Gertmenian Family Provides Matching Gift to Grateful Patient Program

Dennis and Susan Gertmenian have pledged a generous $100,000 matching gift to launch the Grateful Patient Program, which will enable patients to recognize an outstanding clinician by making a gift in his or her name. Funding will support an enhanced patient experience, including state-of-the-art equipment and applied research that will lead to new models of clinical treatment, ensuring a continuing legacy of superior patient care.

Dennis Gertmenian is the founder of Ready Pac, the signature bagged salad blends and kits, fresh-cut fruit, and “Ready Veggies.” As a patient at the USC PT Associates clinic on the Health Sciences Campus (HSC), he came to know Dr. Yogi Matharu, a specialist in orthopedic and neurologic disorders who directs the HSC faculty practice. Gertmenian joined the Division Board of Councilors in June 2009. His insight as a businessman and former patient has been a tremendous asset to the board, and he and his wife have been major supporters of the Division.

The Hislop and Perry Legacy: Challenging the Status Quo

Dr. Helen Hislop’s and Dr. Jacquelin Perry’s contributions to physical therapy education are legendary.

Dr. Hislop, who was appointed director of physical therapy at USC in 1975, served for 23 years as Division chair before her retirement in 1998. At USC, she developed the first PhD program in physical therapy in the United States, and one of the first DPT (Doctor of Physical Therapy) programs. To integrate research with practice, Dr. Hislop instituted evidence-based learning throughout the curriculum. She introduced clinical specialization, expanded clinical internship programs, and created physical therapy residencies.

Dr. Perry, professor emerita of orthopedics, was an active Division faculty member from 1977 to 1991. An internationally respected leader of the profession—known for her pioneering analysis of human gait and as the world’s leading authority on post-polio syndrome—she headed the Pathokinesiology Laboratory at Rancho Los Amigos National Rehabilitation Center for 30 years. The lab was an integral component of the USC PhD program in physical therapy, which enrolled its first students in 1978. Dr. Perry’s textbook, *Gait Analysis: Normal and Pathological Function*, first published in 1992, is still widely used in physical therapy curricula.
This month, motivated by an extraordinarily generous gift from Dennis and Susan Gertmenian, the Division is initiating a Grateful Patient program. We seek support, financial and otherwise, from current and former patients who are grateful for the high quality of care that our clinicians provide. Dennis is himself a former patient who has helped us to formulate this strategy.

As physical therapists, we know very well how much our patients appreciate what we do. What we do is not usually life-saving, but it is often life-changing—in ways that are usually not dramatic but nevertheless critically important for the patients involved. Years ago, when I worked in a home care setting, I taught a family how to get their elderly grandmother in and out of bed. They were so grateful that they practically wanted to write me into their will.

I have always considered it a privilege that our profession allows us to be present as our patients cope with these life-changing challenges. Their gratitude is only icing on the cake. One of the main reasons physical therapists love their jobs is knowing that they are helping people. In 2007, the University of Chicago published a survey that placed physical therapy in second place among professions with the highest job satisfaction. (The clergy was number one, and PT was actually tied for second place with firefighters).

But gratitude is, or should be, a two-way street. We need also to be grateful to our patients as teachers. From our first patient—the cadaver we dissected in our first year of PT school—and from those memorable patients we nervously encountered as students and young therapists, we learned so much more than from textbooks.

At USC, we have a wonderful group of patients, most with neurological diagnoses, who come into our classrooms year after year to help us teach our DPT students. My initial twinge of worry when I watch the patients place themselves into the hands of inexperienced students gives way to pride as our students rise to the occasion. Then I realize that the patients had much more faith in our students than I did.

Our patients are, for the most part, model teachers—patient and gentle with us, letting us find our own way to clinical proficiency and excellence. Indeed, our patients can also help us learn how to be teachers. The greatest lessons we learn from them are about life—about adversity and challenge and defeat, about struggle and effort and perseverance, about triumph and acceptance and dignity.

Over the next year, we will be asking our patients to support what we do here at USC, as a symbol of their gratitude. But let us also remember to find ways to thank them for all they give us.
**The Hislop and Perry Legacy: Challenging the Status Quo** (continued from page 1)

**Dr. Hislop: Beginnings**

When Dr. Hislop was accepted into the PT program at the University of Iowa, she had to purchase a white uniform with pockets, white stockings, and Red Cross brand white shoes—required attire for women physical therapy students in the early 1950s.

On her first day, she was paired with another student and a nurse in the polio patients’ clinic for a lesson in opening and closing the respirators. During her first year, she would spend eight hours a day in class—including anatomy and physiology with the medical students—and then another four to six hours taking care of the polio patients. Once, guided by terse instructions from a male nurse, she had to perform a tracheostomy on a patient who was turning blue. Fortunately, the patient lived.

After receiving her physical therapy degree, Dr. Hislop worked at Yale University Hospital, subsequently pursuing endocrinology research while earning a master’s degree in physiology at the University of Iowa. Her first faculty position was at the University of Minnesota. At that time, no chair of a U.S. physical therapy program had a graduate degree.

**A Study for the APTA**

As a volunteer for the American Physical Therapy Association (APTA), Dr. Hislop met Catherine Worthingham, director of professional education at the National Foundation for Infantile Paralysis. Dr. Worthingham asked Dr. Hislop to undertake a study of physical therapy education in the United States for the Journal of the APTA.

This study—which looked at the level of physical therapists’ preparation in the sciences and in clinical work, and the kinds of positions they held—would spark her education reforms in years to come.

Dr. Worthingham facilitated Dr. Hislop’s entry into a PhD program in physiology at the University of Iowa. Dr. Hislop subsequently worked in the laboratory of a neurophysiologist at the University of Pittsburgh, a position she felt was unsuited to her training. Then she got a lucky break. The previous editor of the Journal of the APTA quit, and Dr. Hislop was offered the position, then based in New York. She continued to edit the journal throughout most of the 1960s.

**The Rancho Years**

Recovering at Dr. Perry’s home in California after treatment for a back problem in 1968, Dr. Hislop was asked by the medical director at Rancho Los Amigos Hospital to become director of physical therapy in the hospital’s Rehabilitation Research and Training Center—a position he figured she could undertake from her stretcher. The center was a component of Rancho’s affiliation with several USC schools and departments, including Physical Therapy.

That’s when Dr. Hislop discovered that USC had only three faculty members and “a very, very meager and not very good curriculum,” she said years later. “Coming to USC, [students] expected a good program, but they didn’t get it. . . . The first thing I did was decide that the clinical education of people who had gone through a curriculum in PT was ludicrous. Six weeks here, two weeks there—they didn’t learn anything.”

The physical therapy program was housed in an old house. “The first time I went into it, I thought I would die,” Dr. Hislop said. “It was [the Division’s] anatomy lab, and they had the bodies lying on the kitchen counters.”

Two students from USC were among the first to enroll in Dr. Hislop’s one-year internship—three months each at Orthopaedic Hospital, County Hospital and Rancho—at a $1.10 per hour stipend. On Friday afternoons from 1:30 to 4:30, the students had a seminar with Dr. Hislop. “We talked about what PT could be,” she said, “[and] what they needed to do.”

**USC Innovator**

In 1971, soon after Dr. Hislop was appointed as an unpaid visiting professor at USC, Rancho provided rent-free space for the physical therapy school. Dr. Jacquelin Perry and other Rancho staff offered to help with the curriculum. Dr. Hislop applied for grants, the first of which came from the Rancho Rehabilitation Research and Training Center.

Some of the faculty recruits had graduated from the USC master’s program in physical therapy and earned a PhD (in physiology, anatomy, or an allied field) at another institution. “If you [couldn’t] be productive, you couldn’t be in our department,” she said. “That was the bottom line. I didn’t care if you were productive clinically or productive in research, but you had to be productive.”

The PhD program at USC—which accepted its first students in 1978 and awarded the profession’s first PhD degree, to Mary Beth Brown, in 1984—was “a huge step,” Dr. Hislop said. “I knew I was taking not only a personal risk but . . . a professional risk.” Still, she didn’t think the profession could survive with a terminal master’s degree (the only physical therapy degree then offered at USC, or at any other institution).

“We would never get the research we wanted if we only hired people who had PhDs in something else, [who] did not get the whole gestalt of what it takes to do research that has a primary focus in physical therapy,” she said. “It was the skill and the belonging and the desire that I was looking for.”

Developing the DPT program—which graduated its first class in 1998, the year Dr. Hislop retired—was another huge step that involved nearly a decade of planning. Faculty meetings were riddled with doubts, Dr. Hislop recalled. Were there sufficient resources? What qualifications were needed to teach the courses?

The solution was to invite leading physical therapy clinician/educators to participate in an intensive post-professional doctoral program so that they could train physical therapists at the doctoral level. Today, the Division’s DPT program trains its graduates to be autonomous practitioners, capable of evaluating and treating...
The Hislop and Perry Legacy: Challenging the Status Quo  continued from page 3

patients without a referral from a practitioner in another field, yet also prepared to collaborate with other health professionals.

In 1993, Dr. Hislop introduced the concept of biomechanics—research from the “inside” (molecular and cell biology of muscles, bones and joints) to the “outside” (mechanical and behavioral aspects). “Biomechanics” became part of the department’s formal name.

Looking back, Dr. Hislop called USC “the school everybody looks to [as a model of] what a PT school should be.” [See article about the Division’s number-one national ranking on page 5.] To retain this leadership, she said, “you need to hire people [who] will bring in new ideas” and give these faculty “leeway and time to prove that their new ideas can work.” The Division, she said, “is much better than it was when I left. And that’s exactly the way it should be.”

Dr. Perry: Beginnings
Interested in both science and sports, Dr. Jacquelin Perry earned her bachelor’s degree in physical education at UCLA and trained as a physical therapist at Walter Reed Army Hospital. During World War II, she worked in Army hospitals with trauma, polio, and rheumatoid arthritis patients, and taught at Army schools of physical therapy. During these years, she came to realize that even people with simple basic training could contribute to patient care.

Along the way, she became interested in orthopedics. Discharged from the Army, she used her G.I. Bill benefit to enroll in the UC San Francisco School of Medicine—the only woman in her class. Decades later, she said, “Ever since I was a child I wanted to get into medicine. I just liked the looks of hospitals.”

**Orthopedic Surgeon**
Dr. Perry completed her residency in orthopedic surgery in 1955 and three years later became one of the first women in the United States to be certified by the American Board of Orthopedic Surgery. Dr. Vernon Nichol, chief of surgical services at Rancho, invited her to be his first staff member.

Dr. Perry and Dr. Nichol developed the halo, a means of immobilizing the cervical spine during operations for respiratory patients that allowed full three-dimensional control of the spine for the first time. Dr. Perry began delegating responsibility for the treatment of stroke and spinal injury patients to allied health professionals, including physical therapists—a bold move at the time.

“We felt they had a base of knowledge that should be tapped,” she said, “and secondly, that they should assume responsibility for what they did . . . be able to defend their progress or lack of progress in the rounds.”

Dr. Perry had to give up surgery in the late ‘60s after a series of medical problems, but she continued to teach her celebrated surgical anatomy classes for the medical orthopedic residents at Rancho.

**Pioneering Pathokinesiology**
Fascinated by muscle function, Dr. Perry began researching hand muscles in 1961, aided by a grant from the National Institutes of Health. She started her laboratory to document the work being done in rehabilitation and to discover the patterns of muscle function “so that reconstruction of the hand could function more logically.”

With her physical therapist colleagues at Rancho, Dr. Perry established the Observational Gait Analysis System to record muscle activity—a pioneering method of cataloging the multiple dysfunctions that occur with various types of pathologies.

In 1968, Dr. Perry set up a laboratory at Rancho to document improvement in reconstructive patients who were not candidates for traditional rehabilitation therapy. Searching for a word to define her research area, she coined “pathokinesiology”—the study of pathological motion. (In her 1975 MacMillan Lecture, Dr. Hislop suggested that pathokinesiology should be known as the distinguishing clinical science of physical therapy.)

The Pathokinesiology Laboratory eventually developed a functional diagnostic system to plan reconstructive surgery for patients with spasticity. Foot switches were developed to define the patient’s stride characteristics and an electrogoniometer, to record joint motion. The lab was an integral component of the USC PhD program in physical therapy, which enrolled its first students in 1978.

During her years at USC, Dr. Perry led a 7:30 a.m. Saturday class on muscle function and a course in gait analysis. Dr. Sara Mulroy recalled those Saturday classes recently. “Dr. Perry was very intimidating in many ways,” she said. “But she was always focused on good science and good patient care.”

**Leader of the Profession**

Dr. Perry wrote that “the true value of physical therapy is its unique ability to regain lost function: muscle strength, joint range, pain-free body mechanics, new motor skills.” She urged physical therapists to evaluate treatment procedures, eliminate worthless practices, and clarify the value of their work to the public and to hospital administrators.

She promoted shared responsibility with physicians and mutual respect, aided by communication that avoids PT-specific jargon. And she urged the profession to focus on “the value of college-level intelligence . . . the ability to analyze and solve problems.”

Dr. Perry followed up that article with “The Contribution of the Physical Therapist to Medicine” in November 1965 issue of the *Journal of the APTA*. She urged physical therapists to take the initiative in creating “new ideas and new procedures”
in therapeutic exercise, performance evaluation, and rehabilitation—a goal that the Division would brilliantly fulfill in the decades to come.

In 1999, the year after she retired, Dr. Perry established the Jacquelin Perry Endowment Fund for the Study of Human Gait, which provides academic scholarships to USC graduate students in the Musculoskeletal Biomechanics Research Laboratory (MBRL) and travel stipends enabling them to present their research at scientific meetings.

A decade later, when Dr. Perry was a member of the Division’s Board of Councilors, the MBRL was renamed The Jacquelin Perry Musculoskeletal Biomechanics Research Laboratory in recognition of her distinguished contributions to the field and to physical therapy education at USC. Dedicated to the biomechanical study of human movement and musculoskeletal disorders, the MBRL uses state-of-the-art technology pioneered by Dr. Perry, including a 2,500-square-foot motion capture facility.

**Sources for this article include the USC Division of Biokinesiology and Physical Therapy 2010 Dr. Helen Hislop Oral History, ©2010 Science Audio, and Dr. Jacquelin Perry Oral History Interview, November 5, 1985, Rancho Los Amigos Hospital records, Collection no. 0407, California Social Welfare Archives, Special Collections, USC Libraries, University of Southern California.**

### USC Human Performance Laboratory Opens at CATZ

A celebration on November 9 marked the opening of the Human Performance Laboratory, a joint effort of the USC Division of Biokinesiology and Physical Therapy and the Competitive Athlete Training Zone (CATZ). The new exercise and rehabilitation research laboratory is housed in the 14,000-square-foot CATZ facility, on the campus of Huntington Memorial Hospital in Pasadena.

Dr. Susan Sigward, director of the Human Performance Laboratory and assistant professor of clinical physical therapy at USC, and Jim Liston, CATZ founder and adjunct instructor of physical therapy at USC, co-hosted the event, which honored the contributions and fundraising efforts of Katie Hayden Marsh and the William R. and Virginia Hayden Foundation.

Doctor of Physical Therapy students Rich Peterson and Ashley Bowyer demonstrated the motion analysis equipment, used to enhance skill development and performance, identify factors that place people at risk of injury, and facilitate rehabilitation after injury or disease. Eleven high-speed cameras and three “force platforms” embedded in the floor enable physical therapists to test running motion, joint positions and torque, and muscle function.

With a dual mission of injury prevention and advocacy of active lifestyles for people of all ages and abilities, the Human Performance Laboratory will focus on developing, evaluating, and implementing exercise strategies for specific groups of people. The laboratory will house large-scale training studies, provide community health and wellness programs, and serve as a teaching facility for USC graduate students in physical therapy. A key benefit of the Pasadena location is that it will make possible innovative collaborations between the Division and businesses and health care partners in the community.

CATZ, a nationally recognized leader in fitness and performance training for people of all ages, has served as a USC research partner and has shared its expertise in community fitness programs with students in the Doctor of Physical Therapy program.

### USC PT Program Retains No. 1 Ranking

For the ninth straight year, the USC Physical Therapy program has been ranked No. 1 among all physical therapy programs in the United States by *U.S. News & World Report*. The 2012 ranking is especially noteworthy because it is based on a new peer assessment survey of 201 physical therapy schools nationwide.

The 2012 rankings are based on a peer assessment survey sent in fall 2011 to deans and faculty at degree programs accredited by the Commission on Accreditation in Physical Therapy Education. Respondents rated the academic quality of programs on a scale from 1 (marginal) to 5 (outstanding), based on an assessment of the curriculum, faculty, and graduates.

“This recognition reflects the incredible dedication and hard work of all our faculty, staff, and students,” said Dr. James Gordon, associate dean and chair of the Division of Biokinesiology and Physical Therapy.

Established in 1945 to train physical therapists at the undergraduate level, the Division was the first physical therapy department in the United States to directly award a PhD degree, in 1984, and one of the earliest physical therapy programs to award the doctor of physical therapy (DPT) degree, in 1998.

Today, the Division enrolls approximately 329 students, the majority of whom are in the DPT program. Others are enrolled in the residency program in orthopedic, neurologic, and sports physical therapy, or in research degree programs in biokinesiology. Faculty research areas include musculoskeletal biomechanics, motor behavior and neural control, motor development, and exercise science and muscle research.
The Division of Biokinesiology and Physical Therapy hosted training sessions in March for 15 faculty members and 50 Doctor of Physical Therapy students interested in screening athletes for FUNfitness, a core component of the Healthy Athletes® free health screenings provided to Special Olympics (SO) athletes at games events. The SO World Summer Games—with more than 7,000 athletes competing in 21 Olympic-type sports—are coming to Los Angeles in 2015.

FUNfitness is a fitness screening performed by physical therapists and physical therapy students with the assistance of physical therapist assistants. Assessments of flexibility, functional strength, balance, and aerobic condition are followed by instruction sessions with athletes, coaches, and families to improve performance and fitness. When indicated, athletes are referred to community resources. Since premiering at the SO Winter World Games in 2001, the screening program has expanded to 49 U.S. states, five Canadian provinces, and 70 countries around the world.

Training at USC was provided by Dr. Donna Bernhardt Bainbridge, SO senior global advisor for FUNfitness and fitness programming; Danielle Cheung, senior FUNfitness clinical director for Southern California; and Dr. Yuki Kubo ’09, newly trained FUNfitness clinical director. Dr. Bainbridge also briefed the USC Physical Therapy Faculty Games Committee on FUNfitness.

The two-year plan is for USC faculty to assist Dr. Bainbridge, Cheung, and Dr. Kobo to train additional physical therapists to provide FUNfitness screenings. The Division will be sponsoring training programs for all interested alumni. Check out the Division Facebook page and future editions of this newsletter for training opportunities. The Division will also be participating in Southern California state and local games so that participants can hone their screening skills. Therapists with both pediatric and adult experience are needed to work with SO athletes ranging from 10-year-olds to participants over 50 years of age. For more information, or to participate, contact Dr. Cheryl Resnik at resnik@usc.edu.

Nutritionist and USC ‘Fit Families’ Program Receive Award from California Milk Processor Board

Sara Train, a nutritionist and community volunteer who teaches nutrition and healthful cooking to Latino families as part of the “Fit Families” program of the USC Division of Biokinesiology and Physical Therapy, has received a $2,500 “Maestro Positivo” (Positive Role Model) award from the California Milk Processor Board (CMPB). A matching amount was awarded to the charity of Train’s choice—the Fit Families program.

The award ceremony was held January 30 on the USC Health Sciences Campus. Speakers included Dr. Cheryl Resnik, associate chair and director of community outreach for the Division; Steve James, CMPB executive director; Sara Train, nutritionist and community volunteer; and Jose Huizar, Los Angeles City Councilman. Train, who holds classes for 20 to 30 participants weekly, is one of three winners of the Maestro Positivo contest. She is planning to publish a Fit Families cookbook based on her classes. “I am passionate about seeing people interested in taking care of themselves and sharing those values every week with their kids,” she said.

The contest was open to Californians ages 13 and up. Contestants submitted an essay in Spanish describing the type of work they do to promote nutrition and healthful living, why it is important to do this work in the Latino community, and how the grant would help the nominee’s charity.
Sykes Symposium Fosters Dialogue between Pediatric Researchers and Clinicians

On March 16-17, the Division hosted “Research-Informed Practice for Infants and Children with Developmental Challenges,” the second annual Sykes Symposium on Pediatric Physical Therapy, Health, and Development. The goal of the symposium was to establish a community of professionals who translate research as well as clinical expertise and experience into recommended physical therapy management and future research to benefit physical therapy practice.

The Sykes Symposium featured presentations by Dr. Beverly D. Ulrich, professor, School of Kinesiology, University of Michigan; Dr. Laura Case, assistant professor, Division of Physical Therapy, Duke University; and Dr. Marian Williams, assistant professor, Department of Pediatrics, USC Keck School of Medicine. Dr. Ulrich presented her research on infants with myelomeningocele (spina bifida), stressing the importance of rigorous and sustained therapy starting from infancy. Dr. Case’s talk demonstrated that rigorous and sustained physical therapy intervention can change the typical trajectory of outcomes for individuals with Duchenne muscular dystrophy. Dr. Williams’ lecture presented successful strategies for therapists to employ when managing behavior problems in therapy.

Each researcher’s presentation was followed by case presentations from expert pediatric physical therapists. Eight clinicians presented cases: Dr. Jill Ordoñica, Dr. Sally Morcos, and Amber Richards from the Department of Rehabilitation Services, Children’s Hospital Los Angeles; Stephanie Yu and Denise Netteberg from California Children Services, Long Beach Medical Therapy Unit; Barbara Sargent, Division doctoral candidate; and Loretta Staudt and Dr. Carolyn Kelley, from the UCLA Department of Pediatrics Intervention Program. Case presentations were followed by extensive discussion among the participants, relating the research presented to specific cases.

The symposium is named for Tracy M. Sykes ’98 and her husband Gene T. Sykes, whose gift of $1 million in 2009 established the Sykes Family Chair in Pediatric Physical Therapy, Health, and Development, the first endowed faculty chair in the USC Division of Biokinesiology and Physical Therapy. Sykes Symposium organizer Dr. Linda Fetters is director of the Division’s Developmental Motor Performance Laboratory and inaugural holder of the Sykes chair.

Division Team Supports USC ‘Swim with Mike’ Event

BKN-PT—a team of 48 Division students, faculty, staff, and alumni—participated in a 32-hour Aquatic Locomotion Relay on April 13-14 to support the annual Swim With Mike (SWM) event. The team raised more than $2,000 to benefit the USC Physically Challenged Athletes Scholarship Fund.

Shawn Sorenson, PhD ’12, served as the Division team organizer for the second consecutive year. “It’s a great expression of the Division’s mission, and an opportunity to broaden our presence in the USC community,” he said. “Our unified presence and advocacy as a Division is the most important goal.”

Now in its 32nd year, SWM was started by friends of Mike Nyeholt, a USC All-American swimmer who was paralyzed in a motorcycle accident. Since its inception, the program has raised more than $12 million and has provided 116 college scholarships.

Division Contributes to Healthy Outlook for Festival of Books

Second-year DPT student Nora Vince teaches yoga at the Los Angeles Times Festival of Books on April 21. The USC “Fit Families” program offered simultaneous training stations for cardio exercise, stretching/yoga, nutrition, and body composition testing in the new USC Health Pavilion. In its second year at USC, the Festival of Books attracted a record-breaking 150,000 guests to the University Park Campus.
Honor Roll of Donors

We gratefully acknowledge the following alumni and friends for their financial contributions and the trust their support represents. This Honor Roll of Donors includes gifts recorded from July 1 to December 31, 2011. Every effort has been made to ensure accuracy. Please accept our apologies for any discrepancies. To notify us of any errors or omissions, or to make a donation, contact Art Aghourian at 213-740-7889 or artem.aghourian@usc.edu. To make a donation online, please visit http://pt.usc.edu/donate.

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Division Donor Since 1979

“The support I received from Dr. Hislop as a student was very important to me. And being taught by Dr. Perry was the highlight of my time at USC. She made you really think about the questions she posed, and answer thoughtfully. Giving is my way of reciprocating and supporting the dedication of Division staff and faculty, who teach students to think for themselves and to be able to treat patients effectively.”
David Karchem Joins Board of Councilors

David Karchem, a renowned software developer who tested the prototype Voyager spacecraft in the 1960s and later programmed computers and managed software development for the healthcare and entertainment industries, has joined the Division Board of Councilors. In addition to his technical knowledge, he brings a personal experience with the life-changing clinical work of physical therapy.

The day he got his driver’s license back, he drove out to Lancaster to watch a half-dozen soccer matches.

“I know firsthand that it takes time to heal,” he said. “I try not to focus on what I can’t do and I focus on what I can do. With the new technology that is being developed, and the new drugs and therapies on the horizon, the way I am today is not how I am going to be in a few years.”

Karchem has served as a research subject for the USC Rehabilitation Engineering Research Center on Technologies for Successful Aging with Disability (OPTT-RERC), including a project evaluating the usefulness of virtual reality simulation technology to improve motor skill rehabilitation. Having acquired a serious interest in this work, Karchem is planning to obtain a certification or degree in applied robotics, game theory, virtual reality application design and development, or assistive technology.

At Rancho, his volunteer work has included assisting the Basic Computer Group and the Driver Evaluation and Training Program. A member of the Northridge Hospital Patient Advisory Council, he also volunteers support services for the physical therapy and occupational therapy staff. The indefatigable Karchem even finds time to serve as a referee instructor for the U.S. Soccer Federation.

In February 2012, he was able to use his left hand to play a virtual reality software game for the first time in three years. “I still have my dream of kayaking through the Grand Canyon,” he said, “after I complete more rehabilitation, and gain strength and muscle control in my left side.”

Division Leadership Reviews Fundraising Goals for USC Development Campaign

The major events of 2012 are well underway at USC and the Division! The new USC branding campaign is in full swing, lending a unified look and feel to all the parts of the University, and USC has launched an unprecedented fundraising initiative.

The Campaign for the University of Southern California seeks to raise $6 billion, half to augment its endowment in support of student scholarships and improvements to our research facilities.

At its retreat in May, the Board partnered with faculty and staff for development training and a review of specific aspects of our fundraising goals for the Division. The retreat offered a unique opportunity for the Board and key faculty and staff to engage in dialogue on the future of the Division and our goal of becoming the top academic program worldwide for cutting-edge rehabilitation research and physical therapy education.

The Division has been rated as the No. 1 physical therapy program in the nation by U.S. News and World Report for an unprecedented nine years in a row. That level of excellence is not just happenstance—it’s the product of planning and execution by a well-run team.

Fight on!

John Wallace Jr., PT, MS, OCS
Chair, Board of Councilors
DPT Students Partner with USC Dornsife College of Letters, Arts and Sciences to Fight Childhood Obesity at Local School

Students at the Lenicia B. Weemes Elementary School near the USC University Park Campus usually snack on junk foods after school and during recess, despite Principal Lynn Brown's efforts to confiscate unhealthy nibbles. The school no longer provides physical education classes.

When Nadine Afari, director of the USC Young Scientists Program, discovered this state of affairs, she got the Division involved. Fifteen Doctor of Physical Therapy (DPT) students joined students from the USC Dornsife College of Letters, Arts and Sciences and the USC PT Fit Families nutritionist on November 18 for a health and fitness day at Weemes.

The school enrolls mostly African-American and Latino students from communities where high blood pressure and obesity are the norm. One of the project goals was to help the young students educate their parents to make better food choices. “USC has been great at helping us move in the direction of healthful eating,” Brown said.

The USC students provided four activities for fourth- and fifth-graders: making a healthy snack with tomatoes and spaghetti squash—a food most of the children had never heard of; active games to provide a cardio workout; a yoga session to learn simple relaxation techniques; and a gardening session (planting strawberries, cilantro, peppers, peas, and tomatoes). DPT students assisted with the cardio and yoga activities.

“One of the professional values we teach our physical therapy students is to impact the health of society,” said Dr. Cheryl Resnik, associate chair and professor, and the Division’s director of community outreach. “Our objective is to educate the kids about exercising and stretching while teaching them about their bodies.”

The Young Scientist Program, part of the Joint Educational Project run by USC Dornsife, works in partnership with five USC community elementary schools to strengthen science literacy and promote interest in science careers. As Dr. Resnik said, “We have a subtext for being here: We want to talk to the students about physical therapy as a future career.”

DPT Students Participate in Relay for Life® Walkathon

More than 30 students from the Doctor of Physical Therapy classes of 2013 and 2014 participated in the nationwide Relay For Life® walkathon March 31-April 1 at Cromwell Track Stadium on the University Park Campus. The team raised $3,500, placing fourth in overall fundraising at USC, which yielded more than $72,000 for the American Cancer Society.
**Kathryn L. Havens Receives GSMAS Student Travel Award**

Kathryn L. Havens, a PhD candidate in the Human Performance Laboratory, was selected as one of 12 recipients of the 2012 Gait & Clinical Movement Analysis Society (GCMAS) Student Travel Award. The award helps defray travel costs for graduate students attending the GCMAS 2012 Annual Conference in Grand Rapids Michigan, May 9-12.

The conference will include nine scientific podium sessions, keynote lectures by distinguished researchers, and tutorials and workshops on a wide range of topics. Havens will give a podium presentation, “Center of Mass Position-Velocity Relationship for the Control of Running Gait Termination.”

**Hsiang-Ling Teng Receives Dissertation Grant from International Society of Biomechanics**

Hsiang-Ling (Sharon) Teng, a PhD candidate in the Biokinesiology program, has been awarded an ISB Student Matching Dissertation Grant from the International Society of Biomechanics (ISB) Council. Award recipients are expected to present their dissertation results at the next ISB Congress—in 2013 in Brazil—and are encouraged to publish their work in an ISB-affiliated journal.

The primary goals of Teng’s dissertation research are to evaluate the influence of trunk posture on the biomechanics of the legs during running and to examine strength factors associated with an individual’s self-selected trunk posture during dynamic activities. Teng seeks to identify trunk postures that may predispose runners to higher risks of lower-extremity injury. The knowledge gained from her dissertation may improve rehabilitation and prevention protocols for lower-extremity running injuries.

**Jo Armour Smith Coauthors Pioneering Study of Body Alignment in Dance Jumps, Receives APTA Orthopaedic Section Grant**

Jo Armour Smith, PT, MManTh, OCS, a PhD student in the Division’s Musculoskeletal Biomechanics Research Laboratory (MBRL) coauthored “Intra-task variability of trunk coordination during a rate-controlled bipedal dance jump”—published in the November 25, 2012 online issue of the Journal of Sports Sciences—with Dr. Kornelia Kulig, associate professor of clinical physical therapy and co-director of MBRL, John M. Popovich Jr., and Adam Siemienski.

Smith also received a 2012 research grant from the Orthopaedic Section of the American Physical Therapy Association (APTA) for her project, “Trunk coordination in persons with low back pain.” The study—to be conducted under the guidance of Smith’s advisor, Dr. Kulig—aims to compare muscle activity and trunk motion while walking in people with a history of recurrent low back pain with a healthy control group. Findings from Smith’s study will also serve as a preliminary investigation of the relationship between muscle activity and trunk motion during walking, and selected clinical physical therapy tests and measures.

**Lindsey Anderson Selected for USC Academic Professional Development Program**

Lindsey Anderson, a PhD student in the Biokinesiology program, has been selected for the Spring 2012 Ten-Week Series of the USC Graduate School Academic Professional Development Program. Supported by the USC Office of the Provost and university-wide academic departments, the program offers doctoral students the opportunity to hone their academic and professional skills in a learner-centered environment with their peers in other disciplines. Students who successfully complete the program receive a certificate and are eligible for a supplemental research or conference travel award.
People who undergo surgery and radiation therapy for head and neck cancer suffer from multiple impairments that affect their appearance and their ability to speak, swallow, eat, move the neck and arm, and remain employed. Although these impairments will not fully resolve, they can be reduced with intense physical therapy, speech therapy, and occupational therapy, which enables these individuals to regain enough function to perform their daily activities and possibly return to full- or part-time employment.

USC Physical Therapy Associates has a unique and successful cancer rehabilitation program that provides comprehensive physical therapy addressing loss of motion, pain, lymphedema, muscle weakness, loss of balance, and cancer-related fatigue.

Blair Frank and Joe Lapides are, respectively, CEO and COO of USC Head and Neck Cancer (HNC) Support International, Inc., a nonprofit group of head and neck cancer patients, survivors, and caregivers. They sought to help uninsured and under-insured patients gain access to the improved quality of life that physical therapy can make possible. So they came to Dr. Kimiko Yamada, assistant professor of clinical physical therapy, to discuss a feasible plan of action.

During the fall of 2011, Dr. Yamada, Dr. Jonathan Sum, instructor of clinical physical therapy, Frank, and Lapides laid the groundwork for the Division’s Head and Neck Cancer Rehabilitation Program. Dr. Marisa Perdomo, assistant professor of clinical physical therapy, and Dr. Noriko Yamaguchi, adjunct instructor of clinical physical therapy, provided key assistance in developing the program, which debuted in March.

The Head and Neck Cancer Rehabilitation Program provides five one-hour sessions of physical therapy at USC Physical Therapy Associates (once a week for four weeks and a final session—one month after the fourth session—for re-evaluation and review of the home program). Patients pay only $25 for the full series of sessions, with USC HNC Support Group covering the balance of the discounted physical therapy fees.

“We are very excited to have the support of Dr. Uttam Sinha, assistant professor in the USC Otolaryngology Department,” said Dr. Yamada. “He is a true leader in the field of head and neck cancer surgery and reconstruction, with clinics at Keck Hospital of USC as well as at LAC+USC Medical Center. His residents, Drs. Neil Gildener-Leapman and Lindsay Reder, have referred patients to our program, and we are very grateful for their support. Although the program is just beginning, we see much promise in it. We look forward to helping as many patients as we can.”

For more information, and to support the Head and Neck Cancer Rehabilitation Program with a tax-deductible donation, please email Dr. Yamada at kayamada@usc.edu.
Dr. Rob Landel Selected as Catherine Worthingham Fellow

Dr. Rob Landel, professor of clinical physical therapy in the USC Division of Biokinesiology and Physical Therapy, has been selected as a Catherine Worthingham Fellow of the American Physical Therapy Association (APTA)—the highest honor of the physical therapy profession. The award will be formally presented June 7 at PT 2012, the APTA Annual Meeting, in Tampa, Florida.

Six active USC faculty members are now Catherine Worthingham Fellows, more than in any other physical therapy program in the nation.

Dr. Landel, who received his master of science and doctor of physical therapy (DPT) degrees from USC, has been teaching at USC since 1988. A decade later, he cofounded the USC Residency in Orthopedic Physical Therapy—the first university-based residency program in the nation—and now directs all physical therapy residency programs at USC (orthopedic, neurologic, and sports). In 2010, Dr. Landel became director of the DPT program.

In support of Dr. Landel’s nomination as a fellow, four distinguished members of the physical therapy profession and a former faculty member at the Keck School of Medicine of USC lauded his outstanding contributions as an educator and as a clinician, researcher, and leader of the profession.

Dr. Kornelia Kulig, professor in the Division, wrote that Dr. Landel “teaches from a sound, comprehensive, and current knowledge base, integrating basic science with the principles of orthopedic physical therapy.”

Dr. Elza Mylona, associate dean of faculty development at Stony Brook University School of Medicine praised Dr. Landel’s “face-to-face” teaching style. “Every minute of every class meeting is spent coaxing and prodding every person to think and critique and scrutinize and analyze, as he paces back and forth and peppers his audience with questions, ideas, and real-life examples,” she wrote.

“He requires evidence-based thinking,” wrote Dr. Linda Petters, professor and Sykes Family Chair in Pediatric Physical Therapy, Health and Development, “and because his own knowledge of the research literature is so extensive, he can identify gaps in students’ knowledge and redirect them to search and find literature immediately, in the classroom.”

Dr. James Gordon, professor and associate dean and chair of the Division, wrote that “it is no exaggeration to say that [Dr. Landel] originated and developed most of the important courses in basic patient management and management of the orthopedic patients in the last 15 or so years that the DPT program has been in existence.”

As a clinician, Dr. Landel maintains an active patient load at USC Physical Therapy Associates, the faculty practice he founded in 1989 and ran for seven years before cofounding the orthopedic residency program. As a researcher, Dr. Landel has 13 peer-reviewed publications, six published book chapters and two forthcoming publications to his credit, primarily in the field of orthopedic physical therapy.

Dr. Landel is a sought-after speaker at national and international professional conferences, and has taught more than 100 continuing education courses nationwide. His other honors include the James A. Gould Excellence in Teaching Orthopedic Physical Therapy Award of the APTA’s Orthopedic Section (2009), the Excellence in Research Award of the California Physical Therapy Association (2008), and Teacher of the Year, awarded by students in the Division (2005 and 2009).
In Brief

Beth Fisher, PhD, PT, associate professor of clinical physical therapy at USC and director of the Neuroplasticity and Imaging Laboratory (NAIL), and Dr. Giselle M. Petzinger, assistant professor of research in the Department of Neurology, Keck School of Medicine of USC, have received a $50,000 grant from The Parkinson Alliance/Team Parkinson. The grant will help fund “Understanding the Role of the Frontal Cortex in Gait and Balance Impairment in PD,” a study investigating the association of context-dependent motor learning with Parkinson’s disease, as well as the role of the brain’s frontal cortex as part of a circuit connected to the area of the brain affected in the disease.

By applying transcranial magnetic stimulation (TMS), the researchers will be able to pinpoint the brain circuits responsible for this aspect of the disease. The ultimate goal is to optimize treatments—both drug- and physical therapy-based—that will retrain the brain to maintain function such as walking and balance capability, regardless of environmental context. Also working on the NAIL project is biokinesiology graduate student Ya-Yun (Alice) Lee.

Shailesh S. Kantak, MS, PT; Katherine J. Sullivan, PhD, PT; Beth E. Fisher, PhD, PT; Barbara J. Knowlton; and Carolee J. Weinstein, PhD, PT, FAPTA, are coauthors of “Transfer of Motor Learning Engages Specific Neural Substrates During Motor Memory Consolidation Dependent on the Practice Structure” (Journal of Motor Behavior, 43[6]:499-507, 2011). The study investigated how brain activity during motor-memory consolidation contributes the transfer of learning to new versions of a motor skill following distinct practice structures.

Kornelia Kulig, PhD, PT, FAPTA, associate professor of clinical physical therapy at USC, was elected by the Swiss National Science Foundation (SNSF) for a two-year term as one of four experts on a panel of internationally renowned experts evaluating basic research applications in health. SNSF is the principal Swiss agency supporting basic research in Switzerland.

Rob Landel, PT, DPT, OCS, CSCS, MTC, professor of clinical physical therapy at USC, was selected as a Catherine Worthingham Fellow of the American Physical Therapy Association. (Please see article on page 13.)

In February, Dr. Landel was quoted in stories by ESPN and The Associated Press. ESPN interviewed him about Pittsburgh Penguins captain Sidney Crosby’s soft-tissue neck injury. Dr. Landel said that cervicogenic dizziness is a type of “sensory mismatch” that develops due to muscular damage in the neck, with misinformation sent to the brain about the position of the head. “As a hockey player, you’re often in a semi-crouched position yet have to keep your head and neck up, track a moving puck, and turn your head to varying degrees, all while moving your body at a high rate of speed on a slippery surface,” he said. “It places an exceptionally high demand on the system.”

In the Associated Press article, about common injuries to active baby boomers, Dr. Landel said that many of his baby-boomer patients try to cram all their exercise into the weekend but do nothing during the week to prepare. He added that he has painful tendinitis in both knees from playing volleyball for more than 30 years, which can make it difficult to get up and down while treating patients. “If I just exercise my legs, then I don’t have those problems,” he said. “The stronger you are, the better your joints tolerate stress.” The story was picked up by The Wall Street Journal.

Sara J. Mulroy, PhD, PT, adjunct assistant professor of physical therapy at USC; Carolee J. Weinstein, PhD, PT, FAPTA; Kornelia Kulig, PhD, PT, FAPTA; George J. Beneck, PhD, PT, OCS; Eileen G. Fowler; Sharon K. DeMuth, DPT, PT; Katherine J. Sullivan, PhD, PT; David A. Brown; and Christianne J. Lane coauthored “Secondary Mediation and Regression Analyses of the PTClinResNet Database: Determining Causal Relationships Among the International Classification of Functions, Disability and Health Levels for Four Physical Therapy Intervention Trials” (Physical Therapy Journal, 91[12]:1766-1779, December 2011; published online October 14, 2011).

The article reports that predictive models were stronger for the two studies with pain-related primary outcomes. Changes in muscle performance mediated or predicted reductions in pain for the MUSSEL and STOMPS trials, and to some extent, walking speed for the STEPS trial. For all four trials (including PEDALS), changes in primary outcome variables were significantly related to changes in activity and participation variables.

Christopher Powers, PhD, PT, FAPTA, associate professor at USC, and Ian M. Leahy, DPT, PT, adjunct instructor of clinical physical therapy at USC, coauthored “Chondral Lesion of the Patella” (Journal of Orthopaedic & Sports Physical Therapy, 42[3], March 2012). A 27-year-old man who was a recreational baseball player was referred to a physical therapist for a suspected medial meniscus injury following a right-side lower-extremity twisting injury sustained three weeks earlier. After four weeks of physical therapy, the patient was unable to return to his athletic activities. An orthopaedic surgeon ordered magnetic resonance imaging of his right knee, which revealed a focal full-thickness chondral lesion at the median patellar ridge.

Cheryl Resnik, DPT, PT, associate chair and associate professor of clinical physical therapy at USC, and Nicolas Schweighofer, PhD, associate professor of biokinesiology and physical therapy at USC, have been appointed to the University’s Advisory Committee on Work and Family Life. The committee was established in 2005 to further improve the quality of life for faculty and staff, and to promote health and wellness at USC.

George Salem, PhD, associate professor at USC; Scott Russell, PT, DPT, instructor of clinical physical therapy at USC; and Emily Wang, PhD, PT, adjunct assistant instructor of research physical therapy and program director for the Yoga Empowers Seniors Study (YESS), have received a $10,000 Zumberge Interdisciplinary Grant for their research project, “Yoga as an Intervention for Postural and Neuromuscular Dysfunction in Cystic
Fibrosis.” The Phase I feasibility study will examine the appropriateness of using yoga as therapy for people with CF to treat abnormal posture and the resulting neuromuscular impairments. Drs. Salem and Russell will develop a yoga program specifically for people with CF and evaluate it in a 10-week trial. Participants will be recruited from the USC Cystic Fibrosis Clinic. The Zumberge Interdisciplinary Grant is supported by the James H. Zumberge Faculty Research Innovation Fund in the USC Office of the Provost.

Cassandra Sanders-Holly, PT, DPT, adjunct instructor of clinical physical therapy at USC, was featured in a Press-Enterprise article (February 5, 2012) about her role in creating the Leaps and Bounds Pediatric Therapy Center at Breezy Willows Ranch in Norco, California. The center uses hippotherapy (equine physical therapy) to treat children with neuromuscular or musculoskeletal conditions. “The biomechanics of a horse’s pelvis mimics a person’s exactly,” Dr. Sanders-Holly said. “So for a child who can’t walk on his own, he’s able to experience what walking should be.” (Dr. Sanders-Holly was profiled in the Spring/Summer 2011 issue of In Motion.)

Nicolas Schweighofer, PhD, associate professor of biokinesiology and physical therapy at USC, and Carolee J. Winnstein, PhD, PT, FAPTA, professor at USC, coauthored “Use It and Improve It or Lose It: Interactions Between Arm Function and Use in Humans Post-Stroke” (PLoS Computational Biology 8[2], February 2012). The research team developed a model of stroke recovery using data from EXCITE clinical trial participants who had received constraint-induced movement therapy (CIMT)—physical therapy that improves stroke patients’ arm function by restraining the use of the non-affected arm and increasing the use of the affected arm. After systematically comparing their model with other models that either did or did not include interactions between arm function and use, the authors concluded that the data substantiated the “use it and improve it, or lose it” axiom of motor therapy after stroke. Coauthors also include Yukikazu Hidaka, a computer science PhD student in the USC Viterbi School of Engineering; Cheol E. Han, Brain and Cognitive Sciences, Seoul National University; and Steven L. Wolf, Department of Rehabilitation Medicine, Emory University, principal investigator of the EXCITE trial.

In a ScienceDaily.com article, “Motor Memory: The Long and Short of It” (September 13, 2011) Dr. Schweighofer was quoted on the mechanism underlying the way short- and long-term motor memory work in tandem. “Continually wiping out motor short-term memory helps update long-term memory,” he said. The article was based on a USC News report on the paper, “Mechanisms of the contextual interference effect in individuals poststroke” (Journal of Neuropsychology, 106:2632-2641, November 2011; published online in August), coauthored by Dr. Schweighofer, Dr. Winnstein, Jeong-Yoon Lee, Hui-Ting Goh, Youngeun Choi, Sung Shin Kim, Jill Campbell Stewart, and Rebecca Lewthwaite.

Katherine J. Sullivan, PhD, PT, associate professor of clinical physical therapy at USC, has received the Distinguished Alumni of the Year Award of the Marquette University Alumni Association. An internationally recognized expert in post-stroke brain damage, Dr. Sullivan is one of the principal investigators of the Locomotor Experience Applied Post-Stroke (LEAPS) multisite clinical trial, funded by the National Institutes of Health. She is also a faculty fellow in the USC Center for Excellence in Teaching.

Dr. Sullivan was quoted in The Washington Post (“After a stroke: The expanding role of exercise in promoting recovery,” March 19, 2012). “No matter when you start an intense, progressive program, it works,” she said.

Dr. Sullivan and Steven Y. Cen, PhD, assistant professor of research physical therapy at USC, have published “Model of Disability and Recovery: Knowledge Translation in Rehabilitation Research and Practice” (Physical Therapy Journal, 91[12]:1892-1904, December 2011; published online in October). Knowledge translation is an approach to evidence-based medicine in which various evidence sources are aggregated so that clinical decisions about intervention selection and dosing result in beneficial care. The researchers used structural equation modeling to test a theoretical model of disablement based on the impairment, activity, and participation categories of the International Classification of Functioning, Disability and Health (ICF) level of functioning.

Path analysis of cohort data from a randomized controlled trial of people with poststroke walking disability revealed that although the direct effect of impairment on participation was not statistically significant, the indirect path from impairment to participation through activity was significant. The probability that functional tasks could be performed with less effort was greater for individuals who met or exceeded a physiologic walking threshold after a structured, progressive intervention provided six months earlier by a physical therapist.

Julie Tilson, DPT, PT, NCS, assistant professor of clinical physical therapy at USC, is a coauthor of “Sicily statement on classification and development of evidence-based practice learning assessment tools” (BMC Medical Education, 11:78, October 5, 2011). The groundbreaking international agreement identifies key principles for designing EBP learning assessment tools and presents a framework—the Classification Rubric for EBP Assessment Tools in Education (CREATE)—for classifying these tools. The agreement additionally provides recommendations for developers of EBP learning assessments, including the types of assessments that are still needed. The authors, who represent four health care professions (physical therapy, dentistry, general practice/family medicine, and medical library science), are residents of five countries.
and-balance exercises appear to reduce falls, The authors suggest that, while strength-and-balance training at two months, who received strength-and-balance training at home, during the year after their stroke, are more likely to fall repeatedly or sustain injury than those two months after the stroke were more likely to improve walking and mobility. Additional coauthors are Samuel S. Wu, Quishi Feng, Dorian R. Rose, Andrea L. Behrman, Stanley P. Azen, and Pamela W. Duncan.

Carolee Winstein, PhD, PT, FAPTA, professor of biokinesiology and physical therapy and director of the Motor Behavior and Neurorehabilitation Laboratory at USC, is the subject of a laudatory article in Neurorehabilitation and Neural Repair (26:117-119, February 2012). The article notes that Dr. Winstein, who holds a joint appointment as associate professor in the Department of Neurology in the Keck School of Medicine of USC, is active in the neurology community. Her significant accomplishments include leading the first Physical Therapy Clinical Research Network (PTClinResNet) and the Interdisciplinary Comprehensive Arm Recovery Evaluation (ICARE) stroke initiative, and—with colleagues at USC and Rancho Los Amigos Hospital—establishing the Rehabilitation Engineering Research Center (RERC).

Dr. Winstein, Shuya Chen, PhD, Steven L. Wolf, Qin Zhang, and Paul A. Thompson are coauthors of “Minimal Detectable Change of the Actual Amount of Use Test and the Motor Activity Log: The EXCITE Trial” (Neurorehabilitation and Neural Repair, 20[10]:1-8, published online January 24, 2012). The authors concluded that the greater variability and insensitivity to treatment effect of the Actual Amount of Use Test (AAUT)—as compared to the Motor Activity Log (MAL)—as a measure of spontaneous arm use after a neurorehabilitation intervention is likely due to the low resolution of its scoring system. For this reason, it is necessary to develop valid and reliable tools that capture purposeful arm use outside the laboratory, perhaps by means of leveraging new sensing technologies with objective activity monitoring.

Dr. Winstein and Shailesh S. Kantak, MS, PT, are coauthors of “Learning-performance distinction and memory process for motor skills: A focused review and perspective,” (Behavioral Brain Research, 228:219-231, March 1, 2012; published online November 2011). Recent research has used noninvasive brain stimulation to decipher the role of the motor memory processes involved in encoding, consolidation, and retrieval of a skill, and specific cortical brain regions engaged in motor performance and learning. A focused review suggests that practice performance may not reflect long-term retention. There are promising implications for future research and practical applications.

Faculty & Staff on the Move

In Motion congratulates the following faculty and staff for their promotion or new appointment, and wishes all the best to those who have moved on to new positions elsewhere.

**Faculty Promotions**

Christina Dieli-Conwright  
Adjunct Instructor to Assistant Professor of Research

Kornelia Kulig  
Associate Professor to Professor (Clinical Scholar)

Ian M. Leahy  
Physical Therapy resident to Adjunct Instructor of Physical Therapy

**Faculty Appointments**

Melissa Brose  
Adjunct Instructor of Clinical Physical Therapy (Fit Families)

Cynthia Wederich  
Adjunct Instructor of Clinical Physical Therapy

**New Staff**

Lauren Arita  
Receptionist at PT Associates (HSC)

KATE KETCHAM  
Continuing Education Coordinator

Jennifer Tsai  
Research Administration Specialist

Shannon Walters  
Administrative Project Specialist, I-CARE

**Staff Departure**

Michelle Haines  
Project Specialist, YESS
Michael Anthony Pagliarulo, PT, BA, BS, MA ’74, EdD, has received the Division’s Distinguished Alumnus Award, bestowed for professional accomplishments with high distinction. A member of the Department of Physical Therapy at Ithaca College in New York since 1980, he has shaped the lives of many physical therapists as an educator and advocate for the profession.

Because Dr. Pagliarulo was not available to receive the award at the Division’s Academic Convocation and White Coat Ceremony in August, Dr. James Gordon, associate dean and chair of the Division, made the presentation during the alumni and friends reception at the Combined Sections Meeting (CSM) of the American Physical Therapy Association (APTA) in February.

As an instructor, Dr. Pagliarulo has advanced new concepts that have had a notable influence not only on students, but also on faculty, patients, administrators, and policymakers whose decisions affect physical therapy education. His positions at Ithaca College have included academic coordinator of clinical education, assistant director, and department chair.

A member of the APTA since 1969, he has served on several sections. As a member of the Academic Administrators Special Interest Group of the Education Section, Dr. Pagliarulo helped raise educational standards for the field. He currently serves on the Reference Committee and Steering Committee of the Education Leadership Institute.

Dr. Pagliarulo’s diverse roles in the New York chapter of the APTA have included leadership in technology, governance, strategic planning, and member participation. He was involved in the APTA’s California chapter during the mid-1970s, while serving as a lecturer at USC and UC San Francisco, clinical instructor at Rancho Los Amigos Hospital, and guest lecturer at Cal State Northridge.

Dr. Pagliarulo’s honors include the Lucy Blair Service Award from the APTA (2011), the Dorothy E. Baetke-Eleanor J. Carlin Award for Teaching Excellence from the APTA (2002), and multiple awards from the New York Physical Therapy Association and Ithaca College.

Raymond L. Blessey, MS ’73

Over the years, many graduates of the USC physical therapy program have gone on to achieve distinction in fields other than traditional physical therapy. The Division is proud that a USC education in physical therapy has helped shape the careers of these individuals. Among them is Raymond L. Blessey, MS ’73, whose long career in physical therapy led to his desire to provide legal defense for health care providers.

Blessey is a founding partner of Taylor Blessey LLP, a medical malpractice defense law firm in downtown Los Angeles. Before he entered the field of law, Blessey spent 18 years in health care as a clinician, researcher, educator, and author. His primary focus was in the field of cardiopulmonary medicine, which included National Institutes of Health Specialized Centers of Interdisciplinary Research (NIH-SCOR) research projects dealing with premature atherosclerosis and clinical practice in primary and secondary prevention. He also pursued environmental health research examining the cardiopulmonary effects of air pollutants in normal and diseased subjects.

A graduate of Southwestern University School of Law, Blessey has spent the past 18 years specializing in defending individual health care providers and hospitals in medical negligence cases and medical board matters. Since 1998, he has tried or arbitrated more than 60 cases. Annually recognized by his peers as one of Southern California’s leading medical malpractice defense lawyers, he is listed in Best Lawyers in America® and has been featured in Southern California Super Lawyers magazine since 2006.

Blessey has served as an invited lecturer at the USC School of Medicine and a clinical assistant professor in the Division. He has also shared his expertise in lectures to Doctor of Physical Therapy students on ways to minimize professional risk while providing patient care. Blessey’s professional memberships include the American Board of Trial Advocates, the Association of Southern California Defense Counsel, the State Bar of California, the Los Angeles County Bar Association, and the American Board of Trial Advocates.
Staying in Touch

1955 JOHN CHEEVER, PT, writes that he sold the Center for Sports Medicine to Sharp Hospital in San Diego in 1993. Since then, he has taken up woodturning and still sees patients as time allows. He provided physical therapy intervention for the San Diego Chargers over a 16-year period, and also for the San Diego Gulls hockey team and the Rockets basketball team while they were in town. Two daughters, a son, and six grandchildren keep him and his wife Betty busy. He has many memories of his time at USC and hopes that the Division will continue “the outstanding job that keeps USC physical therapy on top.”

1969 JANET CARR SOUSA, PT, has been riding and raising Tennessee Walking Horses for the past 28 years, with her daughter, Kate. The family owns Lazy Sousa Ranch—more than 600 acres of meadowland, creeks, and mountains in Huson, Montana.

1976 THOMAS T. PAYNE, AM, DPT, recently relocated to Haymarket, Virginia.

1979 MARYANN SHOOK KROH, MS, PT, is working to create a sustainable pediatric rehabilitation program at an orphanage in Haiti. The program will serve 27 to 30 severely handicapped children, including many orphans who lost their parents in the 2010 earthquake.

1986 JUDITH DEUTSCH, PT, PhD, was recognized as a Catherine Wörthingham Fellow of the American Physical Therapy Association (APTA).

Renee Hawkins, MS, PT, NCS, received her Neurology Certified Specialist certification in June 2011. A Commission on Accreditation of Rehabilitation Facilities (CARF) surveyor for medical rehabilitation programs, she spends half her time treating patients with neurological problems and the other half as hospital compliance liaison.

1987 DARYL LAWSON, PT, DSC, was granted tenure and promoted to associate professor in the School of Health Sciences at Elon University in North Carolina in March. His teaching responsibilities are in integumentary and orthopedics.

1990 LINDA WESELY, PT, was promoted from division director to vice president of operations for Mountain Land and Brighton Rehabilitation. Headquartered in Salt Lake City, the therapy services provider has sites in nine western states. Wesely has worked for Mountain Land for nearly nine years.

1995 LISA (CARPENTER) ASHE, MPT, was married in 2008 to Michael Ashe. They have two children, five-year-old Savannah and two-year-old Jadon. Ashe is a stay-at-home mother now but she writes that she may get back to physical therapy work next year. The family is moving to a new home in Danville, California.

1998 MATT BOOTH, DPT, OCS, his wife Kristi, and five-year-old son Zach welcomed Juliette Marie Booth (7 lbs., 12 oz.; 20.5” long) on February 11. Dr. Booth introduced an osteopathic model of assessment and treatment, the Fascial Distortion Model, to the Intermountain Orthopedics Sport Medicine Conference in Boise on March 8. He is celebrating the tenth anniversary of his clinic, Therapeutic Associates Boise Physical Therapy @ Parkcenter, and the sixtieth anniversary of Therapeutic Associates, Inc. on May 17 with a big Hawaiian luau party.

CATHY (SCHECHE) HARKE, DPT, published Cracking the Motor Mystery: A Fun and Creative Approach to Gross Motor Basics in October 2011. The book is a gross motor activity guide for parents and teachers of toddlers, preschoolers, and school-age children who are still learning gross motor fundamentals. Dr. Harke writes that the book is also ideal for clinic and home program use because the focus is on activity progression, as opposed to age specifics, while incorporating creative play with the teaching of motor skills.

1999 DAVIS KOH, MS, DPT, is the owner of Koh Physical Therapy Lab, an outpatient orthopedic clinic in Irvine, California. He specializes in soft-tissue injuries, sports biomechanics and stabilization exercises for the shoulder, back, hip, and knee complex. Certified as a strength and conditioning specialist (CSCS) by the National Strength and Conditioning Association and as a Russian kettlebell instructor, Dr. Koh is also a board-certified geriatric clinical specialist. He has served on many athletic medical teams. In 2010, Dr. Koh was selected as one of the Best Physical Therapists in Southern California by KCAL-9/KTLA-5 TV.

2000 BLAINE BEHRINGER, DPT, is managing partner of Earthbound Media Group, a marketing and communications agency that integrates marketing and technology into a unified communication strategy. The company will be moving this summer from Orange County to The Hercules Campus at Playa Vista in West Los Angeles.

2001 YAS KASAYAMA, DPT, and his wife Hannah welcomed baby Mia (7 lbs., 6 oz.; 20.5” long) on January 14, 2012.

2002 YVETTE FLORES, PT, DPT, CSCS, has a new physical therapy practice, Physical Therapy Solutions, in Santa Monica. Dr. Flores and her staff treat both pediatric and orthopedic patients, and offer wellness programs incorporating weight loss, fitness, nutrition, and specialized massage services.

SHILPI (SHAH) HAVRON, DPT, is married with two children, three-year-old John and one-year-old Giselle. Dr. Havron is employed by Accelerated Rehabilitation Centers in Illinois. She is area manager for four of their facilities and works at the one in North Naperville.

2004 CARINA ESCUDERO, MPT, DPT, will marry helicopter pilot John Testa on May 11, 2012.

MIYE FONSECA, PT, DPT, is the founder and CEO of Therapy Exam Prep, an online National Physical Therapy Examination webinar program. TEP launched in 2011 to help physical therapist examinees pass the board exam, with an emphasis on exam analysis, clinical thinking, and a holistic approach.

2005 JONATHAN SUM, PT, DPT, OCS, CSCS, announces the birth of Brandon (7 lbs., 7 oz.; 20” long) on March 13, 2012 at 12:44 p.m. “Mommy and baby are doing well,” Dr. Sum says. “And my son has a nice set of lungs!”

2006 THAOMY NGO BELTRAN, DPT, and her husband Paolo are the proud parents of Jordann Beltran (7 lbs., 20” long), born on November 4, 2011 at 6:20 p.m. REYNA (SAMALEA) DAVID, PT, DPT, CSCS, and her husband Edison welcomed a baby girl, Mikaela Samalea David, born on September 5, 2011. Dr. David is a staff therapist at OPTM Physical Therapy of Saratoga, an outpatient orthopedic clinic in the San Jose, California area. Fabrice Rockich, DPT ’98, and Janet Yiu, DPT ’10, are also on the staff.

KIMIKO YAMADA-HENG, DPT, OCS, ATC, CSCS, her husband Rith, and daughter Maile welcomed baby Micah Heng (6 lbs., 14 oz.; 20.5” long), born on February 4, 2012 at 10:34 a.m. CONTINUED ON NEXT PAGE
Continuing Education

SUMMER & FALL COURSE OFFERINGS

Neurologic Physical Therapy Professional Education Consortium Presents: Advancing Neurologic Practice

Module I: JULY 26 - 29
Module II: NOVEMBER 1 - 4
2.8 CEUs PER 4-DAY MODULE

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MAY 19 - 20
Instructor: STEVE REISCHL, PT, DPT, OCS
1.4 CEUs

Orthopedic Seminar Series

Lower Quarter Module: AUGUST 19 - 26
Upper Quarter Module: OCTOBER 21 - 28

Sports Rehabilitation

Module I: SEPTEMBER 20 - 23
Module II: NOVEMBER 29 - DECEMBER 2
Instructors: AIMEE DIAZ, PT, SCS, ATC
JOHN MEYER, PT, DPT, OCS
LISA MEYER, PT, DPT
SUSAN SIGWARD, PT, PHD, ATC
2.8 CEUs PER 4-DAY MODULE

Physical Therapy Management for TMJ Disorder and Associated Symptoms

NOVEMBER 10 - 11
Instructor: SALLY HO, PT, DPT, OCS
1.4 CEUs

To learn more and register online, please visit http://pt.usc.edu/continuingeducation.

Save the Date!
Homecoming 2012

The USC vs. Arizona State game will take place at the Los Angeles Coliseum on Saturday, November 10. Kick-off time TBA. The Division will hold a pre-game picnic on the University Park Campus three hours prior to kick-off. You will receive an email invitation. If we don’t have your current email address, please contact Sara Villagran at 323-442-1193, or villagra@usc.edu.

2007 ANDREA BRENNGLASS
AUSTIN, DPT, OCS, ATC, and her husband Scott welcomed a baby boy, Caleb (5 lbs., 7 oz., 18” long), born on November 17, 2011.

LIZA MCGILL, PT, DPT, has moved back to the San Francisco Bay Area. Since January, she has been working as a senior physical therapist in Rehabilitation Services at Kaiser Permanente Santa Clara, in both inpatient and outpatient settings.

ARMIN SHAVERDIAN, DPT, and his wife Jennifer and son Enzo have a new addition to the family, Leo Joseph Shaverdian, born on December 20, 2011.

2008 CARON BUSH, PT, DPT,
CSCS, and Georgina King announce the birth of Kyla Margaret Bush-King on December 12, 2011. Dr. Bush, who completed Kaiser’s seven-month Advanced Skills program, has a new job in the Pediatric Sports Medical Department at Children’s Hospital and Research Center Oakland.

JAMIE PETERSON CHATEAUX, DPT, and her husband Allan had their first child, Tiare Mari, born on March 10, 2012.

RICH SOUZA, PT, PHD, ATC,
CSCS, has received a four-year RO1 grant from the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) for his research project, “Contact Mechanics, Neuromuscular Control, and Cartilage Composition in Knee OA.” The project will enable the compilation of a comprehensive database of articular control mechanisms in subjects with and without osteoarthritis, using kinematic MRI, neuromuscular control during walking, metrics of functional performance, and quantitative magnetic resonance for cartilage and meniscus composition. Dr. Souza’s co-investigators are Xiaojuan Li, Deepak Kuman, and Subbaraj Karuppayyam. Dr. Souza is assistant professor in the Department of Physical Therapy and Rehabilitation Science, the Department of Radiology and Biomedical Imaging, and the Department of Orthopaedic Surgery, at UC San Francisco, and director of research of the UCSF Human Performance Center.

2009 CHRISTINA DIEIL-
CONWRIGHT, PHD, gave birth to Aliya Marie Conwright (6 lbs., 8 oz.; 20” long) on February 6, 2012 at 7:42 a.m.

CHRISTY MALBREW, DPT, will marry Jamin Lundy on June 16, 2012, in New Orleans, Louisiana.

BECCA SANDERS WOOD, DPT, works at the Physiotherapy Associates Midtown clinic in Atlanta, Georgia. She received the Area Clinician of the Quarter award for the fourth quarter of 2011 and the 2011 Georgia Staff Physical Therapist Peer Excellence Award. Dr. Wood serves as the PT PAC chair of the Physical Therapy Association of Georgia (PTAG)) and was selected to serve on the PTAG Strategic Planning Task Force for 2012.

2010 MARCY CROUCH, DPT,
graduated from a Women’s Health Residency program in Dallas, Texas, in June 2011.

EDAN DEVORA, DPT, is clinical director of Hands On Rehab, Inc., in Huntington Beach, California.

ANDY MYLER, DPT, completed his residency at USC/Rancho Los Amigos National Rehabilitation Center Clinical Residency Program in Neurologic Physical Therapy and is now employed full-time in the Stroke Service at Rancho.

ZACHARY DAVID PEVICK, DPT, is working as a physical therapist at Beach Cities Orthopedics and Sports Medicine in Manhattan Beach, California. He is also vice president of House Call Doctors, LLC, an optometry company that he will bring to California to treat patients in their homes and in multi-bed facilities.

2011 ROMITA PATEL, DPT, is starting a health coaching business, Novel Transformations, in Fremont, California. After becoming a Certified Professional Coach, she formed her business to help others maintain health and wellness, cope with long-term conditions (including stroke, MS, Parkinson’s disease, spinal cord injuries, amputations, and lower back pain), weight loss, anxiety and depression, and pursue specific sports (running, yoga, hiking, weight lifting, and track and field).
Dear Alumni and Friends,

We want to extend our heartfelt congratulations to outgoing USC Physical Therapy Alumni Association (PTAA) President Thaomy Ngo Beltran, who begins her new adventure as mother to baby Jordann Beltran. We applaud her legacy as the first president of the PTAA since its inauguration in 2008, and we will miss her leadership.

As faculty liaisons, Sean Johnson (DPT ’08) and I have stepped in to serve as interim president and vice president, respectively. At our PTAA strategic planning meeting on January 12, the Board of Directors identified professional development, fundraising, membership growth, and event planning as the highest priorities for the next one to three years.

To create an organizational structure for the PTAA that allows us to meet our ambitious expansion plan, we reorganized the “chain of command” connecting elected officers, appointed officers, and committees. We intend to build on past accomplishments and create more opportunities for alumni, students, and faculty to participate in our work. More details about new elected and appointed positions and committees will be announced by email. Elections are set for early June.

Fight on!

Kathy Sullivan, PhD ’98, PT, FAHA
Interim President, USC PTAA

Connect with Us!
Check us out on your favorite social media sites. We welcome your posts and tweets for possible inclusion in the next issue of In Motion.