

FALL 2021

EMORY Physical Therapy

Emory DPT Students Tackle Injury Prevention in the NFL

6 RISE OF TELEREHAB

9 NEW DEI LEADERSHIP INITIATIVE

10 FACULTY EXCELS NATIONALLY



FROM THE INTERIM DIRECTOR

Positive Steps Forward in Our Quest for Diversity and Inclusion

The past four years found Emory Division of Physical Therapy (DPT) faculty, staff and students having candid and often emotional discussions about diversity, equity and inclusion (DEI), some of which have been chronicled in this magazine. We've acknowledged African Americans and other minorities are notably underrepresented in all aspects of the physical therapy profession and listened closely to those DPT students of color who bravely shared they felt unseen, not just in the recruitment and admissions process, but also in the classroom and clinic.

It's been a valuable time of listening, learning and introspection for those of us who have never had to face these challenges in our personal, educational or professional journeys. While this is an ongoing process, I'm pleased our faculty has not only embraced these often uncomfortable conversations, but has committed to be a leading force for change. Several years from now, we want to have positively contributed to the number of minority physical therapists, clinical specialists, scientists and faculty in the profession, as well as to have improved access to rehabilitation to underserved communities in our country.

On page 9 of this publication, please read about our new Emory DPT DEI leadership development and advocacy initiative that will start in 2022. Created by a small group of DPT faculty and staff, it will strive to create a more inclusive environment for minorities, while building a leadership pipeline to develop more Black and Brown PT students and practitioners. I would like to recognize Sarah Caston, Marie Johanson, Aparajita Maitra, Anjanette Nuñez, Ella Pollard and the members of the DEI committee for their determined, visionary leadership on this issue. While we have a long way to go in creating an inclusive environment for everyone, this group has paved the way for the significant strides that have been made.

We are also excited to highlight the amazing work of two of our dual degree students, Corey Rodrigo and Eric Holshouser, who recently completed a project that their Emory MBA professor, Rajiv Garg, said was the best he's ever seen. What makes this project so fascinating is that Corey and Eric combined their love for physical therapy and injury prevention with their passion for sports analytics, creating a study with 29 million data points which attempts to predict injuries in the National Football League. Professor Garg hopes Eric and Corey continue this innovative study after leaving Emory and is optimistic that, if marketed correctly, the NFL will be interested in this ground-

breaking work. We look forward to following their progress and wish them the best.

We love to hear from our alumni and celebrate the people who make Emory DPT one of the top programs in the country. On page 5, you'll enjoy the story of 2007 graduate Kendell Arceneaux who overcame a great deal of adversity in his time at Emory, and today is leading a successful PT practice with his wife in Lake Jackson, Texas. Kendell's perseverance through the pandemic lockdown last year and his love for helping people will inspire you.

Finally, on page 10, we highlight the many accomplishments of the people who invest in the future of our profession — our outstanding Emory DPT faculty. I love that our faculty is so involved, not just in the classroom and research laboratories, but also in leadership roles in policymaking and advocacy organizations at both the state and national levels. These affiliations ensure we remain at the forefront of every clinical and regulatory development in our profession, and also enhance the overall value of our doctoral degree.

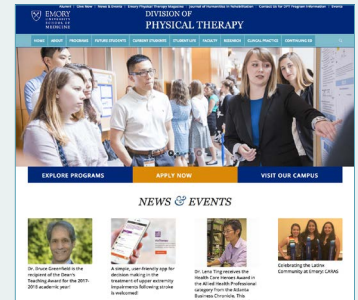
We recently held several celebrations of our students' accomplishments. The Class of 2024 was welcomed to campus in June. With more than 40 percent minority students, it is our most ethnically diverse class ever. What a wonderful sign of progress we will continue to build upon! These 61 students from 23 states, as well as China and South Korea, and representing 46 universities and 17 undergraduate majors, were thrilled to begin their coursework in-person and on-campus. We also welcomed the return of the Class of 2022 from their 30 weeks of terminal clinical experiences. They are now embarking upon their final two semesters of mandatory and elective coursework, along with faculty-mentored research projects.

Finally, we received friends and families of the Classes of 2023 and 2024 who each had a White Coat Ceremony to recognize their progression through the didactic part of the program and the beginnings of their clinical work. These celebrations make us hopeful for a healthier and safer world in the near future.

I hope you enjoy this publication and sincerely thank you for your continued support of the Emory Division of Physical Therapy.

Best wishes,
Tami Phillips, PT, DPT, MBA
Associate Professor and Interim Director

Visit us online
at emorydpt.org



Contact us:

Division of Physical Therapy
1462 Clifton Rd. NE, Suite 312
Atlanta, GA 30322, 404-712-5660

Emory Physical Therapy

is published annually for faculty, staff, students and friends of the Division of Physical Therapy, Department of Rehabilitation Medicine, at Emory University School of Medicine.

Tami Phillips

Associate Professor and Interim Director, Division of Physical Therapy

Beth Davis

Editorial Adviser and Associate Professor, Division of Physical Therapy

Kevin Bloye

Editor

Angela Vellino

Designer

Kay Hinton

Photographer

Stephen Nowland

Photographer

Emory's Woodruff Health Sciences Center (WHSC) is an academic center focused on teaching, research, health care, and public service. The Division of Physical Therapy is part of Emory University School of Medicine, a component within the WHSC.

Emory University is an equal opportunity/affirmative action employer fully committed to achieving a diverse workforce and complies with all federal and Georgia state laws, regulations, and executive orders regarding non-discrimination and affirmative action. Emory University does not discriminate on the basis of race, age, color, religion, national origin or ancestry, gender, disability, veteran status, genetic information, sexual orientation, or gender identity or expression.

EMORY **Physical Therapy**



IN THIS ISSUE **FALL 2021**

2 FEATURE STORY

Emory Dual Degree Students Aim to Make Mark in NFL with Machine Learning

Eric Holshouser and Corey Rodrigo combine PT and analytics for injury prevention.

5 ALUMNI SPOTLIGHT

After Overcoming Several Obstacles, '07 Emory PT Grad Thriving in Texas

Despite lifelong dream to be PT, Kendell Arceneaux's path to success was anything but easy.

6 CENTER SPREAD

Worldwide Pandemic Opens Door to Telerehabilitation Revolution

As COVID-19 changes health care landscape, both patients and caregivers embrace telerehab.

9 NEW PROGRAM

Emory DPT Prepares for Launch of DEI Leadership and Advocacy Program

New DEI initiative for future physical therapists will be nation's first.

10 RESEARCH

Emory DPT Faculty Continues to Influence Profession Statewide and Nationally

Success of faculty outside of classroom enhances value of Emory degree, creates more opportunities for students.

AND MORE...

Division Awards **11**

Student Awards **12**

Alumni & Faculty Notes **13**

On the Cover

Emory Dual Degree students **Eric Holshouser (L)** and **Corey Rodrigo** stand on the field at the Mercedes Benz Stadium in Atlanta, home of the Atlanta Falcons.

EMORY DUAL DEGREE STUDENTS BREAKING BARRIERS WITH MACHINE LEARNING TO PREDICT, PREVENT NFL INJURIES

Emory Doctor of Physical Therapy students Eric Holshouser and Corey Rodrigo realized they had a lot in common as soon as they were matched in the division's Mentor Program a couple of years ago. Both were DPT dual degree students in the school's MBA program. Before coming to Emory, Rodrigo, a native of California, had just served a stint on the training staff of the NFL's Jacksonville Jaguars, Holshouser's home-town team. Both describe themselves as "analytic minded" with a passion for sports and injury prevention.

While it's not unusual for two students with so much in common to form a deep friendship, what is unique is what Holshouser and Rodrigo did to solidify that bond. This spring, the two physical therapy students completed a joint DPT-MBA project together that Emory Goizueta Business School Associate Professor Rajiv Garg, PhD, MS said is the best that he's seen in his teaching career. Emory DPT Assistant Professor Peter Sprague, PT,

DPT, an adviser on the project, called it "amazing" and a testament to the "powerful marriage" of the university's physical therapy and business programs.

The project, titled "The Application of Machine Learning to NFL Injury Prediction" combines the students' recently acquired knowledge of machine learning techniques with millions of data points they compiled from every NFL player from 2009 to 2020. The use of data analytics in professional sports to predict on-the-field performance is nothing new, but Holshouser and Rodrigo take analytics to an entirely different level: to predict injuries before they ever occur.

While the students are surprised by the accolades and attention the project continues to draw — especially since neither one knew much about machine learning until a recent MBA class — both realize that they have a tool that could potentially alter the landscape of professional sports and chart the course of their professional careers.



Jacksonville native Holshouser (L) and Rodrigo, who worked on the training staff of the Jacksonville Jaguars, first became friends through the Emory DPT's Mentor Program.

One Project. 29 Million Data Points

When he was kid, Holshouser remembers analyzing statistics to try to predict the outcomes of football games. During his senior year of high school, he even did his science fair project on sports-related data.

But his love for sports analytics didn't go anywhere until he took a Forecasting and Predictive Analytics class in the MBA program that provided an introduction to machine learning — a process in which the more data that is inputted into a software program, the better the machine gets in predicting outcomes. For example, streaming services like Netflix and Spotify utilize subscriber usage data to predict the preferences of each user and offer recommendations. When the COVID-19 pandemic hit in March 2020 and national lockdowns began, Holshouser started putting his new knowledge to work.

"I had a little bit of extra time on my hands because of the pandemic and one weekend, I spent all my time playing around with some data that I found for wide receivers in the NFL dating back to 2000," Holshouser explains. "Much to my surprise, the model actually worked. I then shared my results with Corey, who I knew was also interested in data analytics and machine learning, and we agreed that we should turn this into a real project."

Last fall, Holshouser and Rodrigo took Professor Garg's Coding for Business Insights class which covers various coding languages including Python and SQL and a wide range of modeling techniques including logistic regression, decision trees and random forest. For both DPT/MBA students, the spark that was ignited earlier in the year turned into a wildfire.

"While we had had all of these dreams to use analytics, we didn't have the technical skills to carry them out," Rodrigo explains. "This class put the tools in our hands which was awesome and empowering."

As one of the advisers to the project, Garg remembers his discussions with Holshouser and Rodrigo early in the process and admits to being incredulous.

"I wondered, 'Can these DPT students really handle all of this data and coding?'" Garg recalls. "I was a little skeptical. But after every meeting that we had, I was like, 'Wow. You guys did that!' It was pretty impressive."

What the students did can only be described as eye-popping creating 29 million data points for thousands of NFL players over a 12-year period. While the Excel spreadsheets contained typical data on each player such as age, height and weight, body mass index, injury history and even performance grades handed out by secondary publications such as *Pro Football Focus*, Rodrigo said that they took player analysis many steps further.

"Row-wise, it was over 360,000 rows of data and for each one of these rows, there were all of these other areas that interested us," he explains. "What was their performance like? How many plays were they on the field for? What was the weather like during the game? What city did they play? What was their performance in the previous game? We just started to add more and more data."

As the spreadsheet grew, Holshouser and Rodrigo kept searching for more unconventional data points that they were convinced would only enhance the credibility of the machine learning process.

"Some of the elements we just kind of came up with ourselves like, 'Were the last three games more predictive of injury as a whole than their most recent game? Or how did the player perform in the past game relative to the season or to the rest of his team?'" Rodrigo elaborates. "Every time we asked a question, there were many more data points to add."

Using the reams of data, the students created a machine learning model using a technique called random forest, which uses a large number of different decision trees to generate predictions.

"The model randomly selects a thousand different decision trees and each tree votes on whether or not an injury is going to happen," Holshouser explains. "And then it's like a majority vote of all of these randomly generated decision trees."

In May, the students unveiled the results of their project on Zoom to an audience of classmates and professors. While some of their findings supported



conventional wisdom—for instance, the biggest single predictor of injury is a player's injury history and injury rates go up with age and cumulative plays over a career—other trends the students observed are likely to turn heads. They include:

- Early game times, such as the first games on Sunday afternoon, have higher injury rates than other time slots
- Injury rates for players go down with more cumulative plays in a season
- Running backs, which are the most likely to be injured among all the positions, get injured at much higher rates on an artificial field surface
- High heat indexes increase the injury risk for offensive linemen and quarterbacks
- Player performance declines the week prior to injury

During the 2020 NFL season, the students' injury models accurately predicted injuries to at least a dozen high-profile NFL players including former Atlanta Falcon Wide Receiver Julio Jones and Los Angeles Chargers Defensive End Joey Bosa. Given the fact that NFL teams spent over \$500 million in salaries to injured players in 2019, Holshouser and Rodrigo hope that their innovative injury prediction models will draw interest from NFL executives and training staff personnel with the knowledge that even a 10 percent reduction of injuries can save the league up to \$50 million.

Conversely, the students realize that NFL teams are not going to keep their best players off the field because of predictive computer data. But, according to Rodrigo, the data can give outnumbered training staff personnel an extra set of eyes in keeping up with 53 active roster players and 12 practice squad players.

"The machine might say, 'This guy is at risk of an overuse injury like a hamstring strain,' he says. Maybe the way that it got that information is because his velocity had significantly decreased in practice over the last week compared to the past. At that point, it's up to the clinician to review the data, take a closer look at the player and to make a meaningful decision. You have to have conversations with all of the stakeholders – the strength staff, the coach and the player. It's almost a roundtable discussion with the ultimate goal of preventing injuries. Whether or not that that happens, we don't necessarily know yet, but we don't think that there's going to be any detrimental effect to putting an extra set of eyes on those players who are flagged as being 'high risk'."

Rodrigo, who has maintained connections to medical staff personnel in the NFL, said that overall, their project has generated some interest from his former colleagues but also some concerns. For example, does

predictive injury modeling reduce the value of clinicians? If a player who the models label as "high risk" suffers a long-term injury, does that jeopardize the jobs of the training staff?

"There are definitely some barriers here and no question, it's going to take the right coaching staff and the right organization to carry these things out effectively," Rodrigo says. "If there's not buy-in on analytics and data from the top down, then it becomes really difficult to use this data in meaningful ways."

For both students, all the coding, algorithms and spreadsheets are connected to the primary reason they first came to Emory—injury treatment and prevention.

"The heart that we went into this with is to prevent injuries," Holshouser said. "Our goal is to improve players' quality of life and the longevity of their careers."

Dual Degree Program the 'Best Decision I've Ever Made'

Holshouser calls the project a "labor of love." Rodrigo refers to it as a "passion project." That's why it's no surprise that both want to continue to develop their MBA project after leaving Emory and, ultimately, make a living in the world of sports analytics and injury prevention.

Garg, who described the students as "very mature, sincere and hard working," is encouraging the friends to continue collecting data, develop a website and market the effort to the NFL and other related companies.

"I've told them, 'If you take this to the NFL and they see this as a tool to complement their decision-making, this would be a phenomenal benefit to them,'" Garg said.

Emory DPT's Sprague agreed saying that any tool that gives teams additional intelligence of when to give players added rest and physical therapy would be "hugely valuable information for any sports medicine staff to have."

For Holshouser and Rodrigo, both agree that this potentially groundbreaking initiative would not have happened without Emory's dual degree program that first opened the door for Doctor of Physical Therapy students to also pursue either MBA or MPH degrees about 12 years ago.

"It's the best decision I've ever made," Holshouser said about pursuing a dual degree at Emory. "First of all, it was such a blessing to be accepted into Emory's PT program because it's one of the top programs in the country. To couple that with the Emory MBA program – which is also a top program in the country – it was great. Professor Garg taught me skills that I can now bring back to the physical therapy program. The programs really worked together very well."

Rodrigo, who admits that he "couldn't write one line of code" before taking Garg's class last year, leaves Emory a raving fan of its dual degree program.

"The reason that I chose Emory was because of the dual degree program," he says. "There is no other university in the country that offers this same caliber of clinical programs and business education. From the get-go when I was applying and interviewing, I knew that it was special and when I got into it, the amount of knowledge I gained from each program was incredible. When you're able to combine that knowledge from both schools, I think you just increase the value of both degrees even more. It's just been an awesome experience and I love both schools. Each, individually, will add so much to my professional career." **EPT**

Kendell Arceneaux Overcomes Adversity to Achieve Lifelong Goal to Become Physical Therapist



In August, Kendell Arceneaux (second from right), and his wife, Czeahreena (second from left), recently celebrated the third anniversary of their Lake Jackson, Texas clinic, One on One Mobility Rehab.

While many young people struggle with choosing a career even after graduating from college, Kendell Arceneaux, DPT knew he was going to be a physical therapist at just 10 years old. Arceneaux, who grew up in Breaux Bridge, La.—a city known as the “Crawfish Capital of the World”—recalled when his summer day-time babysitter, his grandfather, suffered a stroke. Arceneaux’s parents gave the boy money to eat in the hospital cafeteria and young Kendell slept in a cot next to his grandfather while he rehabilitated.

“Watching the doctors, nurses and therapists take such good care of my grandfather was a seminal time for me,” Arceneaux recalls. “The thing that really struck a chord with me was whenever they would take my grandfather to his physical therapy sessions. I remember they would wheel him to the physical therapy gym in the basement and help him onto the parallel bars and got him on his feet. When I saw that, especially wanting my grandfather to walk again, that’s when I decided what I wanted to do with my life. I wanted to be just like that physical therapist. You couldn’t change my mind.”

While his road to accomplishing his dream was anything but easy, Arceneaux earned his undergraduate degree in athletic training/exercise science from the University of Louisiana at Lafayette and graduated from the Emory Division of Physical Therapy in 2007. Today, he co-owns One on One Mobility Rehab in Lake Jackson, Texas outside of Houston with his wife, Czeahreena Videz-Arceneaux, who is also a physical therapist.

Last March, when COVID shut down most of the country, Arceneaux, with his three-month old baby, Kneauxelle, and elderly mother-in-law, Cora-zon, at home, kept the clinic open and lived at the office for two months as his administrative assistant fielded calls and set appointments from home.

“I went home, packed a suitcase and came back here where I have a back office – nowhere near the clinical area – and set up camp,” he explains. “I would go home for showers because I don’t have a shower here. I do have a washer and dryer in the clinic so I would change clothes and then I would go home, take a shower and my wife would have a hot plate of food waiting for me in the kitchen and I would take the food back to the clinic. That was my daily routine.”

Arceneaux started One on One Mobility Rehab in August 2018 after serving several years as a traveling physical therapist in Georgia, Louisiana and Texas. He admits that running his own clinic requires many more hours of his time each week but he appreciates the fact that during a time of great uncertainty last year, he was still able to deliver safe care on his terms.

“Being that we were still in control during a time when everything else seemed out of control, that was good for our own mental wellbeing,” he recalls. “We could stay focused on our job and know that we were doing everything we could to provide care safely and we didn’t have to worry about anything outside. We could focus on our task at hand. Knowing that I always did my best helps me sleep at night.”

His time at Emory, beginning in 2004, helped Arceneaux learn how to overcome adversity. While at Emory, at the beginning of his second year, Hurricane Katrina hit Louisiana and Arceneaux’s grandmother, bedridden by Alzheimer’s, became unresponsive after being evacuated from the New Orleans area to Breaux Bridge two hours west. She eventually passed away. The stress of those events back home began to affect Arceneaux in the classroom.

“I was no longer studying, and my grades were suffering,” he explains. “The Emory DPT faculty graciously allowed me to leave with the

possibility of returning in a new class.”

Questioning whether he should even continue in physical therapy, Arceneaux, at the urging of family and friends, came back to Atlanta and took some prerequisite classes for medical school at Georgia State University. That experience was short lived as Arceneaux realized how much he missed the field that captivated him as a child. He re-enrolled at Emory DPT, started from the beginning and graduated in three years.

“The time away ended up helping me and when I came back, I was more focused, and I knew for sure that that was what I wanted to do,” he recounts.

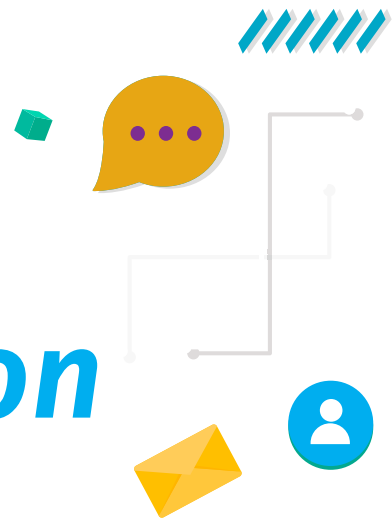
Today, Arceneaux is thankful that he stayed the course. He loves being a physical therapist and the fact that he can invest in meaningful relationships with his patients during sessions that can last up to an hour.

“As a physical therapist, you can develop a deeper relationship with your patient,” he says. “Making a connection with someone builds trust and also gives the therapist a better insight into the appropriate way to motivate a particular patient in the hopes of improving outcomes.”

Arceneaux, who had never been to Atlanta until starting graduate school there, fondly remembers his days at Emory and credits the DPT faculty for putting him in a position to succeed.

“It was such a great experience, and I wouldn’t change a thing,” he says. “It was difficult, but it made me a better person. There is a huge sign in our clinic that reads ‘If It Doesn’t Challenge You, It Doesn’t Change You.’ My experience at Emory may not have been ideal but it made me a better PT and a better person. The faculty put me in a position to eventually succeed and I thoroughly enjoyed my time there.” **EPT**

COVID-19 Ushers in *Telerehab Revolution*



The technology and the willingness to conduct physical therapy sessions over a computer monitor have been in place for many years, but as long as Medicare and third-party payers were going to continue to deny payment for telerehabilitation, there was no incentive for clinicians to offer the services.

The COVID-19 pandemic changed everything. Today, as the pandemic has forced Americans to turn to virtual care for nearly all types of services including physical therapy, Medicare, which previously paid for a limited number of telehealth services for beneficiaries in rural areas only, waived restrictions on telehealth for all beneficiaries and temporarily expanded the list of services to include offerings such as physical and occupational therapy. That waiver is in place for the remainder of 2021 and already, advocacy organizations such as the American Physical Therapy Association (APTA) are lobbying lawmakers to extend the waiver or better, permanently lift restrictions on telerehabilitation.

Whatever happens in Washington, D.C., the verdict has already been rendered by both practitioners and patients: *Telerehabilitation is an effective way to enhance accessibility to rehab services without sacrificing quality.*

At a stroke conference at Emory 10 years ago, legendary Emory physical therapy professor Steven Wolf, PT, PhD, FAPTA, remembers an exercise in which every conference attendee was asked to take five minutes to fill two Power-Point slides to answer these two questions: **Who are you?** **Where do you see the future going?**

Wolf, who has served in the rehabilitation field for more than 50 years, needed only a few seconds, three words and one slide to answer the questions. He wrote: **Move! Move! Move!**

Wolf's answer reflects not only the way he takes care of himself – he maintains a rigorous, daily exercise routine in his late 70s—it's the way he openly embraces change in the rehabilitation field, especially telerehabilitation. Wolf, who helped create the APTA's Frontiers in Rehabilitation, Science and Technology Council which identified telerehabilitation as a priority area nearly 15 years ago, reminds his colleagues that because today's young adult population of

physical therapists and patients were raised on video technologies, they expect them to be used in the rehab setting.

"To think that this trend wouldn't happen would be naïve," Wolf says. "When you have electronic equipment in which the scaling and instruction can be controlled by a therapist from a distance into a home environment safely, why wouldn't you do that? You can modify a patient's treatment and program from afar and talk from a distance and you can do so at any time of the day or night. Not only is it unconstrained to a 9 to 5 workday or to certain days of the week, it eliminates the need for transportation considerations which can be a major barrier in large cities when you're trying to get from one place to another. It also eliminates the need for a care partner to modify their schedules so that they have to leave work to accompany their partner to a clinic. If you choose to put a price tag on all those factors, that's extraordinary by any measurement."



Emory DPT Professor Bruce Greenfield, PT, MA, PhD, FNAP, FAPTA added that telerehabilitation can give the physical therapist valuable information about the patient that wouldn't be available in an in-person setting.

"It allows therapists to actually visualize the home environment and provide very specific functional training relative to where that particular patient lives and where family members are who can help that patient," Greenfield says.

Results from surveys measuring patient and caregiver satisfaction and outcomes with telehealth/ telerehabilitation support Wolf and Greenfield.

- In a study highlighted in the November 2020 *American Journal of Physical Medicine & Rehabilitation*, an online survey of 205 telerehabilitation patients revealed high satisfaction rates (93.7% to 99% scored either "excellent" or "very good") on several key patient metrics including treatment plan development and execution and overall visit satisfaction. While women reported higher levels of satisfaction with the visits, overall satisfaction was independent of factors such as age, therapist type, visit type or visit duration.
- In a two-year study presented in the June 24, 2019 issue of *JAMA Neurology*, of 124 recent stroke patients experiencing arm motor deficits, it was determined that after 36 sessions of therapy delivered to a group of patients via home-based telerehabilitation compared to patients in a traditional in-clinic setting, the telerehabilitation system "is not inferior to in-clinic therapy for improving motor function and stroke knowledge."
- In a recent study by the COVID-19 Healthcare Coalition, comprised of more than 1,000 health care organizations, the AMA reported that the study included a survey of 1,600 physicians and more than 2,000 patients in which both groups said overwhelmingly they are pleased with telehealth and hope that the current expanded access to telehealth services throughout the medical community remains permanent.

At the Emory Division of Physical Therapy, the move to incorporate telerehabilitation into the curriculum began long before the pandemic, but now, it's on overdrive. According to Wolf, who is helping lead those efforts while continuing to be a leading influencer in the national rehabilitation arena, efforts to make that transition must come with a reminder to the field that telerehabilitation does not equate to compromised care.

"Physical therapists all have one thing in common – they are trained to use their hands to treat patients," Wolf explains. "And if they can't put their hands on the patient to feel, assess and treat, then they feel like they're being compromised and perhaps even their earning power is being jeopardized. What I try to say to people is that this is a compliment to what you do one-on-one. This is not a replacement."

He admits that while the field is finally starting to embrace the new telehealth reality, the significant progress that has been made during this pandemic can all be stymied if Medicare and third-party payers don't pay for the services when the pandemic subsides.

"A lot of the decision makers from Medicare and other places just don't absorb the literature and all the factors that are contributing to contemporary technology and how it can favorably influence our health care delivery system," Wolf says. "But I can assure you that if the head of Medicare had a family member who was treated effectively both from afar as well as in person, you'd better believe that there would be some changes in policy. Incredibly, sometimes it takes those kinds of unusual circumstances to profoundly influence change." **EPT**



Seven Questions to Ask Before Conducting a Telerehabilitation Appointment

While the use of telerehabilitation has exploded during the COVID-19 pandemic, long-time Emory University Professor Bruce Greenfield, who specializes in ethics, recently gave a presentation for APTA that urges clinicians to consider several questions while developing an online care vehicle. They include:

- *Is this the right patient for telerehabilitation?* – Not all patients are appropriate for telerehabilitation even if they lack in-person access. A clinician must first evaluate if the patient can be treated effectively and safely in her stage of care using telerehabilitation.
- *What are the specific patient safety concerns?* Greenfield shared an example where an 82-year-old woman with frozen shoulder was being treated online as her 88-year-old husband was being used to test her range of motion. He pulled the arm back as far as possible and cracked her humerus. Falls during the evaluation are another major concern. According to the APTA, develop an emergency contingency plan for adverse events including emergency contacts or calling 911.
- *Are you legally able to provide telerehab services to an out-of-state patient?* While many states have developed compacts paving the way for providers to administer care across state lines, many have not. Be aware of your state's laws.
- *How do you maintain privacy during a telerehabilitation appointment?* Always consider where you are and who is around you to guarantee patient privacy. Greenfield points to a case where a therapist conducted an appointment in a busy airport.
- *Does the evidence support the treatment?* Are you getting good outcomes using telerehabilitation as compared to in-person given a certain condition?
- *Do you have informed consent?* According to Greenfield, you not only have to apprise the patient of the typical informed consent elements, but also those related to technical problems, cases of emergency and transparency issues including information related to your frequency in providing telerehabilitation services.
- *Have you considered all HIPAA regulations?* Larger health care entities are required to use software that is encrypted. And since one in four physicians use mobile phones for appointments, how do you ensure that PHI is protected while using those devices?

Emory DPT Nearing Launch of Ground-Breaking DEI Leadership and Advocacy Program



The new Emory Division of Physical Therapy DEILA Program was created by (from L to R) Emory DPT Associate Director, Programs Aparajita Maitra and Emory DPT faculty members Jenny Sharp, Anjanette Nuñez and Sarah Caston.

This June, the Emory Division of Physical Therapy – with more than 40 percent minority students in its new class of 2024—welcomed its most ethnically diverse class ever. While that, by itself, is a notable accomplishment, four Emory DPT faculty and staff members are crafting a program aimed at preparing students to become inclusive leaders in the physical therapy profession. The Diversity, Equity, Inclusion, Leadership and Advocacy (DEILA) Program ultimately would also prepare students to be mentors for younger generations of students to be inclusive leaders who are ready to address inequalities and eliminate injustices.

Emory DPT's newest faculty member, Anjanette Nuñez, PT, DPT, who joined the staff last December as the director of clinical education, is co-leading the project in partnership with fellow Division of Physical Therapy members Aparajita Maitra, PhD, Jenny Sharp, PT, DPT and Sarah Caston, PT, DPT.

While the Emory School of Medicine's Office of Multicultural Affairs Assistant Director Latoya Rolle, EdD is creating a school-wide leadership and mentor program for students who are traditionally underrepresented in medicine, the DEILA Program will differ from Rolle's initiative in that its focus will be on the development of leaders and advocates who are committed to diversity, equity and inclusion in the physical therapy field. The DEILA Program would frame action and advocacy as a practice of leadership within the classroom and in the clinic.

"Right now, there are a lot of resources available for inclusive leadership specifically for business and it's trickling into health care now," Nuñez says. "But there's nothing specific to physical therapists. That was the impetus for this program."

As a first-generation Filipino American immigrant, Nuñez began her professional career as a city planner more than 20 years ago and is no stranger to systemic racism and bias. With so few leaders from underrepresented minorities currently in the physical therapy field, she is passionate about not just encouraging underrepresented minority students to the field, but also supporting and promoting them to be leaders and advocates committed to DEI efforts in the long term. This optional 12-month program is expected to launch in Spring 2022 and will be the first of its kind among physical therapy programs nationwide.

"Our students will have the opportunity to interact with guest speakers who are practicing and actively demonstrating inclusive leadership in their day-to-day lives. These leaders focus on the humanities, histories and ethics in medicine and PT," Nuñez explains. "We will be monitoring the impact of this program and looking at measures related to self-compassion and perseverance. There is also opportunity to assess student perception of the procedures of the DPT program and find out what we can do to enhance social justice, emotional intelligence and improve the

emotional and psychological well-being of DPT students.

"There will be 12 monthly small group discussions around topics related to DEI leadership and advocacy in the PT profession," Nuñez continues. "But participants would have the opportunity to lead their small group discussions. It would give them the safe space to be able to process and reflect on the topics that were presented."

With the rigorous demands of the Emory DPT curriculum, Nuñez, Maitra, Sharp and Caston intend for the DEILA Program to enhance the DPT student experience rather than be yet another obligation for students. That's why the program will be designed to work seamlessly with the existing curriculum and students will have incentives to participate.

"We're also trying to find funding sources for hopefully a scholarship or stipend, with the possibility of a capstone project that the participants would be involved in to give back to the communities that we serve," Nuñez explains.

Marie Johanson, PT, PhD, who served as Emory DPT's interim director for the past three years, is proud of the fact that the division's ground-breaking DEI efforts that are currently bearing fruit started not with the nation's racial unrest in 2020, but with a group of minority PT students four years ago who made a formal presentation to the Emory DPT faculty about their experiences in a program and profession sorely lacking in diversity.

"We are acting on our students' voices," Johanson says. "That means a lot to me. It means so much that this brave group of students approached us with suggestions of how we could do better."

Johanson added that one Emory DPT alum, who recently started the National Association of Black Physical Therapists, served as a consultant for the division's admissions committee this year.

"We've revised some of our admissions processes to make sure that there is no implicit bias in the process," she says. "Our students and our alumni have been extremely helpful."

Five years from now, Nuñez, Maitra, Sharp and Caston envision a self-sustaining DEI leadership and advocacy program in which students and alumni serve as mentors and are part of a cultural shift in DEI advocacy nationwide.

"There wouldn't be a need to keep explaining why programs like these are needed," Nuñez says. "It would be more about how can we keep improving, and what's next. And we will expect to see more of our students who are well-versed and adept in leadership skills helping to create inclusive environments wherever they are working."

Emory DPT Faculty Shines Outside of Classroom



Emory DPT Associate Professor Kathleen Geist (left) is president of APTA Georgia while Professor Marie Johanson (right) currently holds leadership positions in national professional organizations.

There are many reasons why Emory DPT is widely regarded as one of the best physical therapy programs in the country. Perhaps the leading one is that each one of its 22 faculty members are on an endless quest for learning and leadership and are serving on the front lines of advancing the profession at both the state and national levels.

For example, in May, Emory DPT's Kathleen Geist, PT, DPT, OCS, FAAOMPT, became president of the Georgia chapter of the American Physical Therapy Association (APTA), the state's largest physical therapy organization representing about 2,500 members.

Another faculty member, Bruce Greenfield, PhD, FNAP, FAPTA, was recently recognized for his leadership within the profession nationally by becoming the third Emory DPT faculty member — along with Steven Wolf, PT, PhD, FAPTA and Edelle Field-Fote, PT, PhD, FAPTA — to be nominated as a Catherine Worthingham Fellow of APTA, the national organization's highest membership category for those who have demonstrated sustained excellence to the field.

Wolf has been a mainstay in the classroom at Emory since the mid 1970s. But internationally, he's one of the most well-known, decorated practitioners and researchers in the field. In fact, in 2009, APTA presented Wolf with one of its highest honors, the APTA National Student Conclave Living Legend Award.

For Emory DPT's Marie Johanson, PT, PhD, who was the division's interim director for the past three years until recently, watching her staff thrive outside the classroom while continuing to build on the Emory DPT brand, has been a great source of pride.

"Their absolute passion and commitment to what they do is remarkable," Johanson says. "It's the opposite of 'this is my day job.' It's like their commitment to the profession of physical therapy transcends everything that they do. It makes them exceptional teachers who are extremely up to date in content which makes them exceptional clinicians and it's the service-oriented faculty that end up being elected or appointed to these high-level leadership positions."

Johanson says that while she supports faculty members who want to take leadership roles outside of the classroom, she never mandates it.

"We all have a lot on our plates so if somebody said to me, 'I would love to do that, but I don't think I can do it this year,' I would never question that," she says. "I don't want people taking a position unless they can do it well. That's how we keep our reputation. I have this very talented faculty — many of whom are extremely organized and can handle teaching responsibilities very well—and at the same time, they can have major leadership positions at the state and national levels. It works well."

Geist, who was named president-elect of APTA Georgia three years ago, is thankful to be part of a faculty that encourages its

members to be influencers at the state and national levels.

"We have people from across our faculty who sit on boards that help influence the direction of not only education in physical therapy, but innovation and technology," Geist says. "They help shape what our profession looks like right now, but also what it's going to look like 10 years from now."

By taking leadership roles in professional organizations, Geist explains that faculty can continuously adjust the doctorate-level curriculum to reflect current trends and new legislation.

"We started a medical screening course about seven years ago that helps prepare students to excel in a direct access environment in response to direct access legislation that was enacted in Georgia," Geist explains. "It prepared the students to be able to adequately screen patients who come into a PT practice without a physician referral. The depth and the breadth of the curriculum we provide speaks to how students are seen once they graduate."

While no one would argue the fact that faculty members who are successful outside of the classroom only makes the school more enticing to potential students, Johanson is quick to point out that it also creates amazing networking opportunities for Emory DPT students. With her connections nationally, she has made recommendations for students to serve as ushers for the APTA House of Delegates where they are funded and can see first-hand how decisions and policies are made at the national level.

"If a student is interested in getting involved in some aspect of the profession, usually I have somebody on my faculty who I can go to and say, 'Who in the APTA Georgia organization would be best for this student to contact?'" Johanson explains. "Those personal connections make a big difference." **EPT**

SOME OTHER CURRENT EMORY DPT FACULTY STATE AND NATIONAL LEADERSHIP ROLES

NAME	ORGANIZATION	ROLE
Kathy Lee Bishop	Ga. Association of Cardiovascular and Pulmonary Rehabilitation	Co-Chair Planning Committee Annual State Meeting
Sarah Blanton	Journal of Humanities in Rehabilitation	Editor-in-Chief
Beth Davis	National Academies of Practice	Co-Chair, Communications Committee
Tami Phillips	Ga. Consortium of Clinical Educators	Executive Director
Jennifer Sharp	APTA Academy of Cardiovascular & Pulmonary Physical Therapy	Membership Chair

2021 CLINICAL PARTNER AWARD

After COVID Shutdown, Carolinas Medical Center Fills Major Clinical Education Gap

After last year's lengthy COVID-related shutdown in which several Emory physical therapy students lost valuable clinical time, long-time Emory DPT clinical partner, Charlotte, N.C.-based Carolinas Medical Center (CMC), reopened and took more students than normal.

"As soon as we reopened, we made it very clear we were going to work double time and try to take as many students as we could," said CMC's Director Physical Therapy Services Jennifer Cline, PT, MS. "We did what we could to take extra Emory students and to ensure that these students graduated and could join the workforce."

Thanks to that kind of commitment, CMC, which has served as a clinical partner of the Emory DPT for more than 20 years, has been named the DPT's 2021 Outstanding Clinical Partner. CMC is the largest hospital in its region and is the flagship hospital of Atrium Health, which has 42 hospitals and more than 70,000 employees.

The CMC/Emory DPT partnership, which provides clinical training to seven to 10 Emory DPT students each year, is a "collegial relationship that is filled with mutual respect for one another," says Cline.

"There is this level of trust based on similar core values where we know Emory is working very hard to support and advocate for their students just as we are for our teammates and patients," Cline says. "It's just a solid relationship built on great communication."

Mallorie Tripp, CMC's center coordinator of clinical education, who helps coordinate between 30 to 40 PT internships each year from schools nationwide for the medical center, is always impressed by the readiness of Emory DPT students once they arrive to Charlotte.

"Emory students are always well prepared and well versed in what

we do in the acute care setting," Tripp says. "When they get here, they are definitely ready to work and learn."

Cline says another distinguishing trait of Emory students that matches well with the CMC culture is "their commitment to evidence-based practice."

"CMC's commitment to DPT students not only demonstrates commitment to teaching and patient care, but also demonstrates the resiliency of our physical therapy profession.

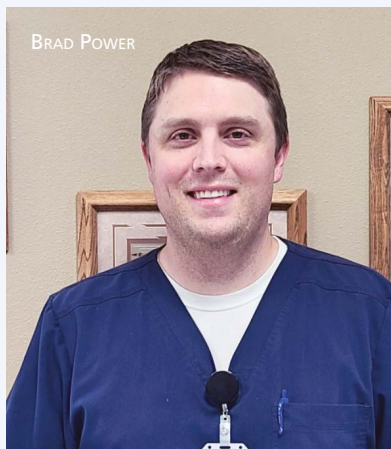
That dedication shines through the challenges of the pandemic" says Anjanette Nuñez, Emory DPT's director of clinical education. "Emory students have always shared positive comments about their clinical rotations at CMC, appreciating devoted attention from their clinical instructors, consistent feedback and unique opportunities to practice and advance clinical skillsets." **EPT**



Jennifer Cline (L) and Mallorie Tripp

2021 CLINICAL EDUCATOR AWARD

At Whiteriver Indian Hospital, Brad Power Offers Students Unique Educational, *Cultural Experience*



BRAD POWER

Brad Power takes pride in the fact that when PT students come to him for their 10-week clinicals, he can offer an experience unlike any other. Power, the recipient of Emory DPT's 2021 Clinical Educator Award, is the clinical instructor for Whiteriver Indian Hospital, a hospital on the

Fort Apache Indian Reservation serving about 17,000 tribal members in an area in the Arizona mountains. The hospital is part of Indian Health, a federal program for American Indians and Alaska Natives.

"The general patient population is very economically challenged so with that comes a lot of different hardships and health issues from a lack of availability of good food," Power explains. "There is a uniqueness to it in that it's such an underserved area, but the people here are so grateful that we're here which is always nice."

For students, one of the many benefits of coming to Whiteriver is the hospital's student house which offers living arrangements for up to three students at a time.

"I wish I had had this kind of experience when I was in PT school," Power adds. "They get a wide range of experiences and get to come somewhere that's different. The Arizona southwest region is a great place to visit."

Power, a Texas native employed by Whiteriver for the past three years, began leading the hospital's student instruction program in the spring of 2020 and has instructed six Emory DPT students—more than any other school—in just more than a year.

"When Emory students arrive here, they are ready," Power says. "I never had any Emory students who I felt like were way behind. They're well trained. They're very knowledgeable. Their clinical skills are there. They just have to learn how to use them."

Anjanette Nuñez, Emory DPT's director of clinical education, praised Power for his dedication to meeting the health care needs of underserved populations.

"As a clinical educator, Brad demonstrates that the role of physical therapists fundamentally includes a commitment to health equity by reducing disparities and closing gaps in care among the individuals we serve," Nuñez says. "Emory DPT and dual degree DPT/MPH students have a unique opportunity in their clinical rotations with Brad to be proactive, ethically-engaged agents of change." **EPT**

Class of 2021 Student Awards

Each year the Division of Physical Therapy presents awards to graduating students

Director's Award for Academic Excellence | This award was given to **Eric Holshouser, Elizabeth Karr, Sarah Roberts and Stephanie Welch** in recognition of exceptional academic work.

Director's Award for Excellence in Growth Mindset | This award acknowledged **Jonathan Erickson, Sarah Hamilton and Amanda Sharp** for modeling perseverance and courage in meeting challenges and who, through hard work and dedication, demonstrate resilience and a love of learning.

Excellence in Service Award | This award recognized **George James, Elizabeth Karr, Ezeoyibo Otiwu and Stephanie Welch** for outstanding service contributions to the program and/or physical therapy's professional association.

Frances A. Curtiss Award for Excellence in Community Service | This award recognized the outstanding service contributions of **Sarah Hamilton and Kalala Pines** to the community at the local, national, or international level.

Frank S. Blanton Humanities in Rehabilitation Scholar Award | This award was presented to **Eric Holshouser** for being dedicated to the pursuit of knowledge in the humanities, demonstrating a deep desire to foster awareness of humanities in health professions, and exhibiting kindness and compassion in relating with others.

Ian H. Tovin Scholarship Award | This award was given to **Rachael Stabbert and Caroline Williams** in recognition of outstanding performance throughout the program and an intention to focus on orthopedics after graduation.

Johnnie Morgan Award for Excellence in Clinical Science | This award was given to **Patrick Coley, Danielle Pasciuto and Melina Vanos** for going above and beyond what is expected of students during their clinical affiliations.

Pamela A. Catlin Award for Excellence in Critical Inquiry | This award was given to **Keely Collins, Hamza Hasan and Stephanie Welch** who were deemed by the faculty and their research advisers to have shown leadership, mastery of content knowledge, problem-solving ability, enthusiasm, and value to overall research projects.

Susan J. Herdman Award for Excellence in Clinical Practice | This award was given to **Madeline Arms, Eric Holshouser and Caroline Williams** for exemplifying the drive to advance the profession and who demonstrated knowledge and skills in a specialized area of patient care.

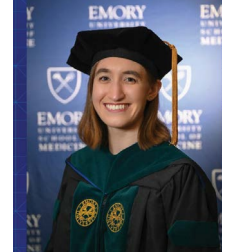
Zoher F. Kapasi Award for Excellence in Leadership | This award was given to **Eric Holshouser, Ezeoyibo Otiwu and Sarah Roberts** for showing considerable initiative and organizational skills related to class and program activities.



Madeline Avery Arms
Susan J. Herdman Award
for Excellence in Clinical
Practice



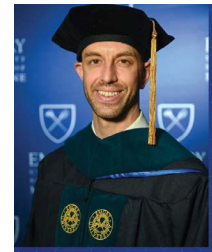
Patrick Andrew Coley
Johnnie Morgan Award for
Excellence in Clinical Science



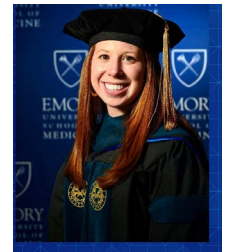
Sarah Hamilton
Director's Award for
Excellence in Growth
Mindset & one other award



Hamza Jehad Hasan
Pamela A. Catlin Award for
Excellence in Critical Inquiry



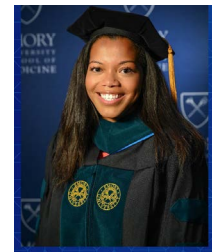
Eric James Holshouser, Jr.
Zoher F. Kapasi Award
for Excellence in Leadership
& three other awards



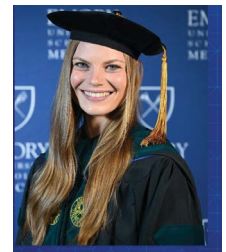
Elizabeth Ann Karr
Director's Award for Academic
Excellence & Excellence in
Service Award



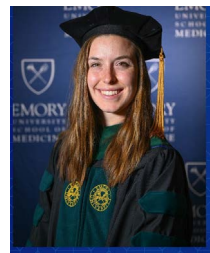
Ezeoyibo Justin Otiwu
Zoher F. Kapasi Award for
Excellence in Leadership &
Excellence in Service Award



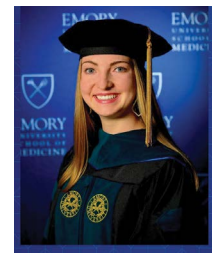
Kalala Simone Pines
Frances A. Curtiss Award
for Excellence in Community
Service



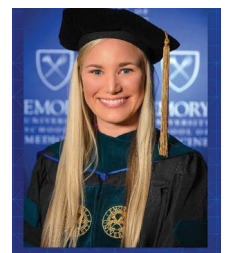
Sarah Elizabeth Roberts
Zoher F. Kapasi Award for
Excellence in Leadership &
one other award



Rachael Stabbert
Ian H. Tovin Scholarship
Award



Stephanie Ann Welch
Director's Award for
Academic Excellence & two
other awards



Caroline Racquel Williams
Susan J. Herdman Award
for Excellence in Clinical
Practice & one other award

ALUMNI NOTES



Amanda Bastien, 18DPT, and Max Barron, 18DPT, were married in the spring this year and both are living in Louisville, KY working for Results Physiotherapy.



Berkeley VanDyke Corcoran, 18DPT, is working as a physical therapist, via telehealth, for SWORD Health. In her role at SWORD Health, she can connect digitally with hundreds of individuals administering active

exercised-based programs.

Dawn Gulick, 83MPT, is CEO of Therapeutic Articulations, LLC in Spring City, Pa. In the past couple of years, she worked on the development of an orthopedic measurement device called the Mobil-Aider (www.Mobil-Aider.com) which measures joint accessory motion. The FDA-cleared device, launched in July 2021, not only measures knee laxity but also can measure 14 motions of five joints.



Terri Brandt Gustafson, 87MPT, is a pelvic health specialist physical therapist at Springfield Clinic in Springfield, Ill. She is a Certified Functional Manual Therapist through the Institute of Physical Art

and is board certified in Biofeedback for Pelvic Muscle Dysfunction through the Biofeedback Certification International Alliance. Married for 29 years, she has three sons.

Tracy Hodges, 92MPT, graduated this summer with a DPT and Rehab Administration Certificate from the University of Montana. She is currently working in home health and hospice in Sacramento, Calif.



Tammy Roehling, 98MPT, graduated in 2020 with a PhD in Physical Therapy from Nova Southeastern University in Fort Lauderdale, Fla.



Payton Sims, 19DPT, recently became a Board Certified Neurological Clinical Specialist. She is currently employed by Brooks Rehabilitation Balance Center in Jacksonville, Fla. She works primarily with patients with various vestibular and neurological diagnoses.



Brittany Ufret, 18DPT, is president and CEO of Post Traumatic Physical Therapy (PTPT). Founded by Ufret in 2020, PTPT is a patient-centered clinically integrated network specializing in personal injury cases.

The fast-growing network, which has more than 70 outpatient clinics, 25 aquatic therapy clinics and multiple concierge PTs, was created to offer accessible, affordable, high-quality physical therapy to the uninsured and underinsured.



Karen Davis Warren, 93MPT, founded One on One Physical Therapy in Atlanta in 2004, a holistic practice that specializes in providing private, individualized treatment that allows the therapist to understand each patient's condition in-depth, and create a special-

ized treatment plan specific to their needs. Prior to starting One on One, Karen began her career working as the primary healthcare provider on the Women's Tennis Association Tour where she traveled worldwide including covering all four Grand Slam events.



Joyce Wilson, 86MPT, lives in Ann Arbor, Mi. and currently provides home health physical therapy at a local clinic as well as some private practice PT.

FACULTY NOTES

Kathy Lee Bishop, PT, DPT, CCS, FNAP, received the "Hidden Gem Award" from the Emory University School of Medicine in 2020. Nominated by her department, Bishop was recognized for her outstanding, but often unnoticed or unrecognized, contributions to Emory or beyond. Earlier this year, Bishop was accepted to the Woodruff Health Educators Academy Fellowship in Educational Scholarship Program.

Beth Davis, PT, DPT, MBA, FNAP, received the "Editor's Choice Award" for a paper she co-authored titled "SBAR Brief Assessment Rubric for Learner Assessment." The paper will appear on MedEdPortal. In 2020 and 2021, Davis gave three separate presentations at the American Physical Therapy Association Education Leadership Conference.

Bruce Greenfield, PT, MA, PhD, FNAP, FAPTA, has been offered a contract by SLACK publishers to co-edit a book titled "Technological Literacy for the Rehabilitation Professional: Future Ready." In July, Greenfield was quoted in a *New York Times* article titled "What to Look for in a Physical Therapist."

Marie Johanson, PT, PhD, was elected by The American Council of Academic Physical Therapy (ACAPT) to the Board of Directors. She was also chosen to be one of three ACAPT representatives to the Education Leadership Partnership (ELP) — a partnership of the APTA, The Academy of Education and ACAPT.



EMORY
UNIVERSITY
SCHOOL OF
MEDICINE

Emory University
Alumni Records Office
1762 Clifton Road
Atlanta, Georgia 30322

NONPROFIT ORG
U.S. POSTAGE
PAID

EMORY
UNIVERSITY

Congratulations Class of 2021

