegheny County, and launched several joint degree programs within Pitt and some academic 'ladders' in a few fields.

What was your approach to recruiting faculty?

Finding faculty caused us serious concern. There were not many people at that time who were practicing health care professionals and who also possessed the appropriate academic credentials. Chancellor Posvar asked me, 'Where are you going to find these faculty members?' My response was 'We'll just have to educate our own.' And that's what we did when it was necessary.

"For example, the current chairperson of the Department of Health Information Management, Dr. Mervat Abdelhak, was one of four students in the first class of health records administration, graduating in 1973. We hired her as an assistant instructor and she continued on to complete her master's and doctoral degrees in information sciences at Pitt.

Q What was it like being the "new school on the block"?

A In most cases, we were starting from scratch. New curricula had to be developed. We had to seek accreditation for our programs. And because many of our students were juniors and seniors who came to us through CAS, we faced admissions and registration challenges. I went to five different departments on the lower campus to find out the most efficient way to undertake this, and I got five different answers. When Sarge Cheever inquired about my explorations and I told him the results, he said, 'Pick the one that you like best and that works best for us.'

Were there other programs around the University that you thought should be moved to SHRS?

A Speech pathology, audiology, and athletic training were three programs that seemed to be a perfect fit, so I discussed the possibility with various administrators. Perhaps the timing wasn't right, but those transfers didn't come about during my administration. I'm glad to see they did finally happen.

Phealth care was advancing at a rapid pace. What were you able to do to accommodate people seeking additional academic credentials?

As a new school, we had to be nimble. In 1972, we created a Health Professions Interdisciplinary Program that was begun to train students from oral hygiene, x-ray technology, respiratory therapy, and other related disciplines who wanted a baccalaureate degree to advance their knowledge and careers. The next year, we added a master's level program that was well received by the professional community.

? You've returned to SHRS since your retirement. What's your assessment of where the School is today?

It's tremendous! My hat's off to Cliff Brubaker and his faculty and staff. They've done a superb job. Cliff's contacts with the people in Washington and the faculty he brought with him and recruited have really increased the amount of research funding that has come into SHRS. Thirty years ago, I established a fund to encourage research, publication, and the development of our faculty. These small grants served to whet the appetites of some of our faculty members who were encouraged to seek larger grants. But that was very small in comparison with today.

Cliff has done a great job. He's been kind in telling me that I helped lay a strong foundation for today's School, but it's wonderful to see what he has accomplished. SHRS is indeed a gem! I'm proud to still be associated with it.

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