The USC Division of Biokinesiology and Physical Therapy proudly announces its partnership with Pasadena-based Competitive Athlete Training Zone (CATZ) to establish a pioneering research, outreach, and education center—USC Community Health and Wellness Research Center at the Competitive Athlete Training Zone.

The Center will have a dual mission of injury prevention and advocacy of healthy, active lifestyles for people of all ages and abilities. To accomplish this mission, the Center will focus on developing, evaluating, and implementing exercise interventions that meet the needs of specific populations.

Concurrently, the Center will: (1) provide much needed space to house current and future research studies; (2) provide programs that enable individuals at all levels of ability to participate in physical activity in safe and supportive surroundings; and (3) teach graduate students in physical therapy how to develop and disseminate targeted, effective exercise interventions.

A key benefit of the Center is that it will make possible innovative collaborations between the Division and businesses and health care partners in the community.

Dr. Susan Sigward conducts an exercise mechanics study with an athlete in the biomechanics laboratory in the USC Health and Wellness Research Center at CATZ.

**CATZ, a Fitness Leader**

The Center will be housed in the 14,000-square-foot CATZ facility, located on the campus of Huntington Memorial Hospital in Pasadena. This setting—within a 15-mile radius of Alhambra, Arcadia, Glendale, La Crescenta, San Marino, Sierra Madre, and South Pasadena—will provide unique opportunities for fostering increased community participation in and support of research projects.

A nationally recognized leader in fitness and performance training for people of all ages, CATZ provides physical therapy rehabilitation, adult and child fitness groups, a senior fitness program, and group and private sports performance training.

A primary focus of CATZ is developing strategies to involve more youth in physical activity. To this end, CATZ has been asked to develop a soccer curriculum for American youth.

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Dr. Yogi Matharu Is New Director of Physical Therapy Clinical Services

Yogi Matharu, DPT, OCS, has been promoted to director of physical therapy clinical services at the Herman Ostrow School of Dentistry. Dr. Matharu was formerly director of USC Physical Therapy Associates, the faculty practice at the Division of Biokinesiology and Physical Therapy.

In his new position, Dr. Matharu reports to the associate dean and chair of the Division and is responsible for coordinating all clinical operations. Foremost among these will be the new opportunities resulting from the University’s purchase of USC University.

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USC School of Dentistry Named for Major Donor

In recognition of Dr. Herman Ostrow’s record-breaking $35 million gift to the USC School of Dentistry, the school has been renamed the Herman Ostrow School of Dentistry of USC.

Dr. Ostrow (DDS ’45) is a USC trustee who spent 17 years in private practice and in service to the U.S. Army Dental Corps before embarking on a second career in construction and real estate investment. His donation is believed to be the largest individual gift to a dental school in the United States.

The gift will provide the resources to achieve five major goals:

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CONTINUED ON PAGE 6
Change Comes to USC

We live in a time of change, which seems almost dizzying at times. From the election of Barack Obama to the economic crisis to the health care bill, we appear to be experiencing a transformational period in America’s history. Here at USC, we have at times felt insulated from change. The stability of an academic environment is inherently reassuring, and USC has been especially stable over the past two decades, in large part because of its leadership.

From his inauguration as the University’s 10th president in 1991 through his nearly two decades in office, President Steven B. Sample led USC through what is surely the most significant period of growth and development in its 130-year history. Then, in November 2009, he announced that he would retire, effective August 2010. It is impossible to overstate the affection that the University community feels for President Sample, and everyone wishes the best for him. Yet there also has been a sense of uncertainty and even anxiety as the winds of change have penetrated our safe and secure community at USC.

Now, after an intensive search, the University has announced that the replacement for President Sample will be USC Provost C. L. Max Nikias, a dynamic leader who has been the University’s second-ranking officer since 2005. Provost Nikias has been widely credited with accelerating the effort to build USC’s academic enterprise, especially with leading strategic recruitment of outstanding new faculty.

Most important, with the support of President Sample, Provost Nikias led the extraordinary effort to purchase and take control of USC University Hospital—extraordinary because of its sheer boldness and audacity. At a time when most institutions have avoided taking risks, USC’s leadership not only affirmed a fundamental commitment to build a true academic medical center at USC but also realized that this undertaking required full control of USC University Hospital.

As Dr. Yogi Matharu explains on page 10 of this issue, the purchase of University Hospital will have a profound impact on our Division, giving us the opportunity to take a leadership role in building a fully integrated clinical rehabilitation service—from inpatient to outpatient—at a major academic medical center. This, in turn, will strengthen our teaching and research efforts. USC is one of only a handful of physical therapy academic programs in the world that has such a comprehensive and integrated clinical, education, and research enterprise.

Despite the uncertainties that lie ahead, the good news is that we have a clear vision of where we want to go and the work that we have to do to get there. And we have a leader, our soon-to-be President Nikias, who has the boldness and dynamism to harness the winds of change as we sail into the future.
I would like to take this opportunity to tell you about the Board of Councilors’ newly expanded focus on development and fundraising. Dr. James Gordon, associate dean and chair, has long dreamed of establishing a formal infrastructure for these key areas. The Board plans to establish a development committee to work closely with Dr. Gordon and the Office of Development of the Herman Ostrow School of Dentistry to further the Division’s mission.

The committee’s first order of business will be to produce a strategic plan and establish a foundation for effective fundraising. Committee members will also serve as development consultants to Division faculty and coordinate fundraising by the Division and its constituents.

This new focus is in line with the Board’s role in enhancing the quality of education at the Division through: (1) leadership in fundraising that meets the Division’s objectives; (2) review and support of major elements of the Division’s strategic plan; (3) consultation on key issues with the Division chair; and (4) advisement on issues of primary importance to the future of the Division’s teaching, practice, and research missions.

I am also delighted to announce the addition of two new Board members, James P. Liston and Kristin L. Penney. Please see “Recent Board Appointments” on this page to find out more about the invaluable perspectives our new members bring to the Board.

John Wallace Jr.
Chair, Board of Councilors

Recent Board Appointments

**JAMES P. LISTON, BS, M.ED., CSCS**

Founder of the Competitive Athlete Training Zone (CATZ) Physical Therapy Institute, Jim Liston is a nationally recognized expert in creating and delivering exercise programs for children. At the Division, where Liston has a voluntary faculty position as an adjunct instructor of clinical physical therapy, he was honored with the 2009 Division Tribute Award.

He has delivered fitness presentations to many organizations, including the American Physical Therapy Association (APTA); the American Alliance for Health, Physical Education, Recreation and Dance; and the California Park & Recreation Society. He has been interviewed about the training of youth athletes by *Men’s Health, The New York Times,* and the *NBC Nightly News with Brian Williams.* From 1998 to 2003, he served as team trainer for the L.A. Galaxy soccer team.

Liston, who lives in Sierra Madre, holds a BS degree from the University of Massachusetts and an M.Ed. degree in health science from Springfield College. As state director of the National Strength & Conditioning Association, he received the NSCA’s Certified Strength and Conditioning Specialist® (CSCS) credential in 1995.

**KRISTIN LYNN PENNEY, BS**

A stroke survivor who leads a vibrant, active life, Kristin Penney is currently self-employed as a product marketing consultant to software companies. Her previous positions have included senior industry marketing manager at Oracle, senior market intelligence manager at PeopleSoft, and director of product marketing at Knowledge Infusion.

Penney has been involved in many charitable organizations. While living in the San Francisco Bay Area, she was a volunteer in the recreational therapy department of Shriners Hospital for Children®, at TALK Line Family Support Center, and at Edgewood Center for Children and Families. Penney also sat on the board of St. Francis Wood Women’s League and was a member of the Junior League of San Francisco.

During the 24 years since her stroke, Penney has traveled the world and enjoyed a wide range of activities, including tennis, skiing, swimming, jogging, and dancing. Penney has lived in Manhattan Beach with her husband and two young children since 2008. She holds a BS in business administration, with an emphasis in marketing and finance, from Pepperdine University.
The 65th commencement ceremony of the Division of Biokinesiology and Physical Therapy at the Herman Ostrow School of Dentistry of USC was held May 14.

The Doctor of Physical Therapy (DPT) degree was awarded to 93 students. Other degree recipients included five students who were awarded the MS degree in Biokinesiology, five newly minted PhDs in Biokinesiology, and a graduate of the post-professional DPT program for practicing physical therapists.

Dr. James Gordon, associate dean and chair, told the graduates that “through hard work, perseverance, determination, and courage, you have transformed yourself into someone new, someone different—not merely a professional or a scientist or a clinician, but someone willing to go out into the world and transform it. It’s that ‘becoming’ that we celebrate today at commencement.”

Dr. Gordon presented Dr. D. Richard Elliott, PT ’59, with a ceremonial stole honoring him as a Fifty-Year Alumnus, a designation that recognizes individuals whose pioneering spirit has elevated the physical therapy profession. Dr. Elliott earned an MS in mammalian physiology at the University of Iowa and returned to USC for a PhD in higher education.

Dr. Elliott’s eventful career includes serving as a physical therapist in the U.S. Army, directing a private clinic, teaching biomechanics at Azusa Pacific University, where he achieved the rank of full professor, and teaching at the first high school north of the Arctic Circle, in Kotzebue, Alaska.

Dr. Krummen reminded her classmates that “one of the biggest benefits of having such a large class is that you now have 92 other people you can go to for help if you ever feel stuck.”

Dr. Krummen reflected on a three-year journey:

**Year One:** “Embrace ‘it depends’ as a critical part of your everyday clinical decision-making process.”

**Year Two:** “Rule up or down your diagnosis, and don't forget the basics.”

**Year Three:** “Being a great physical therapist means balancing lifelong learning and lifelong teaching.”

She cautioned her fellow graduates that “just because you’ve finished PT school doesn’t mean you have all the answers. ‘I don’t know’ is still a reasonable response. Know where to go, whom to ask, where to look it up. Use your resources, websites, books on the shelf, old notes. Stay involved in physical therapy organizations. Go to continuing education courses. Call your professors and call each other.”

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Lasorda told the graduates that there are three kinds of people in the world: the ones who make it happen, the ones who watch it happen, and the ones who wonder what has happened. “You must make it happen,” he said. “That’s the only way you’re gonna be successful. You’ve gotta believe in yourself. Self-confidence, without a doubt, is the first step to success.”

Known for his record-breaking 16 wins in 30 National League Championship Series games, Lasorda has said that his greatest professional achievement was managing the gold medal-winning United States team at the 2000 Olympic Games in Sydney, Australia, five days after celebrating his 73rd birthday. In recent years, he has traveled around the world as baseball’s ambassador and raised money for humanitarian causes.

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The student address was delivered by Katherine Jean Krummen, DPT, who highlighted the key message she learned during each of her three years in the Division. Year One: “Embrace ‘it depends’ as a critical part of your everyday clinical decision-making process.” Year Two: “Rule up or down your diagnosis, and don't forget the basics.” Year Three: “Being a great physical therapist means balancing lifelong learning and lifelong teaching.”
The 2010 Commencement Awards Ceremony of the USC Division of Biokinesiology and Physical Therapy on May 13 honored outstanding graduating students for their academic, professional, leadership, service, and mentorship achievements.

**ACADEMIC & PROFESSIONAL**

**Academic Achievement in Basic Science Award**
Presented to graduating entry-level DPT students for outstanding academic achievement in core basic science courses.
- Andrew Myler, DPT
- Christine Nicole Weidemann, DPT

**Academic Achievement in Clinical Excellence Award**
Presented to a graduating entry-level DPT student for outstanding patient-centered care and communication skills in a clinical setting.
- Christopher Ken Otoshi, DPT

**Academic Achievement in Clinical Science Award**
Presented to a graduating entry-level DPT student for outstanding academic achievement in core physical therapy clinical science courses.
- Lauren Jean O’Neill, DPT

**Order of the Golden Cane**
The Division’s highest honor for graduating students, presented to graduates of any Division program who have demonstrated outstanding accomplishments in several areas of professional endeavor, including academic coursework, scientific research, and clinical practice.
- George James Beneck, PhD
- Julie A. Cagney, DPT
- Margaret Clotter, DPT
- Shailesh Shashikant Kantak, PhD
- Katherine Jean Krummen, DPT
- Andrew Myler, DPT
- Jennifer Ann Reynolds, DPT
- Cathlyn Barber Troskosky, DPT
- Brooke Bishop Winder, DPT

**Outstanding Scholarly Achievement Award**
Presented to a graduating entry-level DPT student for outstanding academic achievement in all courses, based on cumulative grade point average.
- Brooke Bishop Winder, DPT

**LEADERSHIP**

**Outstanding Student Leadership Award**
Presented to a graduating entry-level DPT student who has committed his or her time and organizational and leadership skills to fellow students, the Division, and the profession.
- Katherine Jean Krummen, DPT

**SERVICE**

**Kathleen Bice Award for Service to the Profession of Physical Therapy**
Presented to a DPT student who has volunteered his or her time and talent to serve the community, in the spirit exemplified by Ms. Bice.
- Margaret P. Clotter, DPT

**Outstanding Service to the Community Award**
Presented to a graduating entry-level DPT student who has volunteered his or her time and talent to serve the community “with a selfless zeal.”
- Cathlyn Barber Troskosky, DPT
- Jennifer Ann Reynolds, DPT

**TEACHING & MENTORSHIP**

**Clinical Educator of the Year Award**
Honoring a clinical educator that has provided exceptional teaching, service, and support to our students.
- Glendale Adventist Medical Center

**Outstanding Mentorship Award**
Presented to a student in the PhD, Post-Professional DPT, or Residency program who demonstrates exceptional skill in helping DPT students master difficult curricular content, participate in professional activities, and achieve the personal growth essential to the successful practice of physical therapy.
- John M. Popovich, DPT, ATC

**Outstanding Teacher Award**
Honoring faculty members who demonstrate high intellectual standards, extremely effective teaching strategies, and genuine concern for students.
- Jason R. Cozby, PT, DPT, OCS
- Beth E. Fisher, PhD, PT

**STAFF AWARD**

**Outstanding Staff Member of the Year**
- Melissa E. Holguin
USC School of Dentistry continued

to renovate and improve clinical facilities; to hire new junior faculty; to continue to support dental and craniofacial research; to enhance service programs in downtown Los Angeles; and to attract and retain the best students.

USC President Steven B. Sample announced the donation in January at a gala ceremony at Norris Dental Science Center on the University Park campus. Dr. Ostrow lauded the school’s “well-earned reputation for excellence.” Dean Avishai Sadan expressed his gratitude and pride “that an alumnus of our school has chosen us to carry on his legacy.”

The USC Division of Biokinesiology and Physical Therapy and the USC Division of Occupational Science and Occupational Therapy were aligned with the School of Dentistry in July 2006 to create new interdisciplinary synergies. Each academic program pursues an independent agenda while embracing opportunities to collaborate in advancing health literacy, preventing disease, assessing health risks, and improving the quality of life.

Dr. Yogi Matharu continued

Hospital last year. (Please see page 10 for a Q&A with Dr. Matharu about the impact of the purchase on physical therapy at USC.)

Dr. Matharu’s responsibilities will also include providing overall direction to clinical directors at USC University Hospital and to the directors of USC Physical Therapy Associates clinics, recruiting and training faculty and staff at the hospital, monitoring the budget, helping develop and implement quality assurance programs for patient care, and actively promoting and marketing clinical services within the USC community.

Dr. Matharu is a Board-certified specialist in orthopedic physical therapy who specializes in orthopedic and neurologic disorders. He holds BS and DPT degrees from the University of Southern California and has completed a residency in orthopedic physical therapy at USC.

Jonathan Sum, PT, DPT, OCS, CSCS, will assume Dr. Matharu’s previous position and report to him. As director of USC Physical Therapy Associates on the Health Sciences Campus, Dr. Sum will be responsible for day-to-day management of the practice. His role involves participating in the clinical education of students and residents, assisting in staff recruitment and training, monitoring the clinic’s budget, and actively promoting the clinic within the USC community.

Dr. Sum is a Board-certified specialist in orthopedic physical therapy who focuses on sports rehabilitation, orthopedic disorders, pain management, and performance-related musicians’ injuries. He earned both his DPT and BS degrees at USC.
Drs. Perry and Burnfield Sign New Edition of ‘Gait Analysis’

The latest edition of *Gait Analysis: Normal and Pathological Function*, the seminal textbook by Dr. Jacquelin Perry and Dr. Judith M. Burnfield, was released at the APTA Combined Sections Meeting in San Diego. On February 19, the publisher, SLACK, Inc., hosted an afternoon book signing and evening cocktail reception for the authors. The festivities continued on March 10 in New Orleans, where SLACK hosted a dinner for the authors at the 2010 Annual Meeting of the American Academy of Orthopaedic Surgeons.

Dr. Perry, director emeritus of the Polio and Gait Clinic and Pathokinesiology Program at Rancho Los Amigos National Rehabilitation Center, is the world’s leading authority on gait analysis. She is a professor emeritus at the Division and a member of its Board of Councilors.

Dr. Burnfield, PhD ’03, is an adjunct assistant professor of clinical physical therapy at the Division and director of the Institute for Rehabilitation Science and Engineering at Madonna Rehabilitation Hospital in Lincoln, Neb.

The revised and expanded edition of the textbook includes detailed analyses of normal and pathological gait, and new sections on stair negotiation, running, and pediatrics. *Gait Analysis* is the standard text used by rehabilitation professionals and students of orthopedics, orthotics, physical therapy, and prosthetics throughout the United States.

PT Students and Faculty Join Parkinson, Ackerberg Teams to Support Parkinson’s Disease Research at L.A. Marathon

Every year, during the L.A. Marathon 5K Run/Walk, the nonprofit organization Team Parkinson (TP) raises funds for Parkinson’s disease research. All net proceeds from this official L.A. Marathon charity are directed to The Parkinson Alliance, founded by Carol Walton, which distributes grants to researchers.

This year, we received $14,000 to purchase transcranial magnetic stimulation equipment to further research into the beneficial brain changes in patients with Parkinson’s disease that result from exercise. This research is conducted by Dr. Beth Fisher, associate professor of clinical physical therapy, in her Neuroplasticity and Imaging Laboratory.

A prime example of the benefits of exercise is John Ball, TP co-founder (with Mary Yost) and a devoted marathoner who was diagnosed with Parkinson’s disease in 1983. Ball and his wife Edna are co-chairs of the event.

The Ackerberg Team, founded in 2005 as a team within TP, has raised approximately $90,000 over the past six years at the 5K events. The team is named for Lisette Ackerberg, who is courageously battling Parkinson’s disease.

Ackerberg, who has been treated by Dr. Fisher and Dr. Rob Landel, associate professor of clinical physical therapy, is a major donor to the Division. Her longstanding generosity has included an annual scholarship for third-year students, named for Dr. Fisher, and support for Dr. Fisher’s postdoctoral studies. Ackerberg ensures that the money raised by her team is directed to the Division.

At this year’s L.A. Marathon on March 20, the 5K course started at Dodger Stadium and wound around the Elysian Park neighborhood. Because the event happened to coincide with Ackerberg’s birthday, team members enjoyed birthday cake in addition to the after-walk continental breakfast that she thoughtfully provides every year.

Team Ackerberg faculty participants this year were Dr. Jim Gordon, Dr. Robbin Howard, Dr. Rob Landel, and Dr. Susan Sigward. Division residents and students also turned out in full force to make the event especially memorable.
Setting the Pace Campaign Needs Your Support

The Setting the Pace Campaign for the USC Community Health and Wellness Research Center at the Competitive Athlete Training Zone is now in full swing. Our goal is $1 million. (Please see cover article for more information about the Center.)

The Campaign began in 2008 with the William R. and Virginia Hayden Foundation’s commitment of a $40,000 matching donation. “Setting the Pace: An Evening in Support of a New Standard of Health and Wellness,” a hugely successful event hosted by Patron-level sponsors Katie and Willy Marsh in October 2009, netted $70,000 for the Center.

The Million Steps Club, which debuts in June, was created to raise awareness of the benefits of physical activity and help draw public attention to the Campaign. Teaming up as a family or group of four, participants will pledge to collectively take 1 million steps during a one-month period. Enrollment in the club is $100 per team. For more information, visit www.usccatzsetthepace.com, or call CATZ at 626-793-3867.

As of late May, the Setting the Pace Campaign has raised $160,000. We are seeking additional donations, tax-deductible to the full extent of the law, to meet our goal. Cash gifts, pledges (over five years or less), in-kind services, and donations of appreciated assets are all welcome.

For more information about naming opportunities, planned giving, and estate gifts, please contact Calen Ouellette, director of development, at 213-740-7710. Please use the enclosed envelope for your check. Thank you!

Partners for Life continued

Youth Soccer athletes ages 5 to 18. Sound Body Sound Mind, a nonprofit supplier of fitness equipment to Los Angeles schools, is working with CATZ to develop content and instructor training for after-school physical fitness programs. And CATZ founder Jim Liston has teamed up with Men’s Health magazine and physical education leaders to improve physical education in the schools, locally and nationally.

USC’s Relationship with CATZ

The partnership to build the USC Community Health and Wellness Research Center brings together two institutions with longstanding traditions of leadership in their fields.

Over the past several years, the Division has moved strategically to build on its national reputation for high-quality education and research through collaboration with CATZ and the community. CATZ has been an integral partner in USC research that seeks to evaluate lower-extremity injuries in female athletes. Since 2008, CATZ has shared its expertise in community fitness programs with students in the Doctor of Physical Therapy program.

Valuable Resources, Greater Exposure

The motivation for building the USC Community Health and Wellness Research Center is the need for research facilities that are accessible to the Division’s target populations and would accommodate large-scale training studies. The Center will provide valuable resources—personnel and expertise, as well as vastly increased laboratory, office, and storage space. Together with greater exposure, these resources will lay the groundwork for large-scale intervention and longitudinal studies to fulfill the Center’s mission.

Labs at the Center

Combining insights from multiple disciplines—including biomechanics, exercise physiology, neuroscience, and psychology—innovative projects can be designed to explore the most effective ways of promoting and achieving lifestyle changes.

The Center will include two research laboratories—for motion analysis and exercise physiology—equipped to analyze exercise interventions from both biomechanical and physiological perspectives. Current projects at the Center include exercise interventions to prevent sports-related musculoskeletal injuries, promote exercise for inactive children, restore physical function following cancer, and mitigate the physical effects of Parkinson’s disease.

Health & Wellness Programs at the Center

The Center will develop strong community health and wellness programs for individuals with neurologic or oncology-related conditions and for inactive children, building on successful programs established by USC Physical Therapy Associates, CATZ, and City of Hope Helford Clinical Research Hospital.

Health & Wellness Education at the Center

The shift toward wellness and prevention is critical in today’s health care environment. The center will provide a venue for the education of students, professionals, faculty members, and community leaders in the practical application of health and wellness programs across diverse populations.

Setting the Pace

USC and CATZ are setting the pace for today’s health and wellness movement. Your contribution to the Center’s Setting the Pace Campaign will help ensure that we remain at the forefront of research, outreach, and education in this vital field. For more information, please see the sidebar on this page.

Kathryn Havens, PhD student (l.), Dr. Susan Sigward, and Jim Liston discuss data collected in the biomechanics laboratory in the USC Health and Wellness Research Center at CATZ.
YESS Seeks to Develop Effective Yoga Practices for Seniors

Many reputable sources claim that yoga is an ideal exercise for older adults—even for those who have osteoarthritis or other diseases affecting the joints or muscles. With its combination of physical postures, breathing exercises, and meditation, yoga is said to provide benefits that include cardiovascular fitness, resistance training for muscle strength and bone health, flexibility, and relaxation.

Yet little is known about the physical demands, effectiveness, and overall safety of yoga for older adults, whose joints have a reduced range of motion. Seniors also commonly experience reduced strength and balance, and are more likely to have musculoskeletal disorders. The Division’s recent clinical trial (R01 HD04834; Greendale, P2) has shown that yoga programs that are not based on medical evidence can put older individuals at risk for strains, sprains, and other injuries.

To build on these findings, the Yoga Empowers Seniors Study (YESS) will seek to determine the safety and effectiveness of a 32-week yoga program designed for adults ages 65 and over. Led by Dr. George Salem in collaboration with Dr. Gail Greendale of the UCLA Division of Geriatrics, this two-year intervention development study (IDS) will follow the progress of 24 senior participants who have passed a series of health and mobility screenings.

Each participant will attend two 16-week hatha yoga classes (beginning and intermediate), learning the yoga poses (asanas) from Leslie Kazadi, an instructor experienced in working with seniors.

Measurements of the participants’ walking stride length, balance, muscle strength, and ability to perform everyday movements (physical function) will be taken at the beginning of the study and at the end of each phase. The biomechanics (physical demands) of performing the asanas will also be assessed. These assessments will be captured using sophisticated equipment—high-speed cameras, computer models of the musculoskeletal system, and force platforms (rectangular plates that measure the forces generated by someone who stands on or moves across them).

The participants will also be asked at each phase of the study about their ability to perform everyday physical tasks, bodily pains, health-related quality of life, and fears about falling (which have been shown to correlate with the risk of actually falling).

The YESS team hypothesizes that participants with relatively weak muscles will demonstrate poorer asana technique, but that as a group, the seniors are likely to improve their technique with practice. Walking speed and stride length, physical performance, balance, and quality of life are expected to increase. Participants who report joint pain and injury are likely to be limited to individuals with a history of joint problems.

Data from YESS will be used to develop safe and effective yoga programs for seniors that are expected to result in fewer musculoskeletal side effects than those associated with non-evidence-based yoga practices. The new programs will be tested in a Phase II randomized controlled trial.

Funded by the National Center for Complementary and Alternative Medicine of the National Institutes of Health, YESS is directed by Dr. Emily Wang and co-directed by Dr. Sean Yu, members of the Division’s full-time research staff. Also involved in the project are research associates Michelle Haines and Lauren Mulwitz, and PhD students Rami Hashi and Dr. Sachithra Samarawickrame.

Dr. George J. Salem

An associate professor in the Division of Biokinesiology and Physical Therapy and the Keck School of Medicine, Department of Neurology, George Salem is also co-director of the Jacquelin Perry Musculoskeletal Biomechanics Research Laboratory (MBRL).

Within MBRL, Dr. Salem directs the Exercise and Aging Biomechanics research program, which recognizes the growing importance of exercise in improving health and quality of life for people of all ages. Study participants include children, older adults, elite athletes, and persons with movement disorders.

Dr. Salem holds an MA (1988) and PhD (1991) in biomechanics from the UCLA Department of Kinesiology, and a BS in physiological psychology from UC Davis.

His publications include studies of the effect of exercise on individuals with early-stage Parkinson’s disease, analyses of the mechanics of popular fitness exercises, and a study of the effect of resistance training on insulin sensitivity in overweight Latino adolescents.
The following Q&A with Yogi Matharu, DPT, OCS, newly appointed director of physical therapy clinical services (see cover article), answers some frequently asked questions about USC’s acquisition of 411-bed USC University Hospital from Tenet Healthcare Corp. in April 2009. The purchase also included 60-bed USC Norris Cancer Hospital.

Did USC previously own USC University Hospital? No. Although USC faculty have always staffed USC University Hospital, it opened in 1991 under the ownership of National Medical Enterprise Inc., which later became Tenet.

What was the relationship of the Division of Biokinesiology and Physical Therapy to the hospital? The Division’s contract required the provision of faculty to staff the hospital. Initially, all the physical therapists on staff were faculty members. However, under the direction of Tenet, staff became a hybrid of faculty and non-faculty clinicians.

What changes have occurred at the hospital since the purchase? It has taken time to reorganize and shift the culture to an academic medical center, but we have already made great strides. We have recruited a significant number of staff, modified programs, and moved many inpatient services from Norris Cancer Hospital to University Hospital. At a time when many industries are cutting back, we are actively hiring.

What does the purchase of the hospital mean for physical therapy at USC? While under Tenet management, the Division had a contractual relationship with the hospital, much like the kind we would have with a community hospital. The missions of Tenet and of USC were not aligned, resulting in missed opportunities. Unified management enables us to realize the objectives of USC: excellence in research, education, and practice.

For the Division, this means that our students have improved access to the educational experiences the hospital can provide. We will be able to expand residency programs and clinical research; to increase clinical research, including outcomes research; to better utilize and develop our clinical faculty; and to develop improved patient care delivery models—including true multidisciplinary and comprehensive care. The hospital purchase also provides resources to propel the program and ensure our continued number-one ranking.

For University Hospital and USC, the purchase has seven major benefits. It enables us to: (1) capitalize on the strengths of the Division to improve quality; (2) develop physical therapy and community programs; (3) access the expertise of our faculty; (4) accelerate the translation of research findings to the patient’s bedside; (5) utilize physical therapy and physical therapists as the links that connect multidisciplinary programs; (6) develop wellness models for treatment and research; and (7) market the Division’s number-one status to differentiate USC from its peer centers in Los Angeles.

For patients, the purchase means greater access to cost-effective team-based care, improved quality of care, increased safety, better clinical outcomes, improved continuity of care, higher levels of satisfaction, and recognition that the quality of the physical therapist is critical to their ultimate recovery.

What is the short-term vision for the physical therapy service delivery model? Currently, the Division delivers physical therapy inpatient services at the bedside and outpatient care in five locations. Three are at USC Physical Therapy Associates and two are hospital-based.

While the clinicians have excellent reputations and patient satisfaction is high, we can do better. In some cases, we are duplicating services. In other cases, we are not delivering care in a manner that is geographically convenient for patients or for the delivery of multi-disciplinary care. More critically, we are unable to move faculty from one site to another when their expertise is needed.

Our objective is to integrate credentialing, so that each faculty member can work in any location, depending on need. This will also enable us to improve continuity of care from inpatient to outpatient status, and from home to community. We will also arrange for clinical experts on our full-time and adjunct faculty to provide consultations for faculty at all locations. Finally, in the context of national healthcare reform, we will develop our service lines to maximize the role of physical therapy in the health care system.

Will this mean better integration across the practices? We are planning to develop our service lines across the campus, ensuring consistently high quality campus-wide. This will include developing programs to track outcomes and to market services available at each location.

How can alumni participate? We welcome the support of alumni in any way you are able to assist us. Alumni support helps us train the best students, develop the best programs, and advance the practice of physical therapy. Please contact us at matharu@usc.edu if you are interested in developing programs, assisting in community programs, or participating in a panel discussion. And let us know if you need more information.
## Honor Roll of Donors

We gratefully acknowledge the following alumni and friends for their financial contributions and the encouragement their support represents. This Honor Roll of Donors includes gifts recorded from July 1 to December 31, 2009, including donations to the Annual Fund, Bice Clinical Research Center, Phillips Fisher Center, Physical Therapy Scholarship Fund, Physical Therapy Alumni Association, R.J. Sullivan Family Foundation Clinical Skills Technology Center, USC Community Health & Wellness Research Center, and the matching fund of the Sykes Family Chair in Pediatric Physical Therapy, Health, and Development. Every effort has been made to ensure accuracy. Notify Sara Villagran Palfox at 323-442-1193 or villagran@usc.edu of any errors and/or omissions and please accept our apologies for any discrepancies. To make a contribution, please use the enclosed envelope.

### OUR MOST LOYAL ALUMNI

This section of the Honor Roll recognizes those alumni who have donated to the Division over consecutive fiscal years. We are grateful for their generous donations, and most importantly, for their continued loyalty and dedication.

#### 20+ Years
- ANONYMOUS
- HAYDEN (WILLIAM R. & VIRGINIA)
- ANONYMOUS

#### 16-20 Years
- KATHLEEN ELLEN BICE
- JOEY FELoney JR
- KATHLEEN GUARNERI
- SUSAN ANNE HALL
- THELMA JEAN OBB
- WILLIS WOLFE SONNEFIELD

#### 11-15 Years
- KATHLEEN HOVER LARSON
- G. MAureen RODGERS
- MArCIA HOLMES STALVEy
- MArY-JANE C. WISSMAN

#### 6-10 Years
- MICHAEL BEVLACQA
- JANE EARLY GOODMAN
- JOANNE K. GRONLEY
- BARBARA JUNE KERRIGAN

#### 5-10 Years
- LAURA ELIZABETH DAHLMAN
- HOFFMAN FOUNDATION
- LEON MAX, INC.
- SHELDON CURTIS LOW
- MARIJANNE C. LYNCH
- YVETTE MARTINEZ-REA
- MEYER CHARITABLE TRUST
- MARK ALAN MCKINLEY
- GREGORY S. MONEY
- KAREN D. O’CONNOR
- JAMES R. QUI

#### 1-5 Years
- AGILE PHYSICAL THERAPY
- PHILLIP A. BAKER
- LESLIE FREEDLE BOREN
- RANDY CLAIR BRUCE
- PAULA J. CAMERON
- TIMOTHY ROY CANOGAN
- JEFFREY WESTCOTT CARR
- KAY CEBNY
- CSG EXECUTIVE SEARCH, INC.
- RONALD D. CUCCIA
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- SUSAN D. DOUGHTON
- HEATHER DRAKE
- B. EHRlich
- RICK ELLINGSEN
- LYNNE EMERY
- OSCAR R. FLORES
- JOHN R. FRYMARK
- CATHERINE GILL
- ROSE LITTLE HAMM
- JORDAN AND LYNN HAYES
- KATHLEEN S. HIGH
- ROBERT E. HORGAN
- CATHERINE M. HOWELL
- JEROME F. HRUSKA
- JERRY KAUFMAN

#### 6 Months to 1 Year
- KATHLEEN HOFER LARSON
- G. MAUREEN RODGERS
- MARCIA HOLMES STALVEY
- MARY-JANE C. WISSMANN

#### 3-5 Years
- SUSAN STRAUS ADLER
- DAVID NELSON BOGART
- MELANIE BUCON
- DEBRA L. MITCHELL
- ROYDEN ALAN MIYASAKI
- LAURA C. Morles-LABARGE
- WENDY MUNGER
- JO AND ART OCBOR
- FRANK PACE
- MATTHEW RIBAUDO
- NATALIE R. MERRISON
- THOMAS S. SANTLEY
- JOSEPH SMEY
- JAN SOUSA
- JENNIFER SYNL
- JACK D. TAYLOR
- TOYAMA (KATHEE)
- REPRESENTS
- WENDY MUNGER

#### 99 and under
- JAN GARETH ANGUS
- CHRIS AACKERMAN
- LINDA BALL
- TIFFANY CHRISTINA BARRETT
- CRYSTAL MICHELLE BECKER
- BETH CORNENAH BONELL-ALIMORANG
- BETH BORDICHEL
- PHYLLIS ANNE BROWNE
- SANDRA CHAVEZ
- BECKY CLEARY
- JONATHAN JOSEPH COHEN

#### $20,000+
- HAYDEN (WILLIAM R. & VIRGINIA)

#### $10,000+
- DENNIS GERTMENIAN
- PARKINSON ALLIANCE, INC.
- JACQUELIN PERRY

#### $5,000+
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- THE BICE PASSAWANT FOUNDATION
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- WILLIAM M. LUXFORD
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#### $1,000+
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- CATZ DEN, INC.
- ANDREA FERRAGQ
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- KAYE KILBURN
- KRPATA SPORTS THERAPY, INC.
- CHERYL RESNIK
- WOODY STUDENMUND

#### $500+
- SCOTT R. ALEXANDER
- ROBERT THOMAS BEST

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**BIOKINESIOLOGY & PHYSICAL THERAPY**

**In Motion**

Spring/Summer 2010 | 11
Residency Program Announced

With the goal of training advanced practitioners of sports physical therapy, the USC Division of Biokinesiology and Physical Therapy has announced plans for a new Sports Physical Therapy Residency program. The Division expects the program to be fully credentialed in time to accept applicants for the 2011-2012 academic year.

The program will be designed to develop practitioners who demonstrate skill in the clinic and on the athletic field. Graduates of the program will be prepared to conduct and publish clinical research that expands the knowledge base of sports medicine, and to make lasting contributions to the local and professional community.

Supervised clinical mentoring by USC sports and orthopedic physical therapy faculty and on-field experience will be key components of this comprehensive program. Residents will be involved in direct patient care at one of the Division’s affiliated clinics. A typical week will include three hours of mentoring by physicians as they see patients in their practice, four hours of mentored clinical practice in physical therapy, and three to six hours of on-field experience in athletic settings.

Coursework—including reviews of sports physical therapy literature, and instruction in theory and appropriate application of manual therapy techniques—will be provided by the Division’s Continuing Education Department. Residents will be required to produce a case report or scholarly paper submitted for publication. For more information, please visit http://pt.usc.edu.

Continuing Education Requirements to Take Effect

The Physical Therapy Board of California requires physical therapists to renew their licence every two years. This new requirement is being phased in as follows:

- For licences that expire between October 31, 2010 and October 31, 2011, 15 hours (1.5 CEUs) must be completed if the renewal is submitted before the original license expires.
- For licenses that expire on or after November 1, 2011, 30 hours (3.0 CEUs) must be completed.

Continuing Education Course Offerings

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Date</th>
<th>Instructor(s)</th>
<th>CEUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patellofemoral Pain: A Critical Review of Examination and Treatment Techniques</td>
<td>AUGUST 14</td>
<td>Chris Powers, PhD, PT</td>
<td>0.7</td>
</tr>
<tr>
<td>Vestibular Rehabilitation</td>
<td>SEPTEMBER 18-19</td>
<td>Julie Tilson, PT, DPT, NCS</td>
<td>1.4</td>
</tr>
<tr>
<td>Breast Cancer Rehabilitation: What Every Outpatient Clinician Needs To Know</td>
<td>OCTOBER 23-24</td>
<td>Marisa Perdomo, PT, DPT, CLT&lt;br&gt;Chris Sebelski, PT, DPT, OCS</td>
<td>1.4</td>
</tr>
<tr>
<td>Management of the Foot and Ankle</td>
<td>DATE TBD</td>
<td>Steve Reischl, PT, DPT, OCS</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Bernard Li, DPT ’04, orthopedic resident ’05, observes as colleague Christopher Gerona, DPT ’08, helps the subject perform an anterior lunge with abduction resistance as part of lower extremity functional training.
**Dr. Deydre Teyhen Visits the Division and Mentors Residents**

During a whirlwind two-day visit in April to teach a continuing education course on cutting-edge research into lower-back disorders (“Update on Lumbar Spine, 2010”), Deydre Teyhen, PhD, PT, OCS, also mentored the Division’s orthopedic residents and delivered a lecture on rehabilitative ultrasound imaging (RUSI).

Dr. Teyhen is associate professor in the U.S. Army–Baylor University Doctoral Program in Physical Therapy and director of the Center for Physical Therapy Research in Fort Sam Houston, Tex. She provided an overview of the ways RUSI has been applied in both clinical and research settings to assess underlying muscular dysfunction and exercise prescription for the abdominal wall, posterior spine, and pelvic floor. She also discussed the potential of RUSI as a biofeedback tool to help with rehabilitation.

RUSI has been used to improve understanding of the relationship between motor control and function, to determine which patients may benefit from a specific exercise treatment approach, to enhance treatment efficacy via augmented feedback, and to document the benefits of specific exercise treatment approaches.

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**Neurologic Residency Clinical Education Consortium to Offer Seminars**

USC has partnered with Casa Colina Centers for Rehabilitation, in Pomona, Calif., and Rancho Los Amigos National Rehabilitation Center, in Downey, to create the Neurologic Residency Clinical Education Consortium.

The consortium will offer two four-day seminars to prepare participants for specialty certification in neurologic physical therapy and fulfill the didactic education component of APTA residency credentialing requirements. Seminar dates for 2010 are July 29–August 1 and November 11–14.

Although the seminars are designed for individuals in clinical residency programs, physical therapists seeking to fulfill continuing education requirements for licensure renewal—or simply to expand their knowledge of and skills in neurological physical therapy—are also welcome. To learn more and register online, visit [https://www.regonline.com/consortiummodule1](https://www.regonline.com/consortiummodule1).

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**Celebrating 10th Anniversary of Orthopedic Physical Therapy Residency**

On February 18, the USC Division of Biokinesiology and Physical Therapy hosted a dinner at Morton’s The Steakhouse in San Diego to celebrate the 10th anniversary of the Orthopedic Physical Therapy Residency. Held during the 2010 Combined Sections Meeting, the event was attended by approximately 55 graduates of the Orthopedic Physical Therapy Residency and Neurologic Physical Therapy Residency and their USC faculty mentors—including graduates of the orthopedic program’s inaugural class (1999). Left to right: Drs. Bradford Charles Wong, Robert Barnes, John Meyer, and Susan Mais Requejo.
Shailesh Kantak Receives USC Award for Teaching

Shailesh Kantak, MPT, received an award for Excellence in Teaching in November 2009 at the 19th annual reception of the USC Center for Excellence in Teaching.

The citation reads, in part: “An engaging, caring, and enthusiastic teacher, Shailesh Kantak is a superb role model for professional students, fellow graduate students, and colleagues. Passionate about his research and the profession of physical therapy, he has mastered the ability to enable understanding of complex concepts through discovery learning and clinical examples. . . . He provides a shining example of professionalism when interacting with patients in the classroom or the research laboratory.”

Kantak, a PhD candidate in biokinesiology, holds an MPT from Seth G.S. Medical College, Mumbai University. In addition to teaching in the professional DPT program, he has helped develop and serve as a guest lecturer at three summer mini-fellowships in transcranial magnetic stimulation, a non-invasive brain imaging technique.

Liang-Ching Tsai Receives ISB Dissertation Award

Liang-Ching Tsai, a PhD candidate in biokinesiology, has received a Student Dissertation Award from the International Society of Biomechanics (ISB) Council. The $2,500 award for doctoral dissertation research is linked to a matching grant from the Division. Awardees are expected to present their dissertation results at a future ISB Congress and are encouraged to publish their work in an ISB-affiliated journal.

Liang-Ching holds an MS in human movement science from the University of North Carolina at Chapel Hill (UNH-CH) and a BS in physical therapy from National Taiwan University in Taipei. Two-time winner of USC’s Biokinesiology and Physical Therapy Student Award (in 2008 and 2010), he has garnered a long list of educational honors, including the Outstanding Mentorship Award from USC (2008) and the Outstanding Thesis Award from UNH-CH (2006).

Five Division Students Receive Research Day Awards

The annual Research Day event of the Herman Ostrow School of Dentistry of USC, held February 10, featured cutting-edge projects by faculty and students in Dentistry, Biokinesiology and Physical Therapy, and Occupational Science and Occupational Therapy. Four PhD students in Biokinesiology received awards.

Shailesh Kantak won the Dean’s Research Award for his poster, “Neural Substrates of Motor Memory Consolidation: Effects of Practice Conditions.”

In the Exercise Science & Musculoskeletal Biomechanics category, Kristen Stearns won first prize for “Hip and Knee Mechanics During Side-Step Cutting in Female Athletes Post-Anterior Cruciate Ligament Reconstruction.” Liang-Ching Tsai won second prize for “Increasing Hip and Knee Flexion During Landing Decreases Tibiofemoral Loading.”

In the Neural Control & Motor Behavior category, Hui-Ting Goh won first prize for “Development of Automaticity in a Rapid Discrete Arm Movement Is Associated with Increased Movement Smoothness.” Mark Lyle won second place for “Relationship Between Lower Extremity Dexterity and Agility.”

The program featured opening remarks from Dean Avishai Sadan and Vice Provost Randy Hall. Jack Turman Jr., associate professor of biokinesiology and physical therapy, and founding director of USC Center for Premature Infant Health and Development, delivered one of the two keynote speeches. He emphasized the importance of blending research and social outreach in addressing key public health issues.
Brooke Winder Receives APTA 2010 Outstanding Student Award

Fourth-year Doctor of Physical Therapy (DPT) student Brooke Bishop Winder received the 2010 Outstanding Student Award at the APTA Combined Sections meeting in San Diego, February 17-20. Presented by the Orthopedic Section, the award recognizes excellence in academic performance; initiative, leadership, and creativity in nonacademic pursuits; and involvement in professional organizations and activities.

Winder, who achieved an unprecedented cumulative GPA of 4.0, was nominated for the award by Dr. Kornelia Kulig, associate professor of clinical physical therapy. She lauded Winder’s “keen awareness of social responsibility” and her “passion for helping through understanding the person and the disease.”

In his letter of recommendation for the award, Dr. Rob Landel, associate professor of clinical physical therapy, wrote that Winder is “an able leader, a gentle teacher, an effective communicator, an active listener, and a supportive team member . . . [with] the ability to take abstract concepts and apply them in concrete ways to clinical situations.”

A former modern dancer with Backhausdance in Orange, Calif. and dance instructor at Saint Joseph Ballet Company in Santa Ana, Winder earned a BFA summa cum laude in dance from Chapman University. She is also a certified Pilates instructor.

While working in the Musculoskeletal Biomechanics Research Laboratory under Dr. Kulig’s direction, Winder focused on the biomechanics of dance jumps in dancers with and without tendinopathy (tears or ruptures of the tendons, the fibers that connect muscle to bone). She led a large team of researchers, graduate students, and therapists in data organization, and assisted with analysis and interpretation.

Winder presented this dance-related work at the 2009 APTA Combined Sections Meeting and has also co-authored research (“Lower-extremity joint kinematics in the presence of Achilles tendinopathy during a saut de chat performed by elite dancers”) presented at the 2010 meeting in San Diego. A saut de chat, or “cat jump” is a type of sideways jump in ballet.

An active volunteer, Winder has provided pro bono physical therapy services at East L.A. College, participated in USC Community Health Fairs, and supervised the In-Home Maintenance Program for patients with neurologic dysfunction.

She has also devoted many hours to professional organizations, including chairing the American Academy of Orthopaedic Manual Physical Therapists (AAMPT) Student Special Interest Group Liaison Committee and serving as a member of the Recruiting Committee for AAMPT Capitol Hill Day, an advocacy event in Washington, DC.

Winder, who is also a two-time winner of the Division’s Merit Award for Academic Excellence and the 2009 Helen Hislop Award for Excellence in Physical Therapy, joins a distinguished group of Division alumni who are recipients of the Outstanding Student Award, including Todd Davenport, John Popovich, Jonathan Sum, Kimi Yamada, and Robin Beauregard.

Joanne Smith Receives Kendall Doctoral Scholarship

Joanne Rebecca Smith, PT, MMAnTh, OCS, a PhD student in the Musculoskeletal Biomechanics Research Laboratory, received a Florence P. Kendall Doctoral Scholarship from the Foundation for Physical Therapy. The $5,000 scholarship—part of the foundation’s Doctoral Opportunities for Clinicians and Scholars (DOCS) Program—is awarded annually to physical therapists with outstanding potential who are in their first year of doctoral studies.

Smith holds a BSc with first class honors in physiotherapy from St. George’s, University of London, a MMAnTh with high distinction from The University of Western Australia in Perth, and an OCS certification from the Division.

She had a 10-year career as a dancer and was formerly a senior therapist at Westside Dance Physical Therapy, where she treated members of New York City Ballet and other elite dancers as well as the general population. Earlier in her career, she was senior physiotherapist in Acute Orthopaedics/Rehabilitation at Chelsea & Westminster Hospital in London, England.
AWARD WINNERS

Four Division faculty members received awards at the 2010 APTA Combined Sections Meeting in San Diego, February 17-20. Congratulations to all!

SHARON DEMUTH, PT, DPT, received the Bud DeHaven Award, presented by the Section on Pediatrics. Named for the section’s first chair, the award recognizes extraordinary service to the section. Dr. DeMuth was nominated by Dr. Linda Fetters, who cited Dr. DeMuth’s 30 years of service, beginning as a member (subsequently chair) of the section’s Nominating Committee.

Dr. DeMuth also co-chaired the Education Committee for seven years and is a former member of the Awards Committee. Dr. Fetters wrote, “It is typical of Sharon to serve on a committee that recognizes others for their accomplishments.”

BETH E. FISHER, PT, PhD, received the Clinical Excellence in Education Award, presented by the Neurology Section to honor a member whose major current professional involvement is neurological physical therapy. In nominating Dr. Fisher for the award, Dr. Linda Fetters noted that each letter written in support of Dr. Fisher “offers personal details of the many ways Beth has deeply affected the people she works with, the students she mentors, and the patients to whom she gives the best of care.”

Dr. Fisher has taught clinical management of patients with central nervous system dysfunction to students in the Division’s DPT program since 1996. She has also presented more than 100 continuing education programs on neuro-rehabilitation and patient management throughout the United States.

JAMES GORDON, EdD, PT, FAPTA, was honored with the 2011 Pauline Cerasoli Lectureship, presented by the education Section. (Please see article on page 19.)

ROBBIN HOWARD, PT, DPT, NCS, received the 2009 Degenerative Diseases SIG Service Award, presented by the Degenerative Diseases Special Interest Group (DDSIG) of the Neurology Section. The award recognizes Dr. Howard for her outstanding leadership and service to the DDSIG as secretary and for her outstanding presentation, “Use of Clinical Decision Making Frameworks to Guide Examination and Intervention with Neurodegenerative Diseases: A Presentation of Selected Cases.”

Farewell, Dr. Turman

Jack E. Turman Jr., PhD, PT, associate professor of Biokinesiology and Physical Therapy, will be leaving the Division at the end of the spring semester to become a professor and program director of physical therapy education at the University of Nebraska Medical Center in Omaha, Neb.

Dr. Turman, who is also an associate professor in the USC Department of Cell and Neurobiology, and in the Department of Pediatrics at the Keck School of Medicine of USC, has been a member of the Division for 15 years. Recruited from the University of California, Los Angeles, as a part of the transition to the Doctor of Physical Therapy curriculum, he helped develop the Division’s pediatrics curriculum and coursework for the Biokinesiology program and taught two courses in the entry-level DPT program.

Dr. Turman is internationally known for his studies of the effects of neonatal brain injury on feeding, cognitive, and emotional development. He has said that his proudest accomplishment at USC was founding and directing the Center for Premature Infant Health and Development. In this capacity, he mentored faculty who developed innovative, interdisciplinary biomedical, psychology, and social science research and outreach programs to serve pre-term infants and their families.

At the University of Nebraska, Dr. Turman plans to continue pre-term infant research and outreach, establish research programs for community-based geriatric wellness and rehabilitation, and initiate a clinical research physical therapy program to improve the health of rural communities.

Dr. Turman said that his years at USC were “an invigorating, enriching, and exciting period of my life. I look forward to using all the wonderful lessons I learned here to advance PT and healthcare in Nebraska and beyond.”
Dr. Kornelia Kulig Elected Catherine Worthingham Fellow

The Board of Directors of the American Physical Therapy Association has elected Kornelia Kulig, PT, PhD, FAPTA, associate professor of clinical physical therapy, a Catherine Worthingham Fellow—the highest honor bestowed by the APTA. The award is given to recognize “those persons whose work has resulted in lasting and significant advances in the science, education, and practice of the profession of physical therapy.”

Dr. Kulig, who joined the Division faculty in 1997, has played an instrumental role as principal investigator for the MUSSEL (Muscle-Specific Strengthening Effectiveness Post Lumbar Microdiscectomy) project in the Physical Therapy Clinical Research Network (PTClinResNet). Dr. Kulig’s team has been evaluating the ability of muscle-specific strengthening to improve function and quality of life and reduce pain and disability in individuals who have undergone this postsurgical intervention.

Dr. Kulig is a three-time winner of the Physical Therapist Research Award in the Faculty category from the California chapter of the APTA for multi-authored publications. Dr. Weinstein wrote that the letters in support of Dr. Kulig singled out her ability to develop strong collaborative relationships with colleagues.

Dr. Kulig holds a BS in physical therapy from Oakland University, Rochester, Mich., and an MS in physical therapy and physical education and PhD in biomechanics, both from the Academy of Physical Education, Wroclaw, Poland. She was a postdoctoral fellow at the University of Iowa.

Dr. Katherine J. Sullivan Receives Carlin Award for Academic Teaching

The Board of Directors of the American Physical Therapy Association has honored Katherine J. Sullivan, PT, PhD, FAHA, with the 2010 Dorothy E. Baethke–Eleanor J. Carlin Award for Excellence in Academic Teaching. Established in 1981, the award acknowledges an individual who has demonstrated excellence as a role model for academic teaching for students, faculty, and clinicians.

In her nomination letter, Dr. Carolee Weinstein, principal investigator for PTClinResNet, wrote, “Through [Dr. Kulig’s] ideas, her passion, her intelligence, her hard work, and her unassuming personality, she has created a highly productive research environment.”

The author of more than 50 peer-reviewed papers published in a broad range of respected professional journals, Dr. Kulig has garnered over $500,000 in research funding to support clinical research in orthopedics. Her research aims to improve scientific and clinical understanding of tissue morphology, biomechanics, neurophysiology, and pathology in relation to degenerative processes in tendons, intervertebral discs, and muscles.

At USC, Dr. Kulig teaches coursework related to anatomy and biomechanics and is a clinical mentor in the orthopedic physical therapy residency program. Her work as an educator has been recognized by major awards, including the APTA’s James A. Gould Excellence in Teaching Orthopaedic Physical Therapy Award (2002) and Dorothy E. Baethke-Eleanor J Carlin Award for Excellence in Academic Teaching (2004). She was honored by the Division as Outstanding Teacher of the Year in 2002.

The sole female founding member of the American Academy of Orthopaedic Manual Physical Therapists (AAOMPT), Dr. Kulig has served it in many capacities, including chair of the Nominating Committee and program reviewer for orthopedic residencies. She has also served on the APTA Task Force on Residency Accreditation.

As a researcher, Dr. Sullivan was also honored with a 2010 Dorothy Briggs Memorial Scientific Inquiry Award for the article, “Elastic, Viscous, and Mass Load Effects on Post-Stroke Muscle Recruitment and Co-Contraction During Reaching: a Pilot Study” (Physical Therapy 89[7]:665-678, July 2009), co-authored with T.M. Stoeckmann and R.A. Scheidt.

In her nomination letter, Dr. James Gordon, associate dean and chair, wrote that Dr. Sullivan is “one of the rare individuals who is able to balance her activities in different areas” as a teacher, researcher, and professional leader.

As a researcher, Dr. Sullivan joined the Division as a full-time assistant professor of clinical physical therapy in 2001—after teaching at Northwestern, Loma Linda, and Chapman universities, and serving as an adjunct instructor at USC—and was promoted to associate professor of clinical physical therapy in 2007. Former director of the Neurologic Physical Therapy Residency Program and current director of the Doctor of Physical Therapy (DPT) Program, she has served as associate chair of the Division since 2008. She teaches Neuropathology to second-year DPT students, who rated her 4.85 (out of 5) for the past three years—the top instructor rating in the program. Dr. Gordon wrote that her teaching “is both passionate and pragmatic,” helping students understand the connection between rigorous neuroscience classes and more practice-oriented clinical management courses.
In Brief


The report of this Phase I study concluded that, while stationary cycling was not demonstrated to be more effective than no intervention, significant improvements in locomotor function, gross motor function, and some measures of strength were found for the cycling group (but not for the control group).


This study of subjects who had undergone a single-level lumbar microdiscectomy demonstrated that those who followed a new interventional protocol—the USC Spine Exercise Program—not only showed more improvement than those who received a single education session about care of the back, but also more improvement than patients were treated according to standard physical therapy practice.

Dr. Kulig is also co-author, with Shruti Arya, PhD ’08, of “Tendinopathy alters mechanical and material properties of the Achilles tendon” (Journal of Applied Physiology, 108:670-675, March 2010). The study provides an important first step toward understanding the effects of current treatment strategies. (See page 17 for news about Dr. Kulig’s election as a Catherine Worthingham Fellow.)

JACQUELIN PERRY, MD, emeritus professor of biokinesiology and physical therapy at USC, is the dedicatee of a special issue of Physical Therapy (90[2], February 2010). Stanley P. Azen, Steven Y. Cen, Valerie J. Eberly, JoAnne K. Gronley, Cherisha H. Koradia, Sara J. Mulroy, Katherine J. Sullivan, and Julie K. Tilson were among the contributors of articles for the Jacquelin Perry Special Issue: Stepping Forward with Physical Therapy.

“Looking back,” wrote Rebecca L. Craik, editor in chief of this Festschrift for Dr. Perry, “I could swear that she was at least nine feet tall.”


Tribometers are mechanical devices used by the safety community to measure walkway surface coefficient of friction as a means of assessing slip risk, and by the flooring and footwear industries to assess product performance. The study demonstrated that human gait-based measures of slipperiness can be used to create tribometer reference standards, against which tribometer measurements can be validated.

CHERYL RESNIK, PT, DPT, assistant professor of clinical physical therapy, was interviewed by Annenberg TV News on February 24 about the opening of a Fresh & Easy Neighborhood Market in South Los Angeles. Dr. Resnik, director of the Division’s community outreach programs, has helped draw attention to the lack of nutritious food available in neighborhoods near USC. Fresh & Easy says its branded products are made without artificial colors or flavors and with no added trans fats.

WINSTON, PhD, PT, FAPTA, professor of biokinesiology and physical therapy, are co-authors of “A Functional Threshold for Long-Term Use of Hand and Arm Function Can Be Determined: Predictions From a Computational Model and Supporting Data From the Extremity Constraint-Induced Therapy Evaluation (EXCITE) Trial,” with C.E. Han, S.L. Wolf, and M.A. Arbib (Physical Therapy, 89[12]:1327, December 2009).

The aim of this study was to test the hypothesis that there is a functional threshold for post-stroke patients’ spontaneous use of the paretic arm and hand (the ones weakened by the stroke) after physical therapy. Understanding the causal and nonlinear relationship between limb function and daily use is important for the future development of cost-effective interventions and prevention of “rehabilitation in vain.”

In the accompanying podcast, Dr. Lipson said, “We’re trying to understand . . . the discrepancy between patients’ capability for more arm use and the fact that they are not using the arm in the real world.” The threshold hypothesis creates the opportunity “to drive research toward understanding why some patients recover more than others.”

FRANCISCO VALERO-CUEVAS, PhD, associate professor of biokinesiology and physical therapy and of biomechanical engineering at USC, has co-authored “Morphological communication: exploiting coupled dynamics in a complex mechanical structure to achieve locomotion,” featured on the cover of the Journal of the Royal Society Interface (7[45]:613-621, 6 April 2010), which publishes cross-disciplinary research at the interface between the physical and life sciences.

The study demonstrates how the coupled dynamical properties of a complex mechanical system can be exploited for benefit rather than “engineered away,” and offers insight into why biological systems often contain the kind of complex coupled dynamics that are so often assiduously avoided in engineering.

Bold names indicate Division students, alumni, and current and former faculty.
Division Chair James Gordon Honored

James Gordon, EdD, PT, FAPTA, division chairman and associate dean, has been doubly honored this year. He has been promoted to full professor and is the recipient of the 2011 Polly Cerasoli Lectureship, presented by the Education Section of the American Physical Therapy Association (APTA).

Since joining the Division in 2000, Dr. Gordon has recruited outstanding new faculty, forged strategic alliances with other USC units for interdisciplinary research, and raised substantial private and federal funding. As a direct result of his leadership, the Division’s physical therapy program has been ranked No. 1 nationwide by U.S. News & World Report since 2004.

Dr. Gordon has an international reputation as a leader, collaborator, clinician, scholar, and mentor. In 2002, he received the APTA Educational Leadership Award. In 2005, he was elected a Catherine Worthingham Fellow of APTA, the profession’s highest honor. Recognized for his insight into the complex issues that challenge our profession, he is a sought-after consultant for curriculum and faculty research program development.

His research is concerned with the neural mechanisms responsible for controlling reaching and grasping arm movements, with a specific focus on the role of proprioception (awareness of one’s own body movements) in controlling movement that involves a high degree of skill. His current projects involve translating discoveries about motor control into clinical interventions.

As a clinician who has established innovative links between biokinesiology and physical therapy practice and research, Dr. Gordon has focused his teaching on the areas of neuroscience, motor learning and motor control, and the application of these areas to neurologic physical therapy.

The Polly Cerasoli Lectureship, named for the former chair of the physical therapy program at the University of Colorado, acknowledges distinctive contributions to the profession by an educator, administrator, practitioner, and/or mentor.

Dr. Gordon—who will deliver the lecture at the 2011 Combined Sections Meeting of APTA in New Orleans—was cited for his exemplary and extraordinary leadership in physical therapy education, distinguished service to the profession, vision for the profession’s future, and compelling lecture style, as well as for the esteem in which he is held by his colleagues.

Division Chair James Gordon Honored

James Gordon, EdD, PT, FAPTA, division chairman and associate dean, has been doubly honored this year. He has been promoted to full professor and is the recipient of the 2011 Polly Cerasoli Lectureship, presented by the Education Section of the American Physical Therapy Association (APTA).

Since joining the Division in 2000, Dr. Gordon has recruited outstanding new faculty, forged strategic alliances with other USC units for interdisciplinary research, and raised substantial private and federal funding. As a direct result of his leadership, the Division’s physical therapy program has been ranked No. 1 nationwide by U.S. News & World Report since 2004.

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1969

MICHELE EISEMANN SHIMIZU, MA, PT, PhD, has been living in Japan since graduation. She retired last year from full-time teaching at Konan Women’s University, where she was chair of the PhD Department of Physical Therapy, but she continues to teach PT and treat patients—primarily children and the adult residents of an institute for the severely handicapped.

She writes, “When I first came here, it was a very new field and there were no qualified Japanese teachers. All the teachers in the schools were American, English, or Australian, and the schools were all ‘professional’ schools. It took a long time to bring them up to university level. Now there are entry-level four-year university programs, and master’s and PhD programs. The students I taught then are now professors and department chairs in the universities.”

1986

JUDITH DEUTSCH, PT, PhD, co-authored “Virtual reality for stroke rehabilitation” (Cochrane Database of Systematic Reviews, no. 2 [2010]) with Kate E. Laver, Stacey George, Susie Thomas, and Maria Crotty. Dr. Deutsch is professor and director of the Rivers Lab at the Department of Rehab and Movement Science at the University of Medicine and Dentistry of New Jersey (UMDNJ) in Newark, N.J.

1997

JAMES J. DAGOSTINO, PT, MS, DPT, received the R. Charles Harker, Esq. Policy-Maker Award from APTA’s Health Policy and Administration Section at the 2010...
Practicing Physical Therapy at the Olympic Games and World Cup

Laura Tietjen, MPT ‘96

In July 2008, I accepted a unique position with the U.S. Olympic Speedskating team in Salt Lake City, Utah, with primary responsibilities to the Long-Track team. Two of my skaters were Chad Hedrick, five-time Olympic medalist, and Catherine Raney-Norman, four-time Olympian.

This exceptional opportunity culminated in my participation in the 2010 Winter Olympic Games in Vancouver. My position involved pre- and post-training and competition treatments as well as implementing athlete-specific therapeutic exercises. During the Olympic Games, I was able to watch at center ice as my athletes pursued their Olympic and career goals.

I also came home from the Olympics with a medal of my own. After the four members of Team USA won the silver medal in the Men’s team pursuit speedskating event, they presented me with the Order of Ikkos. Established in 2008 by the United States Olympic Committee, this award recognizes the leadership and inspiration of coaches whose athletes become Olympic medalists. (Ikkos was the first recorded Olympic coach in ancient Greece.) I was surprised and honored to receive this award as a physical therapist and as part of Team USA.
In Memoriam

Frances Louise Patton—known to her many friends and colleagues as Frankie—passed away February 12 in Portland, Ore. at age 87.

At the March 6 celebration of Frankie’s life in Portland, Patricia Rae Evans, PhD, PT, recalled “Frankie’s smile, her humor, her outrageousness, and her commitment to family, friends, and her profession.”

A beloved director of physical therapy at Los Angeles County Hospital for more than 30 years, she was past president of both the California and Los Angeles physical therapy associations. In 1982, Frankie was recognized by the American Physical Therapy Association (APTA) with the Lucy Blair Service Award, the highest such award in our profession.

“I remember that Frankie came out of the task force meeting, looked at me skeptically, and asked who I was and where I had gone to school,” Dr. Evans recalled. “It was the Patton way. But beyond that initial challenge, what impressed me was that there was no façade, no political agenda on Frankie’s part, just a straightforward commitment to what was best for the association, the profession, and the patients we served.

“During the next six years, Frankie was my confidant and greatest counselor—pragmatist, realist, and cheerleader. If she thought an idea was junk, she would say so. She told it like it was, and if you could handle that, fine. If not, that was your problem, not hers. But if she thought your strategy was right, she would tell you to get moving and to never look back.

“The Patton Way

In 1972, Dr. Evans was assistant director of education at the APTA, with primary responsibility for securing accrediting authority for physical therapy education programs (then under the purview of the American Medical Association). Frankie was serving on a national task force that met at the association’s Washington, DC. headquarters.

“In 1978, when we were successful in securing accrediting authority, it was very much a tribute to Frankie’s honesty and commitment.”

Elevating the Profession

Frankie was part of a pioneering team led by Charles Magistro—which also included Frank Allender, Mary Bennett, Nancy Keating, Jim McKillup, Royce Noland, and Nancy Ward—whose leadership and inspiration elevated physical therapy from a skilled technical occupation to a professional level.

Magistro, past president of the APTA and its California chapter, was a close friend of Frankie’s. She was one of the first students he mentored in 1950 while on staff at the children’s rehabilitation unit at what was then known as Casa Colina, in Chino, Calif.

“She was a nurse before she became a physical therapist,” Magistro said, “and as a result she had a knowledge of patients beyond most PTs of similar education and background. She had a unique ability to deal with the kinds of patients we had in those days—patients with catastrophic problems, such as poliomyelitis. She probably knew more about iron lungs than the man who invented them.

“She was extremely active in the profession, both in California and in the whole United States, and a strong supporter of education and advocacy. She worked on one of the first fee schedules developed for the profession. Above all, she was a great person, one of those wonderful women who spoke what she believed and practiced what she believed.”

Frances Louise Patton, ’52

Continued on page 23
Funny and Feisty
Nancy Keating, past president of the California chapter of the APTA, worked with Frankie and Mary Bennett at County Hospital early in the women’s careers and was a close friend throughout their lives.

“Frances had a wonderful sense of humor,” Keating recalled. “She used to encourage the patients by kidding them and joking with them. Later on, when she was in a position of authority, the employees she worked with thought a lot of her. She used to kid around with the aides. She was a really warm person. But she was also feisty. She did what she wanted to do.”

Also present at the memorial were USC alumni Pat Pechtl (PT ’56, MS ’65) former director of physical therapy at Good Samaritan Hospital in Los Angeles; Mitch Kaye (PT ’69), director of quality assurance for PTPN; and Mary Jewell (USC ’72, PT ’73), professor emeritus, Samuel Merritt University, Oakland, Calif. At the request of Joyce Wheeler (MS ’81), past president of the Oregon chapter of the APTA, Dr. Evans read a poem, “Affirmation,” that concludes, “the energy that is me will not be lost.”

Memorial Donations
The Division deeply appreciates the donations that have been made in Frankie’s memory. As of late May, the donors are: Mitch Kaye, Nancy Keating, Carole Lewis, and Cathie Roy. We invite others to contribute in Frankie’s name to the Bice Clinical Research Center by using the enclosed envelope. (Please write “Frankie Patton” on the envelope and/or on the memo line of your check.)

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My role as the physical therapist for the U.S. Speedskating Team gave me a unique opportunity to treat these elite athletes from a prehabilitative standpoint. Most athletes participate in rehabilitation at some point in their careers. But the skaters had not realized that they could be evaluated for injury-prevention exercises specifically designed for their training programs.

For the last two seasons, I also traveled the World Cup circuit with the U.S. High Performance Team for speedskating, working with coaches who included Derek Parra, two-time Olympic medalist from San Bernardino, Calif., and Bart Veldkamp, Dutch three-time Olympic medalist. I had the opportunity to share ideas with physiotherapists from around the world who were assigned to each speedskating team.

The World Cup’s multidisciplinary approach also involved me in collaborations with nutritionists, exercise physiologists, and physicians—including Dr. Eric Heiden, who won an unprecedented five individual gold medals and set four Olympic records at the 1980 Winter Games.

During the 12 years I have been practicing outpatient orthopedics, I earned board certification in orthopedics and studied extensively with the North American Institute of Orthopedic Manual Therapy. I would like to recognize the entire USC physical therapy faculty for their contribution to my education and commitment to lifelong learning, and my clinic mentor, William H. O’Grady, PT ’77, DPT, OCS, COMT, FAAPM, FAAOMPT, for his guidance and encouragement throughout my career.
ALUMNI NEWS

Save the Date:
October 29 & 30, 2010

USC Division of Biokinesiology and Physical Therapy

All-Alumni Reunion/Homecoming
honoring the classes of

Friday, October 29
Reception & class reunion dinner,
Millennium Biltmore Hotel, Downtown Los Angeles

Saturday, October 30
Pre-game picnic & USC Trojans vs. Oregon Ducks homecoming game

Invitations will be mailed in August.
For more information, visit http://pt.usc.edu

Sign up to be a Class Captain and help us plan this exciting event!
Contact Sara Villagran Palafox, director of alumni relations
323-442-1193 OR villagra@usc.edu

Brought to you by the USC Physical Therapy Alumni Association.