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

INmotion

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DPT@USC
TRAINING PHYSICAL THERAPISTS IN THE DIGITAL AGE
Aryana Carvalho-Mires DPT ’20 records classmate Celina Caovan ’16, DPT ’20 for their Movement Analysis 1 class. After recording each other doing a natural turn, the first-year doctor of physical therapy students use the Hudl Technique app to analyze the body’s mechanics as it performs each movement. “The iPad has been an essential tool in my learning process,” Carvalho-Mires says of the technology required for all DPT students. “We are able to refer to the videos later on and relate them back to the lecture.”
In this issue of inMotion, we share our plans to move forward with a new hybrid DPT program. We believe that this program will fundamentally alter the landscape of physical therapy education — a shift that is, in our view, sorely needed to meet the needs of our ever-evolving health care system.

While it may seem surprising to many that we are moving in this direction, the decision to start this new program has its roots in a process of strategic planning that we began more than two years ago, in the fall of 2015. This process, originally intended to last a year, ended up requiring two years because, amid our thoughtful discussions about our vision for the future of physical therapy education, we spent a lot of time discussing, deliberating, and debating whether and how to proceed with a new hybrid program. Thus, the decision to start the hybrid DPT program was not made in isolation, but was part of a major advance in our thinking about where we want to go and how we can get there, not just in DPT education, but in research and clinical practice as well.

The product of that strategic planning process, a document outlining our new strategic plan for the next five years, is discussed on page 7. I hope you will follow the link in this article to read the full strategic plan, titled “Strategic Vision 2017-2022: Transforming Health Care.”

When we began to deliberate our strategic plans for the future, we quickly realized that the present is itself highly uncertain and difficult enough to grasp. Indeed, we find ourselves in this moment at the nexus of the two arenas in our society that are probably changing most rapidly and dramatically—health care and higher education. As we noted in Transforming Health Care, in each of these areas we face “unprecedented opportunities and extraordinary challenges.”

Nevertheless, to navigate the uncertainties we are faced with, we need a clear and straightforward vision of where we want to go. The vision we articulated meets that standard: To transform health care by creating the future in physical therapy. In particular, we have decided that “we must transform how we prepare the next generation of physical therapists to deliver the highest level of care to society.”

The bold ambition of that goal, and the risks associated with it, made us hesitate as we considered our role in the future of health care and higher education. It would be easy enough to ride on our reputation and past successes, to let others take the risks. But we realized that our past history has educated us, prepared us, and motivated us to be leaders, shaping the future of health care.

In “Transforming Health Care,” we state, “The USC Division of Biokinesiology and Physical Therapy has spent the last three decades creating a unique and powerful community of faculty, students, staff, patients, and other partners to answer this challenge.”

We invite all of you — the community that we have worked so hard to build — to be part of our vision.
A GRIPPING CAREER   23-26
BY JAMIE WETHERBE MA ’04

Having treated and taught more than 1,000 rock climbers (including Jonathan Siegrist, pictured here), Adjunct Instructor of Clinical Physical Therapy Jared Vagy DPT ’09 has earned the moniker, “The Climbing Doctor.” Find out how he managed to merge his two passions into one exciting career.

FEATURES
FROM HOMELESS TO DPT   15-16
BY MICHÈLE MCCARTHY

As a child, Mich Hamlin DPT ’20 lived with his parents on the streets, before eventually falling into the foster care system. Earlier this fall, he became one of a small percentage of former foster kids to pursue an advanced degree, entering the USC DPT Class of 2020.

BACK TO LIFE   27-28
BY MICHÈLE MCCARTHY

Jason Alan had already undergone two surgeries for bulging discs and sciatica, which most days left him bed-bound. He was about to go under the knife a third time when someone suggested Instructor of Clinical Physical Therapy Kenneth Kim DPT ’11.

Dave Murray
COVER ILLUSTRATOR

This issue’s illustrations come from Toronto-based artist Dave Murray, who put pencil to paper to create the cover and imagery for our cover story, the Digital Revolution.

Career beginnings: Drawing is always something that’s come naturally to me, so the idea of it becoming my “job” seemed too good to pass up.

Work has appeared in: The Wall Street Journal, Reader’s Digest and inMotion, of course.

Other hobbies: Watching and playing far too much hockey and walking my dog, Sophie.

On illustrating the issue: Researching physiotherapy always makes me consider my own health; every creak of my wrist and neck while creating these illustrations had me in a panic (not really).

Rachel Straub MS ’13
GUEST COLUMNIST

In this issue’s “My Inspiration” column, PhD student Rachel Straub shares what kept her going as she battled both Lyme disease and chronic fatigue syndrome.

Professional writing beginnings: I started sharing “personal” medical information on various venues once I started to recover since I felt I had a moral obligation to do so. I was beating an incurable illness, and felt my story needed to be heard.

Work has appeared in: Psychology Today, Muscle & Fitness, Reader’s Digest and more.


On writing the “My Inspiration” column: I am sharing my story not only to inspire, but also to hopefully increase awareness of a debilitating and crippling condition — chronic fatigue syndrome — that most people don’t even know exists.

Nate Jensen
PHOTOGRAPHER

This issue’s featured photographer not only took many of the pictures featured within this magazine, he also captured thousands upon thousands of images for the division’s new website, set to go live early next year.

Career beginnings: After studying in Rome and at Iowa State University, I interned at a small ad agency in Kansas City prior to moving to L.A., where I worked in-house at a larger agency and continued freelancing.

Work has appeared in: A multitude of platforms and media. My personal and collaborative work have international visibility, spanning advertising campaigns from top-fashion labels and luxury hotels to Hollywood A-listers.

Other hobbies: Cooking, art and design, traveling and swimming.

On photographing the issue: I’m honored to collaborate once again with USC, one of the greatest schools in the region. I’m continuously inspired and have profound respect for the incredible faculty and subjects I’ve been able to capture.

Rachel Straub MS ’13
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The USC Division of Biokinesiology and Physical Therapy recently adopted a new Strategic Vision to guide its efforts in physical therapy education, patient care and research during the next five years. The document, titled “Strategic Vision 2017-2022: Transforming Health Care,” is meant to align with the overall USC Strategic Vision, which calls upon the university community to “address global challenges, spark creativity, invent and innovate, connect peoples and help improve the quality of life.”

The division intends to play a leading role in these endeavors, the Strategic Vision says. “The objectives that we strive to achieve will require us to harness our strengths, continue to achieve excellence and be leaders in shaping the future of health care.”

Acknowledging its prominent place among physical therapy educational institutions — the division has been consistently ranked No. 1 by the U.S. News & World Report since 2004 — the division sets out to use its strengths to achieve four major objectives:

- Transform education to meet societal needs.
- Develop leaders for a rapidly changing health care system.
- Integrate research and practice to advance science and human health.
- Influence local and global communities of practice.

Perhaps most visible of these objectives so far has been the division’s efforts to transform physical therapy education by launching an online/on-campus hybrid doctoral program — the first cohort of which begins in the summer of 2018. The hybrid program, called DPT@USC, aims to leverage the division’s academically rigorous curriculum with innovative educational tools provided by technology company 2U, Inc. to expand access to a USC doctor of physical therapy degree to a population not bound by geography to Southern California. DPT@USC students will receive the same high-quality training, with the same access to expert faculty members, as their on-campus counterparts. They will be required to complete 33 courses, 50 weeks in clinical internships and must travel to USC for approximately 60 days’ worth of hands-on clinical skills laboratories.

“Online education is not merely about convenience,” Associate Dean James Gordon said. “The online environment provides opportunities for learning that go beyond what is available in a traditional classroom.”

The Strategic Vision lays out a number of priorities to keep the division on track to meet its objectives. Some of these priorities include:

- Develop leaders for a rapidly changing health care system
  - Raise funds for scholarships, fellowships and grants to offset student costs.
  - Recruit more physical therapists into the PhD program in biokinesiology.
- Integrate research and practice to advance science and human health
  - Develop interdisciplinary centers of excellence to address major societal health problems (cancer, obesity and diabetes and developmental disability).
  - Create division-wide research center to study movement and exercise.
- Influence local and global communities of practice
  - Develop sustainable interprofessional, patient-centered clinical services.
  - Create post-professional educational offerings for the international community.

The division has long dedicated itself to being on the vanguard of physical therapy education, launching the first PhD in physical therapy program in 1978 and the first accredited DPT program in 1995. During his 2014 Mary McMillan Lecture, Gordon talked about the importance of continuous learning and transformation to stay space in an ever-changing world.

“We are the architects of our profession’s future,” Gordon said. “Through our efforts today, we design and build the foundations and frameworks that will make it possible for a strong and vibrant creative profession to emerge in the next decade, the next 40 years, in the next century.”

**What Will Your Trojan Legacy Be?**

Amy King Dunden-Berchtold ’72 made a gift through her estate, and from donations of real estate holdings, toward the endowment of the University Club of USC—which was renamed in her honor. Amy’s gift was especially meaningful because the historic Trojan meeting place is located in the building named for her late mother, Joyce King Stoops EdD ’66, and late stepfather, Emery Stoops PhD ’41.

To create your Trojan legacy, contact the USC Office of Gift Planning at (213) 740-2682 or giftplanning@usc.edu and visit us online at www.usc.edu/giftplanning.
**Smith Awarded $300K National Science Foundation Grant**

Assistant Professor of Research Beth Smith and USC Viterbi School of Engineering Professor Naja Materic were recently awarded a $100,000 grant from the National Science Foundation for a joint study that could one day lead to a safe robotic intervention for infants at risk for developmental delay. The interdisciplinary study’s goal is to determine how robots might give personalized feedback to infants to promote motor babbling — a developmental process that teaches them how to interact with their environment and control their bodies. The researchers aim to use robotics to answer some fundamental questions about how infants learn new skills. Read more about the grant here: pt.usc.edu/assistiverobot/.

**Division Faculty Members Receive CPTA Research Awards**

Three division faculty members were recognized at this year’s California Physical Therapy Association (CPTA) annual conference for their contributions to the profession’s body of knowledge. Assistant Professor Beth Smith was awarded the 2017 CPTA Faculty Research Publication Award for her study on infant leg movement and the onset of independent walking that appeared in the journal Sensors. Assistant Professor James Finley also contributed to Smith’s study. Associate Professor San Kiragas received the 2017 CPTA Non-Research Publication Award highlighting his authorship of a review article entitled Pelvic Floor Muscle Rehabilitation to Improve Sexual Function in Geriatric Men. The CPTA annual conference, which typically attracts more than 1,100 physical therapists and physical therapy assistants, took place Sept. 16-17 at the San Diego Conference Center.

**Fisher Receives National Endowment for the Arts Grant**

Professor of Clinical Physical Therapy Beth Fisher, ’78, M.S. ’81, PhD ’00 and PhD candidate Yi-Ling Kuo have been awarded a National Endowment for the Arts grant for an interdisciplinary study investigating whether the brain plasticity associated with skilful musical performance in elite musicians translates to everyday hand function. Fisher and her team will utilize in-lab two-handed coordination tasks to determine if the “rewired” brain of an expert musician leads to superior performance of everyday motor tasks compared to non-musicians. The research could eventually open up new dimensions for evidence-based therapies for children and adults afflicted with neuromuscular control like cerebral palsy, stroke and Parkinson’s disease.

**Tilson Receives Neurologic Physical Therapy Knowledge Transition Grant**

Associate Professor of Clinical Physical Therapy Julie Tilson DPT ’98, M.S ’99 has been awarded a $20K grant from the American Academy of Neurologic Physical Therapy to determine how best to implement a set of 2016 treatment guidelines for patients with vestibular hypofunction. It is estimated that one-third of American adults over 40 experience some type of vestibular dysfunction. Vestibular hypofunction can result in vertigo, dizziness, blurry vision and falls. The 2016 treatment guidelines included evidence-based suggestions on which exercises a patient with vestibular hypofunction should do, at what dose and for how long to achieve optimal results. Tilson and her team will study the implementation of these guidelines across five different rehabilitation sites to develop a hypofunction Clinical Practice Guideline Knowledge Translation Resource Package.

**Sykes Named 2017 Distinguished Alumna**

USC Trustee Tracy Sykes DPT ’84 received the 2017 Distinguished Alumna Award earlier this fall at the division’s Academic Convocation and White Coat Ceremony. Over the past two decades, Sykes has remained remarkably connected to the division and the university overall. She was one of the founding members of the USC PT Alumni Association, served on the division’s Board of Councilors and, together with her husband Gene Sykes, endowed the Sykes Family Chair in Pediatric Physical Therapy, Health and Development. In 2015, Sykes was named a member of the USC Board of Trustees — the university’s ultimate governing body — by USC President C. L. Max Nikias. “Tracy does not seek recognition or accolades for her accomplishments,” explained Associate Dean James Gordon before presenting her the award. “She is one of the rare people who gets satisfaction from seeing the effect of her generosity rather than taking credit for that generosity.”

**Division Welcomes DPT Class of 2020**

Earlier this fall, the division welcomed 100 doctor of physical therapy students at its annual White Coat Ceremony. The entering class was chosen from an applicant pool of more than 1,000 students. The class hails from 54 states and comes to the division with 36 undergraduate majors. More than two-thirds of the class is female; the average age is 23.2 years old, with students ranging in age from 20 to 35 years old. During the ceremony, the division also recognized its 17 residency graduates — representing neurologic, pediatric, sports and orthopedic physical therapy — and presented a number of scholarships and awards. The 2017 Academic Convocation and White Coat Ceremony took place on Aug. 24 on the Broad lawn.
**Continued from page 10**

“The disk itself promotes stability. When you have a weakening of the outer ring of the disk, it makes it more susceptible for a return injury.”

—Assistant Professor of Physical Therapy Jonathan Sum ’01, DPT ’05, remarking in the Los Angeles Times about how L.A. Dodger’s pitcher Clayton Kershaw’s herniated disk from 2016 could have led to the “Grade 1” back strain that sidelined the pitcher this summer.

“We’re using innovative tools — like motion analysis with high-speed cameras and platforms that measure force — to understand what yoga is actually doing and how it’s targeting the biological processes of our body.”

—Associate Professor George Salem on his work to study the possible health benefits of yoga in the August 2017 issue of NIH News in Health

“We hypothesize that the immersive component of virtual reality, and the embodiment of a virtual avatar, should generate greater brain activity in motor-related regions of the brain than simply viewing the same feedback on a typical screen.”

—Assistant Professor Sook-Lei Liew MA ’08, PhD ’12 on her work using virtual reality to promote motor recovery in stroke survivors — Assistant Professor

It was a tug-of-war that pitted human against machine earlier this year when 43 teams (including ones from the USC Division of Biomedical Engineering and Physical Therapy as well as the USC Marshall School of Business) raced to pull a FedEx airliner a dozen feet during the 12th annual Special Olympics Southern California Plane Pull.

The division’s team managed to drag the 124,000-pound Boeing 757 across the finish line in 6.71 seconds. The winning team, the Los Angeles Sheriff’s Department Custody Services Division, shaved a second and a half off that to finish in just 5.1 seconds. It took USC Marshall 8.59 seconds.

While the teams of 5 might have walked away from the annual fundraiser with bragging rights (and more than a few sore muscles), the real winners were the athletes with intellectual disabilities who received nearly $140,000 raised by the participants in the lead-up to the competition.

“Seeing how each person has contributed and developed her or his own passion for Movement Alliance has been truly spectacular to watch,” Goldenring says.
Monica Nelsen DPT ’98 knows how important sports participation can be for people with physical challenges. The nonprofit organization behind the ride, Challenged Athletes Foundation (CAF), was founded in 1994 with a mission to provide opportunities and support to people with physical challenges. Involvement in sports at any level increases self-esteem, encourages independence and enhances quality of life, according to the organization’s website.

The Million-Dollar Challenge helps support the CAF’s efforts to provide grants to challenged athletes; host camps and clinics for people with traumatic injuries; and raise awareness about the importance of sports for people with physical challenges. Dubbed “More than a Ride,” the Million-Dollar Challenge offers cyclists — both able-bodied and challenged — the chance to push through the burning quads and determination of their fellow cyclists helped Nelsen push through the burning roads and the breathlessness to finish the ride.

For Nelsen, one of the most rewarding aspects was hearing the life stories of the other riders. There was Scott Leason, 60, a U.S. Navy veteran who lost his sight after being shot in the head during a robbery. Leason told Nelsen that he was at first despondent and typically self-imposed and may be overcome by challenging our own and others’ perceptions of our abilities,” she says — a lesson she plans to take with her into the clinic.

For Nelsen, though, the event did even more. “It reminded me that our limits are surpassed its goal, raising $1.5 million for athletes with physical challenges.

And there was Andre Kajlich, 38, who sustained bilateral above-knee amputations after he was hit by a subway train. He says listening to these stories and seeing the courage of our fellow cyclists helped Nelsen push through the burning roads and the breathlessness to finish the ride.

 Altogether, the Million-Dollar Challenge surpassed its goal, raising $1.5 million for athletes with physical challenges.

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More Than a Ride

PHOTO BY WIL MATTHEWS

Monica Nelsen DPT ’98 takes part in Million-Dollar Challenge, a 620-mile bike ride to raise money for athletes with physical challenges.

Monica Nelsen DPT ’98 knows how important sports participation can be for people with physical challenges. The division alumna and adjunct faculty member has witnessed it firsthand, having worked in neurorehabilitation for many years and supporting individuals in adaptive sports.

So when an opportunity arose for Nelsen to join the Million-Dollar Challenge — a seven-day, 620-mile bike ride from San Francisco to San Diego aiming to raise $1 million for people with physical challenges to compete in sports — she knew she had to do it.

“Illness and injury can create physical, social and emotional isolation,” Nelsen explains. “Participation in sports can combat this by helping people develop attributes that reintroduce wounds service members and first responders to sports, he found a renewed vitality.

Then there’s Mackenzie Johnson, a college-aged guy who sustained a paraplegic spinal cord injury last year. Not wanting to be sidelined by his injury, Johnson began playing wheelchair basketball and recently began cycling, inspiring his mother to ride as well. And there was Andre Kajlich, 38, who sustained bilateral above-knee amputations after he was hit by a subway train. He says...
FROM HOMELESS TO DPT

As a child, Mich Hamlin lived on the streets with his parents. Beating all odds, he is now a first-year USC doctor of physical therapy student.

BY MICHELLE McCARTHY

From the age of 6, Mich Hamlin remembers being homeless. "In fact, he doesn’t ever remember not living on the streets of Southern California with his parents and two brothers. To Hamlin — now 24 and a first-year doctor of physical therapy student — it was a normal existence."

"I guess I was so accustomed to our living situation that I never really processed that, ‘Oh, kids actually go home and have a bed, a shower and warm food on the table every night,’” he explains.

Hamlin’s family never slept in the same place two nights in a row because his parents, both unemployed substance abusers, were suspicious of authorities. As a result, they rotated from parks to behind dumpsters to available cars, using blankets provided by a local thrift store. "In my head, it ended up turning into a game of not getting caught,” he says.

LIFE ON THE STREETS

A typical day at the park would start around 3 a.m., when Hamlin and his brothers would wake up and use cardboard to block the sprinklers from getting their mother wet while she slept. "We’d go back to sleep, and when the sun rose, we’d load up our belongings onto our dad’s bike and ride up and use cardboard to block the sprinklers from getting their mother wet while she slept. "We’d go back to sleep, and when the sun rose, we’d load up our belongings onto our dad’s bike and ride up the track, the easier the classroom got. It was an outlet. It gave me the discipline to stay focused and make goals."

BEATING THE ODDS

Hamlin’s coach also convinced him to apply to college, and he was accepted at Cal Poly Pomona, where he majored in kinesiology. "Anatomy was my favorite class in high school," he says. "My teacher said there were professions in the field working with the body and possibly sports and athletics. After an extensive chat with my coach, physical therapy was the profession I set my sights on. My experiences interning have been nothing short of rewarding — rehabilitating individuals to a better lifestyle."

In addition to being the first person in his family to attend college, Hamlin graduated with honors. It’s quite an accomplishment given that only 3 percent of foster kids graduate college and just a fraction of them go on to get an advanced degree. With the help of a Chafee Grant that assists foster youth and a Pell Grant, Hamlin graduated debt-free.

JOINING THE TROJAN FAMILY

The next chapter of his life — becoming a Trojan — fills Hamlin with pride. When searching for doctoral institutions, he felt a strong need to put his name on something bigger than himself. "It’s time for me to grow, and what better place to grow than the number one institution in the nation for my program?"

Once he enters the physical therapy field, Hamlin plans to help those who are in a similar situation as he was as a child. Whenever he sees people asking for money on a freeway off-ramp, it pulls at his heartstrings. "That used to be my parents," he says. "No one should have to go through anything close to what I’ve gone through. I want to give back to the foster youth programs. I wouldn’t be where I’m at if it weren’t for their contributions and acts of kindness."

When Hamlin put on his white coat for the first time earlier this fall, there was one person especially on his mind. "I just know that if my mom had been there, she would’ve been extremely proud to see all the hardships I’ve been through and the ways I’ve managed to persevere, be resilient and put myself out there to find ways to succeed.”
The USC Division of Biokinesiology and Physical Therapy is diving into the digital world, with DPT@USC, an innovative online/on-campus hybrid program that reimagines the way doctors of physical therapy are trained in the 21st century.

BY KATHARINE GAMMON

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physical therapists are in high demand — so much so that the physical therapy job market is expected to increase by 34 percent (much higher than the majority of other occupations) by 2024, the U.S. Bureau of Labor Statistics estimates.

With this in mind, the USC Division of Biokinesiology and Physical Therapy began to assess the ways in which it might expand to not only help meet that demand but also to ensure the profession continued to be populated by high-quality physical therapists providing patient-centered, evidence-based care. The division considered its responsibility, as one of the nation’s top-ranked physical therapy programs, to help maintain the quantum leaps that the profession has made in the past two decades toward its now recognized position as a doctoring profession. And how it could expand its reach to provide a top-ranked educational experience to ambitious prospective students across the nation who might not be able to relocate to Los Angeles?

The answers came two years ago when the division was approached by 2U, Inc., an education technology company that works with schools across the country — including the USC Rossier School of Education, the USC Suzanne Dworak-Peck School of Social Work and the USC Irvine and Young Academy — to build online degree programs that are as good as or better than their traditional classroom-based counterparts.

“Do you think we could do that?”

“Absolutely,” said Julie Tilson, DPT@USC director. “This is our opportunity to do just that.”

NO BACK ROW TO EDUCATION

Students in the new hybrid program will take the same courses as the residential students — just in a different format. They will study full-time, starting each week with asynchronous content — video combined with bidirectional learning materials — that after 10-minute chunks of instruction will require them to answer questions by looking for information on their own or by meeting with other students, preparing them to be lifelong learners.

Every week, DPT@USC students will also meet with a professor from each of the courses they’re taking to continue in a live-classroom environment. The ratio is 1 faculty member to 12 students. “The motto of 2U is ‘no back row,’” Tilson says. “You really can’t hide and not be asked questions about the material.” These meetings take place every week for every course, so on average, hybrid students will spend six to eight hours with faculty members in small-group settings every week.

What did you want to make sure was included in the new DPT@USC program?

“True to the Trojan Family way, the on-campus DPT program has an untouchable sense of support for its students, and I definitely wanted to make sure that held true for DPT@USC.”

—Kendra Breunling DPT ’18,
DPT@USC Student Advisory Committee Member

“It’s important that DPT@USC students are offered the same accessibility to our professors (and even PhD students) and USC-affiliated research. This is what sets our program apart from others.”

—Kevin Peterson DPT ’19,
DPT@USC Student Advisory Committee Member

“We wanted to combine the educational elements that we do really well now — like live discussions and intense laboratory experiences — with new teaching modalities to invent a new physical therapy student experience.”

—Kara Havens MS ’15, PhD ’13,
DPT@USC Development Committee Member

“We have an opportunity to bring ‘make-believe’ patient cases to life in the hybrid program using video technology. It is up to the faculty to design creative methods in which to record these videos to model PT and patient interactions, clinical decision making and patient presentations.”

—Dan Krages ’94, DPT ’98,
DPT@USC Development Committee Member

“We must craft a blended experiences that faithfully translates the practical components of our curriculum into instructional modules that support the development of critical thinking and mastery of a robust and effective clinical skill set.”

—Jesus Dominguez MPT ’88, PhD ’02,
Chair of Admissions Committee

“Our first and foremost commitment is quality. We are dedicated to providing an outstanding educational experience that results in excellent clinicians ready to lead the future of physical therapy.”

—Julie Tilson DPT ’98, MS ’09,
DPT@USC Director

“2U was interested in doing the same for USC’s doctor of physical therapy program. Under the leadership of Associate Dean James Gordon, division faculty went through months of careful contemplation and discussion to figure out if it was the right move. Was a hands-on profession like physical therapy something that could be taught partly online? Would the move to a digital platform sacrifice the quality of a USC doctor of physical therapy degree? Would USC be able to succeed where others had preceded it online had faltered?

“We all knew we wouldn’t do it if we couldn’t do it to the standards we hold for ourselves,” says Associate Professor of Clinical Physical Therapy Julie Tilson DPT ’98, MS ’09. After much consideration, the division decided to move forward, launching DPT@USC, its new hybrid online/on-campus program, set to begin in the summer of 2018. “Our goal is to revolutionize how we educate physical therapists,” says Tilson. DPT@USC director. “This is our opportunity to do just that.”

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For someone in their 30s with a couple of kids and trying to change career paths, the opportunity to study at a world-class institution can be challenging.

Tilson says that the program hopes to attract ambitious, dedicated future physical therapists who want to experience the rigor and excellence of USC physical therapy education and who feel that the hybrid environment with asynchronous and live sessions is a good fit for their learning style.

“That may be people who can’t relocate, maybe because a spouse has a job in another city, but they’re still able to make the full-time commitment,” she says.

While there are some other physical therapy online learning options, USC is the first research-intensive institution (and top-ranked physical therapy program) to offer a full-time entry-level doctor of physical therapy degree using a hybrid online/on-campus format. “This program will continue to set us apart from the pack, and it does expand our reach,” Tilson says.

DO IT THE RIGHT WAY

When Kendra Breunling DPT ’18 first heard about the hybrid program, she was neutral on the idea. “I think it just took me a while to realize what the overall intentions were with the development of the program. After the announcement, there were clearly several concerns floating around,” says Breunling, who sits on a student advisory committee to weigh in on the new degree program.

The faculty held town hall meetings to have an open forum with the community about DPT@USC, which soon put Breunling and others at ease.

“When I applied to USC, I trusted their methods, and what they go along. When I applied to USC, I trusted their methods, approach and overall teaching environment to put me on the right path for a successful career in physical therapy,” she says. “During my time as a student, my trust in USC and the program has only strengthened — in large part because of my continued and growing respect for our faculty.”

Kevin Peterson DPT ’19 saw the potential in the hybrid program right away. He also saw others hesitate. “It takes someone saying: ‘We’re going to do this the right way’ to prove to people we can do it,” he says. Peterson is also part of the student advisory committee that ensures that students’ perspectives are taken into consideration when designing the hybrid program.

He has appreciated the experiential learning at USC, including the physical location of the DPT program. “Luckily, we are right across the street from a teaching hospital,” he says. “From our first year, we get to shadow a physical therapist in the in-patient community. It’s something I’ve found really valuable,” he continues, adding that the hybrid students will have the same opportunities. There will also be a buddy program, allowing residential and hybrid students to team up and review material together.

AHEAD OF THE CURVE

Kirages acknowledges that some alumni have questions about whether the hybrid program will be as good as the residential, and he wants them to know: The new program will be every bit as excellent as the current program.

“This is the way academics are going, in general,” he says. “Students want to have more flexible schedules. So we are meeting a need, and we’re a little ahead of the curve. It’s nice to be on the forefront where we can set the bar really high.”

Tilson says the DPT program will be doing research on the outcomes of the hybrid students compared to the residential students. They’ll also be doing semester-by-semester analyses of the programs and making adjustments as they go along.

“My hope is that in the end we have two very powerful effective mechanisms for delivering the USC DPT experience,” she says. “I hope that we define what excellence is in the future of education.”

Help us shape the DPT@USC curriculum by participating on an alumni advisory committee. If you’re interested, email us at hybriddpt@pt.usc.edu.

’S No. 1-ranked program. But just how do the paths differ?

Whether a prospective student chooses a traditional or a hybrid educational model, both curricula ultimately lead to a doctor of physical therapy degree from the U.S. News & World Report’s No. 1-ranked program. But just how do the paths differ?
Rock climbing is a physically demanding activity that can put a lot of wear and tear on a body. But who do rock climbers turn to when they need a physical therapist who truly understands their sport? Division faculty member Jared Vagy, "The Climbing Doctor," that's who.

BY JAMIE WETHERBE MA '04

A GRIPPING CAREER

Professional climber Jonathan Siegrist attempting the incredibly difficult "crux move" on a rock climbing route in Catalunya, Spain.
A few years ago, avid rock climber Adam Galper had problems finding a provider who understood his injury. 

“I was experiencing a lot of pain on the inside of my elbow,” says Galper, a route setter who designs routes for rock-climbing walls. “Every doctor and orthopedic specialist said it was tendinitis and suggested I stop climbing. But they didn’t understand rock climbing or how you use your body, and that as a route setter, I’m pretty much climbing everyday as a job.”

After taking six months off, Galper’s injury still hadn’t improved. “So I didn’t think it was tendinitis,” he says. Galper started searching for providers who specialized in rock climbing injuries and found Jared Vagy DPT ’09. “There was a doctor in Australia and Dr. Vagy,” Galper says. “We started searching and finally did.”

After an assessment testing mobility, grip and strength, as well as a series of movements that mimicked climbing, Vagy agreed it wasn’t tendinitis. “He looked at all the crazy muscular imbalances happening in my body, and said it was pretty much an issue of imbalance,” Galper explains. “He put me on a comprehensive plan where I exercised the opposing part of my forearm, and I could keep climbing. After two months, I was injury-free.”

“The Climbing Doctor” is in

During the past several years, Vagy has treated and taught more than 1,000 climbers, earning him the moniker “The Climbing Doctor.”

“From a physical therapy perspective, there are very specific things you need to look for in rock climbers that are unique,” Vagy explains. “It’s such a specialized sport with a lot of terminology that specifically relates to movement patterns on the wall.”

Vagy speaks from experience. After years of dividing his time between two passions — physical therapy and rock climbing — he left his job at an orthopedic outpatient clinic in Santa Monica, Calif., to pursue climbing full-time in South America. 

“You wake up in the morning and don’t even need coffee,” he says of his time in South America. “You just look over the edge and you have 2,000 feet of air right underneath you.”

After spending six months alpine and rock climbing, Vagy returned to California to start a movement science fellowship at Kaiser Permanente. “The DPT degree from USC gave me a strong foundation in clinical reasoning, my residency training solidified my manual skills, and the movement science fellowship improved my ability to analyze and treat complex movement patterns such as those in rock climbing,” he says.

“I was 100 percent committed to understanding movement, and eventually started applying those same concepts to most patients’ shoulders by taking them through a range of motion in the air,” he says. “On a climber, you have to watch their shoulder in a closed kinetic chain where their arms or their hands are first stabilized on the ground in a crawling position, since this mirrors what they do on a rock wall.”

An ounce of prevention Vagy also focuses much of his efforts on teaching patients proper movement patterns to avoid overuse injuries.

“A good portion of the patients who come to me don’t have any real injuries,” he says. “They want to know how they can become stronger climbers without getting hurt, so they can push their performance to the next level. It’s about injury prevention.”

Vagy recently published a book called Climb Injury-Free, which teaches rock climbers how to prevent injury by correcting faulty movement patterns. “I wrote the book so that medical professionals or physical therapists who aren’t climbers can apply their own movement analysis skills to assess and treat rock climbers,” he says. “The key is understanding the intricacies of the sport — all the different components of movement — then you can start to give climbers different strategies to avoid all those overuse injuries.”

Jonathan Siegrist is one of more than a dozen top professional climbers featured in the book. “It’s a troubleshooting guide for any kind of injury you might have [and] gives you the tools to do injury prevention on your own,” Siegrist says.

While training in 2015, Siegrist hurt his shoulder and drove from Las Vegas to L.A. to seek Vagy’s expertise. “After being with Jared for just three days, my shoulder started feeling better and all of my training started feeling better,” he says. “I was so encouraged by the work I’d done with Jared, we came together to work on his book.”

Galper agrees Vagy’s unique expertise is worth the commute. “You can say, ‘I was doing a rose move on pockets the other day, and I was doing a left drop knee and it was super tachic, footwork’,” and Dr. Vagy knows the exact position your body was in and where it hurts,” he says. “I haven’t seen injured since I started seeing him.”

“I was injury-free.”

Jared Vagy DPT ’09

“The Climbing Doctor” is in

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After two surgeries — and a third one scheduled — Jason Alan finally finds relief from excruciating back pain through physical therapy.

BY MICHELLE McCARTHY

FALL 2017

In August to November 2016, Jason Alan, 32, visited the hospital 17 times, twice by ambulance. With three bulging discs in his lower back and sciatica that felt “demonic,” he says the pain was so excruciating that most days he stayed in bed and took painkillers to help him through the episodes. Eventually, he had to move in with his grandmother, and his job as a credit repair specialist suffered. “I wasn’t quite alive, but I wasn’t dead,” he says. “I wasn’t suicidal, but I was somewhere in between. And that’s a weird place to be.”

There wasn’t a traumatic injury that caused Alan’s pain, which started in his early 30s. Instead, it was a gradual onset that is all too common in a technologically driven and sedentary society. “I think you’d be surprised at how many students we see at USC who have moderate to severe lower back pain just because they’re sitting down all the time,” says Instructor of Clinical Physical Therapy Kenneth Kim DPT ’11. “Over time, the muscles that attach the hips to the lower back become very tight, and the deep trunk muscles become weak. Due to the imbalance, they start having issues at different lumbar sections of the lower back.”

Alan did everything in his power to find a cure, including seeing multiple physical therapists, medical doctors and specialists. He ended up having two L-4, L-5, L-5-S1 microdiscectomies in which doctors shaved off the disc that was pushing on the nerve, but they were only temporary fixes, and the symptoms returned. Consequently, Alan was scheduled to have a third surgery.

Understandingly, when Alan’s stepbrother suggested he see his physical therapist, Kim, he was a bit leery. “He wasn’t even going to give me a shot,” Kim says. Luckily, Alan relented. “Dr. Kim said, ‘Give me two weeks; there’s a good chance you won’t need the surgery.”’ Alan agreed to postpone his surgery 45 days. The results were not only life changing — Alan refers to what transpired as a miracle. “Kenny is the real deal,” he says. “He’s like the Mr. Miyagi and Obi-Wan Kenobi of physical therapy. Everyone I’ve recommended to him, he fixes — and fast.”

— Jason Alan

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So what made Kim’s approach unique? In addition to years of experience and confidence in his work, Kim always keeps one goal in mind: to help his patients no matter what it takes. “That means we may need to go home and study up or ask other PTs or professionals who might have a better handle on it,” he says. “It’s important for us to use all the resources we have. No one should be too prideful or embarrassed to ask. A lot of times, that’s not done enough.”

Coming into the Engemann Student Health Center one to two times a week for sessions with Kim, Alan was amazed at the progress he achieved in such a short time. “With all the little adjustments he made, I felt a 10 percent improvement in the first week,” he says. Immediate adjustments included custom orthotics to assist Alan’s flat feet and the purchase of an ergonomic office chair.

The first order of business was to relax Alan’s overly tight hip muscles, which would then decompress the spine and then focus on a combination of mental and physical exercises. After strengthening his deep abdominal and back muscles, he learned how to activate and control those muscles. “I needed to make sure Jason knew how to turn them on first and then how to keep them on without using the hip muscles,” Kim says. “A lot of times, we’d do very low-level exercises for the back and abs, and he would feel it in his hamstrings or thighs when that shouldn’t be happening. Having him be able to isolate those muscles built their endurance and, over time, flexibility automatically improved. His body learned how to use the muscles it needs to protect his spine.”

Alan jokingly refers to the mental activation exercises as “Jedi Mind Tricks.” “There were lots of exercises Dr. Kim had me do where there was no movement,” he says. “It was simply thinking about certain areas, which caused either the muscles to actuate or ligaments to loosen.”

Now that Alan’s physical therapy treatments are coming to a close, he’s eager to get back to life as he knew it. His injury robbed him of a lot, and he’s ready to make up for lost time.

A move out of his grandmother’s house is scheduled for January, but first on his to-do list is heading to the beach to partake in one of his favorite hobbies, which he wasn’t able to do for more than a year: kite surfing. “I’m a little nervous only because I don’t want it all to come unglued,” he says. “But as soon as I get the first session under my belt, I know I’ll be fine.”
1961

DAPHNE STOERMER ’61 is still practicing after 56 years and loving it! She wrote a stretch book, called Range of Motion, a Therapeutic Home Stretch Program, which sold on Amazon for many years. She is currently doing mainly craniosacral therapy and is an independent Bemer distributor. “Everyone should own one as it increases microcirculation by 30 percent,” she says.

2003

JOHN KIM DPT ’03, MHA ’08 was recently named the Area Quality Leader for the South Sacramento Service Area.

LAURA (TAMPANELLO) THOENE DPT ’03 has qualified to run the 2018 Boston Marathon on April 16!

2014

EMMA SHAPIRO DPT ’14 published a traveling physical therapy book, which was ranked No. 15 on the Amazon Kindle Store for Physical Therapy ebooks. It is a very honest and thorough guide to help therapists succeed as traveling health care workers. The book is called The Ultimate Guide to Traveling Physical Therapy.

2017

CHRISTINE YIM DPT ’17 wrote a literature citation summary for the Performance Arts Special Interest Group’s monthly newsletter on the topic of “Ballroom Dance and Aging.” She also presented her results on “Improving Student Physical Therapist’s Confidence in Leading a Community Exercise Class for Cancer Survivors” at the 2017 CPTA conference and plans to attend CSM Poster Presentation in 2018 to present these findings.

LIVE COURSES:

Orthopedic Boot Camp: Management of the Shoulder
Jan. 6-7, 2018
Instructor: Sean Johnson, PT, DPT, OCS
1.5 CEUs

Orthopedic Boot Camp: Management of the Thoracic Spine and Ribs
Jan. 27-28, 2018
Instructor: Sean Johnson, PT, DPT, OCS
1.5 CEUs

APTA Clinical Instructor Credentialing Program
Jan. 27-28, 2018
Instructors: Michael Simpson, PT, DPT, CCS and Valeria R. Teglia, PT, DPT, NCS
1.4 CEUs

USC Science of Throwing and Hitting
February 2, 2018
Instructor: Lori Michener, PhD, PT, ATC, SCI and Faculty
0.45 CEUs

USC Shoulder Update 2018: Diagnosis and Management
Feb. 3, 2018
Instructor: Lori Michener, PhD, PT, ATC, SCI and Faculty
0.7 CEUs

Orthopedic Boot Camp: Management of the Cervical Spine
March 3-4, 2018
Instructor: Daniel Kirages, PT, DPT, OCS, FAAPMPT
1.5 CEUs

Essentials of Spinal Manipulation with Peter Gibbons and Philip Tehan
March 9-11, 2018
Speakers: Dr. Peter Gibbons and Dr. Philip Tehan
18 CEus

Torticolis & Plagiocephaly: Assessment & Treatment of Infants & Children Evidence & the “Rest of the Story”
March 10-11, 2018
Speaker: Cindy Miles PT, PhD, PCS
16 CEus

SHARE YOUR NEWS WITH YOUR CLASSMATES

Got some exciting news to share with your fellow alumni? Tell us about your awards and grants, publications, professional developments, births and marriages for possible inclusion in an upcoming issue of inMotion.

Visit pt.usc.edu/Stay_In_Touch

ONLINE COURSES:

The Movement System: The Upper Quarter Athlete
Instructor: Jared Vagy PT, DPT, OCS, CSCS
0.48 CEUs

Essentials for Appraising Evidence
Instructors: Linda Fettner, PT, PhD, FAPTA and Julie Tilson, PT, DPT, NCS
2.0 CEUs for 4-part series

Introduction to Exercise and Cancer Survivorship
Instructor: Christina Diel-Conwright, PT, DPT, NCS
0.2 CEUs

Introduction to Male Pelvic Health: Urinary Incontinence
Instructor: Daniel Kirages, PT, DPT, OCS, FAAPMPT
0.2 CEUs

CONTINUING PROFESSIONAL EDUCATION

ALUMNI

IN MOTION 2017

FALL
Doctoral student Rachel Straub shares what kept her inspired during a four-year battle with chronic fatigue syndrome.

As of August 2017, I have returned to USC to complete my PhD in biokinesiology. I am exceedingly indebted to the division for allowing me to return, despite a very long and disconcerting health history. I am also forever indebted to my academic advisor, Christopher Powers, for his unrelenting support and extraordinary patience during the entire duration of my illness, which played a powerful role in my recovery. It is only because of one person’s faith in my ability to heal that I am finally able to follow my dream and obtain my PhD.

It goes without saying that my medical experience has forever changed me. I know what it is like to experience true darkness and what it means to persevere when the odds are stacked against you in a seemingly endless battle. I believe, from the bottom of my heart, that my medical nightmare happened for a reason, and in the end, it will be for a greater good. I now have an uncanny ability to relate to those faced with extraordinary challenges (and problem solve in the face of little hope), which will serve me well in a profession of research aimed at improving patient treatment outcomes in the area of physical therapy.

Now, you are probably wondering: Am I fully healed? This is a very tough question to answer, as every day I live with a large black cloud over my head, and I will be dealing with this for the rest of my life. However, I am so immensely grateful for each and every day of health that this overshadows my past as I now try to rebuild a future.

**A gift to the USC Division of Biokinesiology and Physical Therapy directly from your IRA is a tax-smart way to support your favorite program and can be excluded from your gross income (tax-free gift!).**

Of course, everyone is unique. We are happy to chat about any additional tax benefit or criteria that might apply to your situation.

Call the Office of External Relations at (213) 740-0428 or email ostrow.development@usc.edu to create your legacy today.