

Program in Physical Therapy | Annual Report 2018

# **Moving Ahead**



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The Program in Physical Therapy

# 2018 by the Numbers

### Ranked #1

PT Program by U.S. News & World Report

**88** incoming DPT students for the class of 2021

**98.8**% pass rate on NPTE exam by PT '17

**100**<sup>%</sup> employment of PT '17 graduates

7 active NIH R01 grants

**3** clinical practice sites

### Welcome

### Gammon Earhart, PT, PhD

Director, Program in Physical Therapy



"I was always taught that when you're lucky enough to learn something or have some advantage, you should share it."

These are the words of St. Louis native Areva Martin, a renowned author and civil rights

attorney who is known as America's Advocate. I could not agree more with the notion that it is our obligation to share, and this annual report highlights some of the ways we are sharing what we learn and what we have with others. You will see how our alumni and current students are sharing their knowledge and passion by actively advocating for our patients and our profession. You will see how our faculty are conducting cutting edge research and sharing the new knowledge generated with future researchers and the community. You will see how our clinical services are growing, allowing us to share our expertise with a wider audience and serve patients across a broader region. You will see how our students, staff and faculty have coalesced to share the importance of physical therapy with our community, and to enhance diversity and inclusion within the Program and beyond. We are lucky enough to have many great things to share, and it is through that sharing that we continue to grow and advance health through movement.







Top: 2018 Commencement. Middle: Faculty member Suzy Cornbleet, PT, DPT, works with PT '19 on advanced wheelchair skills in Diagnosis & Management of Neuromuscular Conditions II. Bottom: PT students participating at the 2018 PT Day of Service.



### **Education**

Barbara Kimball remembers it well. Sitting in her white uniform with several colleagues in the balcony of the Utah capitol, she watched the proceedings below as the state legislature debated licensure for physical therapists. Just a few years into her own practice, Kimball, a 1955 graduate of the Washington University Program in Physical Therapy, knew she could have an impact on the profession, not just on her patients.

Kimball is a prime example of Washington University Program in Physical Therapy's long tradition of advocacy to drive policy on issues that affect physical therapists, physical therapy assistants, physical therapy students, and the patients and clients they serve.

"I don't recall the exact year now," says Kimball, 85, "but I know it was the late 1950s. Our profession was still fairly young, and we were concerned about its reputation." A Utah native, Kimball provided physical therapy to children in her home state after earning her degree from Washington University. At the time, there were only 14 degree- holding physical therapists in Utah, and they pressed for licensure to distinguish themselves from practitioners not educated in physical therapy programs.

"We were successful," Kimball says with enthusiasm. Although she retired in 1996 after a 41-year career, Kimball remains in touch with her surviving 1955 classmates and is one of the first Program graduates who modeled the important role of advocacy in advancing and strengthening the profession.

Walking in Kimball's footsteps, Jake Raecker recently enjoyed his first experience at the 2018 American Physical Therapy Association's Federal Advocacy Program. The second-year student from Waterloo, Iowa, says, "I've always had a kind of romantic idea of democracy, and this gave me a chance to see what that can really look like."

A new scholarship designed to encourage current students to become involved in advocacy funded Raecker's participation. Alumnae Stephanie Weyrauch, DPT '15, and Allie Smith, DPT '14, established the scholarship after realizing the importance of advocacy in their own careers. Both have participated in forming and advocating for their states' policy initiatives affecting physical therapists.

"The Washington University Program in Physical Therapy produces leaders, and we need them to help our profession adapt to a changing health care marketplace," Weyrauch says. "Jake is very energetic and excited about learning more in the advocacy role, and I think he'll be able to make a huge impact in the field."

Raecker spent the three-day forum in Washington, D.C., learning about current issues in physical therapy advocacy, and speaking with lawmakers from Missouri and Iowa. "I wasn't sure if I'd be in over my head, but the people at the forum made legislative issues easy to understand, provided a lot of background materials and taught us how to approach our legislators," he says.

In fact, Raecker was so immersed he successfully ran for the position of Nominating Committee Chair for the APTA Student Assembly Board. A self-described delegator, he notes that the role is perfectly suited to his strengths. "I'll be talking with students who are interested in leadership and matching them to appropriate positions," he says. "I think it will be a great fit."

The mission of the Education Division is to prepare exceptional practitioners and researchers who contribute to the practice of physical therapy and to the research of movement science.



Program faculty, third-year students and alumni at 2018 Lobby Day in Jefferson City, Mo.



During his time at the 2018 APTA Federal Advocacy Program, Jake Raecker, PT '20, met with lawmakers to discuss student loan issues and physical therapy's role in the opioid epidemic.



### Research

About one in every 1,000 babies born has a congenital condition known as developmental dysplasia of the hip (DDH). If you consider the hip joint as a ball and socket, DDH is characterized by an abnormality in the bone that causes the ball to slip out of the socket. As these babies grow, DDH makes them much more likely to develop hip osteoarthritis as adolescents and young adults, causing pain, reducing their ability to participate in physical activity, and sometimes resulting in the need for a total joint replacement.

A Washington University Program in Physical Therapy researcher is using a 5-year K01 award from the National Institutes of Health (NIH) to examine how physical therapists can optimize treatment for these patients. "This project will be the first to rigorously investigate the bone-muscle relationship as a factor in pathomechanics and symptomatology in patients with DDH," says Michael Harris, PhD, an assistant professor of physical therapy, of orthopedic surgery and of mechanical engineering.

In other words, DDH patients' X-rays don't always indicate how their bone abnormalities correspond to their symptoms. Factors beyond bone structure, such as muscle function, may contribute to the condition's symptoms and progression, but there is less scientific evidence that pinpoints muscle's role.

"We think that muscle plays more of a part in DDH than previously recognized," Harris says. Muscles are the primary movers and stabilizers of the hip. Their function affects the way force is loaded onto the bones and cartilage. "Conversely, the abnormal bone may have a strong influence on the muscle and can determine the muscles' ability to function," Harris continues.

Harris' work will be the first to rigorously investigate the relationships between bone and muscle in DDH patients. By better understanding



these physical interactions, physical therapists and orthopedic surgeons may collaborate better to treat patients and reduce joint damage.

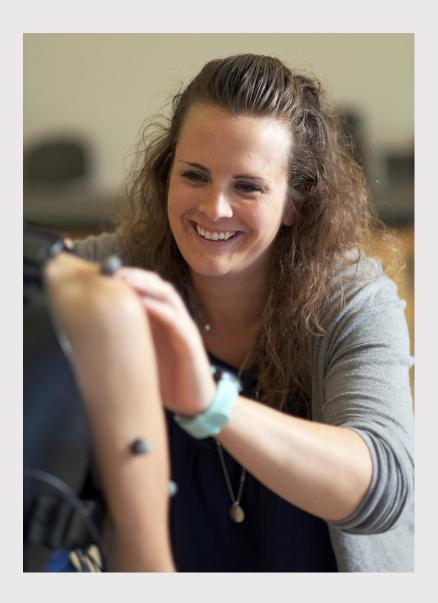
"I want our research to serve as a bridge among clinical disciplines, meaning that I want our work on biomechanics in the hip to meaningfully inform treatment strategies in physical therapy, orthopedic surgery and even radiology and other disciplines that get involved in caring for these patients," Harris says. "My research includes collaborators and students in physical therapy, orthopedic surgery, radiology, computer science and engineering. I believe an honestly multidisciplinary approach to our work will be the key to broadening its impact."

Harris and his team will examine how DDH patients from 16 to 40 years old move their hip during various daily activities, and how the geometry of the bones along with the movement driven by muscles combine to affect the joint. A group of DDH patients will be compared to a control group to determine differences.

"Our patients are very active but have reached the point where they simply can't continue their desired lifestyle without some kind of medical intervention," Harris says. For many, that intervention includes surgery, and Harris will follow Brecca Gaffney, PhD, uses a dynamometer to test the maximum isometric strength values of the right hip flexor muscles in a study participant's right leg.



Patient specific 3-D hip reconstruction from MRI.



**Brecca Gaffney, PhD,** postdoctoral research fellow working in the Harris lab, received the 2018 L'Oreal For Women in Science Fellowship, which annually awards five female postdoctoral scientists grants of \$60,000 each to advance their research. This year marks the 15th anniversary of the program, which has recognized 75 postdoctoral female scientists with over \$3.8 million since 2003.

### Research continued

those patients for a year after their surgery. "For patients who don't get surgery, we keep in touch with them through self-report questionnaires to learn how they are doing six and 12 months after the initial data collection," he adds.

Ultimately, Harris hopes to discover how surgeons and physical therapists can work together better for DDH patients' benefit. "I've been fortunate to work with some of the top hip dysplasia surgeons in the country and to do basic research about how the bony abnormalities of DDH affect stresses on the cartilage in the hip," he says. "Yet it was always interesting to me how little information there was about the effectiveness of physical therapy with these patients or how it could be optimized. Surgery addressed the bone, and rehabilitation addressed the musculature, but there was a gap in understanding how one affects the other. The current grant gives us an opportunity to begin filling that gap."

The mission of the Research Division is to understand how the movement system is affected by disease, injury, lifestyle, development and aging, and how movement can be used to promote health by enhancing physical function, activity and participation across the lifespan.

### **Grants Funded in Fiscal Year 2017-2018**

#### W. Todd Cade, PT, PhD

**Barth Syndrome Disease Mechanisms and** Therapeutic Development

Funded by NIH (NHLBI) R01

The main purpose of this study is to characterize skeletal and cardiac muscle pathology in human-derived, inducible pluripotent stem cells differentiated myocytes obtained from children, adolescents and young men with and without Barth syndrome.

### Ryan Duncan, PT, DPT

**Physical Therapy and Deep Brain Stimulation** in Parkinson Disease

Funded by NIH (NICHD) K12

This project will investigate the safety, feasibility and preliminary efficacy of a physical therapy intervention for people with Parkinson disease who have had deep brain stimulation. Our long-term goal is to understand if we can optimize physical therapy for this population in an effort to minimize balance and gait impairment.

### Gammon Earhart, PT, PhD, and Terry Ellis, PhD, PT, NCS (Boston University)

Funded by NIH (NICHD) R01

This grant will investigate the use of mobile health technology in conjunction with physical therapy to promote exercise and physical activity among people living with Parkinson disease (PD). All participants will receive individually tailored exercise programs and will be followed for a period of one year. Our long-term goal is to use the knowledge gained to help people living with PD remain active and engaged throughout their lives.

#### **Gretchen Myer, PhD**

Fat-Muscle Cross-Talk in the Injured **Rotator Cuff** 

Funded by NIH (NICHD) R21

Accumulation of fat in the muscles of the rotator cuff is a hallmark of chronic tears and is thought to contribute to persistent shoulder weakness and functional limitations. These experiments aim to define the nature of the interaction between fat and muscle in the rotator cuff with a specific focus on the role of fat phenotype. Knowledge gathered from this work will inform the development of therapies targeting fat in the rotator cuff to improve muscle function and quality of life for the nearly 10 million Americans with chronic rotator cuff tears.

#### Michael D. Harris, PhD

Muscle Geometry and its Influence on **Function in Patients with Developmental** Dysplasia of the Hip

Funded by NIH (NIAMS) K01

Developmental dysplasia of the hip (DDH) dramatically increases risk for early hip osteoarthritis. This project will be the first to investigate relationships among bone and muscle geometry, hip motion and loading during a variety of activities, and patient-reported outcomes. Our goal is to clarify the role of muscle in DDH symptomatology, mechanics and joint damage to inform optimized treatment strategies.

#### Michael D. Harris, PhD

**Muscle Performance after Periacetabular** Osteotomy for Hip Dysplasia — Pilot and **Feasibility Award** 

Funded by NIH (NIAMS) P30 and Lottie Hardy Caroline Charitable Trust

Hip preservation surgeries for developmental dysplasia of the hip (DDH) can relieve pain for many patients, but others develop additional symptoms, and long-term results do not demonstrate an effective offset of osteoarthritis. In this project, we will clarify the effect of hip preservation on muscle performance, which is not currently part of postsurgical assessment, and how it is altered at the time patients are cleared for return to full activity. By quantifying muscle atrophy, mechanical moment arms, neuromuscular activation patterns, joint reaction forces, functional strength and movement patterns, our goal is to identify why some patients respond well to surgery and others do not, as well as inform optimized surgical techniques and post-surgical rehabilitation.

#### Joe Klaesner, PhD

Funded by Missouri Spinal Cord Injury/Disease Research Program

The 1.42 million people in the U.S. who use a manual wheelchair for mobility face many barriers to physical activity, are less physically active, and have a greater risk for preventable secondary health conditions related to physical inactivity. An exercise device that is tailored to meet the needs of the broad spectrum of manual wheelchair users -safe, easy to use and available in the community—is desperately needed. We propose to develop an innovative, accessible exercise device called the WheelMill that can be used by manual wheelchair users independently in a community setting to improve their health and well-being.



### **Clinical Practice**

Residents of the western portion of the St. Louis region who need the top-quality care provided by the Washington University Program in Physical Therapy now have easier access. On Sept. 4, 2018, Washington University Physical Therapy, the Program's clinical practice, opened its first off-campus location in O'Fallon, Missouri.

"One of our goals is to enhance access and convenience to our patients who seek quality, one-on-one care that focuses on the movement problems that contribute to their symptoms," says Beth Crowner, PT, DPT, NCS, MPPA, division director of clinical practice in physical therapy. Discussions and planning for the new site, which is about 30 minutes west of the Central West End practice location, began a year earlier, and planners already are discussing further expansion to other locations in the next few years.

Patients are not the only beneficiaries of the new location. "Growth in the number of clinics also expands our ability to educate our students by having more clinical sites in which they can participate in part- or full-time clinical experiences," Crowner says. "We also will be exploring the ability to develop additional residency training opportunities as we expand the number of locations as well as providers who have attained board certification. Additional sites can also be used as sites for recruitment for research studies done by our research faculty doing clinical trials."

O'Fallon is a rapidly growing area, and the new practice is adjacent to Washington University Orthopedics and Progress West Hospital. Matthew Smith, MD, an orthopedic surgeon with Washington University Physicians, appreciates the convenience of the new physical therapy practice.

"If a patient I'm working with at Progress West needs physical therapy for rehabilitation, the new practice has been very helpful in getting them seen quickly," he says. He also notes that practice managers are working with him to set up a care path specifically for hip arthroscopy patients.

Mark Halstead, MD, a Washington University orthopedic specialist and medical director of the Progress West Clinic, refers his St. Charles County sports medicine patients to the new practice location.

"This is an outstanding physical therapy location in a growing community. They have excellent physical therapists who understand a broad spectrum of musculoskeletal injury. This facility is a great resource for my patients," Halstead explains.

The new practice began with two physical therapists on staff and added a third in January 2019. Services include musculoskeletal and orthopedic treatment, postoperative rehabilitation, temporomandibular joint dysfunction (TMJ), pelvic floor therapy and concussion rehabilitation.

"Along with the Central West End and Washington University Danforth Campus locations, we offer expert one-on-one care that includes movement system evaluation, a running clinic and DorsaVi motion guidance testing," says Jen Dubbert, PT, clinical practice manager. "We're open for business in O'Fallon with the same high-quality care our patients have come to expect and deserve from Washington University Physical Therapy."

The mission of the Clinical Division is to provide high-quality, evidence-based care with compassion. As movement system experts, our clinicians strive to diagnose movement impairments and deliver individualized treatment to optimize function, health and wellness across the lifespan.



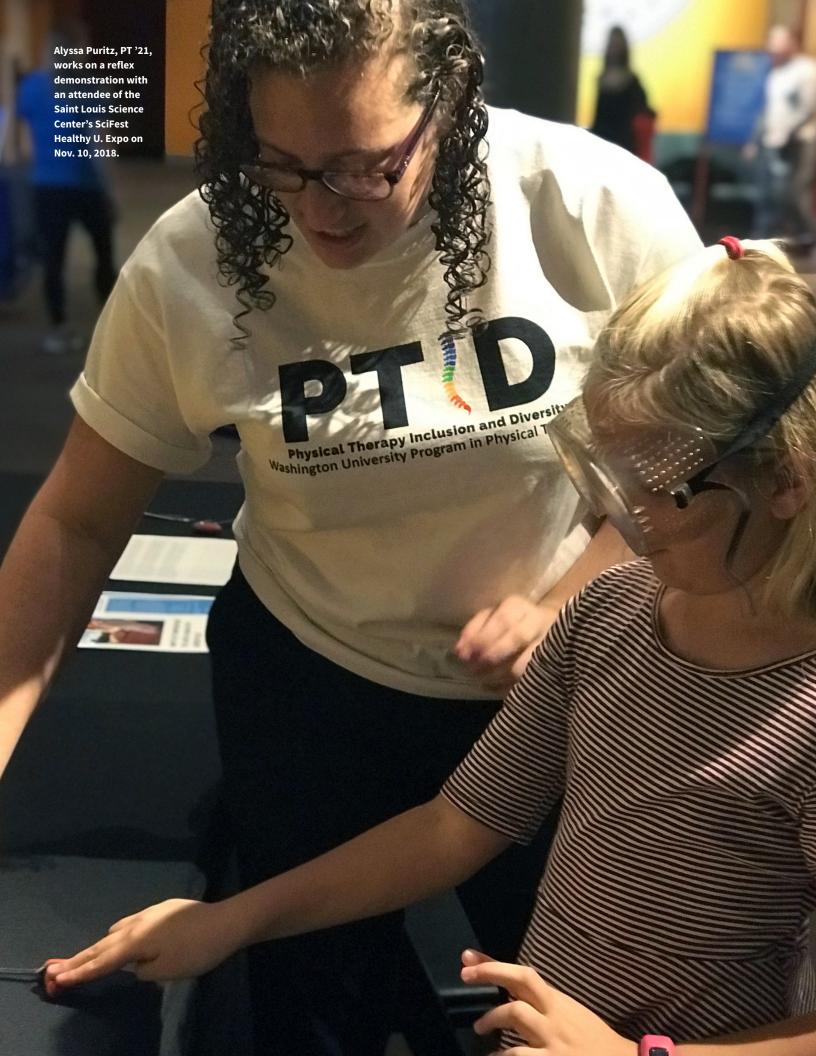
Carlee Hill, PT, DPT, works with a patient on movement correction for scapular upward rotation.



Jen Dubbert, PT (left), clinical practice manager, and Beth Crowner, PT, DPT, NCS, MPPA, clinical practice division director.



Gym space in the new clinic supports patient rehabilitation.



# **Community Service**

"By welcoming and embracing people from all backgrounds into physical therapy, we will be better able to serve all people," says Gammon Earhart, PT, PhD, director of the Washington University Program in Physical Therapy. Earhart's basic premise is the backbone of Physical Therapy Inclusion and Diversity (PTID), a group of faculty, staff and students working to foster diversity and inclusion within the Program.

The group promotes initiatives that enhance collaboration and academic success among students of varied backgrounds by working with other Washington University diversity initiatives and with the broader community. Established in 2016 with seven members, more than 30 individuals now belong to the group. "PTID is powered largely by students, and I am encouraged and inspired by their passion and commitment," Earhart says.

Jadean Hoff, a second-year physical therapy student from Florissant, Missouri, joined PTID as soon as she arrived on campus. "I remember Dr. Earhart telling my class about it at the very beginning of the semester, and I knew I would join," she says. "I've really enjoyed being a member of PTID. It's allowed me to get to know other members better, including some of my classmates, students in other years, Dr. Earhart, and the other faculty and staff. It's also been a great outlet to promote a greater sense of community within the program."

During her first semester in the Program, Hoff decided to spearhead PTID's participation in SciFest, a series of family-oriented weekend expos hosted by the Saint Louis Science Center. She chose the Healthy U expo, held on Nov. 10, 2018, which was focused on health and wellness. "I wanted to keep it simple and fun for the event," she says. "Kids aren't going to be interested in us evaluating their specific movements, so I thought strength, reflexes, posture, balance and a game throwing velcro balls onto a dart pad would be great. The event itself was so much fun! I'd say about 15 students from the Program volunteered."

Another example of PTID's community work involves its annual partnership with the BJC School Outreach and Youth Development program, which brings local high school students from diverse backgrounds to campus for National Biomechanics Day. Plans for the 2019 observance on April 10 are underway, and Earhart notes the event "offers students a window into careers in physical therapy and movement science and provides them with hands-on learning experiences."

Another key initiative is the development of scholarships to recognize and reward students who understand the importance of diversity and exemplify the welcoming, respectful and highly collaborative culture of the Program in Physical Therapy, Earhart adds. "Enhancing diversity within our profession is absolutely critical, as diversity brings with it a wealth of perspectives, experiences and approaches that will strengthen our profession."

Our students build leadership skills and improve their community through several outreach efforts. This past year, students, faculty and alumni volunteered to support local, national and international organizations.



Yaqiong Wang, PT '20, demonstrates a strength test with a young SciFest attendee.





**Students Hannah Acton** and Annika Hayman, both PT '19, participated in the 2018 Girls on the Run race. The Program's clinical practice is a sponsor for the organization, and students organize cheer stations at the race each year.



**Faculty members Patty** McGee, PT, DPT, PCS, and Suzy Cornbleet, PT, DPT, pose during a break from class on Red Nose Day.

## Named Scholarships

The Timothy B. Burnight Scholarship is awarded to a first-year student who demonstrates exceptional academic promise. Emma Watson, PT '21

The Susan and Robert Deusinger Scholarship is awarded to a student who has demonstrated exceptional and enduring leadership in the classroom, clinic and/or community. Alexander Henderson, PT '20

The Kathleen Dixon Annual Scholarship is a need-based scholarship awarded to two students each year. Nathan Pang, PT '20, and Kylie Iasillo, PT '20

The Anne Furlong Scholarship is awarded to a student who demonstrates outstanding academic performance in their undergraduate work. Daniel Scribner, PT '21

The Gina Prescot Earnest Scholarship is awarded to a student who demonstrates both exceptional academic and clinical performance, and outstanding professional growth and promise.

The Guebert/Lake Scholarship is awarded to a student who demonstrates success in the areas of scholarship, clinical promise, class leadership and service to the community. Haley Brogan, PT '20, and Sarah Flood, PT '20

The Robert J. Hickok Scholarship is awarded to a student who has demonstrated exemplary personal integrity, consistent professional commitment, leadership and excellence in clinical work. Brandi Vollmer, PT '20

The Nancy Palumbo Memorial Scholarship is awarded to third-year students who has shown passion and enthusiasm for the Program in Physical Therapy inside and out. Aimee Smith, PT '19, and Vincent Ann, PT '19

The Steven J. Rose Diversity Development Award is awarded to students who have demonstrated academic excellence and contributed to educational diversity in the Program in Physical Therapy. Emily Diaz, PT '20, Jake Raecker, PT '20, Jordan Miles, PT '19, Vincent Ann, PT '19, Bailey Cole, PT '21, and Lindsay Durand, PT '21

The Sahrmann Assistantship provides funding for a student to conduct research related to musculoskeletal impairments. Lindsay Durand, PT'21

The Shirley Sahrmann Scholarship is awarded to an incoming first-year student with research experience. Hayley Reed, PT'21

The Joye Siroky-Baumann Scholarship is awarded to a student with academic promise. Nicole Erbes, PT '19, and Nicole Youngs, PT '19

### **Donor Honor Roll**

### July 1, 2017 - June 30, 2018

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## **New Faculty**



### Steven Ambler, PT, DPT, PhD, MPH

BS, University of Illinois, '02 DPT, Washington University in St. Louis, '05 MPH, University of South Florida, '14 PhD, University of South Florida, '16

Steven Ambler, PT, DPT, PhD, MPH, is the associate director of professional curriculum. His areas of research are student success, access and affordability in academic physical therapy, and more broadly, across higher education. Ambler's teaching and clinical focus includes professional formation in the health professions, and teaching the movement system for the prevention and management of non-communicable health conditions.

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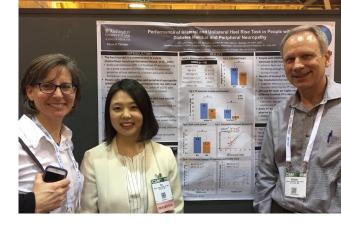
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Movement Science PhD student Hyo-Jung Jeong, PT, and her mentors Mary Hastings, PT, DPT, MSCI, and Michael Mueller, PT, PhD, FAPTA, stand in front of her poster at 2018 CSM in New Orleans, La.



### **Donor Honor Roll** continued

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# **Class Notes and Program Honors**



**WUPT faculty pose** for their annual selfie at the 2018 Commencement ceremony.



Monica Bell, PT '19, and Michael Mueller. PT, PhD, FAPTA, at the APTA NEXT Meeting. The Program received the **Honorable Mention for** money raised in the VCU Marquette Challenge to support the Foundation for Physical Therapy.

Steve Ambler, PT, DPT '05, was accepted as a member of the inaugural class of the Teaching Scholars Program at WUSM.

Several Program in Physical Therapy faculty are invited participants in ongoing APTA work to advance the Movement System:

- Nancy Bloom, PT, DPT, MSOT, is serving on the Diagnosis Work Group.
- Tammy Burlis, PT, DPT, CCS, is representing the Cardiovascular and Pulmonary section on the Movement System Examination/Task Analysis Work Group.
- Barb Norton, PT, PhD, FAPTA, is a member of the core Movement System Task Force and a liaison to the Diagnosis Work Group.

Megan (née Maupin) Burgess, PT, DPT '10, and Nathan Burgess welcomed their second son, Hunter Anderson, on April 30, 2018. He joins big brother, Preston. They live in St. Louis.

Tammy Burlis, PT, DPT, CCS, was selected to receive the 2018 Florence P. Kendall Service Award from Saint Louis University. This award recognizes a physical therapist who has performed outstanding service to the health care community in the spirit of Florence P. Kendall.

Ruth Chimenti, PT, DPT '09, was awarded a K99 by NIH, NIAMS (K99AR071517) in July 2017. The title of the award is "Mechanism-based treatment approach to chronic tendinopathy."

Jesse Civello, PT, DPT '13, is now a boardcertified orthopedic physical therapy clinical specialist.

Barb Davis, PT '05, recently finished her post professional DPT through Des Moines University and graduated in May 2018.

Jon Dettmer, PT, DPT '17, presented at the Indiana Chapter of the American Physical Therapy Association on Blood Flow Restriction Therapy.

Linda Van Dillen, PT, PhD, FAPTA, was selected to join the Board of Trustees of the Foundation for Physical Therapy. She will begin her term of service in January 2019.

Ning Ding, PT '18, is the recipient of the Section on Women's Health sponsored course scholarship.

Post-doctoral researcher Brecca Gaffney, PhD, received the prestigious L'Oreal For Women in Science Fellowship.

Congratulations to Alex Henderson, PT '20, and Jake Raecker, PT '20. They were selected to receive MPTA Student Special Interest Group Scholarships to support travel to a national conference based on their display of "exceptional drive and involvement in the physical therapy profession."

Natalie Runge Hogan, PT, DPT '15, married Pete Hogan on June 23 and passed the OCS test this year.

Cameron Jadali, PT, DPT '16, is now a boardcertified neurologic physical therapy clinical specialist.

Andwele Jolly, PT '05, was selected for a prestigious Eisenhower Fellowship. Andwele traveled to Rwanda and Australia for his fellowship studies.

Rania Karim, DPT '10, was recognized by APTA as an Emerging Leader. She was nominated by the academy for her significant contributions to the advancement of the physical therapy profession, specifically in the area of geriatrics.

**Catherine Lang, PT, PhD,** received the Marian Williams Award for Research in Physical Therapy.

Four students are serving as Program representatives in the Missouri Student Special Interest Group of the MPTA: Bob Lind, DPT '19, Jake Raecker, PT '20, Mindy Momeyer, DPT '21, and Kelsey Crispeno, DPT '21.

**Gretchen Meyer, PhD,** was named Associate Director of the Structure and Strength Core of the Musculoskeletal Research Center at WUSM.

**Lauren Mills, PT, DPT '16,** is now a board-certified sports physical therapy clinical specialist.

Michael Mueller, PT, PhD, FAPTA, was selected to receive the 2018 Career Excellence Award in Biomechanics Research from the Biomechanics Special Interest Group (SIG) of the APTA Section on Research.

WUPT faculty Michael Mueller, PT, PhD, FAPTA, Mary Hastings, PT, DPT, ACT, and Dave Sinacore, PT, PhD, FAPTA, received the APTA Jack Walker Award. This award recognizes one paper per year published in Physical Therapy (PTJ) that presents novel and innovative research related to patient care and advancement of clinical science. Their award-winning paper is "Physical Training and Activity in People With Diabetic Peripheral Neuropathy: Paradigm Shift" by Kluding PM, Bareiss SK, Hastings M, Marcus RL, Sinacore DR, Mueller MJ. Phys Ther. 2017 Jan 1;97(1):31-43.

Aimee Smith, PT '19, was recognized in the September Missouri Physical Therapy Association Student Spotlight.

Tracy Spitznagle, PT, DPT, WCS, was chosen to receive APTA's inaugural Humanitarian Award, which recognizes a member whose demonstrated leadership and outstanding humanitarian volunteerism have improved the quality of life of individuals worldwide. Spitznagle also delivered the keynote address at the Opening Recognition Ceremony for Clinical Specialists at CSM 2018 and will receive the 2019 Distinguished Alumna of the Year Award from the Marquette University College of Health Sciences.

PhD student **Kim Waddell** was selected to receive a 2018 Outstanding Citizenship Award from the WUSM Clinical Research Training Center.

**Su Wang, PT, DPT '08,** is a proud PT and performance committee member for the USA Olympic surf team. Surfing will be in the Olympics for the first time in Tokyo in 2020.



George Nelson, PT '20, assesses a Well Elderly Lab participant.

# **Congratulations, Class of 2018!**



# Washington University School of Medicine **Program in Physical Therapy**

CB 8502 4444 Forest Park Ave., Suite 1101 St. Louis, MO 63108-2212 **Phone:** (314) 286-1400 • **Fax:** (314) 286-1410 **Web:** pt.wustl.edu

