U.S. NEWS & WORLD REPORT'S NO. 1 PHYSICAL THERAPY PROGRAM **SPRING 2015** OTIO

THE OFFICIAL PUBLICATION OF THE USC DIVISION OF BIOKINESIOLOGY AND PHYSICAL THERAPY





In mid-flight, Tyler Bacon "lays out" for the disc at a recent try-out for the Los Angeles Aviators, a new SoCal-based Ultimate team joining the American Ultimate Disc League (and co-owned by Trojan David Conlon MFA '05).

If you haven't yet heard of Ultimate, it's a high-intensity team sport—played by more than 5 million in America—where players lob a flying disc down a field with the goal of getting it into the end zone (not unlike soccer or football).

This spring, division instructor Noriko Yamaguchi DPT '08, who has been playing Ultimate since 1995, began collaborating with the Aviators, collecting player injury histories and information about strength, flexibility, trunk endurance and balance

"The sport requires different types of athletic skills (sprinting, cutting, jumping, diving, catching and throwing) and to research Ultimate's impact on the body. yet there aren't any established normative data, publications on the athletic demands of the sport or studies on injury prevention," said Yamaguchi, who showed preliminary evidence at the Jacquelin Perry Research Day on April 16. As for the seemingly gravity-defying Tyler Bacon—he made the team!





Photo: John Skalicky

Creating the physical therapists of the future ... now

Why residencies? One clear reason is demand. The shift to the DPT has raised the expectations of our graduates. Like physical therapists of previous generations, they are driven to continue to learn even after they graduate from physical therapy school. After the DPT degree, the next obvious form of training is clinical training, and residencies become very attractive. Indeed, when I travel to other PT programs, faculty and clinicians ask me about USC's research, clinical practices and curricular approach, but students almost always ask me about our residency programs. There is no question that demand for residency training slots will continue to grow.

But at USC, we are never driven exclusively by demand. Our motivation is to lead. We view residency training as an instrument to lead the physical therapy profession into the future. The model of residency training at USC attempts to merge the best aspects of clinical, academic and scholarly practice to train the specialists of the future —the doctors of physical therapy who will practice as peers of physicians and other health professionals.

Although residents take some advanced course work, the primary learning takes place in clinical settings. At USC, we have the opportunity to place residents in some of the finest clinical settings in Los Angeles, from Rancho Los Amigos and Children's Hospital of Los Angeles to our own faculty practices.

Residents are mentored by master clinicians who observe them, critique their skills and discuss with them their diagnoses and intervention plans. In addition, many of the residents spend several hours per week in a clinic learning directly from attending physicians, often side-by-side with medical residents. As part of their training, many of the physical therapy residents also teach in our entry-level programs, preparing themselves to be clinical teachers as well as clinicians. Many also submit a scholarly paper to a peer-reviewed journal, usually in the form of a case report.

Why are the residencies so important to us at USC? Because in these programs we find ourselves creating the practitioners of the future.

The training that these physical therapists receive elevates their expectations. They begin to practice in ways that we who graduated years ago never imagined. The practice of physical therapy is changed in significant ways, not least because our faculty take those transformed expectations and begin to apply them in our entry-level DPT program. Gradually, we all take on the expectations of these pioneers. And, of course, after completion of their residencies, they become leaders of the physical therapy profession.

Associate Dean and Chair, USC Division of Biokinesiology & Physical Therapy



COVER STORY

THE RESIDENCY REVOLUTION » 12-20

BY HOPE HAMASHIGE, JOHN HOBBS MA'14 AND JAMIE WETHERBE MA'04

It's been less than two decades since physical therapy awarded its first doctor of physical therapy, but the profession's educational evolution continues with residency programs. There are currently 182 accredited programs, with new ones being added regularly. As one of the first programs in the nation and a leading member of a consortium that shares didactics across institutions, the division is helping to shape the future of these post-professional experiences said to give physical therapists five years' worth of patient care experience in just one year.

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INMotion

THE OFFICIAL PUBLICATION OF THE USC DIVISION OF BIOKINESIOLOGY AND PHYSICAL THERAPY | SPRING 2015

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HE'S KIND OF HAVING A MOMENT >> 23

BY JOHN HOBBS MA'14

This year's featured commencement speaker Anthony Carbajal found stardom when his ALS Ice Bucket Challenge video went viral last summer. Since then, he's done *The Ellen DeGeneres Show* and continues to use his newfound stardom to advocate against the disease that his family has struggled with for generations.

Q&A KIRK BENTZEN >> 25

BY YASMINE PEZESHKPOUR MCM '17

In this, the first in a series of Q&As spotlighting division alumni and friends hosting students as part of the Clinical Education Program, we talk to Kirk Bentzen MSPT '96, DPT '01, the manager of the Therapy and Wellness Center at Glendale Adventist Hospital, about his continued mentoring of division students.



INTERACTIVE PRINT



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When the celebrities and dancers on ABC's *Dancing with the Stars* get sidelined by injury, it's a Trojan physical therapist who gets them back on the dance floor. Gina Minchella DPT'04 began working as the show's physical therapist in 2013 and has kept nearly five seasons' worth of stars powering through the show's seemingly superhuman performance schedule.

How did you come to be *DWTS*' physical therapist?

I had a colleague who was treating one of the show's production managers, who asked her to be the physical therapist. She called me and asked me if I could cover for her from time to time. I told her I would and, after awhile, I was picked up.

What's been most surprising about working on the show?

There's a variety of injuries that go on behind the scenes, and I don't have a lot of time to work with them. It's been surprising in that sense about how much more creative and quick I've had to get. The other thing that surprised me is how much actually goes into what they do. It's hours upon hours—10, 12 hours every single day—of rehearsal, of teaching, of choreographing and of learning. These people really work very hard.

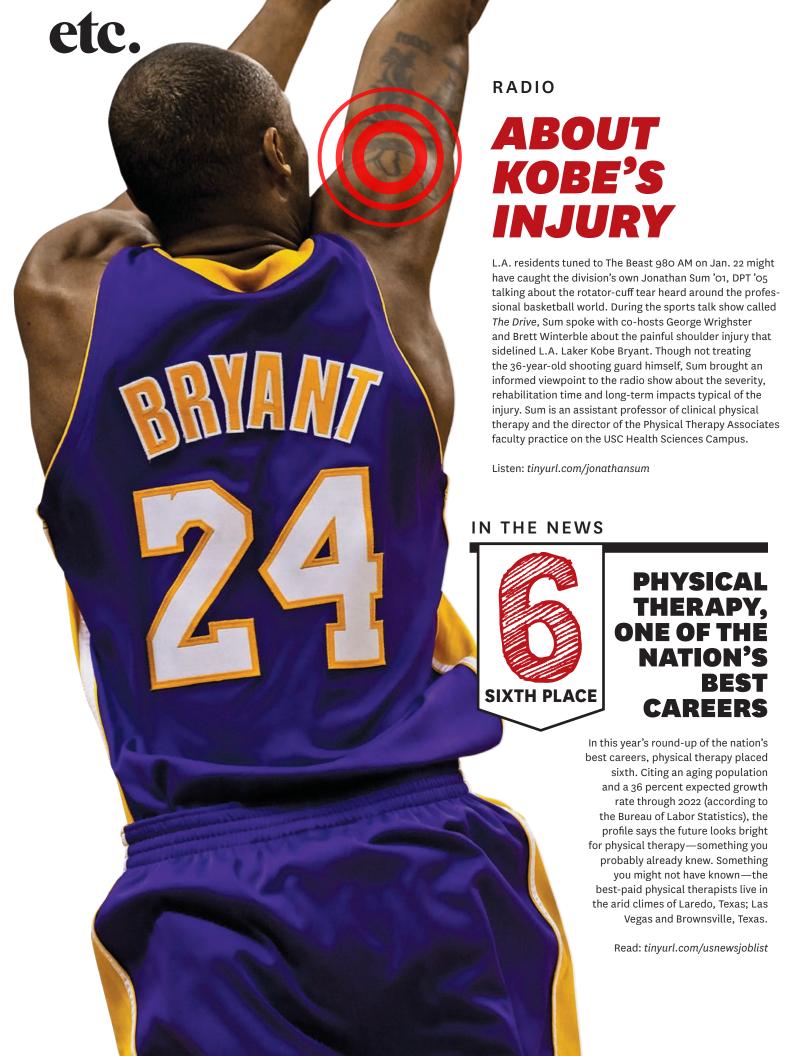
In what ways have you used the platform to educate people about physical therapy?

When I first started with the show, I didn't realize the kind of platform it could be. I was just really busy getting used to it. Then I started using social platforms like Tumblr [gminchella.tumblr.com] to put out little pictures or quotes or tidbits of information about how to manage a sprain or what you can do with an everyday ache and pain. It's interesting to get strangers following you, and every once in awhile, they'll private message me or even blast questions like "Hey, can I use kinesiotape for this?" or "Can I do that?"

So I'll answer their questions and give them information in that sense.

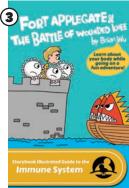
What's your best memory from the show?

It's hard because when you work with everybody, you root for everybody. But it's always a really special thing when you've worked with someone who has been injured the whole way, and then that person ends up winning. Last season, Alfonso Ribeiro won, and he was hurt from the beginning. It's always a cool feeling to be part of that because it's so exciting for them, and you had a little tiny piece of it.



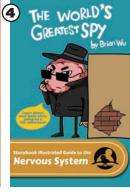
BOOKS

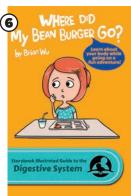












A Storybook Education

Under the guidance of associate professor of clinical physical therapy E. Todd Schroeder PhD'00, Brian Wu finishes his PhD in integrated biology of disease this summer. But he can already list several publications on his CV—and they all come wonderfully illustrated. Wu conceived the Storybook Illustrated Guides after completing a research project about the importance of patient education. In this series of groundbreaking children's health books, Wu tackles everything from asthma to epilepsy to weight loss. He says he's always looking for writers to help with the series and would be interested in including more physical therapy-related topics in the future.

ESTELLE'S (1)WINNING SPIRIT

Estelle learns she has Type 1 diabetes after suffering a dizzy spell during a soccer game. Ever the optimist, Estelle learns to take care of herself and vows to live her best life.

(3) FORT APPLEGATE & THE **BATTLE OF WOUNDED KNEE**

The constant war between your immune system and germs is brought to life in this adventurous story featuring the Bacteria Gang.

MOLLY'S (5) **BABY BROTHER**

Autism is the subject of this tale where older sister Molly is fiercely protective of her sweet, quiet brother who, like 1 in 68 American children, is autistic.

SUSIE AND THE GREAT BIG GIANT APPLE

Susie is the chubby, black-haired girl (book cover image, notwithstanding) who dreads exercise. An upcoming gym test inspires her to lose weight. Will she win the battle with the scale?

THE WORLD'S **GREATEST SPY**

He knows when you're scared, happy and even when you're lying. He's the world's greatest spy, and he's taking you on a journey through the nervous system.

WHERE DID MY **BEAN BURGER GO?**

Join Benny the bean burger as he travels through the digestive system, visiting unexpected places and being transformed from food to energy.



Photo: Vern Evans

WEB **Pelvic Rock Star**

Earlier this year, assistant professor Jason Kutch joined Dr. Alex Milspaw on Pelvic Messenger, a Blog Talk Radio program devoted to promoting diagnoses, recovery and success in treating chronic pelvic pain. In the hour-long program, he shared his own struggles with chronic pelvic pain and discussed some exciting developments. Here are some highlights from the show:

ON WHAT LED HIM TO PURSUE CHRONIC PELVIC PAIN, PROFESSIONALLY:

"... I had an extremely positive experience in recovering from chronic pelvic pain ... going through physical therapy. ... I really wanted to get in to see what was actually happening in the nervous system. How was physical therapy making things better, were there ways of augmenting physical therapy."

ON FEELING FULFILLED BY HIS CAREER:

"I think it's always nice if you can bring together the passion of really, really wanting to understand something to the scientific process and to your scientific career. That's always kind of a very fulfilling process."

ON THE PROMISE OF TRANSCRANIAL MAGNETIC STIMULATION TREATMENT:

"I'm doing a lot of research in my lab on a non-invasive stimulation technique called transcranial magnetic stimulation. The idea there is you can stimulate, either to increase the excitability or decrease the excitability, of specific brain areas. ... What I'd be very excited about is [how] something like transcranial magnetic stimulation could be used in an adjunctive way to traditional physical therapy, and the two of them might work very well together."

ON REAL-TIME BRAIN IMAGING'S POTENTIAL TO TREAT **CHRONIC PELVIC PAIN:**

"One very exciting piece of technology is real-time brain imaging, which basically allows you to image a person's brain ... and show the activity in that area in real time to the person in the study and ask them to be able to modify it. There's a lot of excitement about this technique in a number of chronic pain conditions. [It's] still a little bit off for chronic pelvic pain but a very exciting potential way of improving treatment."

ON HOW MEDICAL PROFESSIONALS CAN BEST SERVE THEIR **CHRONIC PELVIC PAIN SUFFERING PATIENTS:**

"Understanding that it can get better. It will get better over time given the right treatment. I think if practitioners start to understand that and guide patients through it, it would be a very productive process.'

Listen: tinyurl.com/pelvicrockstar



Adding the title of editor-in-chief of the journal *Pediatric Physical Therapy* to her long and growing list of credentials is an honor and a challenge that Linda Fetters jokingly admits might force her to reconsider her concept of free time.

"Being editor-in-chief is one of those things that is a little like the wash. It never goes away," she joked, noting that she expects to spend more than a few weekends working on the journal.

Fetters, professor and Sykes Family Chair in Pediatric Physical Therapy, Health and Development, has already spent 12 years on the editorial board of *Pediatric Physical Therapy*. As editor, Fetters says her primary challenge will be improving an already prestigious publication with global reach.

As a member of the editorial board, Fetters created a new feature entitled "The Clinical Bottom Line," which is devoted to translating new research into practical tools for clinicians as well as for the parents of pediatric physical therapy patients.

"In broad terms, I would like to keep moving the journal in that direction," Fetters said. "I want to involve the points of view of all the stakeholders in pediatric physical therapy."

This should come as no surprise to anyone who has followed Fetters' career. She has long been a proponent of bridging the gap between research and best practices in the clinic.

She directs the Development of Infant Motor Performance Laboratory, which is focused on research that improves outcomes for patients. Her own research, primarily in the field of treating children with neurological disorders—particularly with cerebral palsy, has led to changes in clinical practices that have improved outcomes for many youngsters.

The journal is not the only responsibility outside of USC that will compete for Fetters' attention in the

near future. She has also been named a Fulbright Scholar for the upcoming academic year to tackle an ambitious research project that she says is long overdue.

Working with a team from Sydney, Australia, Fetters and a team of researchers will undertake a comprehensive survey of literature in an effort to write new guidelines for the early diagnosis of cerebral palsy.

According to United Cerebral Palsy, nearly 10,000 babies are born in the United States every year with cerebral palsy, a group of permanent movement disorders, often characterized by poor coordination, weak or stiff muscles, tremors and difficulty speaking or swallowing. The disorder usually goes undiagnosed until the child has reached the age of 3 or 4, when the brain is more developed.

Even at 3, children have already learned to move and—in the case of children with cerebral palsy—they may have developed adaptations, which can damage their joints and make therapy increasingly difficult.

"Our hope is that we will be able to write guidelines to make the diagnosis in the first year of life," Fetters said.

As with many medical conditions, early diagnosis and treatment has been shown to improve mobility in infants with cerebral palsy and helps them avoid stiffness and joint problems as they age.

Creating effective guidelines that will get them into therapy earlier could significantly improve the long term quality of life for the many babies born with cerebral palsy.

"This is something that we, as a profession, have been talking about for a very long time," Fetters explained. "We are at the point where we really need to make new recommendations."

IN BRIEF

RESNIK, DISTINGUISHED PRACTITIONER AND FELLOW

Associate chair and associate professor of clinical physical therapy Cheryl Resnik DPT '97 has been elected Distinguished Practitioner and Fellow in the National Academies of Practice, a nonprofit organization that advises governmental bodies on health care issues, helping to set the legislative agenda for physical therapy. "You are a recognized leader in your profession," wrote Dr. Satya B. Verma, NAP president, in a congratulatory letter to Resnik. "Your colleagues in other academies of NAP recognize your ability to establish and lead your new academy in the days to come." The organization has been advocating on behalf of the medical field since the 1980s. In 2014, it added academies for physical therapy and occupational therapy.

■ KUTCH TO SERVE ON INTERNATIONAL BOARD FOR PELVIC PAIN

Assistant professor Jason Kutch has been elected to serve a two-year term on the board of directors for the International Pelvic Pain Society. Established in 1996, the professional organization is devoted to raising public awareness, educating health care providers and bringing hope to long-time sufferers of chronic pelvic pain. Kutch, a chronic pain sufferer himself, has focused much of his research on the debilitating condition that affects millions of men and women around the

■ USC PHYSICAL THERAPY STUDENT ELECTED TO APTA STUDENT ASSEMBLY BOARD OF DIRECTORS

Scott McAfee DPT '17 has been elected to serve a two-year term as nominating committee chair-elect on the APTA Student Assembly Board of Directors. In the position, McAfee will work with the board's nine other members to launch new initiatives, promote student involvement and serve as a voice to the more than 25,000 DPT students and 11,000 physical therapy assistant students nationwide. "It is undoubtedly an exciting time to be a part of physical therapy," McAfee wrote in a candidate statement prior to election. "With so many unforeseen opportunities waiting to be pioneered [and] revolutionary research missions waiting to be conducted ..., our profession has boundless potential to fulfill. It is entirely up to us to determine what we wish to accomplish."

■ MICHENER NAMED CATHERINE WORTHINGHAM FELLOW OF THE AMERICAN PHYSICAL THERAPY ASSOCIATION

Professor of clinical physical therapy Lori Michener has been named a Catherine Worthingham Fellow of the American Physical Therapy Association, giving USC's physical therapy program the highest concentration of fellows, with eight faculty members adding the FAPTA credential behind their names. The fellowship is the highest honor bestowed by the APTA. It is meant to inspire all physical therapists to attain the same professional excellence and impact that its namesake Catherine Worthingham, a physical therapy visionary, did during her career. To be eligible, a physical therapist must have at least 15 years' experience contributing to the profession through leadership, influence and achievements. Read more about Michener, who only recently joined the division, on page 28.

■ PROMOTIONS FOR FISHER, POWERS

Beth Fisher MS '80, PhD '00 and Chris Powers PhD '96 have recently been promoted to full professorships—a career milestone for any academic, particularly at the division where faculty members are recognized nationally and internationally for the significant impacts they've made on the profession, said associate dean James Gordon in an email congratulating the two. Fisher joined the division in 2003 and has earned distinction for her innovative scientific approaches to treating patients with neurological conditions. She is also a Catherine Worthingham Fellow. Powers joined the division in 1997 and has since published extensively, transforming the prevailing view of the pathomechanics of knee injuries and the appropriate strategies for rehabilitation. He is a Catherine Worthingham Fellow and president of the California Physical Therapy Association.



Co-networking chair Jasmine Raymundo '16 (left) and vice president Amanda Yamaguchi '16 at the Spring 2015 USC Involvement Fair

New USC Pre-Physical Therapy Club introduces undergrads to nation's top physical therapy program

BY YASMINE PEZESHKPOUR MCM '17

Last fall, the USC Division of Biokinesiology and Physical Therapy started its first club aimed at USC undergraduates interested in pursuing a physical therapy degree.

Led by co-presidents Celina Caovan '16 and Grace Amoo '16, the club is dedicated to assisting prospective undergraduates from any major in learning more about USC's physical therapy program. It also gives undergrads direct access to the field by working alongside USC physical therapy faculty, current DPT graduate students and professionals.

"During my time at USC, I was surprised a pre-PT club didn't exist on campus, especially considering USC has the number one physical therapy program in the nation," said Caovan, a junior human biology major.

While other undergraduate students enjoyed their summer breaks, Caovan and her classmates Grace Amoo, Amanda Yamaguchi '16, faculty representative Sean Johnson DPT '08 and graduate assistant Zuleima Hidalgo DPT '15 worked tirelessly to get the club organized for its kick-off meeting this past fall. At that first meeting, nearly 30 people attended, proving to the club's leadership that there was interest among USC's student body.

The connection to the nation's top-rated physical therapy program isn't all that the Pre-PT Club provides. The club also offers mentorship programs, application guidance, social and community service events and tours of the USC Health Sciences Campus to give student members exposure to working in a medical environment.

Since the division does not require a science degree for admission, the club welcomes undergraduate students from any major or background.

"I hope this club is a useful resource to undergraduate students, whether they are 100 percent certain about pursuing a career in PT, or are still exploring their options," said Yamaguchi, the club's vice president. "I hope by offering relevant panels, speakers and providing opportunities for touring local PT practices, we can help prospective students find a career fit."

The club meetings have already had more than a half-dozen speakers, including physical therapy residents, faculty and admissions counselors. Upcoming speakers will include two recent graduates of the program who have opened their own private practices in Southern California.

The club also provides a support system for students preparing to apply to the division.

"The process to get into PT school may seem overwhelming at times with the science workload, observation hours and extracurriculars, but you're not alone in this process," Caovan said. "When it gets tough, it's important to use your peers, professors and advisers for support and guidance. That's what the Trojan Family is all about, right?"

Faculty adviser Sean Johnson, explains how his experience learning about physical therapy started in his undergrad years.

Originally a zoology major interested in studying African Lions, Johnson found his interest in science switching gears during his third year of undergrad at his alma mater, Sioux Falls University.

"I was always interested in science, but I never considered a physical therapy career mainly because I was never treated by one," he said. "I credit my academic adviser at the time for meeting with me countless times and suggesting I shadow a practicing physical therapist. The experience and guidance truly helped me find my passion in life, which is physical therapy."

The club meets biweekly on Mondays at 8 p.m. at the Leavey Library. For more information follow the club at facebook.com/USCPrePTClub.



FEATURED EVENT

Photo: Cory Hansen



USC/DIVISION EVENTS

2015 SPECIAL OLYMPICS WORLD SUMMER GAMES

Los Angeles is set to welcome more than 7,000 Special Olympics athletes from 170 nations to compete in 25 Olympic summer sports including aquatics, gymnastics, track and field, basketball and soccer. The events will be hosted at both the USC and UCLA campuses. DETAILS >> USC University Park Campus >> More info: tinyurl.com/specialolympicsla

MAY 14CONTINUING EDUCATION

SPINE REHABILITATION SEMINAR SERIES

AUG 1 This series is designed for clinical fellowships in spine rehabilitation and continuing professional education participants. The sessions are geared towards highly skilled practitioners dedicated to advancing their clinical reasoning, examination skills and treatment skills for patients with lower and middle back and neck pain. Instructors: Various. CEUs: 5.2. DETAILS >> USC Clinical Training Center, 8830 S. Sepulveda Blvd., L.A. >> More info: pt.usc.edu/continuingeducation



PROFESSIONAL MEETINGS

APTA NEXT CONFERENCE AND EXPOSITION 2015 AND PT DAY ON CAPITOL HILL



Rub shoulders with physical therapy colleagues and experts in National Harbor, Md. for APTA's annual conference and expo. This year's NEXT coincides with PT Day on Capitol Hill, giving you a chance to hop on the metro and rally in Washington, D.C. with peers and elected representatives. DETAILS >> 165 Waterfront St., National Harbor, Md. >> More info: apta.org/NEXT



CONTINUING EDUCATION

USC ORTHOPEDIC BOOT CAMP IN LOS ANGELES



This course series allows orthopedic physical therapists to improve proficiency in manual examination and treatment for common musculoskeletal conditions. From the evaluation of pain in hips and knees to the cervical spine, this course will help practitioners refine their skills in assessment, treatment and therapy. The seminar series is also designed to assist individuals in preparation for the OCS exam. Instructors: Drs. Daniel Kirages & Sean Johnson. CEUs: 1.5 per module. DETAILS >> USC Clinical Training Center, 8830 S. Sepulveda Blvd., L.A. >> More info: pt.usc.edu/continuingeducation



CONTINUING EDUCATION

COMPREHENSIVE EVALUATION, TREATMENT AND MANAGEMENT OF THE NOVICE TO ELITE ATHLETE



The goal of this eight-day seminar series is to accelerate the mastery of managing this athletic population by studying everything from head injuries and concussions in sports to psychology in sports medicine. The seminar series is also designed to assist individuals in preparation for the SCS exam. Instructors: Various. CEUs: 6. DETAILS >> USC Clinical Training Center, 8830 S. Sepulveda Blvd., L.A. >> More info: pt.usc.edu/continuingeducation

(Continued on page 27)

STAY CONNECTED



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BY HOPE HAMASHIGE, JOHN HOBBS MA'14 & JAMIE WETHERBE MA'04 RESIDENCE RESIDE

nly a year after the profession welcomed its first doctor of physical therapy graduates—effectively raising the clinical entry point from a master's to a doctoral degree—the residency revolution began.

The profession began accrediting residency programs—year-long post-professional educational experiences offering licensed physical therapists mentored clinical and didactic training—in 1999.

In the years since, physical therapy has seen a veritable explosion in accredited residency programs. Today, there are 182 programs—a number sure to be dated the moment it's printed. There have been more than 1,600 residency graduates nationwide. And there are now 9 different specializations—ranging from cardiovascular and pulmonary physical therapy to women's health physical therapy—eight of which have board certification examinations bestowing additional credentials (CCS for cardiovascular and pulmonary; WCS for women's health).

Residency education is said to accelerate physical therapists' professional and clinical growth, helping them achieve in one year what might take five years to accomplish otherwise.

The USC Division of Biokinesiology and Physical Therapy has been at the forefront of this educational evolution, establishing the first accredited residency—in orthopedic physical therapy—to be wholly housed in a university setting. Today, the division offers four residency programs—neurologic, orthopedic, pediatric and sports—for physical therapists looking to become master clinicians and to better prepare themselves for their board certification exams.

The division, which is the No. 1 ranked program by *U.S. News & World Report*, is continuing to shape residency programs nationwide, by providing the didactic component to residents from across the nation who get their required patient-care hours at a local hospital- or clinic-based program.

As the push toward residency education continues—something increasingly seen as inevitably becoming mandatory for specialty certification—the division is poised to continue shaping the post-professional landscape, particularly with residency graduates, like those in the pages that follow, who are uniquely positioned to serve as mentors to future residents seeking to become master clinicians.

Viva la revolución!



THE ORTHOPEDIC BY JAMIE WETHERBE N

Recent New Jersey transplant Chukwuemeka Nwigwe hasn't had much time to enjoy the SoCal sun.

After moving across the country seven months ago, Nwigwe, who earned his DPT in 2012 from Rutgers University, has spent many days and nights at USC as one of eight orthopedic residents.

"It's been 11- to 12-hour days, sometimes more," says Nwigwe, who will graduate from the residency in August. "I think the program really prepares you to be the best you can be."

USC's year-long orthopedic residency, which has ushered 64 students through the program since it launched in 1998, pairs clinical care and intensive mentorship with experienced physical therapists and physicians.

"It's a highly competitive, highly rigorous program," says Michael O'Donnell, assistant professor and director of the orthopedic physical therapy residency. "What would take five years to attain on the job, we hope to get [our residents] there in a year ... and that's by virtue of having this mentored care."

Nwigwe often starts his day in the clinic, treating patients, followed by four hours or more working one-on-one with an orthopedic clinical specialist.

"There's time built into my scheduleto really work and collaborate with the senior clinician," he says. "It's one of the aspects of the mentorship program I find truly remarkable."

If Nwigwe has a difficult case, he'll collaborate with the clinician on the best form of care.

"I have this brain to pick and ear to listen to, so I can learn to become a better and more effective therapist," he says. Residents have the opportunity to shadow physicians at one of seven medical centers, including the division's faculty practice and the Keck School of Medicine of USC.

"I do rounds with the surgeon and watch him treat and examine patients and go over diagnostic testing like MRIs and X-rays," he says, adding that he's also able to observe operations.

Following the procedure, Nwigwe has the opportunity to provide physical therapy for the patient.

"The collaborative care and interdisciplinary team approach is tremendous," he says. "Now when the patient comes into the clinic, I'll know everything that went on during their operation."

Nwigwe continues his studies through his research project; a journal club helmed by O'Donnell that reviews relevant literature; and a series of seminars, including those focusing on each joint of the upper and lower extremities.

"We covered all movement impairments, different pathologies, diagnosis and howwe could effectively assess and provide care for individuals who present in the clinic with these patterns," he says of the seminars.

USC's residency affords Nwigwe another unique opportunity.

"Since our program is university-based, all of our residents have the opportunity to teach in our entry-level PT program," O'Donnell says.

Last semester, Nwigwe served as a teaching assistant in a human anatomy course, complete with lectures and lab with cadavers. This semester, he's working with a therapeutic exercise class.

"The class looks at functional

intervention and the thought process behind it," he says. "Although I'm the teaching assistant, I'm in the class taking notes and learning new things every week."

Nwigwe says his fascination with how the body moves and works first drew him to physical therapy.

"I was amazed at how someone could walk into a clinic with low back pain or ankle pain and how they could walk out with less pain or no pain whatsoever," he says. "It was almost this wizardry or the set of skills that this person possesses in their mind and hands."

Still, even after graduating from Rutgers, Nwigwe felt he needed more training

"I wanted more from work than just clocking in and out," he says. "I want to be able to make a difference in the lives of many and advance the profession of PT."

Nwigwe opted to gain experience by working for a year before joining USC's residency.

"If, after a year, I was still as passionate and interested in pursuing residency training, then I'd apply," he recalls.

After researching his options, Nwigwe felt USC was the perfect fit.

"The residency here affords you so many different experiences: shadowing MDs, teaching, researching and learning from faculty and staff, who are well known and published," he says. "It's [affiliated with] the No. 1 PT program in the country.... This program has given me the challenge that I wanted and afforded me ample mentorship opportunities and growth to become the professional I aspire to be."

AT A GLANCE

ORTHOPEDIC RESIDENCY

PROGRAM
DURATION: 1 year

CLASS SIZE: up to 8 per year

TUITION: \$2,500* Residents are paid for patient care hours and a teaching assignment in the DPT program.

TYPICAL WEEK:

20-30 hours of direct patient care

4 hours of mentored clinical practice in physical therapy

4 hours providing physical therapy services while shadowing USC physicians

5-10 hours of optional teaching in DPT curriculum

Didactic coursework varies each week

RESIDENCY ESTABLISHED AT USC: 1998

NUMBER OF USC GRADUATES IN TOTAL: 64

MORE INFO:

pt.usc.edu/ residency/ortho/

*Tuition for 2015-2016 academic year. The fee is subject to change.

THE NEUROLOGIC BY JAMIE WETHERBE ME

Joseph Robinson's interest in USC's neurologic residency was threefold.

"I could teach and do research and treat patients all within the year," says Robinson DPT'13, who completed the residency last year. "Now that it's over and I look back, I realize that I really did a lot."

Indeed, students in USC's neurologic residency must wear many hats—often all in the same day.

During the full-time, yearlong residency, students split their time as teaching assistants, researchers, practicing physical therapists and students.

"My days would start at 7 a.m., and I'd go until 8 at night without a true break," Robinson explains. "You're learning all aspects of patient care, from the evaluation to the discharge process, and all different levels of the rehab process, from hospital to outpatient."

The residency first launched at USC in 2002 and has since grown into a group effort.

Nearly 20 different universities across the country have come together to create a neurologic consortium, a group of educators that designs and delivers the curriculum to the residents. The American Physical Therapy Association "said it was such great model that they hoped other groups would organize this way," says neurologic residency director Beth Fisher MS '80, PhD '00. "It also minimizes the cost of the program."

Fisher helmed the development of the consortium—alongside Stephanie Kaplan, director of rehabilitation at Casa Colina Hospital and Centers for Healthcare—after realizing that schools were designing and delivering programs for only a handful of residents. "I thought, 'Why are we separately doing the curriculum?" Fisher says. "So we decided to

combine our efforts."

The curriculum includes a series of 24 webinars and a pair of four-day modules, where students come together to apply the online learning.

The consortium enrolls about 30 residents from around the country a year, including four from USC, and taps instructors from its universities so residents learn from the top experts in the field.

"When you're talking about Parkinson's and movement disorders, you're learning from specialists from across the country," Robinson says. "We had access to all these experts. And to hear their clinical experience at such an early point in your career, it was a really fantastic experience."

The consortium also works together to evolve the curriculum. "If we decide the residents are weak in a particular area like cerebella motor control, then we'll get the best expert to speak on that topic," Fisher says.

The onsite modules are taught at the Movement Performance Institute, a renowned physical therapy facility in Los Angeles. During the four-day conference, residents work in groups, treating patients or working through case studies—both tasks requiring they apply the tools they learned in the modules and webinars.

"The modules are meant to be very interactive," Fisher says. "Residents really start working with each other and building relationships."

For Robinson, the modules offered valuable learning and networking experiences.

"When you're working with PTs from all different backgrounds to improve that patient's movement capacity, you're able to glean some really unique perspectives," he says. "When we went back to the virtual space, we engaged in a more meaningful way, and I feel confident I could reach out to any of

these people in the future."

While completing the neurologic residency prepares students for the Neurologic Certified Specialist (NCS) exam, Fisher sees mentorship—particularly in the clinic—as the program's main draw.

"Now in health care, there's so much focus on productivity; you have to see so many patients a day," Fisher says. "You can't allocate time for a senior member to mentor a junior clinician. The residency really enables people to have the mentorship they wouldn't otherwise have, and that's what people entering residencies want so much."

Robinson says the residency has already helped his career "tremendously."

He was hired full-time at Rancho Los Amigos, the Downey, Calif.-based rehab center where he fulfilled the residency's clinical hours, and he continues to teach part-time at USC.

"The residency helped me continue to progress my abilities because they don't give you the answers; instead you learn to ask the right questions," he says. "I'm able to work with patients and ask the right questions."

Robinson adds the program is truly tailored to active learners.

"That's the biggest difference between a residency and PT school," he says. "You have to steer your own ship and decide what it is you need to become a specialist. [The program] gives you the tools, but it's your job to build your own career.

"It's an ideal program for someone interested in exploring all aspects of being a clinical specialist, which means being able to teach, understand the physician's role and have educated conversations regarding patient care," he says. "More importantly, it allows you to become a confident clinician with the knowledge that you're making a true impact in patients' lives."

AT A GLANCE

NEUROLOGIC RESIDENCY

PROGRAM
DURATION: 1 year

CLASS SIZE: 4 per year

TUITION: \$1,950* Residents are paid for patient care hours and a teaching assignment in DPT program.

TYPICAL WEEK:

- 20 hours of direct patient care at USC or Rancho Los Amigos National Rehabilitation Center
- 4 hours of mentored clinical practice in physical therapy
- 4 hours providing physical therapy services while shadowing USC neurologists
- 8 hours of teaching in DPT curriculum
- Didactic coursework varies each week

RESIDENCY ESTABLISHED AT USC: 2002

NUMBER OF USC GRADUATES IN TOTAL: 30

MORE INFO:

pt.usc.edu/ residency/neuro/

*Tuition for 2015-2016 academic year. The fee is subject to change.



Photo: Christina Gandolfo



THE PEDIATRIC PRICE PRIC

Among the places Jennifer Hardee spent time during her 13-month residency in pediatric physical therapy was in a laboratory conducting thorough evaluations of children with cerebral palsy.

She knew learning to conduct detailed assessments would help hone her research skills, but she was surprised by how much it helped in the clinic as well.

"I didn't know this would happen, but we see a lot of children with cerebral palsy," the residency alumna says of her current work as a pediatric physical therapist at Our Lady of the Lake Pediatric Development and Therapy Center in Baton Rouge, La. "I learned so many evaluation tools, and I have been able to use those tests and measures in my practice."

Hardee, whose early jobs included babysitting and working as a camp counselor, wanted to specialize in pediatric physical therapy because she has always been drawn to working with kids. As comfortable as she is around children, being a pediatric physical therapist requires a completely different skill set than leading kids in song around a campfire.

Some are unnerved every time they face an adult in a medical office, and their only response is to cling to mom and dad. It is pretty tough to convince toddlers, not exactly known for their focus and discipline, to perform a series of squats or heel lifts.

Even after finishing her doctorate in physical therapy, Hardee felt she could benefit from the additional training she would get from enrolling in the residency program in pediatric physical therapy at the USC Division of Biokinesiology and Physical Therapy.

"I didn't feel quite prepared for a job right out of school," Hardee says. "This residency boosted my skills and my confidence, and now I feel like I am ready for anything."

Linda Fetters, professor and holder of the Sykes Family Chair in Pediatric Physical Therapy, Health and Development, notes that most DPT graduates feel, like Hardee, unprepared to jump into a pediatric practice. The course material for DPT students is heavily weighted in favor of orthopedics, which is still the most common specialty. By comparison, only about 10 percent of students in the nation's DPT programs pursued pediatrics as a specialty.

Fetters launched the pediatric residency program in 2013 as a way of helping aspiring pediatric physical therapists fill that gap in knowledge and get hands-on experience working with pediatric patients. One major bonus for potential pediatric residents at USC is that they get to see a wide variety of pediatric patients and work alongside the experienced staff of doctors, physical therapists, occupational therapists and speech therapists at Children's Hospital Los Angeles.

Hardee says the bulk of the patients she saw during her residency were at the hospital, where she did rotations working with patients in acute care, in rehabilitation as well as outpatients.

Under Fetters' mentorship, Hardee says she gained valuable experience in patient care, such as learning creative ways to approach little children and getting them to perform the necessary exercises in unconventional ways. She learned tricks to establish quick rapport with a child and how to build trust with

them. Fetters and the other physical therapists gave her instant feedback on her work, helping her understand her strengths and places she could improve.

"It really solidified my skill set, but most importantly, they taught me where to find answers when I didn't have them." Hardee says.

One of the aspects of the pediatric residency program that appealed to Hardee was the fact that the program is tailored to the interests of the individual resident. She asked for a lot of time working directly with kids in the clinic. She also wanted to participate in advocacy work and, through the program, she spent time in Sacramento, Calif., meeting with policymakers through the American Academy of Pediatrics. She also asked that she be allowed to spend time in a laboratory that specialized in pediatric physical therapy in an effort to beef up her research skills.

"There was nothing cookie cutter about this program," Hardee explains.

"The whole residency felt like it was molded to meet my interests."

Her needs were met, too, in ways she didn't anticipate. The lifelong Louisianan was nervous about moving to Los Angeles, which to her was a city full of strangers. The faculty at USC, the staff at Children's Hospital Los Angeles, the students she met through the residency—particularly through her participation in an interdisciplinary case study group through the hospital—became an instant family for Hardee in her temporary home away from home.

"I can't say enough good things about this residency," Hardee says. "I learned more than I ever expected, and I also feel like I made friends and mentors for life."

AT A GLANCE

PEDIATRIC RESIDENCY

PROGRAM
DURATION: 1 year

CLASS SIZE: 2 per year

TUITION: \$2,500*
Residents are paid for patient care hours at Children's Hospital Los Angeles, a monthly stipend and an optional teaching assignment in the DPT program.

TYPICAL WEEK: 20 hours of direct patient care (salaried)

4 hours of mentored clinical practice in physical therapy

4 hours of mentored participation in the California Leadership Education in Neurodevelopmental and Related Disabilities program (CA-LEND)

1 to 3 hours of academic modules

RESIDENCY ESTABLISHED AT USC: 2013

NUMBER OF USC GRADUATES IN TOTAL: 2

MORE INFO:

pt.usc.edu/ residency/pediatric/

*Tuition for 2015-2016 academic year. The fee is subject to change.

THE SPORTS RESIDENT

Sophia Gonzalez has always loved watching sports.

The 26-year-old physical therapist and licensed athletic trainer fondly remembers watching basketball and football as a child with her father, a former military plumber whose assignments moved the family from the Midwest to the Gulf Coast to the West Coast and back again. Sports offered the one-time military kid a constant in a life known for change.

It might come as little surprise then that Gonzalez would feel most anchored, most content, in a sports-related environment as an adult.

"When you get a sense of comfort and peace in the chaotic, whirlwind atmosphere of college athletics, you just know that this is where you belong," she says.

Gonzalez started out wanting to go into medicine but changed her mind when she got a first look at the physical therapy profession after a cheerleading injury led her to a physical therapist's office.

The experience set her on the path to physical therapy. In 2011, she graduated with a bachelor's degree in athletic training from the University of Indianapolis. Three years later, she had earned a doctor of physical therapy from Washington University School of Medicine. It was during her third year clinical rotation, she says, that a residency program seemed like the next logical step.

"I was working at Colorado College in their athletic training program, and I felt at home and knew I wanted to take every step necessary to be successful in the sports medicine setting," she says.

Her top choice was the division's sports residency program.

"USC physical therapy was the first to catch my eye," Gonzalez says. "It's known for excellence with professors who are leaders in the field."

The one-year program aims to graduate advanced practitioners who will express their education through clinical excellence, contribute to sports medicine's field of knowledge with substantive research and make lasting contributions to the professional community.

"The most successful residents are the [ones] with excellent self-reflection skills," says Aimee Diaz, the director of USC's sports residency program. "They communicate this well to their mentors, which allows for effective mentoring sessions because they know where they need help."

In addition to stellar introspective skills, all residents are required to have a current California physical therapist license. Sports residents must also have either a certificate as a certified athletic trainer, licensed emergency medical technician or certified emergency responder.

Gonzalez began the program in July 2014. Her first four months were consumed with the program's didactic programs. The sports residency program consists of four intensive modules: two orthopedic and two sports.

Afterward, residents spend 20 hours of their week, providing patient care, four being mentored by a seasoned physical therapist and another four mentored by an actual

physician.

"I have had the most phenomenal mentorship," Gonzalez says. "Every one of the staff members within USC athletic medicine has taught me so much. They believe in the growth of the profession and helping improve young professionals."

With a graduation date rapidly approaching, Gonzalez says the program has been incredibly beneficial to her.

"I believe that I'm a better professional from this experience, and I can't wait for the next thing I'm going to learn," she says.

Next up for Gonzalez is the sports residency board certification examination, which will give her the distinction of adding an SCS credential to her name—something only 1,424 people (of the 184,000 licensed physical therapists in the United States today) can do. She plans to apply in July to sit for the March 2016 examination.

If the performance of her predecessors is any indication, Gonzalez has little to worry about. After all, the program is structured around specific concepts and knowledge required for the SCS exam, according to the division website.

"Of our first three classes who have taken the exam, we have a 100 percent passing rate," Diaz says.

Gonzalez also plans to apply for a fellowship with a Division 1 school, another step in her ultimate goal of working in college athletics.

"My dream job would be a physical therapist within college athletics in my home—the athletic training room," she says.

AT A GLANCE

SPORTS RESIDENCY

PROGRAM
DURATION: 1 year

CLASS SIZE: 2 per year

TUITION: \$2,500* Residents are paid for patient care hours.

TYPICAL WEEK: 20 hours of direct patient care

- 4 hours of mentored clinical practice in physical therapy
- 3 hours providing physical therapy services while shadowing USC physicians
- 3-6 hours on-field experience in various athletic settings

Didactic coursework varies each week

RESIDENCY ESTABLISHED AT USC: 2010

NUMBER OF USC GRADUATES IN TOTAL: 9

MORE INFO:

pt.usc.edu/ residency/sports/

*Tuition for 2015-2016 academic year. The fee is subject to change.





BY JAMIF WETHERBE MA '04

ike a typical first-grader, Amina Cirkic smiles often and brims with energy; she takes tumbling and cheer classes and plays in the park after school.

"She's very outgoing," says Amina's mother Dzermina Cirkic. "She loves people and makes friends very easily."

She's able to do everything a 7-year-old can do—except Amina only has half a brain.

Amina was born with cortical dysplasia, a congenital abnormality where part of the brain doesn't develop properly, which caused her to have hundreds of seizures a day.

"She started seizing probably five minutes after she was born, as they were cleaning her up," Cirkic says of her first born. "We believe she might have been seizing the night I went into labor. The movement in my stomach was like a heartbeat."

Once Amina was born, she was seizing almost nonstop and required round-the-clock care.

"We would be in the hospital months at a time," Cirkic says. "There was nothing we could do; you would literally just sit there and watch her seize."

When Amina was 3 months old, she underwent a lobectomy in an effort to remove the part of her brain causing seizures.

Unfortunately, the procedure was unsuccessful.

"She started seizing the moment she came out of the OR," Cirkic says.

Eighteen days later, surgeons removed more of Amina's temporal lobe.

"I think she made it 24 hours and started seizing again," Cirkic says.

When Amina was 1, her doctors decided on a hemispherectomy, a radical surgery that would completely remove the right side of her brain.

"It's a procedure you would only do as a last-case scenario; it's the most aggressive solution," says Jill (Masutomi) Ordorica DPT'04, Amina's physical therapist and an adjunct instructor of clinical physical therapy at USC.

Amina hasn't had a seizure since. "But she was 1, and she couldn't even hold her head up— that's how delayed she was," Cirkic says.

THE START OF A LONG JOURNEY

Ordorica started working with Amina when she was 6 months old.

"I was very green at the time; I had only been a therapist for two or three years," she says. "She was the most severe infant I had seen."

Ordorica and Cirkic had few expectations when Amina started physical therapy.

"We wanted Amina to do things like sit up, hold her head up and roll over. But we knew it would be a long battle," Cirkic says.

At the time, there was also little data on the outcomes of children who had undergone a hemispherectomy.

"There was a lot of extrapolating evidence and research in other areas, like in stroke," Ordorica says. "We made small, achievable goals, and all those goals were like mini-victories for us."

Ordorica and Cirkic were devoted to Amina's physical therapy right from the start: Amina had twice weekly sessions with Ordorica, and Cirkic applied the same lessons at home for five to six hours a day.

"Whenever she wasn't sleeping, we were doing something PT-related," Cirkic says. "If we just took her to therapy an hour a day and took her home and did nothing, she wouldn't be where she is. For my husband and I, it was very important to be involved in her care."

Ordorica praises Amina's family for their dedication to physical therapy.

"Amina was blessed with this amazing mom and family," Ordorica says. "My best effort was to lay down the foundation and give her mom everything she can do at home and wait for Amina to be ready."

Amina met all of her major milestones, although they came a year or more late: She held her head up at 17 months and sat up two months later.

Amina also underwent several more surgeries to correct her bilateral hip dysplasia, a condition likely unrelated to cortical dysplasia.

"As soon as she started walking or standing, she was back in surgery," Ordorica says. "It made her case 10 times harder." A major goal for both Ordorica and Cirkic was teaching Amina to walk.

"Mom [Cirkic] told me, 'I will buy you a car if you get her walking by her 3rd or 4th birthday,'" Ordorica says.

After months of work, Amina took her first steps without a walker or assisted device at age 4. Ordorica was the first to hear the good news.

"I was on a girls' weekend in Ojai, and her mom texted me the video of her walking," Ordorica says. "That was so amazing."

NEXT STEPS

Amina, who has a slight vision impairment and some paralysis on her left side, continues with physical therapy, although on a less regular basis.

"We've done a really good job of instituting episodic care," Ordorica says, adding that they're currently working on jumping and climbing. "She comes in for 'tune-ups,' as her mom likes to call it."

Ordorica expects Amina to continue to progress.

"At 7 or 8, you have an idea of what their functional level will be," she says. "The fact that she keeps progressing shows that she has great potential to just keep progressing as a typically developing child would."

Ordorica says her 7-year journey with Amina has shaped her as a therapist.

Ordorica has spoken at the Hemispherectomy Foundation's international conference and continues to work with children who share Amina's condition.

"There just aren't many therapists who have experience working with this population," she says. "I did so much research on how to treat Amina that I wanted to see these patients more often, and it became my area of specialty."

Working with Amina also taught Ordorica how to work with families.

"I've learned to really respect the parent's instincts and follow their lead," she says. "Amina is such a product of her environment, and I attribute her successes almost 100 percent to her great family who supported her and supported therapy."



THE BASICS

what ITIS: A hemispherectomy is a radical surgical procedure in which half the brain is removed or disconnected.

WHAT IT TREATS:
Rasmussen's
encephalitis,
Sturge-Weber
syndrome,
hemimegalencephaly,
cortical dysplasia
and pediatric
stroke. In most
cases, the source
of the epileptic
seizures must be
confined to a single
hemisphere to be
considered for the

THE YOUNGER THE BETTER: It appears that younger children do better because their brains have enough neuroplasticity for the remaining side to take over the functions of the removed side.

surgery.

PATIENT
PROGNOSIS: There does not appear to be any resultant cognitive defects, but patients with hemispherectomies always have some paralysis on the opposite side of the body as the removed hemisphere.

Source: The Hemispherectomy Foundation **COMMENCEMENT 2015**

HE IS KIND OF HAVING A MOMENT

His ALS Ice Bucket Challenge video went viral, getting the attention of millions, including Ellen DeGeneres who had him on her talk show. Now, Anthony Carbajal hopes to use his stardom to help find a cure for a disease that's affected his family for generations.

BY JOHN HOBBS MA '14

t comes in muscle twitches and spasms along his shoulders, arms and neck—each a frightening, heartrending reminder that his otherwise youthful body is beginning to fail him.

Anthony Carbajal, 27, was diagnosed with ALS, or Lou Gehrig's Disease, a little more than a year ago. He's already started losing control of his fingers, and he says he's noticed his arms have started to atrophy—especially worrisome for a professional wedding photographer who needs to wield a camera.

He knows only too well what will come, having watched two generations of his family suffer with the neurological disease that damages motor neurons in the brain and spinal cord, leading to paralysis and, within an average of two to five years, death.

His grandmother Marie suffered for six years before passing away. His 43-year-old mother Catherine was diagnosed 13 years ago but continues to fight on, despite profound paralysis.

It was because of this valuable first-person perspective—both as a caregiver for someone with ALS and as someone with the disease itself—that the USC Division of Biokinesiology and Physical Therapy invited Carbajal to address the Class of 2015 at its commencement ceremony on Friday, May 15.

"I didn't hesitate at all when the division asked me to speak," Carbajal says. "It's such a huge honor, and the fact that USC believes in my message that much, it's just really heartwarming."

THE ACCIDENTAL ADVOCATE

Since his ALS diagnosis, Carbajal has become an unofficial advocate for ALS research.

It began when his Ice Bucket Challenge video went viral last summer.

In the nearly 7-minute-long video, a two-piece bikini-clad Carbajal provocatively suds up his Kia Optima sedan before being doused with cold water. The otherwise quirky video, that contains adult language, takes a poignant turn when Carbajal stares directly into the camera and shares his story, hiding his face and sobbing softly as he describes how scary it is to face the disease.

"I felt like for the first time our voices were being heard with the ALS Ice Bucket Challenge," Carbajal says. "I made my video, and the world told me they were listening, and that acknowledgment has meant so much to me."

FROM YOUTUBE TO DAYTIME TV

The world was definitely listening; Carbajal's video got more than 20 million views and was seen by daytime talk show host Ellen DeGeneres, who Carbajal nominated—as well as Miley Cyrus—to take the Ice Bucket Challenge.

DeGeneres invited Carbajal and his mother, a long-time fan, to the show.

"My mom watches her show every single day," Carbajal says. "That's the thing she looks forward to the most."

With his mother seated in the front row, Carbajal sat opposite Ellen on the Season 12 premiere, advocating for ALS Therapy Development Institute, a nonprofit biotechnology organization focused on developing effective treatments for ALS, and telling his personal story.

"This is probably the best day of my mom's and my life," Carbajal told Ellen during the interview.

It got even better when Shutterfly gave Carbajal \$50,000 for ALS TDI and another \$50,000 on the show to help support his mother and him during their financial struggle. Carbajal had to leave his job behind because he couldn't adjust the settings on his camera.

He said he plans to use the donated money to help buy a home for his mother, his new wife and him and to straighten out his financial situation.

"I think the Shutterfly gift taught me that people really do care and that anything is possible," he

says. "If I can create a video in a day and Ellen would have us on her show, I think anything is possible, maybe even finding a cure for this disease."

Even though the Ice Bucket Challenge—which raised more than \$100 million in summer 2014—is a thing of the past, Carbajal continues his advocacy efforts.

Late last year, he launched a fundraising website called *alsbucks.org*, through which he hopes to enlist 83,333 people to donate just a dollar a month so that collectively they can raise \$1 million for ALS TDI in a year's time.

He's also been making YouTube videos, answering questions about ALS in an effort to educate people about the disease.

PURPOSE-DRIVEN LIFE

It was Carbajal's diagnosis, he says, that brought his life's purpose into sharp focus.

"Some times, we work really hard to buy things we don't really need to please people we don't really care about," he says. "I think this diagnosis really just throws those things out the door."

Carbajal says that because he knows his time is limited, it's given him the opportunity to live life more mindfully.

"I realize we all have a short time on Earth, and I know I'm terminal, but we all are," Carbajal says. "It makes me appreciate all the simple moments that much more."

WATCH:

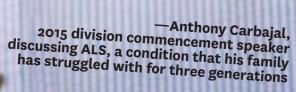


Carbajal's Ice Bucket Challenge tinyurl.com/anthonysicebucket



Carbajal on The Ellen DeGeneres Show tinyurl.com/anthonyonellen







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MENTORSHIP

CLINICAL EDUCATION PROGRAM

KIRK BENTZEN MSPT '96, DPT '01
Director of Orthopedic and Sports Residency &
Manager of Therapy and Wellness Center, Glendale Adventist Medical Center

BY YASMINE PEZESHKPOUR MCM '17

As a supporter of the division's Clinical Education Program, Kirk Bentzen has directly mentored and helped professionally develop more than 50 DPT students throughout his career. We talk to the alumnus about his experience with the program that pairs practicing clinical therapists with division students needing to clock time in their two-week practica, six-week summer affiliations and 16-week extended clerkships.

What made you go into the physical therapy profession?

Like many people back in the late 1980s and early 1990s, I started as pre-med. From my shadowing experience in pre-med, physical therapy ended up being more attractive to me because of the length of treatment time and the interpersonal connection with patients.

What were your internship experiences like when you were a physical therapy student at USC?

I was very lucky to have great mentors in each of my clinical internships. By having great role models, it set the standard on how I wanted to practice when I was finally a licensed physical therapist.

What motivated you to constantly take on students to mentor while you were practicing?

I knew that I wanted to take on physical therapy students of my own so that I could help shape their experience and the future of the profession as my mentors had done for me during my clinical internships.

Why do you feel it's important to utilize students like those from the division?

I connected back with the division's Clinical Education Team because I really wanted to turn Glendale Adventist's Therapy and Wellness Center into one of the premier facilities in Southern California, and I felt like I needed to leverage my connections at USC to make that happen. It took a couple of years, but slowly my staff has transformed. Nearly all the PTs at Glendale Adventist are USC grads. Many of them started as interns then returned for their residencies and eventually became permanent staff.

What do you hope the clinical internship experience is like for the students?

We want them to fall in love [again] with all of the reasons they chose to go to physical therapy school and to have a powerful and incredibly meaningful experience, working with both professionals and patients.

What is the most rewarding part of your job as an educator and manager?

As a clinical manager, I may not see patients anymore, but I feel so intimately connected to our profession through my work on a day-to-day basis with my team. I get to identify talent and work to develop extremely talented physical therapists. I think it has only grown my passion for physical therapy.

Support the Clinical Education Program and host the nation's best physical therapist students at your practice. Visit pt.usc.edu/clinicaleducation to find out more.

1975

BRENDA (MILAM) SHELTON BS, has been running her own private practice, emphasizing osteopathic manual therapy, in Corvallis, Ore., for the past 10 years. She has furthered her education by becoming a certified Mulligan practitioner and attending the official Proprioceptive Neuromuscular Facilitation school in Vallejo, Calif. Shelton and her husband will celebrate their 40th wedding anniversary this year. They have three children and two grandchildren. Shelton says she would love to hear from her classmates from the class of 1975.

GEORGE YOUNG BS, MSPT '82 recently received his orthopedic certification (the third time since 1995). He is also now a certified clinical instructor. Outside of physical therapy, Young continues as an active member of the Rotary Club of Los Alamitos-Seal Beach after serving as its president.

1992

CINDY (ARMOR) FONTAN BS, MSPT

'94 earned her transitional doctor of physical therapy degree from Western University of Health Sciences in 2012. Subsequently, she received her geriatric certified specialty and certified exercise expert of aging adults accreditations in 2014.

KYLE BALDWIN MSPT, DPT '96 recently expanded and remodeled the Center for Physical Therapy, his practice in Long Beach, Calif. He also serves as an adjunct professor of clinical physical therapy within the division. Baldwin will be traveling to Nicaragua with Dr. Lawrence Dorr [of Keck Medicine] to lead the physical therapy unit of Operation Walk a mission trip in May 2015.

1996

JODY CORMACK MS, DPT, MS '01

completed APTA's Education Leadership Institute Fellowship. Subsequently she was appointed department chair of the California State University Long Beach doctor of physical therapy program in August 2014.

2001

JANIS (CAMPBELL) BROWN DPT

completed her lymphedema certification through the Vodder School International in 2014. She currently serves as adjunct faculty at the University of North Texas Health Science Center, Physical Therapy School and practices at the Martin Center for Chronic Pain at Baylor All Saints Medical Center in Fort Worth, Texas.

2002

RAO LOCATELLI DPT received his board certification in orthopedics in 2007 and will be working towards his TPI-MP3 (Titleist Performance Institute, Medical Professional 3) in 2015. He currently runs a practice in Pasadena, Calif. and is planning to open a second location later this year. He and his wife Onelia Go MA '02 had their first son, Benjamin, in July 2013.

2004

LEIGH LANGERWERF DPT graduated from the Evidence in Motion Fellowship Program and earned the distinction of Fellow of the American Academy of Orthopedic and Manual Physical Therapists. His practice Butte Premier Physical Therapy in Chico, Calif., moved to a new location that now includes a Hydroworx pool with two underwater treadmills and video cameras. He and his wife Cassi are expecting their fourth child, due July 2015.

2005

CHERYL (KELLEY) ABBANI DPT serves as anatomy professor at El Camino College, Life Sciences in Torrance, Calif. She is married with two children, a 4-year-old son and a 6-year-old daughter.

2006

KOREY (PULAS) PIEPER DPT joined Sports and Orthopedic Leaders Physical Therapy in Walnut Creek, Calif. as director in June 2014. She recently had her second child, Owen, born on Feb. 22.

2007

HEIDI (DAUB) OJHA DPT received a \$25,000 grant for conducting randomized controlled clinical trials at Temple University College of Public Health. She serves as assistant professor for the physical therapy department and director of Temple PT Faculty Practice at Temple University in Philadelphia.

SUNG KIM DPT opened BASE Training and Physical Therapy in Encino, Calif. with classmate Thomas Lin DPT '06. Their practice emphasizes combing balance, agility, strength and endurance to form solid pain-free foundations for patients and clients. Tour the practice at basetrainingandpt.com

2008

ROBYN (PHILLIPS) CRINER DPT practices at the Corvallis Clinic in Corvallis, Ore. She and her husband Seth had their first child, Owen, on Dec. 23, 2014.

2009

TIFFANY (BARRETT) PREUSCHOFF DPT

practices at Precision Rehabilitation in Long Beach, Calif., and serves as part-time faculty in the department of physical therapy at Mount St. Mary's University. She and her husband Jason Preuschoff DPT'09 are expecting a baby boy in June 2015.

JARED VAGY DPT was hired as adjunct instructor of clinical physical therapy, teaching clinical management of the patient with musculoskeletal dysfunction in the USC Division of Biokinesiology and Physical Therapy, doctor of physical therapy program.



Got some exciting news to share with your fellow alumni? Tell us about your awards and grants, publications, professional developments, births and marriages at **pt.usc.edu/Stay_in_Touch** for possible inclusion in an upcoming *inMotion*.









CONTINUING EDUCATION

ORTHOPEDIC PHYSICAL THERAPY **SEMINAR SERIES**

NOV 1

This comprehensive two-part seminar provides participants with advanced skills and treatment procedures for common musculoskeletal conditions. Instructors: Various. CEUs: 5.2. DETAILS >> USC Clinical Training Center, 8830 S. Sepulveda Blvd., L.A. >> More info: pt.usc.edu/continuingeducation

AUG 14CONTINUING EDUCATION

ORTHOPEDIC PHYSICAL THERAPY SEMINAR SERIES IN BALTIMORE



This four-part series will provide advanced skills and treatment procedures to physical therapy professionals. Instructors: Various. CEUs: 2.81 per module. DETAILS >> Johns Hopkins Hospital, 1800 Orleans St., Baltimore, Md. >> More info: pt.usc.edu/continuingeducation

AUG 16CONTINUING EDUCATION

TRANSCRANIAL MAGNETIC STIMULATION (TMS) METHODS AND **PRACTICE**



This is a four-day course in the theory and practice underlying the use of TMS in brain research. The course uses both lecture and laboratory format to provide participants hands-on learning. Class size is limited to ensure effective learning experience. Deadline to submit application for the course is July 1, 2014. Instructors: Drs. Beth Fisher & Shailesh Kantak. CEUs: 3. DETAILS >> USC Health Sciences Campus, 1540 Alcazar St., L.A. >> More info: pt.usc.edu/continuingeducation

AUG

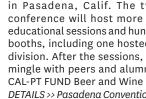
USC/DIVISION EVENTS

DIVISION CONVOCATION & WHITE COAT CEREMONY

The division celebrates and welcomes the newest members of the profession as they don their white coats and recite their oath for the first time as health professionals. DETAILS >> USC Health Sciences Campus >> More info: pt.usc.edu

PROFESSIONAL MEETINGS

2015 CPTA ANNUAL CONFERENCE



NOV

ALUMNI EVENTS HOMECOMING 2015

The Trojans take on the Arizona Wildcats for the 2015 homecoming match-up. Catch up with friends and fellow alumni at any one of the reunions and tailgates throughout campus. DETAILS >> L.A. Coliseum, 3911 S. Figueroa St., L.A. >> More info: homecoming.usc.edu

NOV 14CONTINUING EDUCATION

WOUND HEALING: TRANSLATING THEORY TO PRACTICE

NOV 15

This course presents a multi-disciplinary approach to caring for patients with wounds, from patient assessment to the continuum of care and return of function. The course starts with a didactic six-hour online portion followed by one or two-day sessions on Nov. 15 and 16. Instructors: Drs. Rose Hamm & Stephanie Woelfel-Dyess. CEUs: .6. DETAILS >> USC Health Sciences Campus, 1540 Alcazar St., L.A. >> More info: pt.usc.edu/continuingeducation

GOING

CONTINUING EDUCATION/ONLINE

ESSENTIAL FOR APPRAISING EVIDENCE

This four-part online course helps physical therapists gain skills in understanding and applying clinical practice guidelines in clinical practice. Instructors: Drs. Linda Fetters & Julie Tilson. CEUs: 2. DETAILS >> USC Health Sciences Campus, 1540 Alcazar St., L.A. >> More info: pt.usc.edu/continuingeducation

CONTINUING EDUCATION/ONLINE

VALUE OF SOCIAL MEDIA TO BRANDING YOURSELF AS A GOING PHYSICAL THERAPIST

Follow me, like me, favorite me. What does it all mean? Find out how to create an online community for your practice with this day-long course. Instructor: Jennifer Bandich. CEUs: .45. DETAILS >> USC Health Sciences Campus, 1540 Alcazar St., L.A. >> More info: pt.usc.edu/continuingeducation

AWARDS & MORE

- Biokinesiology PhD student Michael Rowley has been awarded a \$1,000 ISB Travel Award to attend the 25th Congress of the International Society of Biomechanics this summer in Scotland. With more than 1,000 members around the globe, the international society states its purpose as promoting and supporting international contact among scientists, the dissemination of knowledge and information about the activities of national organizations in the field of biomechanics.
- Assistant professor of research Beth Smith won a 2014 Golden Synapse Award from the Journal of Neurologic Physical Therapy for a study titled "Effects of Amplitude Cueing on Postural Responses and Preparatory Cortical Activity of People with Parkinson Disease." The Golden Synapse Award is presented annually to the outstanding manuscript of the year.
- Assistant professor of clinical physical therapy Amy Pomrantz DPT '06 was awarded the CPTA Rising Star Award at the California Physical Therapy Association's national conference last year. Established in 1999, the Rising Star Award is designed to recognize new CPTA members with the potential to become leaders in the statewide association.
- In late February 2015, professor Francisco Valero-Cuevas received the prestigious Educator Award from the Orange County Engineering Council. The non-profit group's mission is to enhance the public image of engineers and scientists and to promote interaction between science and engineering professional societies, corporations and universities across Orange County. Valero-Cuevas has a joint appointment at the USC Viterbi School of Engineering.

Attend California's biggest physical therapy conference this year in Pasadena, Calif. The two-day conference will host more than 25 educational sessions and hundreds of booths, including one hosted by the division. After the sessions, mix and mingle with peers and alumni at the CAL-PT FUND Beer and Wine Garden. DETAILS >> Pasadena Convention Center and Sheraton Hotel, 300 E. Green. St., Pasadena, Calif. >> More info: tinyurl.com/CPTA2015

Things To Know About

Lori Michener

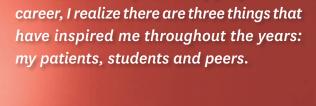
She's one of the newest additions to the division's faculty roster, a newly selected APTA fellow and recently landed a large private research grant to study physical therapy's impact on torn rotator cuffs. Here's what you need to know about Lori Michener:

BY HOPE HAMASHIGE

- An expert in musculoskeletal shoulder pain biomechanics, Michener recently received a \$463,000 grant to launch her first major research project since joining the USC faculty. The grant will fund research on torn rotator cuffs, a common cause of shoulder pain and loss of shoulder function. The funds comes from an unusual source—a private donor named Barbara Fried, who suffered a rotator cuff tear and underwent surgery. Fried's surgery failed, which happens to about 45 percent of patients, Michener says. She later tried physical therapy, which brought function back to her ailing shoulder and got her back on the tennis court. Fried wants Michener to determine whether physical therapy is a better option for other people with torn rotator cuffs.
- If she weren't a physical therapist, Michener would be an architect. As a kid, Michener spent summers working for her dad, a home builder, installing rooftops, hanging drywall and building cabinetry. The years she spent using power tools helped her realize she was not going to follow her father's career path. But it did turn her into an architecture admirer, who appreciates Southern California's rare mix of styles. She loves the Spanish revival homes and bungalows, but she and her husband choose to live in a light, bright mid-century modern house.

- Michener was the first person in her family to go to college. And once she got a taste of higher education, she just kept going, racking up two bachelor's degrees, a master's degree and a doctor of philosophy degree between 1984 and 2001. One good thing about being the family's educational pioneer was that nobody questioned why Michener seemed to be a perennial student. "They just thought that was the way it went," she explains.
- The Northeastern native picked up several Southern customs after 15 years living in Richmond, Va., while teaching at Virginia Commonwealth University. One of them is relaxing on the front porch in the evening, saying hello to neighbors passing by, offering cold beers to those who drop by for a chat. Out of habit, Michener took to her front porch in Los Angeles, waving at neighbors who didn't always wave back. It didn't take her long to figure out there is a cultural divide between Southern California and the South.
 - An avid reader, Michener has read several James Michener novels. Her family has long wondered if there is a connection to the Pulitzer Prize-winning novelist of the same last name, who was an orphan in Pennsylvania ... and he might have been. Michener's paternal grandfather was one of five children raised in orphanages after their parents were killed in an accident in central Pennsylvania. Four of the siblings reunited later in life, but they never knew for sure what had become of the fifth, a boy named James, who was about the same age as the famed novelist.





As I retire and reflect on my professional



SCAN PAGE WITH LAYAR APP

Photo: Christina Gandolfo

n ninth grade, I read a novel about a young ballet dancer, who was in an automobile accident that resulted in bilateral femoral fractures. The story was about her rehabilitation and ability to become a ballet teacher even though she could not perform on stage again. By the time I finished the book, there was no doubt about what I wanted to do with my life. I wanted to become a physical therapist.

One Saturday, when I was working at Good Samaritan Hospital, I had the privilege of helping a young lady transfer from the bed to the wheelchair for the first time after having suffered multiple pelvic and lower extremity fractures in a car accident. As she was sitting nervously for the first time, I asked her, "What do you do?" and her response was, "I am a ballet dancer." After catching my breath, I said to her, "You are the reason I am here."

Over the years, I have had many such experiences that have affirmed my choice of a profession (which I also consider my ministry).

The most precious ones to me are those I call "my starfish." The often told story tells about an old man who was walking down the beach tossing stranded starfish back into the water. A youngster came by and said, "Why do you bother? You can't save all the stranded starfish." The old man picked up another starfish, tossed it into the sea, and said, "Saved that one."

With the prevalence of diabetes and peripheral arterial disease, I could not save every foot on every patient who was at risk for amputation, but whenever a patient with a diabetic foot wound or an arterial wound or a surgical wound healed and the patient resumed walking, we could say, "Saved that one."

My greatest rewards have come from working with patients to determine the cause of their wounds and the reasons they were not healing, effecting lifestyle changes and being a part of the healing and recovery process. These are the patients that motivated me to become a certified wound specialist and to study intensely the principles of evidence-based wound care.

My second motivation came from my students. At Good Samaritan Hospital, I was clinical instructor for one of the first DPT students from USC. True, he was a bit cocky, but I also knew that while I understood the art of patient care, he certainly knew more about the science of physical therapy. That was the motivation for me to go back to school for my post-graduate doctoral degree. I wanted to become a better clinician and teacher. Fortunately, the admissions committee felt my desire and admitted me to the program. But boy, did I sweat that first class under Dr. Carolee Winstein! Students have inspired and challenged me in the clinic and in the classroom;

they have created in me a greater awareness of my strengths and weaknesses, resulting in both personal and professional growth that would not have occurred otherwise.

Lastly, my peers have been a huge influence on my professional growth. The coveted Golden Cane Award that I received upon completion of my doctorate still hangs by my desk as a constant reminder of the faith my professors and peers had in me to make a contribution to the profession. It was an expectation that I never wanted to fall short of achieving. As I prepare to retire, I feel there is so much more to do, but I know that I leave the dreams and goals of the wound care team in good hands.

Physical therapy as a profession has given me opportunities, friends, experiences and rewards far beyond the expectations of that ninth grader on a farm in Eastern North Carolina, and I want to continue to give back as much as I can—giving is the best way of thanking each and every individual who has challenged, inspired and motivated me.

Dr. Rose Hamm retires at the end of the 2014-2015 academic year. In addition to spending time with her loved ones, she plans to continue work she recently began with Living Room, a hospice program in rural Western Kenya. See pictures of her work in Kenya by scanning this page with the Layar app.



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To learn more, contact the Office of External Relations at (213) 740-0428 to receive an informational gift planning guide.



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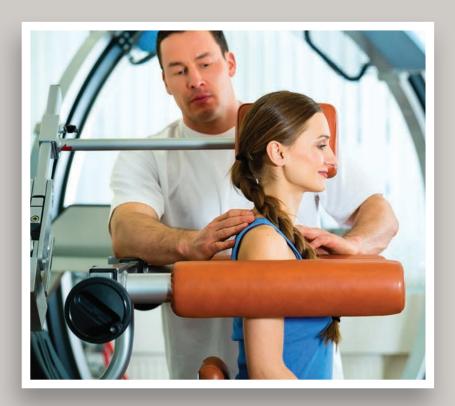
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