

FACETS

School of Health and Rehabilitation Sciences

Fall 2002



University of Pittsburgh

FACETS

SCHOOL OF HEALTH AND REHABILITATION SCIENCES — FALL 2002 — CONTENTS

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Back: During the 1930s and '40s, manufacturers developed body-worn designs that housed vacuum tubes and microphones within a single unit, which allowed for portability. These early body-worn vacuum tube hearing aids were cumbersome and required wires to connect the batteries and the earpiece to the microphone/amplifier unit. Hearing aid batteries were at least as large as the other components and weighed up to 2.5 pounds.

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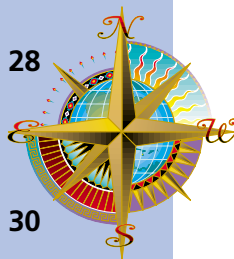
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CLIFF'S NOTES A Leaner Look

Upon reading this issue of FACETS you may notice that it is a bit leaner and has a slightly different look. It has been quite a challenge to convey

comprehensive information and include feature articles for six departments with nine distinct professional academic disciplines.



The major change has been a reduction in the number of “feature” articles. Instead of running major articles for each program in each issue, we shall now include features according to the timeliness, relevance, and impact on the individual and collective interests of our community. We shall focus on the three to four most newsworthy events and present them in greater depth. We believe these changes will enable us to present you with a more focused and more efficient publication without diluting the dissemination of information on the programs of our school.

We shall continue to present information and news in a dedicated section for each program of SHRS. It is our intent to continue to feature individuals and events for all programs. We anticipate that each program will be featured in due course.

Significant changes

By now it is generally evident that entry-level training in the Health and Rehabilitation professions has evolved from what began almost exclusively as baccalaureate degree programs to graduate level training and now to professional doctoral degrees. These changes have resulted both from curricular pressures and the ever-increasing sophistication and maturation of our several fields of endeavor.

We, of course, must both adapt and provide leadership to facilitate these transitions. A significant consequence of the trend toward professional doctorates is a substantial increase in enrollment. The transition from two-year to three- and four-year professional training programs has the obvious consequence of a 50 percent to 100 percent growth in student enrollment and a necessary relative increase in faculty. I shall note parenthetically that this growth will be realized without any increase in class sizes.

What appeared as spacious, perhaps even excess, space when we moved from Pennsylvania Hall to the new Forbes Tower in 1996 has now become saturated. With rapidly expanding enrollment over the next three to four years and a combined research enterprise that is currently expanding by more than 20 percent annually, SHRS again is confronted with space problems.

How we shall resolve our growing space needs is not yet completely evident. We shall certainly respond to this challenge. We shall most surely do this with greater facility and ease with your advice, participation, and assistance.

We are most interested in hearing from you on the “new look” for FACETS. We also would like to hear from you on other issues and events.

With kindest regards,

Clifford E. Brubaker

School of Health and Rehabilitation Sciences

We sincerely appreciate the advice and counsel of the members of our Board of Visitors, our Development Advisory Council, and our Alumni Society Board

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What Do You Think?

Have an opinion about something you read in FACETS?

E-mail your thoughts to Karen Khan at

ktkhan@shrs.pitt.edu.

We'll print letters to the editor as space allows.

Perhaps you've been thinking about making a gift to SHRS, but are a little hesitant, given today's uncertain market. You can achieve your philanthropic goals, yet retain your assets or even derive an income, with a planned, or deferred, gift.

Unlike an outright gift, where a transfer of assets benefits the university immediately, a deferred gift is a transfer or pledge of assets that will benefit the university at a future time designated by the donor.

Planned gifts fulfill several donor needs:

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While planned gifts are not used to meet the immediate needs of the university, they perform a vital role by ensuring that resources will be available to meet future needs.



Karen Khan

The simplest and most prevalent type of planned gift is the bequest: assets left by the donor in a will that will be distributed after the donor dies. According to *Giving USA*, individual donors gave an astonishing \$160.72 billion to philanthropic and charitable causes in 2001, representing 75.8 percent of all giving for the year. While an exact figure for all planned gifts is not known, bequests accounted for \$16.3 billion, or about 8 percent of total individual contributions.

There are many different types of planned gifts, from bequests to gift annuities, charitable remainder unitrusts to pooled income funds. While these terms may sound a little daunting,

the university can provide you and your financial advisor with charitable and estate planning expertise, and explain the gift options available to you.

A planned gift helps you make the best use of your investments. It combines your interest in making a lasting contribution with tax benefits and savings to your estate.

Karen Khan
Director of Development

If you would like to create a planned gift, make an outright gift, or need more information, please contact me at ktkhan@shrs.pitt.edu or 412-383-6548.

Giving

A planned gift helps you make the best use of your investments.

Feedback

Going through the pile of mail at the end of a long Wednesday, I found the *FACETS* publication from your school. It is indeed a pleasure to read, and it looks so good! I have not seen anything as pleasant from any other school anywhere. That article on *Looking at the Other Side (of the brain)* was great.

Thanks for sending it to me on a regular basis. It is one of the few things left in my mail that is worth going through!

George K. Michalopoulos

I had to write and congratulate you on your exceptional publication. I just received a copy a few days ago. What a wonderful vehicle for carrying your work to the world!

Kathleen Curtis

Just wanted to let you know that I really enjoyed the *FACETS* publication. I hope that I will continue to receive it. I appreciated the various articles related to specific health professions.

Terri Haupt, PT '85

I enjoyed the article about Watson. I was in Carol Levin's class and one of my affiliations was at the Oakland VA while Jane Linn was the director. I went to Watson at age nineteen, graduating two months after I turned 20. I got a job at Rusk Institute for \$4800 year, not the usual \$5200, because I did not have a license. You see, I passed my state boards, but at that time you could not get your license until you were 21. So my license is dated July 18, 1964, my 21st birthday.

We had an excellent education. Dr. Wright made us stand at attention if any physician came in to lecture. The instructors watched how we walked (we had to toe in), how we talked. We had 42 in our class. 38 made it. Memories!!!!

Arlene Chodock Adelman '63

That was a great article on D. T. Watson. I am a graduate of the school, and the article brought back many memories of Anne Pascasio and Mary Elizabeth Kolb. I also fondly remember Dr. Rex Newton who instructed us on Pathology. Keep up the good work and certainly the school is to be commended for its 100% pass rate on the PA State Board Examination.

Francis H. Adams III '65

Enjoyed reading *FACETS*. Nice job. I was troubled to find that the article "Teaching the Hands that Heal" focused only on PT and did not even mention the influence of OT. The woman treating a child on the right bottom of page 35 is a registered OT. Note patch on her right arm. I wonder if your history overlooked the other students or therapists who made significant contributions to D.T. Watson. It was wonderful to get this piece of PT history, but no other services are mentioned. I hope that you might expand the history and help us to a deeper understanding of this institution.

Ruth Schemm

I was in one of the last classes to graduate from D.T. Watson in the Fall of 1966. I, of course, loved the article. Our class was quite unique, besides being the best. We had 20 male students and 20 female students and we all lived quite happily in the big house. Of course, we had a housemother on each floor. I have our graduation school picture which was recently published in the *APTA Prime Timers* magazine.

Faith Beckerman Goldman '66

Faith Beckerman Goldman would like to hear from her classmates. She can be reached at FaihtNamdlog@aol.com

We want to thank all of our alumni and friends for their generous support of the School of Health and Rehabilitation Sciences during fiscal year 2002. Your contributions to the Annual Fund have allowed us to award scholarships based on need and academic merit, provide program support, graduate research support, and services to the community.

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Witt, Lynda Spotts
Yanco, Audrey E. Rudolph
Yobbi, Alisha Marie
Yontz, Robin Radcliff
Zell, Jeanne Medvitz & Gerald Truxal
Zimmerman, Michael Anthony

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Atkins, Leslie Billow
Backstrom, Don Allen
Bauer, Suzanne Marie
Baumgardner, Judy Marie
Benedict, Barbara Murphy
Block, Ina L.
Boyle, Maureen P.
Brandt, Deborah Suzanne
Brobst, Christopher Michael
Capristo, Anita Levo
Carson, Linda Ruth
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Clifford, Lynn Coward
Counts, Gail Falkenstein
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Danley, Mary Ann S.
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DuBois, Linda Candee
Fast, David Michael
Fisher, James P.
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Muller, Patricia Marzulla
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Richard Michael
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Anthony Stephen
Schaffer, Susan Uber
Schladenhausen, Regis J.
Shames, George H. & Joan Kramer
Silverman Languie, Jill
Smith, Kathrynne King
Sullivan, Claudia Ann
Sweany, Lyle M.
Szarnicki, John Raymond
Vance, Janice Elizabeth
Weidner, Kari Jo
Whitney, Janet Loren
Zimmerman, Joseph E.

This list reflects gifts and pledges to SHRS from July 1, 2001 - June 30, 2002. Every effort was made to ensure the accuracy of this list. If there are any errors or omissions, please contact Karen Khan at ktkhan@shrs.pitt.edu

New Graduate Program

Masters of Studies in Law

Disabilities Law Concentration

The law exerts a powerful and direct impact on the lives of persons with disabilities. It is estimated that close to 20 percent of the U.S. population, nearly 54 million people, have a disability, with a dramatic increase in the proportion since 1970. People with disabilities comprise one of the largest, least employed, and most disenfranchised minority groups in society. Universally accessible social and physical environments will empower students, demolish barriers to employment, and increase the health and well-being of millions of people in our society.

The University of Pittsburgh School of Law's Masters of Studies in Law-Disability Law Concentration (MSL-Disability Law) is a unique effort to provide legal education to those working in the administration and provision of disabilities programs. Administrators, educators, health practitioners, advocates, social workers, architects, city planners, attorneys, and business leaders, among others, could potentially benefit from the program's instructional content.

MSL-Disability Law was conceived in concert with the School of Health and Rehabilitation Sciences to develop professionals in both law and rehabilitation with a mutual understanding of disability law. The MSL program consists of regular law school courses with JD students.

Program participants will have the opportunity to study law at one of

America's top 50 law schools without enrolling in a three-year program. They will learn how to think like a lawyer and use law in their work. Participants can obtain this degree in one year full-time, or part-time over the course of as many as four years.

The MSL-Disability Law program requires six courses of all participants: the law of disability discrimination, constitutional law, health law & policy, introduction to law and legal reasoning, mental health law, and torts.

Students may also take courses in a wide range of relevant areas, including: child welfare law, law and education, elderly and the law, alternative dispute resolution, employee benefits and discrimination, workers compensation, equal protection, gender and the law, healthcare law and abuse, law and science, legislation, healthcare financing, non-profit tax exempt organizations, foundations of legal research, scientific evidence, and neteracy. For further information about the program, contact: Professor Alan Meisel
Director

Master of Studies in Law Program
University of Pittsburgh School of Law
3900 Forbes Avenue
Pittsburgh, PA 15260

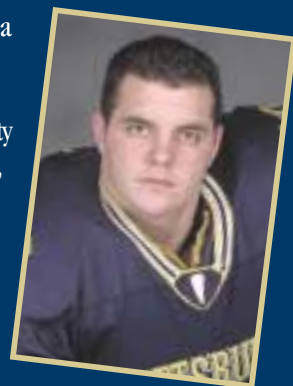
meisel@pitt.edu
Phone: 412-648-1384

PANTHER PRIDE

Brian Beinecke Works Hard On and Off the Field

Brian Beinecke is no stranger to hard work. As a starting linebacker on the Pittsburgh Panthers and a full-time doctoral student in the Physical Therapy program, he has time for little else.

Most of his day consists of a delicate balancing act between his duties for school and his responsibility to the team. Says Beinecke, "During the week, I attend class from 8:00 a.m. to noon. Then, I generally grab a bite to eat and am out on the practice field with the team from 2:30



p.m. until 7:30 p.m. About an hour or two of our afternoon practice is spent studying game plans and reviewing film, but that makes for a long day any way you cut it. After football, it's back to studying for class. I usually spend the duration of my evenings studying."

To say Beinecke's days are long is an understatement. But, he believes his commitment and discipline will pay off. "It's hard to juggle the course load of a doctoral program and everything involved with football," admits Beinecke. "But you will never get better at anything without hard work, and that's how I approach everything I do."

This approach to academics and sports is nothing new, though, for Beinecke. He earned an undergraduate degree in exercise science in three and a half years with a solid 3.3 grade point average. During two of those years he was also sharing starting duties for the Panthers. Beinecke has been engaged in this balancing act for much of his post-high school career.

Even with a tight schedule and a heavy workload, Beinecke has no regrets. He explains, "This whole experience will prepare me for my career and for the rest of my life. I'm just happy that I've been having a lot of fun along the way."

Beinecke plans to use his gridiron experience even after his playing days are over. His focus will be football-related injuries. Says Beinecke, with confidence and pride, "I hope to give back to football all that it has given to me and more. And I'd like to continue being part of the Panther organization even after my playing days are over."



ACCESS

Dr. Kate Seelman

In our recent undergraduate brochure, we described the disciplines within the School of Health and Rehabilitation Sciences as “real science helping real people.” While the focus on the compassionate care embodied in our professions is apt, hidden within this feel-good phrase is the kernel of a problem that may have a deleterious effect on our future. Namely, that those students drawn to helping professions like audiology, speech-language pathology, and occupational therapy, prefer the clinical to the empirical. And as a result, the research ranks within the professions are growing frighteningly thin.



Kate Seelman

Dr. Malcolm (Mick) McNeil, Chair of the Department of Communication Science and Disorders, is on the Executive Board of the Council of Academic Programs in Communication Science and Disorders. This organization is directing a substantive portion of its research efforts to uncovering the extent of the problem and to identify possible solutions. I've asked Dr. McNeil to share his perspective.

There is a great deal to like about being a professor. You teach bright and interesting people. You research important topics that are largely under your selection and your control. You serve as a role model for the next generation of professionals.

But recently, I've been questioning just how good a role model I've been. Not that I've doubted the efficacy of my classroom style or research methods. I've certainly had my share of extramural funding and our program continues to draw some of the top students in the country. But why, I've asked myself, don't my students want to follow in my footsteps? Why don't they want to be professors?

My colleagues around the country have been conducting similar self-examinations. It's been the primary topic of conversation at more than one national conference. And while there have been a number of theories thrown about, no clear answer has emerged.

Part of the problem is the personality of our students. They enter the field because they want to help people. They want to apply knowledge rather than expand the profession's knowledge base. We recently surveyed several consecutive classes of about 35 graduate students each as to their future plans. In each class, only one or two have indicated an interest in pursuing a research Ph.D. A clinical doctorate was the first choice for 80 percent of the respondents.

As highly trained practitioners, the graduates of clinical doctoral programs will be consummate consumers of research and they will advance the translation of research to direct patient care. But with everyone working clinically, there are few persons trained in the discipline to advance the science. How will we know more tomorrow than we do today?

One answer to the problem may be found overseas. Brazil, for example, has a fairly sophisticated communication science and disorders program at the Universidade Federal De São Paulo and a potentially large supply of interested scientists. We're exploring the possibility of creating a joint doctoral program. Australia already competes successfully with us. There's certainly a pent-up

demand in Asia, where, for example, one speech pathology training program supplies professionals for 270 million people. Recruiting internationally could be a viable option.



Malcolm (Mick) McNeil

But there is a potential downside. By looking abroad for the next generation of teachers and researchers, the U.S. runs the risk of losing its leadership position. Without the empirical, audiology and speech pathology could become little more than service fields. And, if this occurs, we could lose the professional autonomy that

stands as a centerpiece of the professions and as a pillar of evidence-based clinical practice and service delivery.


I don't want to appear to be an alarmist. The scenario that I painted has not occurred overnight and it will not be brought to crisis proportions overnight. Discussion of methods and plans for diverting this projection are under way nationally. In fact, there are signs for optimism. Right now we have been able to recruit well-qualified students to assemble one of the largest research doctoral programs in the country. An increase in extramural research dollars supports this research mission and the recruitment of a critical mass of doctoral students in several laboratories contributes to the production of new knowledge and to an exciting and effective educational atmosphere.

But if the projections hold true, a crisis is inevitable. Not just in audiology and speech pathology, but it is likely to occur in other disciplines such as occupational therapy and physical therapy as well. If we are to have next generation expertise, then we must mimic the medical profession by providing well-trained doctoral level practitioners and abundant researchers creating new knowledge and evidence-based practice. We must infuse the professorate with high status. And high pay.

We'd like to hear your reaction to this column. E-mail your comments to Karen Khan at ktkhan@shrs.pitt.edu. They will be printed as space allows.

Team Leader

Board of Visitors Chair Andy Kuzneski
Says SHRS Fielding a Winning Team



Over 40 years ago, a University of Pittsburgh football scholarship financed Andrew J. “Andy” Kuzneski’s college education. He’s been repaying that scholarship ever since. He is past president of both the Golden Panthers and the Alumni Association. He is a member of the university’s Board of Trustees. He is National Chair of the regional capital campaign. And he is also Chair of the SHRS Board of Visitors.

One of five sons of an Indiana County potato farmer, Kuzneski spent his college years lined up alongside the legendary Mike Ditka. But Kuzneski points out that Ditka’s “Iron Mike” nickname is a misnomer. “I had more playing time than he did,” he says with a grin. But unlike Ditka, Kuzneski did not pursue a professional football career following graduation, opting instead to return to his hometown, where in 1965 he started the employee benefit and financial planning agency that bears his name. “The football scholarship,” he says, “was the catalyst for my success in the business world.”



Andy Kuzneski

While Kuzneski exudes a “can do” attitude, he admits to having some reservations when Chancellor Mark Nordenberg asked him to chair the SHRS board. “I reminded him that I had no medical background,” he relates. But he agreed to meet with Dean Cliff Brubaker to discuss the position.

“The first thing I said to him was ‘Dean, I’m not a doctor,’” remembers Kuzneski. “And he replied, ‘Andy, neither am I.’ From that day on, we’ve had a wonderful relationship.”

Kuzneski asserts that under the leadership of Dean Brubaker, the school has undergone “a complete renaissance. He is a professor, a researcher, and an administrator. He has all the skills necessary to move the school forward. And,” he adds, “he can motivate people. He is like a football coach. He gets them to work together as a team, to work cohesively.” He

points to the business plans that each department head must submit annually as an example of Brubaker’s ability “to think outside the box.”

He credits Brubaker and his team for recognizing what he describes as “a totally different paradigm for the treatment of

***“We are helping people who
need special help.
It is a service to society that is unique.”***

people with disabilities.” This, he says, has fueled an influx of research dollars into the school. “They are staying on top of the issues. They are perfectly in tune with the changing nature of the profession.”

Kuzneski describes the role of the Board of Visitors as both consultant and advocate. “We provide advice and insight on the school’s planning efforts and offer candid, comprehensive, and informed reaction to the school’s educational objectives and programs,” he explains. “We also play a major communications role. Internally, we are a link between the school and the university’s senior administration. Externally, we’re SHRS ambassadors.” He applauds the efforts of his fellow board members. “They are outstanding,” he enthuses. “They are wonderful people.”

Kuzneski says that his tenure at the helm of the Board of Visitors has given him “a respect and appreciation for a field in which he had no experience. We are helping people who need special help. It is a service to society that is unique. It’s an honor to serve.”

It's
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helping real
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Listening Carefully for the Clues

Discovering the Factors Behind Childhood Communication Disorders



Reflectors are used to measure movement coordination of the lips in both infants and pre-schoolers.

Everything can change in the blink of an eye. A child, once happy, verbal, and vibrant, can become non-communicative or unintelligible in an instant when serious head trauma strikes.

Fortunately, due to groundbreaking work at the Center for Research on Acquired and Neurologic Communication Disorders in Children – a joint venture between the School of Health and Rehabilitation Sciences and Children's Hospital of Pittsburgh – there is a growing pool of knowledge that will hopefully unlock the mysteries of childhood communication disorders resulting from traumatic brain injury and other neurological deficits.

"The mission of the Center is to conduct research on the underlying processes associated with children who have acquired and neurological communication disorders," observes Tom Campbell, Associate Professor and Director of the Department of Audiology and Communication Disorders and the Program Director of the Center. "We also concentrate our efforts on children who haven't experienced head injuries but have acquired a neurological problem that impacts their ability to communicate."

Funded by grants provided through the National Institute on Deafness and Other Communication Disorders, Campbell and his combined team from SHRS and Children's have been working together for close to seven years.

"This partnership provides excellent opportunities for SHRS students to participate in significant research into pediatric communication disorders," comments Campbell. "We currently have three major studies underway – one that studies the recovery of speech skills after severe traumatic brain injury, another that's focused on the physiological development of speech production, and a third that concerns itself with genetic factors that contribute to severe speech-sound production disorders in children. All three studies offer SHRS students opportunities to work with some of the leading researchers and clinicians in the country, as well as with the children who need our help in overcoming these serious communications conditions."

Tracking Down the Effects of Trauma

The effects of traumatic brain injury on speech development are difficult to decipher. To begin with, every child is different and has unique capabilities and speech patterns before his or her injury. Next, in traumatic brain injuries, damage is not isolated to one particular area. Unlike strokes or aneurysms that can strike in a single, discrete location, brain trauma frequently involves multiple areas of the brain and can cause a wide range of consequences. Finally, every brain is different – meaning that a child with an injury to a certain area of the brain may or may not show the same impairment as another child with an injury to the same area of their brain.

The challenge is to unravel this tangle of factors in order to thoroughly understand each child's particular situation and capabilities – both before and after their injury. It's also the basis for the Center's ongoing study, "Speech Change in Children after Severe Traumatic Brain Injury."

"We limit this study to kids who have sustained traumatic head injuries between the ages of 12 months and 10 years," says Campbell. "To be eligible to participate, the kids have to be tracked from the moment their injury occurred. They also have to speak English as a first language and have no prior history of neurological problems."



Tom Campbell

Focusing On Functionality

Campbell and his researchers look at a number of factors closely. "Our primary interests are how the kids recover their speech, how they relearn their language skills, and how long it all takes. We compare the progress of kids who were injured early in life, as they're developing speech and language skills, with the progress of kids who sustained their injury after they've

"We're trying to come up with a new assessment system for classifying kids who have speech-sound production problems of unknown origin."

developed most of their speech and language skills," he explains. "We examine them monthly and chart their rate of recovery to track individual progress over the first year following injury."

Currently in the fourth year of its five-year duration, the study has enrolled more than 50 children. Participants are tested every month for communication function, and growth curves for each child are developed and compared with other study participants.

According to Campbell, "These are severely injured kids. All of them are unconscious and have multiple injuries when they reach Children's Hospital. In the emergency room, a trauma nurse is there documenting everything that happens in the acute phase of assessment and treatment. All the readings, all the mechanical devices that are hooked up, all the procedures that are done in terms of relieving pressure on the brain. The nurse also gathers various pieces of information from the parents concerning the child's medical, communication, and academic history in order to create a complete profile of the case."

While the study does have a decidedly clinical component that's tied to the treatment of each child's injuries, it's the underlying developmental issues that attract the attention of the study team. "In addition to being concerned about their overall well-being, we're interested in how these kids regain their communication capabilities and why," remarks Campbell.

Pooling Resources

In addition to tracking the communications progress in pediatric trauma cases, Campbell and his colleagues spend a considerable amount of time seeking out the causes of speech problems in children who don't exhibit obvious physical or neurological problems.

"In a nutshell, we're trying to come up with a new assessment system for classifying kids who have speech-sound production problems of unknown origin," says Campbell.

Part of a multi-Center study known as the Physiologic Development of Speech Production that includes the University of Pittsburgh, the University of Wisconsin-Madison, and the University of Washington, Seattle, Campbell's team is studying a large number of children with severe speech problems. Working together, the researchers are looking for common physical behaviors that cluster together and ultimately differentiate children with different types of speech difficulties.

"This is a challenging task," observes Campbell. "The kids in this study don't have brain lesions, there's no traumatic brain injury, and no known neurological muscular problem like cerebral palsy. We're here to figure out what's going on."

Doing Their Homework

To try to get to the bottom of each child's particular communications challenge, Campbell and his colleagues measure the motor and linguistic abilities of each child. They then compare those results to data gathered from other children in the study to determine if certain characteristics are clustering together. These clusters of behaviors, Campbell believes, are the keys that might eventually help to reliably identify children with different types of speech disorders.

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Calendar of Events

November

November 1-2: Continuing Education Workshop – “Ergonomic Assessment and Risk Prevention.” Presenter: Nancy Baker, ScD, OTR/L. Sponsored by the Department of Occupational Therapy.

November 2: Host site for the Mayo Clinic 13th Annual Audiology Videoconference. 10 a.m. – 4:30 p.m. Call Tim Lucas at 412-383-6542.

November 12: Eighth Annual Endowed Scully Visiting Lecture Program. Speaker: Shirley Sahrman, Ph.D., PT, FAPTA. Reception at 6:30 p.m. followed by lecture at 7 p.m. in the William Pitt Union Ballroom.

February

February 6-7: Tools and The Talents Conference 2003. Sponsored by the Department of Emergency Medicine. For more information, contact Deb Lenart at lenartd@msx.upmc.edu



Listening Carefully for the Clues

continued from page 21

To take the measurements, each child is connected to instrumentation that measures the movement of their rib cage and their larynx, as well as the airflow through their nose. These readings are captured by the equipment and analyzed by a sophisticated computer system that sorts and categorizes the data. In the long run, Campbell would like to determine whether children with specific clusters of behaviors respond more favorably to treatment. To gather data for the study, Campbell and his colleagues will be testing 300 children over the next five years – 240 with speech disorders and 60 with normal speech skills.

“If you know that speech problems began with a traumatic brain injury, you at least know what the cause was,” observes Campbell. “With kids that have no known neurological problems or obvious physical impairments, pinpointing what’s going on can be extremely challenging. We’re building a baseline for comparison that will provide researchers – and later on, practitioners – with a place to start untangling the mystery of each child’s speech production difficulties.”

Getting A Handle On Genetics

While traumatic injuries and speech production problems from unknown sources comprise significant segments of the Center’s work, genetic research rounds out the research agenda.

According to Campbell, “We think that genetics, particularly in kids who don’t have any other obvious problems, could be a significant factor in the speech deficits of these children. However, we don’t think it’s a simple, single-gene issue that causes these problems. Combinations of factors, including environmental and sociodemographic variables, can put some kids at high risk for speech disorders. Right now, we’re trying

to determine what those combinations are. Down the road, we’re hoping to discover how to respond to them most effectively.”

To support this research, a third study, Molecular Genetics of Apraxia of Speech in Children, is being conducted by the Center. Apraxia of Speech (AOS) is a condition that impairs the motor planning that is necessary for speech production. Recent studies have shown that this disorder tends to run in families. While the origin of apraxia is unknown, some researchers believe that the underlying cause of AOS may involve genetic predisposition to some degree.

Campbell’s team is building on that hypothesis and has recruited 50 families with children afflicted with AOS to participate in the study. The children have been carefully analyzed in the Center’s lab, and DNA samples have been gathered from both the children and their parents. The DNA material is currently being analyzed for genetic markers that are associated with this speech disorder.

“Hopefully, we’ll get some insights into this complicated disorder that will help guide our future assessment and treatment efforts,” says Campbell.

Comparing Notes

“There’s a great deal of crossover between the three studies in the Center,” observes Campbell. “In all three research initiatives, we’re trying to untangle the factors that could be underlying causes of the various communication conditions. We’re also attempting to develop procedures to reliably classify these kids, determine what kind of speech disorder they have, as well as gain some insight into the underlying mechanisms associated with these speech disorders.

The studies are also providing the team with insights into what triggers certain conditions. “Down the road, it’s my hope that we’ll draw some solid conclusions that will translate into effective treatments on the clinical side,” sums up Campbell. “The only way to effectively treat children with severe speech disorders is to understand the potential causes.”

For more information, contact Tom Campbell at camptf@chp.edu



Dr. Rory Cooper (l) receives his award from The Honorable Leo S. Mackay, Jr., Deputy Secretary of Veterans Affairs

Dr. Rory A. Cooper, Professor and Chair, Department of Rehabilitation Science and Technology, was awarded the prestigious Olin E. Teague award at a special ceremony in Washington, DC on September 18.

Cooper Wins Olin E. Teague Award

The Teague Award, named for the late longtime chairman of the U.S. House Committee on Veterans Affairs, honors an employee of the Department of Veterans Affairs who makes exemplary contributions toward improving the lives of war-injured veterans. Cooper is Director of the VA Pittsburgh Healthcare System's National Center of Excellence for Wheelchair and Related Technology and is a VA Senior Career Research Scientist.

Cooper, who is acknowledged as one of the world's foremost authorities in wheelchair design and technology, was recognized for his major contributions to the treatment and rehabilitation of paralyzed individuals, particularly in the design of modern manual and electric-powered wheelchairs and the development and implementation of wheelchair standards. Thanks to his work, thousands of individuals who use wheelchairs now have access to higher quality wheelchairs.

CLASS ACTS

Eiman Al-Jafar, Department of Health Information Management, defended her dissertation, "Factors Affecting Diffusion of the Electronic Medical Record (EMR) from a Physician's Perspective," becoming the first doctoral student graduated by the department.

Denise Chisholm, Erica Kopcha, Amy Kurowski, Tamara Mills, and Elizabeth Skidmore, Department of Occupational Therapy, were selected to participate in the Jewish Healthcare Foundation/Coro Pittsburgh Health Sciences Fellowship.

Diane Collins, Department of Rehabilitation Science and Technology, has received a VA Pre-Doctoral Associated Health Rehabilitation Research Fellowship.

Christopher Scialabba, Department of Health Information Management, was awarded the New Economy Technology Scholarship (NETS).

Tepanta Fossett, Department of Communication Science and Disorders, has received a National Institutes of Health F 31 Minority Pre-Doctoral Fellowship.

Eric Wallis, Department of Health Information Management, was selected by the Pennsylvania Health Information Management Association (PHIMA) to receive its 2002 Student Scholarship Award.



Left to right

Dr. Bob Chen, Assistant Professor, The Hong Kong Polytechnic University

Dr. Clifford E. Brubaker, Professor and Dean, SHRS

Dr. Christina W. Y. Hui-Chan, Chair of Rehabilitation Sciences, Head of Department of Rehabilitation Sciences, The Hong Kong Polytechnic University

Ms. Amy Fu, Assistant Professor, The Hong Kong Polytechnic University

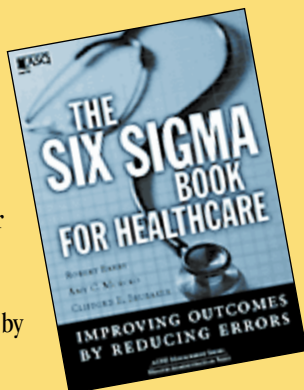


Dr. Mervat Abdelhak, Associate Professor and Chair, Department of Health Information Management, has been invited to be a member of the peer review panel reviewing grant applications for the U.S. Department of Health and Human Services, Health Resources and Administration. She is also serving as a reviewer for the Scientific Peer Advisory and Review Services Division of the American Institute of Biological Sciences.

Dr. Nancy Baker, Assistant Professor, Department of Occupational Therapy, had an article published in *Work* titled, "The Association Between Children's Computer Use and Musculoskeletal Discomfort." Baker also has received grants to develop an instrument to measure personal typing style and to test the use of an ergonomic keyboard.

Carmela Battaglia, Assistant Professor, Department of Occupational Therapy, conducted disability awareness sessions at the YWCA Summer Camp and at Camp Cadet, which is operated by the Pennsylvania State Police. She was assisted by three students from the second year class, **Elaine Holt**, **Amy Kurowski**, and **Jessica Puzausky**.

Dr. Cliff Brubaker, Professor and Dean, School of Health and Rehabilitation Sciences, is co-author of "The Six Sigma Book for Healthcare: Improving Outcomes by Reducing Errors."



The Center for Assistive Technology (CAT) has received the UPMC DSI (Diversified Services Inc.) President's Award for Quality Improvement. The CAT was recognized for its Power Wheelchair Lease Program for people with terminal diseases who are on the UPMC Health Plan.

Denise Chisholm, Assistant Professor, Department of Occupational Therapy, was elected a Pennsylvania representative to the Representative Assembly of the American Occupational Therapy Association.

New and Noteworthy

Dr. Ellen Cohn, Assistant Professor, Department of Communication Science and Disorders, and Director of Instructional Development, is an initial recipient of the University of Pittsburgh Career Services "Faculty Partners" award, honoring those faculty members who have demonstrated a consistently high level of interest in their students' career goals.

Laura Cohn, Research Associate, Department of Rehabilitation Science and Technology, has been named a member of the editorial board of *The Journal of Assistive Technology*.

Dr. Al Condeluci, Adjunct Professor, has published, "Cultural Shifting: Community Leadership and Change." The book, his fourth, explores ways and means that new ideas, products, or people can be incorporated into the greater mix of the community. Condeluci is also chief executive officer of United Cerebral Palsy of Pittsburgh.

Dr. Rory Cooper, Professor and Chair, Department of Rehabilitation Science and Technology, has been recognized as a 2002 Fellow and Mentor by the Rehabilitation Engineering and Assistive Technology Society of North America (RESNA). He is also the new president-elect of the organization. Cooper has also been named to the National Advisory Board on Medical Rehabilitation Research, the National Institute of Child Health and Human Development.

Dr. Mary Jo Geyer, Visiting Assistant Professor, Department of Rehabilitation Science and Technology, has been elected to the Board of Directors of the National Pressure Ulcer Advisory Panel.

Dr. Malcolm McNeil, Professor and Chair, Department of Communication Science and Disorders, has been elected for a second, two-year term as Treasurer and Executive Board Member of the Council of Academic Programs in Communication Science and Disorders.

Dr. Catherine Palmer, Associate Professor, Department of Communication Science and Disorders, will investigate the new Adaptive Directional Microphone Technology for Siemens, Inc.

Dr. Joan Rogers, Professor and Chair, and **Dr. Margo Holm**, Professor, Department of Occupational Therapy, received a grant from the National Institute for Disability and Rehabilitation Research to investigate a health promotion intervention for adults with fibromyalgia.

Dr. Kate Seelman was elected to the RESNA Board of Directors and has been appointed an "at large" member of the RESNA Executive Committee. She also has been asked to serve as a EUCLID Center Auxiliary Faculty member as well as a pro bono consultant to the FISA Foundation. Seelman delivered the keynote address at the Pennsylvania Association of Rehabilitation Facilities annual conference.

Elizabeth Skidmore, Research Associate, Department of Occupational Therapy, presented lectures on constraint-induced movement therapy at Peterson Rehabilitation Hospital and Geriatric Center, Wheeling, WV, and Forum Health Care, Warren, OH.

Dr. Walt Stoy, Program Director, Emergency Medicine, has been elected to the University Senate.

Dr. Connie Tompkins, Professor, Department of Communication Science and Disorders, was the keynote speaker at the 2002 European Aphasia Conference in Zeist, the Netherlands, the Florida Association for Language, Speech, and Hearing, and the Wyoming Speech-Language-Hearing Association.



It's easy to share your good news about a new job, a promotion, or an honor or award. Simply e-mail the information to Karen Khan at ktkhan@shrs.pitt.edu and we'll include it in the "Yearbook" section as space allows.

A Community Of Neighbors

Graduate degree practicums offer the opportunity for students to apply the lessons learned in the classroom to real life situations. The students gain experience and confidence while the organizations with which they partner get hands-on help from the next generation of professionals.

Nancy Mizak and Chris Marchionda, both master's students in Rehabilitation Science and Technology with a focus on rehabilitation counseling, recently completed an Assistive Technology Practicum. Only what they gained proved to be more than graduate credits and on-the-job experience. They gained friends – and memories – that will last a lifetime.

Mizak's Assistive Technology Practicum was arranged with Working Order, a local nonprofit incubator for entrepreneurs, most of whom have disabilities. The organization offers its clients shared office space, technical training, and one-on-one coaching. Marchionda, who had recently completed a Practicum, had been encouraged to meet with staff and entrepreneurs to further his experience.

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Having earned an undergraduate degree in business, Mizak used her background as a business coach while incorporating her knowledge of assistive technology to conduct client assessments in computer access. "I could add value to the Practicum on a business development level, but there was also an assistive technology element that I could bring to the experience," she relates.

"One woman that I worked with in-depth had cerebral palsy, with very limited use of her hands. But she operated a greeting card design company and needed to use a computer. She couldn't use a traditional mouse, so we tried out various assistive technology options, allowing the client to choose the option that worked best for her. In this case, it was an adaptive joystick."

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To learn more about Working Order, contact **Susan Chase at 412-782-5344.**

YEARBOOK

'90s

Kristie Spencer – CSD '92, is an Assistant Professor of Speech and Hearing Sciences at the University of Washington in Seattle.

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IN MEMORIAM

Michelle Fecko Tomaro PT '83
Jean Crothers Welles HRP '80



Summer in America

A Pittsburgh Sabbatical for Dr. Lucas van der Woude

Dr. Lucas van der Woude has worked in the field of wheeled mobility for 20 years, almost exclusively in Europe and with colleagues at The Institute for Fundamental and Clinical Human Movement Sciences at the Vrije Universiteit in Amsterdam. When he decided on a sabbatical abroad, he was looking for a fresh perspective that would enhance his work in human movement sciences and ergonomics. He wanted a chance to evaluate his own position and discover new ways of doing research. So he carefully fit his sabbatical between teaching and research obligations in Amsterdam, leaving him a window from June to October which he could spend doing what he does the rest of the year – researching and teaching about wheeled mobility.

“The research focus is really on solving problems.”



“Collaboration was the true outcome of this visit.”

According to van der Woude, there was only one place in the world where he could find research on a caliber with his Amsterdam program, and that place was the Department of Rehabilitation Science and Technology chaired by Dr. Rory Cooper.

“My group in Amsterdam approaches the field from a biological perspective. We look primarily at human systems – the physiology, biomechanics, and even psychology of how an individual interacts with assistive technology,” says van der Woude. “In Pittsburgh, there is a much stronger focus on the engineering aspect of wheeled mobility – how the design engineer can improve the assistive technology for the human system.”

He adds, “The engineering perspective is more outcome-oriented. In Amsterdam, the focus is on theory and understanding. Here, it extends the understanding toward innovation of new technologies and therapies. The research focus is really on solving problems.”

One project involved evaluating the effects of different floor surfaces on wheelchair propulsion. “There is not a lot of material that gives us a clear picture of strain caused by floor surface, and the Games gave us good data and answered many questions. Perhaps a paper will be forthcoming,” notes van der Woude.

Van der Woude observes that in the field of academic research, groups who are not collaborating consider themselves competitors. “I hope that when I leave here I have been able to transfer some of the deep understanding of the Amsterdam group to my American colleagues, but also that I will be able to take the important perspective of problem solving back to my colleagues in the Netherlands. Collaboration was the true outcome of this visit.”

For van der Woude, the point of all the work – the collaboration, research, study and teaching – is simple and universal. The end result contributes to the well-being of others.

The National Veterans Wheelchair Games, held this year in Cleveland, offered van der Woude a practical perspective on outcome-based research. In fact, no fewer than four ongoing research projects collected data on almost 80 subjects at the Games, which were founded nearly 20 years ago to highlight the athletic abilities of paralyzed veterans.

A Community Of Neighbors

Graduate degree practicums offer the opportunity for students to apply the lessons learned in the classroom to real life situations. The students gain experience and confidence while the organizations with which they partner get hands-on help from the next generation of professionals.

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Inside Look

They've sat through hundreds of hours of lectures. They've pored through dozens of textbooks. Now comes the time to put that knowledge to work. To move from the didactic to the clinical. In each issue of *FACETS*, we follow first and second year students as they get their first taste of being a professional.

The Real World

The Challenges and Rewards of Clinical Education in Athletic Training

From day one, athletic training students learn the art of taping lower extremities, one of the best preventive measures against one of the most common injuries – ankle sprains. Here, Rob Blanc (in foreground), Head Athletic Trainer and Adjunct Clinical Instructor, demonstrates the proper technique.



The Real World

The Challenges and Rewards of Clinical Education



Training Day

Hope springs eternal this time of year in Oakland. Classes are back in session, the heat and humidity have passed and crisp autumn days envelop the campus, and the Pitt football team suits up to try to capture gridiron glory. Ah, football. A religion of sorts in southwestern Pennsylvania that takes place in its own house of worship – Heinz Field.

The crowd, the pageantry, the thrill of victory, the agony of defeat – all the necessary ingredients for a Saturday afternoon rife with collegiate fanfare.

But there's more than meets the eye when you watch the Pitt Panthers do battle. To the casual observer, the players decked out in helmets and pads tell the whole story. However, to those in the know, the weekly slugfest on the field belies the sweat and toil that goes into preparing the team. It's no mystery that behind every successful college football team lies a dedicated



*“While we’re taking care of the athletes, we’re teaching the athletic training students what it is we’re doing, why we’re doing it, and how we’re doing it,” says Blanc. “So **it works** out very well because **they’re getting hands-on experience right from the get-go.**”*

Athletic training students find the time commitment one of the biggest challenges, but seeing a player go through the rehabilitation process and return to the playing field is a reward in itself.

supporting cast, and some of the most important players in that cast are the athletic trainers.

The School of Health and Rehabilitation Sciences boasts one of the top athletic training programs in the country, and six undergraduate students from the

program are on the frontline working with Pitt’s football team this year. Rob Blanc, who has spent 15 years as the Panther football team’s Head Athletic Trainer, oversees the six undergrads in addition to one graduate assistant and an assistant athletic trainer.

Simultaneously, he looks after the players and the athletic training students.

“While we’re taking care of the athletes we’re teaching the athletic training students what it is we’re doing, why we’re doing it, and how we’re doing it,” says Blanc. “So it works out very well because they’re getting hands-on experience right from the get-go.”

Twenty-seven students are enrolled in the athletic training program, and they spend their freshman and sophomore years taking prerequisite courses before applying to it. An additional prerequisite is spending 45 hours observing athletic training rooms on campus, in hospitals, and in high schools for an overview of the options available to students after graduation.

To fulfill the program’s clinical requirements, students work with a total of four different sports teams during their junior and senior years, for which they receive a total of six academic credits. The 19 sports covered in the program are divided into equipment-based,

Advances in Athletic Training

Walk into a training room and you’ll still find rolls of tape, layers of gauze, and piles of elastic bandages. But according to Tony Salesi, Coordinator of Athletic Training for Olympic Sports and an Adjunct Clinical Instructor in the Athletic Training Education Program, these items are virtually the only tools of the trade that previous generations of practitioners would recognize.

“Research-based practice and advances in technology have molded the field of athletic training into what it is today,” asserts Salesi. “Twenty years ago, athletic trainers based their knowledge in the clinical setting on experiences they had with patients over the years. Treatment methods were as simple as what worked and what didn’t. There was very little documentation to back up what we were doing. But now that we have clinical research and the tools of technology, we’ve created a far superior educational environment, and likewise, better prepared athletic trainers.”

Rob Blanc, Head Athletic Trainer and Adjunct Clinical Instructor, says that athletic training has evolved along a path similar to other medical professions. *“We’ve been able to incorporate all of the technological advances of medicine into our field and our facilities. For instance, we have digital radiology capability from the UPMC Center for Sports Medicine right here in our athletic training facilities to help in our injury assessments. The technology that we have at our disposal is just incredible.”*

John Vairo, Assistant Athletic Trainer and Adjunct Clinical Instructor, agrees. *“We now have online access in our physicians’ examination rooms that gives us access to any athlete’s medical history. We can look at an injured athlete’s past X-rays, MRIs, CT scans, you name it,” he explains. “The technology gives our athletic training students and staff a huge advantage in an injury situation, but also requires a more highly trained individual to ensure that everything is done correctly.”*

To ensure that students are prepared for the challenge, the Commission on Accreditation of Allied Health Education Professionals (CAAHEP) is moving toward standardization of athletic training education. According to Josh Hubert, Assistant Athletic Trainer and Adjunct Clinical Instructor, *“Students will be expected to demonstrate competency in over 1,000 proficiency skills in both the classroom and clinical settings before being permitted to sit for the national certification exam. This will guarantee that athletic trainers are thoroughly prepared and will be in the position to continue the learning process well into their career.”*

Jill Kirby, Assistant Athletic Trainer and Adjunct Clinical Instructor, supports raising the performance bar. *“Athletic trainers need to be prepared for future technological innovations,” she says. “The constant shift towards greater reliance on technology will put current and future students in good stead to adapt to whatever challenges they may face.”*



Athletic training students go through a “game day” routine to get players ready for each practice, such as taping, stretching, and massaging. They’re also involved in rehabilitating injured players.

The Real World

The Challenges and Rewards of Clinical Education

upper-extremity, lower-extremity, and general medical. Every student is required to work with at least one sport in each category. Although dedicated exclusively to football, Blanc oversees all 19 sports. Some athletic training students also gain clinical experience by working with athletes from Carnegie Mellon University. Because CMU does not have an athletic training program of its own, some of the program's students work with CMU's sports teams, enabling them to gain insight into the Division III level of athletics.

Preparation, prevention, hydration, tape. There are miles of it laying around the training room at Pitt's Southside practice facility. Enough to mummify a team full of 300-pound pharaohs. Before each practice Blanc and his undergraduate protégés go through dozens of rolls while diligently taping players' lower extremities, one of the best preventive measures against one of the most common injuries — ankle sprains. If there's one thing these trainers-in-training learn to master early, it's the art of taping. And they're getting plenty of practice.

In the month of August the team practices three times a day, and the athletic trainers go through a similar routine to get the players ready for each practice — taping, stretching, massaging, taping, icing, more taping. They're also involved in rehabilitating injured players. Each student focuses on players in one or two different positions, such as running backs and wide receivers.

During "three-a-days" the athletic training students ostensibly live three days in the time span of one. Their day starts around 6 a.m. to prepare for the morning's first practice. They work straight through the morning — during which the team practices twice — grab a quick lunch, take a well-deserved catnap (some of them, anyway), and then get the players ready for afternoon practice. While the team practices, athletic training students scramble to and fro tending to the players' every need. Practicing under the boiling August sun where heat exhaustion and dehydration are players' mortal enemies, athletic training students make sure fluids are plentiful and readily available.

The third practice of the day winds down in the late afternoon, but it isn't until 8:30 p.m. that athletic training students call it a wrap — almost 15 hours after their day began. On game days,





their schedule can run even longer. “The time commitment is definitely the biggest challenge,” says

Kristen Pinskey, a first-year student in the program. “But it’s a lot of fun. We like working with the players and coaches.” Pinskey says there’s mutual respect between the players and athletic training students, and an invisible line exists between the two that neither side crosses. The greatest reward for all their time and effort? “Seeing someone go through the rehabilitation process and actually get back to play at their full playing potential,” says second-year student Lauren Golofski. Traveling with the team to away games doesn’t hurt either.

sights on becoming full-time athletic trainers in any number of clinical settings, from the traditional – high schools colleges and clinics – to more contemporary venues like the industrial sector, where there’s a growing demand for their unique skills. And perhaps a shorter work day.

While the team practices, athletic training students tend to the players’ every need. Practicing up to three times a day, heat exhaustion and dehydration are a major concern. To guard against the adverse effects of heat and humidity, athletic training students make sure fluids are plentiful and readily available.

After graduation, all six athletic training students will likely pursue a master’s degree in athletic training – a necessary step to become a professional in the field. When their studies conclude, they’ll set their



The Tim Kerin Memorial Scholarship Fund

Tim Kerin was a dedicated athletic trainer who worked at the University of Pittsburgh from 1970 to 1976 as the Head Athletic Trainer. He was responsible for starting the athletic training curriculum and was devoted to promoting the profession of athletic training and the National Athletic Trainer’s Association. He was extremely loyal and reliable, a person who was the epitome of a “team player.” His devotion touched the lives of many who have gone on to be successful in the profession. In 1992, at the age of 44, Tim Kerin passed away.

In 1994, the Department of Athletics, the Athletic Training Program, and the Optimist Club of Wilmerding established the Tim Kerin Memorial Scholarship, which helps worthy students obtain their undergraduate degree in Athletic Training. The scholarship committee is now working to fully endow the award so that a full scholarship can be given. Anyone who is interested in contributing to the Tim Kerin Memorial Scholarship should contact Karen Khan, Director of Development, at ktkhan@shrs.pitt.edu



Prevent^{ing} the

Eliminating Errors from Patient Records

It happens more often than we'd care to imagine. A patient is admitted to the hospital sick and comes out sicker. But the headline grabbers – stories about wrong limbs being amputated – are just the tip of the iceberg. Those are the major, or “active” medical errors. It's the “latent” errors – the omission of discharge orders, sloppy medical records – that the National Academy of Science's Institute of Medicine (IOM) Report notes are a major threat to the safety of patients.

Dr. Valerie Watzlaf, Associate Professor, Department of Health Information Management (HIM), argues that HIM professionals can play an active role in reducing or eliminating those latent errors.

“HIM professionals see errors in medical records all the time that may appear to be minor,” she says. “But even something as benign as failing to record a patient's height and weight could result in an anesthesiologist administering an under- or overdose of medication.”

Watzlaf, along with Diane Lares Frndak, a doctoral student, detailed their concerns in an article for the *Journal of Health Information Management* that appeared earlier this year. In the article, they discussed several common errors, the potential results, and what the HIM professional can do to correct the error as well as the system that allowed it to occur.

“HIM professionals sit on a variety of committees within a hospital: patient safety, risk management, case management, and many more,” Watzlaf notes. “It's our job to ensure that medical records are complete and legible and to educate clinicians, nurses, and others about how latent errors can compromise patient safety.”

I Can't Read Your Writing

It's an age-old joke. A physician prescribes medication or a lab test and it appears to be in hieroglyphics. But it's really not amusing. Whether on a prescription pad or a patient chart, illegible handwriting can compromise the safety of the patient.



Valerie Watzlaf

Watzlaf points out that many of the common abbreviations used in the medical field can be misread – with the potential of dangerous consequences.

For example, “qn,” which means nightly or at bedtime, could be mistaken for “qh,” or every hour.

Explains Frndak, “It's the HIM professional's obligation to reduce the number of handwritten entries in the medical records and ensure that all physicians are aware of the Institute for Safe Medication Practices table, “Dangerous Abbreviations.”” Frndak is also a trainer with the Pittsburgh Regional Healthcare Initiative,

which, among its goals, lists patient safety – zero medication errors and hospital-acquired infection – as its aim.

Illegible medical record entries could also result in a patient being denied insurance coverage. If entries such as adverse conditions are unreadable, an insurance company may have no choice but to refuse to cover treatment.

The Sin of Omission

When a patient is finally discharged from the hospital, more often than not, their focus is on just getting home. Perhaps they're thinking about a good meal, or a good night's sleep without interruption. They may not be thinking, “What do I do now?” But they should be, and that's what discharge instructions are for – to specifically detail the course of continued recovery.

Watzlaf cites a Harvard study that found that inadequate follow-up of medication therapy, which is part of the discharge instructions, occurred in 45 percent of the patients the research followed in studying adverse events in hospitalized patients.

“It's a challenge for HIM professionals to ensure that discharge instructions are documented and given to patients,” Watzlaf notes, indicating that designing an electronic medical record (EMR) that requires discharge instructions to be included before moving on to the next section could go a long way toward protecting the patient once they've left the hospital.

Preventable

Failing to prominently display any allergies on the patient's chart or to accurately document a patient's medication history also represent "accidents waiting to happen." This is particularly true for older patients who may be on multiple medications that could have contraindications to additional medications that may be prescribed while they are hospitalized.

Again, Watzlaf says, the HIM professional's participation in teams that evaluate the effectiveness of EMRs is essential. She points out that concurrent evaluation of patient records is essential to uncover and flag such errors and correct them while the patient is still hospitalized.

"While not our primary concern in developing this paper," notes Watzlaf, "information omitted from patient records could compromise research projects where the protocol demands that all information on patients be comparable."



The Future is Technology

In 1983, Medicare developed the Prospective Payment System, creating diagnosis-related groups (DRGs) and requiring hospitals to significantly upgrade their medical record-keeping capabilities. The result was a new prominence for HIM professionals.

In addition, research is being conducted that will apply Internet search technology to current systems, making record searches for both research and clinical purposes more efficient and effective.

Medication packaging is also getting help from technology. Bar codes, familiar to anyone who grocery shops, can create a direct link between the right medication and the right patient, with the added advantage of automated billing.

"HIM professionals should be advising their hospital's administration about the use of all of these new technologies," notes

Frndak. And while it may appear that finances and reimbursement are a driving force, Watzlaf insists that the health and safety of patients, both in the hospital and after discharge, should be the key motivation in ensuring that inaccurate medical records are not the underlying cause of latent errors that threaten the health of patients.

For more information, contact Valerie Watzlaf at valgeo@pitt.edu

"It's our job to ensure that medical records are complete and legible and to educate clinicians, nurses, and others about how latent errors can compromise patient safety."

"Hospitals look to us for our expertise, for the standards that need to be incorporated, for new and better ways to improve medical record keeping," states Watzlaf.

Medical information has been computerized for over a decade, but as always, the resulting records are only as good as the data that's input. New voice recognition systems that eliminate the need for a transcriptionist, for example, are coming on-line, potentially eliminating errors caused by inaudible dictation.

mightly?
every hour?



An O.T. Graduate Applies His Skills in Time of War

Two summers ago, the career of an occupational therapist in the Army Medical Specialty Corps typically focused on ergonomics and upper extremity therapy. But as it did for so many Americans, September 11 marked a turning point for Robert D. Montz, CPT, SP. That morning, he was called away from his O.T. patients at Womack Army Medical Center at Fort Bragg, NC, to help prepare Critical Event Stress Debriefings (CESDs) for emergency responders and military personnel at the Pentagon.

“We were ready to go up to the Pentagon that day,” says Captain Montz. “We support all of the units in the 18th Airborne Corps, so we knew we would be going somewhere. Even though we didn’t deploy on 9-11, we knew it was just a matter of time before we would be used elsewhere.”

Moving Out

In a “go to war” mission like Operation Enduring Freedom, O.T.s are assigned to Combat Stress Control Units, focusing their skills in the mental health arena. A mental health “Prevention Team” is usually made up of a psychologist, a social worker, and two enlisted mental health specialists.





Priority one was to set up Restoration Teams, where the OTs specific skill set is well matched.

As an O.T., Montz already had gained additional credentials through the 10-day Management of Combat Stress Casualties Course at Fort Sam Houston in Texas. “So when the warning order came through in late-October, my commander had enough confidence in my skill set that he felt comfortable deploying me on the first mental health team,” says Montz. His team started to train-up and load equipment in mid-November. They left Fort Bragg on November 30 and arrived in the theater of operations – which consisted of Uzbekistan, Pakistan and Afghanistan – on December 3.



In Country

“The first medical units came from Fort Bragg in early October, when Special Operations teams were already engaged. I was the first mental health officer to arrive in country,” says Montz.

The Prevention Team works to identify problems and issues before they render soldiers unable to execute their wartime mission. “We established networks with chaplains and the medical staff to ensure that all bases were covered – medically, spiritually, and psychologically. We then educated leaders and commanders in recognizing and dealing with the signs and symptoms of battle fatigue and operational stress, deployments, family separation, suicide awareness, and stress and anger management,” he explains.

With its focus on education as well as prevention, the team relies on the PIES principle: treat soldiers in as close **Proximity** to their unit as possible, provide **Immediate** treatment, instill positive **Expectations** that soldiers will return to full duty, and use the **Simplicity** of brief, straightforward treatment to restore physical well-being and confidence.

continued



“A prevention team is supposed to go to the troops, so we went everywhere we could – not into the caves, but as far forward as possible,”

Looking Behind... and Ahead

“Our work was made easier by the groundwork and operations we have done in Bosnia and Kosovo over the last several years. Standard operating procedures and forms were all in place, so it allowed us to create a nice, fluid motion to the many roles we had in Operation Enduring Freedom,” says Montz, who was in country for just under seven months, and who fully expects to return during what promises to be a long war. “A prevention team is supposed to go to the troops, so we went everywhere we could – not into the caves, but as far forward as possible,” he adds.

Back home at Fort Bragg with his wife, Marcia, and two children, Montz continues to hone his skills and leadership. “I’ll be at the Joint Readiness Training Center at Fort Polk, LA, for an exercise in combat service support. I’ll be in charge of a four-person team, getting them all on the same sheet of music and ready for future deployments,” he says.

Advancing the Field as an Army O.T.

Although he is a self-described Army/Navy brat who spent his early years in many parts of the country, Montz has his deepest roots in Western Pennsylvania. He attended the University of Pittsburgh, earning his B.S. in Occupational Therapy in 1997. Robert did his Level Two fieldwork while on active duty at Madigan Army Medical Center in Fort Lewis, WA.

Very seldom do Army occupational therapists get to deploy, especially on the prevention team. But with the number of deployments and the decrease in personnel in the military, Montz seized a unique opportunity, not only to serve but also to widen the understanding of an O.T.’s value as a mental health officer. “Our mission is to get soldiers back to the war. It’s all about function, and that’s where occupational therapy fits so perfectly,” he says. “I got very well-versed in explaining the O.T.’s role on a mental health team. I tell leaders and soldiers that the psychologists and psychiatrists do the talking, and the O.T.s put that talking into practice.”

Since Montz first landed in Uzbekistan, two other Army O.T.s have deployed in this war. Their efforts will surely make a difference in what promises to be a long and complicated effort.

Organizing Knowledge for Evidence-Based Practice

New Curriculum Design Puts the Universal Language of Human Function into Practice

In the classroom, in the lab, and in the field, occupational therapy students are actively engaged in learning to evaluate, modify, and improve human function.

Supporting this learning is a new curriculum design that provides an organizational structure for the knowledge and skills taught by the Occupational Therapy faculty. In the past, the department's curriculum delineated courses based only on the three roles of an entry-level occupational therapist – practitioner, manager, and contributor. The new curriculum design also incorporates concepts about human functioning from the International Classification of Functioning, Disability and Health (ICF) published by the World Health Organization. The ICF proposes a universal language for rehabilitation that encompasses and links the roles of the occupational therapist in meaningful and practical ways. It helps faculty and students understand the relationship between different courses and where they fit in the occupational therapy process.

“The difference – and the greater value to occupational therapy – is that the ICF gives us a way to look at health and wellness, not just disability,” says Dr. Joan C. Rogers, Professor and Chair, Department of Occupational Therapy. “It creates a framework that resonates with the viewpoint of people with disabilities today. It looks at people's abilities and the environmental factors that limit or enhance function.

“For example,” she continues, “if I'm in a wheelchair, and there is no curb cut, then I can't get to the store or to work. If the curb cut is there, then I'm not disabled. Or if I'm in a long-term care facility, and the rules prevent me from bathing myself because of safety concerns – but I can bathe – then the facility is making me more disabled than I need to be.”

Rogers points out that occupational therapists assess strengths as well as weaknesses and help people compensate for their disabilities with their abilities.

“Rehabilitation is a team venture that focuses on functioning, but individual team members often carry their own interpretation of function,” says Rogers. “The ICF establishes a common language for describing health and human functioning in order to improve communication between clinicians, patients, advocates, and even policy-makers and the public.”

The ICF creates this language by approaching human function from two perspectives. In theory, the ICF looks at functioning and disability in terms of the human body and human activities and it addresses the context in which humans function in terms of environmental and personal factors that affect functioning. In the new curriculum design, these concepts are interwoven with the roles of practitioner, manager, and contributor.

“In practice, it forces us to ask questions like, ‘If we improve range of arm motion by five degrees, does that in fact increase the person's ability to dress himself, reach food on a shelf, or perform his work tasks?’ ” explains Rogers. “It also reminds us not to assume that all problems are based solely on medical pathology. There are psychological and social phenomena as well as biological factors that affect a person's functioning.”

But what does this new curriculum design mean in practical terms – in the classroom and during students' fieldwork experience? “It is helping us, as faculty, to address clinical reasoning – how to use judgment, set priorities, and use outcomes measures to make evidence-based decisions more effectively,” says Rogers.

ICF is a health classification system used internationally, as a statistical tool to monitor disability trends, as a research tool to measure health outcomes, as a clinical tool to match client needs to interventions, and as a social policy tool to plan health care services. Says Rogers, “It is also an educational tool for helping the Department turn today's occupational therapy student into tomorrow's engaged, compassionate, and scientific health care professional.”

For more information, contact Joan Rogers at jcr@pitt.edu



Joan Rogers

“Occupational therapists help people compensate for their disabilities with their abilities.”

Direct Access

Direct Access Coming to Pennsylvania

You're having a great workout at the local gym. Suddenly, you experience a twinge of pain in your lower back. Ouch! So a trainer working the gym floor advises you to do the next set of reps differently.

Up until now, if that trainer had been a physical therapist and a physician hadn't referred you, that advice would have been illegal. The trainer, or even your massage therapist, had more clout than a physical therapist.

But on February 21, Pennsylvania Governor Mark Schweiker signed into law Act 6 of 2002, giving physical therapists the authority already enjoyed by colleagues in 34 other states – to see patients directly without a physician referral.

And while the law may not be a practical reality until early 2003, the passage of Act 6 of 2002 is the culmination of a decade of hard work by the Pennsylvania Physical Therapy Association (PPTA), individual physical therapists, and others.

"It was a tough battle that required a lot of consensus building," says PPTA President Paul Rockar, Jr., who is also an Adjunct Assistant Professor of Physical Therapy and President of the SHRS Alumni Association. There were

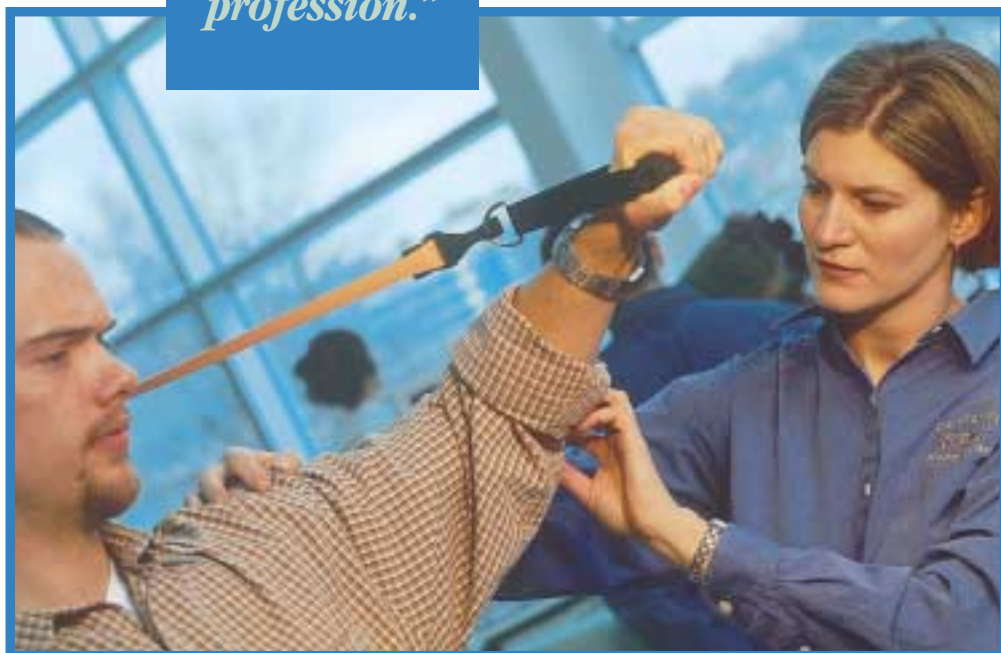
plenty of groups among which to build consensus: physicians, insurers, chiropractors, athletic trainers, the Department of State, and the Governor's office. "This is a progressive move for the profession and we're pleased to have finally joined the other states who have recognized that direct access is in the best interest of the patient."

*"This is a
progressive
move
for the
profession."*

According to Dr. Anthony Delitto, Associate Professor and Chair, Department of Physical Therapy, "Currently, a patient must be referred by his or her physician, even if they experience a recurrence of the original symptom for which they were treated." That can result in delays in treatment as well as increased expense. "It may take several days or even weeks for the patient to be seen by their primary care physician for a referral, when we can usually see them within 24 or 48 hours."

Curriculum in Place

Because other states have allowed direct access – in some cases for 20 years or more – since 1990, the Physical Therapy Commission on Accreditation has required that all students be





educated in areas such as evaluative procedures. “Students learn to recognize problems that are out of the realm of their training,” states Delitto. “We call them ‘red flags’.” For example, there are classic signs and symptoms of serious pathology, such as cancer, or signs that could suggest that surgery for a knee problem might be the appropriate course of action.



Anthony Delitto

According to Rockar, under the new legislation, a physical therapist who graduated before 1990 will be required to demonstrate appropriate continuing education in evaluative procedures in order to receive a certificate of authorization. “During every licensing period, a physical therapist who opts to practice in the direct access mode must complete at least 20 hours of continuing education,” he points out. “And, 10 of those hours must be in areas related to the ability to treat a patient without a referral.” Rockar is also Executive Vice President and Partner with the Center for Rehab Services, a partner of UPMC Health System.

Still Hurdles to Leap

While Act 6 of 2002 became law in February, the wheels of government grind slowly. The State Board of Physical Therapy must write the rules and regulations that pertain to the act, which then must go through eight levels of review and public comment. A draft of the promulgated rules has not yet emerged, so it likely will be months before direct access will be a reality.

Also, it is unclear whether direct access physical therapy will be covered by insurance. “There is nothing in the act that will preclude an insurer or other third-party payor from requiring that the patient be referred,” notes Rockar. In states that currently have direct access, third-party payors are the norm.

“We believe that the insurance companies recognize that direct access is, in fact, a cost-saving measure,” states Delitto. In fact, the American Physical Therapy Association (APTA) points to a 1994 study that found that the costs incurred for physical therapy visits were 123 percent higher when patients were first seen by a physician. The APTA has mounted an effort to

get direct access for Medicare patients nationwide.

Accolades Abound

Over the years, literally hundreds of individuals have played a role in the passage of direct access, but since becoming President of the PPTA in 1999, Rockar has been dogged in his pursuit of the legislation. “We owe a great debt of gratitude to Paul,” states Delitto. “There were many people like me who provided input within our areas of expertise, but Paul was the one who brought it all together. He was selfless in his pursuit of this legislation.”

And Rockar’s work did not go unnoticed. The APTA recently awarded him the 2002 State Legislative Leadership Award. Clearly, a well-deserved honor.

For more information, contact Anthony Delitto at delitto@pitt.edu





Knowledge WITHOUT BORDERS

Knowledge is moving much farther – and much faster – than ever. Thanks to improved, affordable international travel, electronic communication, and more frequent collaboration between countries and cultures around the world, the fruits of today's academic research and education initiatives are being nurtured, harvested, and shared like never before. More important, the results of these international educational initiatives – particularly developments in the field of Emergency Medicine – are having a marked effect on the well-being of people living across the street and on the other side of the globe.

“Graduates from our Diploma Paramedic Program in Emergency Medicine are playing key roles in improving the quality of emergency medical care in several countries,” comments Dr. Walt Stoy, Associate Professor and Program Director of the Emergency Medicine Program. “We welcome students from any country that is willing and able to upgrade its health care system, and we’re committed to sending them home versed in the latest EMS knowledge and techniques.”

Educating Students from Near and Far

The Diploma Paramedic Program in Emergency Medicine grew out of the Center for Emergency Medicine, which was founded in 1978. Since its inception, the program has attracted a steady stream of students from more than 20 countries as diverse as Canada, Iceland, Saudi Arabia, and Qatar.

Designed for completion in one year under normal circumstances, the program has garnered an outstanding worldwide reputation. It has also become a solid foundation for international students who are interested in earning a Bachelor of Science degree in Emergency Medicine. Credits from the one-year diploma curriculum can be credited toward the B.S. program – a benefit that allows students to move smoothly into the university if they choose to do so.

“We do not make special adjustments to the curriculum for international students,” remarks Stoy. “If they meet our stringent entry standards, they can matriculate the same way any other student would. In fact, we have found that as

long as international students are fairly fluent in English and are able to keep pace with the coursework, everything works out quite well. However, if our instructors notice that an international student is having difficulty due to language issues or cultural factors, we recommend a lighter load that will extend the duration of that student’s studies at Pitt.”

In cases where English skills are a problem, the department will defer admission until students have completed necessary remedial language courses. These students are also encouraged to seek out native-speaking communities within the Pittsburgh area that can be particularly supportive in helping students make the transition into the domestic educational system.

The Right Fit

The program’s flexibility is another attractive point for students coming from abroad.

“Because we are part of SHRS, our students have direct access to the educational experiences offered by the other six departments that comprise the school,” observes Stoy.

“An interdisciplinary approach is both accepted and supported by our department, and we

“We have a great deal of knowledge to share with current and potential students . . .

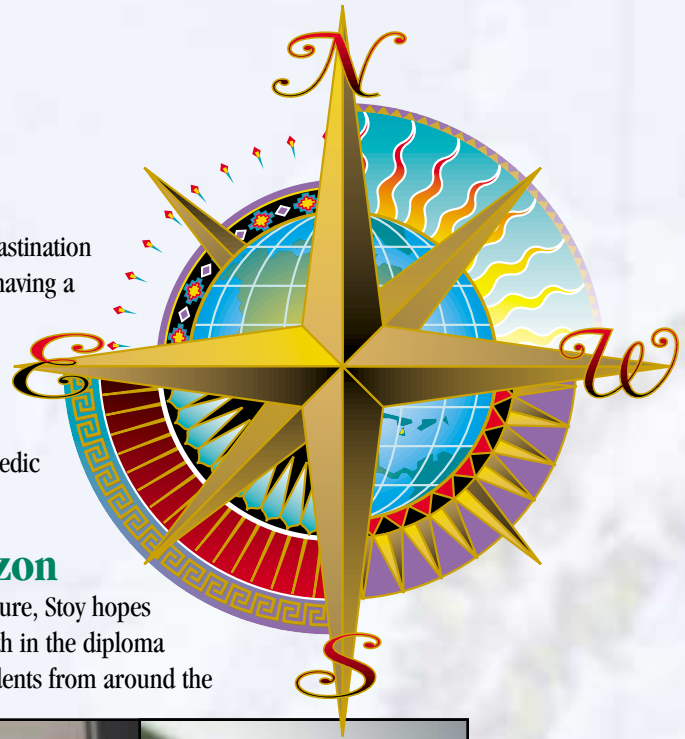
encourage our students to look into areas of interest that lie beyond the boundaries of our program. For example, one of our international students came to us to pursue the diploma certification and ultimately ended up graduating from the SHRS Health Information Management program. Others have taken elective courses in disciplines that complement ours. The end result is a more rounded educational experience, and ultimately, a skill set that makes our students exceptionally marketable.”

While the program is quite successful in accommodating the academic interests of its international students, the events of September 11 have had a significant impact on students from abroad. “We are finding that it takes considerably longer to process our international students, but we are happy to comply with the array of new regulations that have arisen since the tragedy,” says Stoy. “In a nutshell, international students, the Emergency Medicine Program, and SHRS have all found that things must be done sooner than they

had in the past. Procrastination can result in students having a difficult time entering the country and those delays can translate into lost time in earning their paramedic or B.S. credentials.”

On the Horizon

Looking toward the future, Stoy hopes to see continued growth in the diploma program, as more students from around the



Walt Stoy

world come to Pittsburgh to learn from the faculty and staff. “We have a great deal of knowledge to share with current and potential students. When countries look beyond their borders and work together on improving health care, everybody wins.”

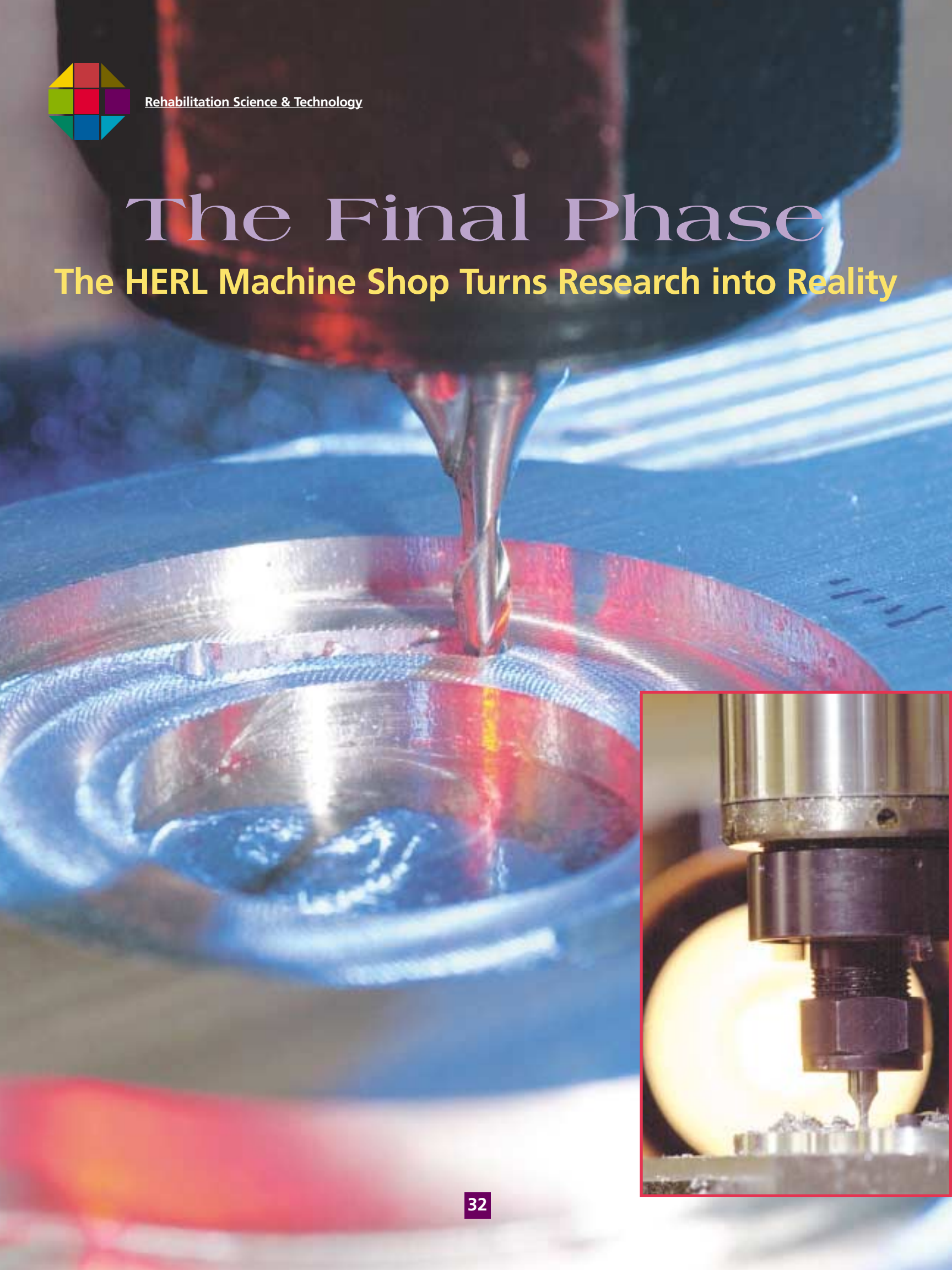
For more information, Walt Stoy at stoy@pitt.edu

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The Final Phase

The HERL Machine Shop Turns Research into Reality



There's considerable distance between the birth of an idea and implementation. While ideas can freely explore the realm of “what-ifs,” implementation provides the direct connection to the reality of “what can be.”



At the Human Engineering Research Laboratories (HERL) Machine Shop, the space between “what if” and “what can be” is continually being narrowed for a growing number of students. Through hands-on opportunities to learn about materials and operate high-tech equipment, SHRS is continuing to produce graduates who understand assistive technology from the ground up.

“This is basically a support area for all of the labs,” explains Bill Ammer, Technical Coordinator at HERL. “We build and test the assistive technology devices that are designed in the labs, and give students and researchers the opportunity to learn about materials and fabrication techniques first hand.”

Staffed by Ammer, machinist Mark McCartney, and assistants John Duncan and Emily Zipfel, the shop is a three-way venture between the university, the UPMC Health System, and the VA Pittsburgh Healthcare System. Founded nine years ago by Dr. Rory Cooper, Professor and Chair, Department of Rehabilitation Science and Technology, and Director of the Human Engineering Research Laboratories, the shop is located at the VA's Highland Drive facility and supports work on a wide range of research and development projects.

A Hands-On Environment

“All of our research is funded by grants or contracts,” notes Ammer. “Most of the assistive technology equipment we build and test here was designed in our labs. However, we do collaborate with other institutions and participate in a number of multi-site studies to collect and compile data.”

But that's just the beginning. Beyond building and testing for research, the shop focuses on helping graduate students acquire the hands-on skills that are critical to a successful career.

“Our goal is to educate graduate students on how to actually function in a shop environment,” remarks Mark McCartney, the shop's machinist, who divides his time between HERL and the Center for Assistive Technology on the Oakland campus. “We show students how to operate some extremely sophisticated equipment, choose materials, and ultimately make the components they've designed. By learning how to do all of this, they get a feel for what it's like in a real-world shop environment and find out how to handle things when they need something to be made.”

The shop is equipped with a number of Computer Numerical Control (CNC) machines. Set up to work in all types of materials, from wood and metals to plastics and composites, the facility features carpentry and welding capabilities that complement the machining operations.

Crossing Disciplines

The shop also offers a number of opportunities for team building. “It's been said that there are engineers and there are therapists, and never the twain shall meet,” comments Ammer.

“In this program, and particularly in this shop, they do get together and learn from each other. They see how the disciplines intertwine. I think that's probably one of the neatest things about this program. We have electrical engineers and mechanical engineers in the grad programs. And there are some bioengineers, exercise physiologists, physical therapists, and occupational therapists, too. They all come down here to learn the same things. They learn how to pick materials and machine. And they learn to work together as a team to overcome challenges. That goes a long way when they get out into the working world.”

continued



The Final Phase

For McCartney,
watching novice
students evolve into
technically-literate
professionals
is one of the most

rewarding things to come out of the shop operation. “It’s pretty hard to design something if you don’t have shop knowledge and have never made anything before. Many of the students have backgrounds in physical or occupational therapy, but don’t really know how a device is made. However, when they leave here, they can take a part off of a wheelchair or some other assistive device and determine fairly accurately how it was made. They also have a pretty good understanding of metals and how they perform under different conditions. Helping them gain that knowledge is one of the best parts of our whole program.”

Real World Payoffs

The shop is also helping SHRS graduates become more marketable. One of the grad students working at HERL got an internship this past summer at the Quickie manufacturing facility in Boulder, Colorado. His supervisor was impressed by the fact that he could walk into the shop and start working with their team.

Explains Ammer,
“Dr. Cooper initially
designed the forward-folding
wheelchair in one of his
wheelchair design classes.
He then partnered with one
of the students to design the second generation
of the chair. The student worked in the shop
to create the components for the new chair.

When a representative from Quickie was
touring our facility, she saw the new chair and
asked who was involved in the project. The rest
is history.”

Access to the shop is not limited solely to
graduate students. In the Spring 2002
semester, Ammer and
McCartney started a
new undergraduate
course – Engineering
Methods and
Materials. The
course is growing
in popularity among
SHRS and bioengi-
neering students.

“We try to make basic machinists out of them,”
says McCartney. “Our first semester was a trial.
None of the students had any machine or engi-
neering background. They were all therapists.”



This term, it's been adopted as an undergraduate course at the university. There are six students registered for the course. We feel good about that," says Ammer.

A Productive Partnership

Ammer and McCartney also continue to partner with Cooper on a number of ongoing projects. "Aside from the forward-folding chair, one of our most ambitious projects has been the SmartWheel™, an instrumented wheel outfitted with strain gauges that fits any wheel-chair and calculates stresses being exerted on shoulders, elbows, and other joints by the user of the chair. It's something Dr. Cooper developed about 10 years ago and over time it has gone through several refinements to improve its accuracy and effectiveness. We have built the last several versions of the wheel, including the last model that eliminates outside cabling and operates off of infrared circuitry housed in the wheel's hub." Now the SmartWheel™ is in commercial production, and is being used in four countries and more than 10 laboratories.



something to a point and decide we've gone as far as we want to take it or can take it. Then, we transfer the technology to someone else who can carry it into final production. Our job is to basically prove that a device can or can't work, then we work with other organizations to bring it into production."



"I think almost every project we've done here has been adopted by some other university or outside company that wants to develop it further," says Ammer. "We'll work on

While there's always something new and different going on in the shop, Ammer and McCartney never lose sight of the fact that learning is the primary objective. "I don't know of too many places where schools will let their students have hands-on experience with the kind of equipment and materials we have here," notes McCartney. "They may let them into the machine shop, and they may let them watch, but very few places let them actually learn. We just don't work that way. That's not reality."

For more information, contact Bill Ammer at ammer@pitt.edu





Athletic Training Goes International

Japanese Students Visit Athletic Training Program

As a testament to its growing stature as one of the world's top athletic training programs, this summer, the Athletic Training program hosted a group of 32 graduate and undergraduate technical school students from Tokyo for a week of sightseeing and study.

"The visit was arranged by a Japanese company called Try Works for students interested in athletic training," explains Kevin Conley, Program Director and Instructor in the Athletic Training Education program. "The idea was to divide the students' time between athletic training studies and demonstrations and tours of the city. We spent half of the day teaching them about the latest developments in sports medicine and the rest of the day going to places like PNC Park and Heinz Field."

Continues Conley, "We wanted to give them every opportunity to learn about athletic training, but not overwhelm them.

For instance, we presented the anatomy for both the upper and lower extremities, showed them how to evaluate commonly seen injuries, and then followed that by demonstrating various management and treatment techniques which they were then given an opportunity to practice on each other."

For many of the students, the trip was an eye-opener. Not only did they experience a new culture. They got their first taste of a new profession.

Explains Daisuke Uematsu, Japanese himself and a second-year undergraduate student in the Athletic Training program, "In Japan there are very few professional athletic trainers. The occupation is not widely known. Likewise, there is nothing comparable to SHRS's academic program or clinical facilities. You won't see anything like the UPMC Center for Sports Medicine and the Neuromuscular Research Laboratory in Japan."



Wisdom

教

Teacher



But the visit gave some of the students hope that what they saw and learned will one day be a reality in Japan. Says Shingo Nakai, a student in the Waseda University Graduate School of Human Sciences, "There is nothing comparable to these buildings in Tokyo now. But, seeing them makes me believe that there will be. It is only a matter of time."

Yoshiaki Tsuboyama, an undergraduate student in the Juntendo University School of Sports Sciences, echoes that sentiment. "This is the future for Japan. Seeing how much technology there is for athletic training in America makes me feel that it will eventually be the same in Japan. I have come here to learn so I can help make the change."

Learn, Science

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Dialogue

A Conversation with U.S. Representative Melissa Hart

Q: Is there sufficient awareness at the federal level of the significant impending problems associated with vastly increasing numbers of individuals living beyond age 80? Will the services that these individuals typically need be available to them?

A: *"The government is just not going to be able to afford to provide people with all of the care that they need. There's a lot of ideas, such as low-cost insurance, but we need to come up with more clear solutions."*

Q: What are some of the ideas that are under discussion?

A: *"Incentivizing people to take a more active role in their own health care is important. One of the bills we're working on in Congress addresses the issue of providing incentives for families to care for older family members, while also planning for their own future. There simply isn't enough discussion about long-term care insurance. We need to encourage people to buy more long-term care insurance when they're young."*

Q: Since the first large influx of over 80-somethings demanding social services and healthcare is likely to occur in Pittsburgh, should this community be more proactive on this issue?

A: *"Affordable health care is everybody's problem, and the problem is becoming more acute. The good thing about D.C. is that there's always a healthy exchange of ideas in the air, and that promotes useful discussion. We need to make sure that solutions arise out of these discussions, and sooner rather than later."*

Q: Since you serve on the House Science Committee, what do you see as the most promising areas in research?

A: *"There's a lot of genetic research, especially about the predisposition for disease. Research about how to alter these predispositions is becoming increasingly important, while issues of what we should even do with such information emerges. We need to deal with questions not just as legislators, but as society as a whole."*

Q: Are there other promising areas, especially for the Pittsburgh region?

A: *"Biotech is a one of the fastest growing fields in the region as well as the entire scientific community. We have some very well-known local researchers who have delivered consistent results. These researchers can attract significant federal research dollars to this region. It is incredible how far research has advanced."*



Q: Where do rehabilitation sciences fare on the national research agenda?

A: *"It is obviously a significant part of people's lives, and this is reflected in the budget of the Department of Health and Human Services and other funding streams. Rehab is the same idea as teaching people, getting them to realize their fullest potential. For Pitt to command big dollars in this area, you want them to remain on the cutting edge with their research and approach to new therapies."*

Q: Does the University of Pittsburgh's recent extensive collaboration with Carnegie Mellon University help their cause?

A: *"Absolutely. I think that we have outstanding leaders at the University of Pittsburgh who saw real value in this collaboration. The planets are aligning. The leaders at both Pitt and CMU are bright individuals who work successfully together to get the best for each institution."*