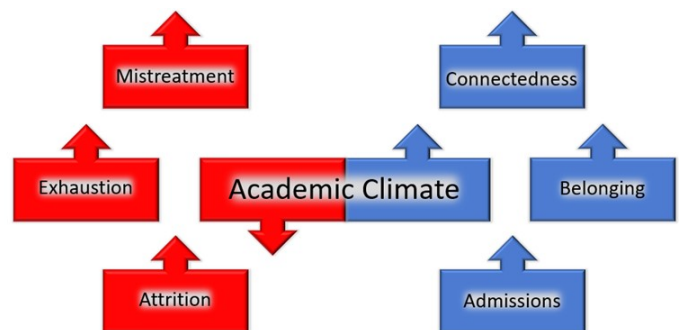


University of Iowa Department of Physical Therapy & Rehabilitation Science

Message from the Chair

Diversity, Equity, and Inclusion: What Should Come First?

An article in Forbes (2020) suggested that America is experiencing “Diversity Fatigue and Resistance.” I was dismayed to hear that many diversity, equity, and inclusion programs fail because they are perceived to be inauthentic because they are created only in response to public mishaps, and because they focus on diversity (increasing numbers) before developing an environment for people from various racial, ethnic, and social backgrounds to feel connected and included in academia. Increasing diversity (numbers) is laudable, but may also be capricious if the environment promotes mistreatment, exhaustion, excessive debt, and high attrition among minoritized groups (see figure).



My initial despondency about the Forbes article transformed into optimism after the 100th academic department signed up for our national benchmarking research trial this year. For the first time in our profession’s history, we had sufficient data to probe into how learners from various minoritized groups viewed the physical therapy academic learning environment. At the recent Educational Leadership Conference, we presented the first national data on mistreatment, exhaustion, tolerance for ambiguity, burnout, student-faculty interactions, empathy, willingness to serve underserved populations, perfectionism, psychological well-being, and student debt, as viewed by individuals in key minoritized groups: racial and ethnic minorities, sexual and gender minorities, people with disabilities, and people from socio-economic disadvantaged backgrounds.

Through the Benchmarking Research Advances Value in Education (BRAVE) group (PTJ 2021, 2022), department chairs from around the country support that “it is hard to manage what we do not measure.” Our desire, through this grass roots benchmarking initiative, is to foster the development of physical therapy academic environments that will support diversity and assist us to meet the healthcare needs of all people. Thank you to the BRAVE group and all those who support this important initiative.

Rich Shields PT, PhD, FAPTA

Chair and Departmental Executive Officer
Department of Physical Therapy and Rehabilitation Science

Alumni Updates

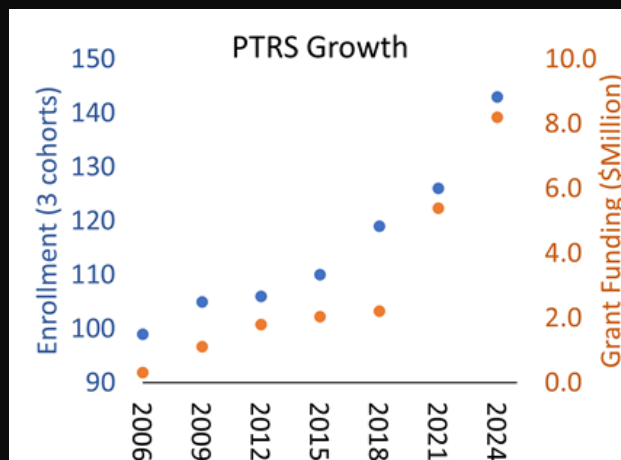
Alumni, we want to hear from you...please scan this QR code to keep us posted on all your latest personal and professional milestones!



A New Home for Iowa Physical Therapy

The University recently unveiled its 10-year facilities master plan, including a new future home for Physical Therapy and Rehabilitation Science. The West Campus Academic Building will be built on the footprint of the existing South Quad on Melrose Avenue. Joining us in this state-of-the-art learning and research facility will be the Department of Communication Sciences and Disorders and the Department of Health and Human Physiology.

This new facility will provide critical space for continued advancement of our academic and research missions. Since 2006 we have experienced 33% growth in enrollment and a nearly 25-fold increase in grant funding. We have prioritized efficient use of our current facility, which was “right-sized” for our 2006 operations but is now beyond capacity. Future growth depends upon additional space, and the West Campus Academic Building will equip us for the next era of academic, clinical, and research success.



UI Reception at CSM 2023

University of Iowa PT alumni and friends are invited to a reception at the 2023 APTA Combined Sections Meeting in San Diego. If you'll be at CSM, please plan to attend!

February 23, 2023
7:00-10:00 PM
Fareway Room & Patio

Feast & Fareway Coronado
2000 Visalia Row
Coronado CA 92118

Iowa Educational Summit: Facing Academic and Clinical Challenges

On September 16, students, faculty, and members of Iowa's PT clinical community attended the 9th-annual Iowa Educational Summit. This year's event focused on "Challenges in PT Academic Programs and Clinical Practice: Preparing for 2030." Leaders from PT education and practice provided their insights into the most pressing issues facing the profession today, then engaged with attendees in a wide-ranging discussion of key topics.



Dr. Rich Shields shared new data from the PT Education Benchmarking Study that questions whether academic physical therapy is creating a workforce that is prepared to treat complex patients and to meet societal needs.

Dr. W. Todd Cade, Division Chief of the PT education program at Duke University, highlighted strictures in the physical therapist PhD training pipeline as a key limiter of rehabilitation research. Dr. Sandra Burns, Assistant Professor at Briar Cliff University, identified student debt as a leading challenge facing today's graduates and called for more cohesive cost-reduction efforts among educational, regulatory, and clinic stakeholders.

Mike Horsfield PT, MBA, OCS, CEO of Rock Valley Physical Therapy, identified reimbursement-related economic pressures as a key challenge facing clinical practice today, particularly when therapists treat complex patients. Jason Horras DPT, VP of 21st Century Rehab, spoke about the need for debt relief strategies for new graduates, noting the challenges of meeting staffing needs in rural settings. Joe Nelson DPT, owner of Team Iowa Physical Therapy, echoed the workforce challenges facing clinics and identified several work-life balance strategies that have been successful in his organization.

A recurrent theme among all speakers was the need for "chasm-crossing" among academic, clinic, and regulatory stakeholders, to focus shared effort and resources on universally experienced challenges. Using an online poll, summit attendees identified student debt and clinical reimbursement limits as especially critical challenges for the future.

The next Educational Summit will be held in September, 2023.

Alumni Spotlight: Justin Bonzato, DPT

The tripartite mission of Iowa's PT program is to advance the health of humankind via excellence in education, discovering new knowledge, and developing leaders in health care and science. Sometimes it is the newest members of our professional community, the DPT students, who contribute novel insights into what leadership really means.

2021 graduate Justin Bonzato, DPT came to our Department with unique leadership experience as a veteran of the United States Marine Corps. His class selected him to share his perspective on leadership at their graduation ceremony in December.

As he explained in his graduation address, Justin enlisted in the Marine Corps at age 18, eager to serve his country and "defend those who cannot defend themselves". He served for the next 8 years and was deployed overseas 4 times, eventually becoming a Marine Special Operator in the Marine Rangers. His final two deployments were in Afghanistan, where he and his unit trained and fought alongside the Afghan military.



Relational, not Transactional

Justin identified a key lesson about leadership during his time as an active-duty Marine: leadership is about service, and service is relational, not transactional.

The best leaders he encountered in the Marines were servant leaders, willing to come alongside their troops in the most difficult, dangerous circumstances. This type of leader put the needs of others before self, investing in relationships without expecting a reward. Through their quiet professionalism, servant leaders in the Marine Corps promoted group cohesion, which "improved troop welfare and ultimately contributed to mission success."

In his address, Justin emphasized that in healthcare, servant leadership is both rare and needed. Modern healthcare can impose transactional pressures on therapists, pushing them to focus on efficiency and measurable outcomes. Careful listening to patients' needs, a time-consuming task, can lose its rightful emphasis. But patients are looking to physical therapists for leadership as they journey toward better health and function. To be effective servant leaders, physical therapists face daily challenges to practice relationally, not transactionally, accepting the additional burden of time and energy that this requires.

Fulfillment through Service

While deployed in Afghanistan, Justin invested time in forging connections with Afghan soldiers and interpreters, developing friendships based on common human experiences and shared hardship and danger. Amidst it all, Justin found that "my time in Afghanistan was fulfilling because it was relational, not transactional."

He urged all those in attendance to remember that a physical therapist will encounter "difficult" patients whose care may require resources of time, patience, and compassion that exceed purely transactional boundaries. Serving these patients can require sacrifice. By accepting that professional call to service, physical therapists can lead their patients back toward health and wholeness. And as Justin learned through his service as a Marine, that kind of sacrifice can be a powerful source of fulfillment.

PTRS Research Day – Student Support for Ukraine

Each April, the Physical Therapy and Rehabilitation Science Research Day provides DPT2 students with a capstone experience for their research projects. In addition to giving poster presentations of their own research findings, students interact with investigators whose discoveries are advancing healthcare practice.

This year's event highlighted a video presentation by Igor Dubey, PhD, Dr. Sci, a scientist from Kyiv, Ukraine. His daughter, Olga Dubey, MD, is a PhD student in Dr. Rich Shields' Human Movement Control laboratory. Dr. Dubey and his wife Larysa, also a biomedical scientist, were forced to evacuate their home under difficult circumstances. Dr. Dubey provided poignant insight into the effect of the war upon scientists in Ukraine, who have experienced destruction of facilities and research materials – and even some who have lost their lives. Dr. Dubey shared moving personal stories of his family's evacuation, as well as his persistent hope for the future of Ukrainian science.



Igor Dubey PhD, Dr. Sci

The Research Day keynote address was provided by Dr. Raul Villacreses, Clinical Assistant Professor of Internal Medicine – Pulmonary, Critical Care and Occupational Medicine at the University of Iowa Hospitals and Clinics. Dr. Villacreses's research demonstrated that air trapping during expiration is a persistent sequela of COVID-19 that is independent of initial infection severity. By understanding the potential role of small airway disease in their "long-COVID" patients, physical therapists may be able to offer more precise, effective treatments.

After the conclusion of Research Day, the DPT Student Organization made a \$3,000 donation to Revived Soldiers Ukraine, a 501(c)(3) U.S. charity that provides rehabilitative care to veterans in Ukraine. The students expressed their hope that their contribution could help improve rehabilitation outcomes for survivors of the war. More information about Revived Soldiers Ukraine can be found at <https://www.rsukraine.org/>. (continued next page.)

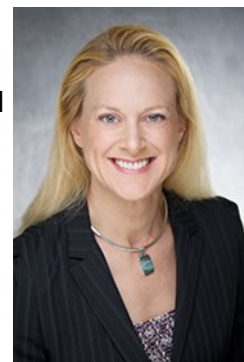
PTRS Faculty Promoted

We are proud to announce that two members of our faculty attained promotion in July of 2022:



Laura Frey Law, MPT, MS, PhD was promoted to Professor of Physical Therapy and Rehabilitation Science. She has been a member of the faculty since 2005 and is the course director for Health Promotion and Wellness, Critical Inquiry II: Rehabilitation Research, and Critical Inquiry III: Clinical Application. Her Neuromuscular Biomechanics Laboratory investigates pain heterogeneity according to sex, psychological traits, genetics, activity level, and other individual factors. She also conducts strength and fatigue research in conjunction with the Virtual Soldier Research (VSR) group, developing mathematical models of strength and fatigue for various patient populations. She is currently multi-site PI of the Clinical Coordinating Center of the Acute to Chronic Pain Signatures (A2CPS) program and the Metabolic Biomarkers for Fibromyalgia study, both funded by the National Institutes of Health.

Shauna Dudley-Javoroski PT, PhD was promoted to Clinical Associate Professor of Physical Therapy and Rehabilitation Science. She joined the faculty in 2017 and is the course director for Inter-Professional Education II: Teaching Neural and Musculoskeletal Evaluation Principles. Dr. Dudley-Javoroski is an instructor in Activity Based Neural and Musculoskeletal Plasticity and coordinates DPT student involvement in the multi-college, 3-semester interprofessional education (IPE) course sequence. She is a team scientist within Dr. Richard Shields' Human Movement Control/Performance Laboratory and an investigator in the national PT Education Benchmarking Study. This research is funded by the Carver College of Medicine and the American Physical Therapy Association - Academy of Education.



Physical Activity: A Staple in the Lives of our DPT Students

Our curriculum emphasizes the essential role that daily physical activity plays in health, cognitive function, and emotional wellbeing. Our students have embraced that message in a big way since the start of the COVID pandemic, when outdoor activities offered a safer setting to take a break from schoolwork.

In between classes and especially during their lunch break, our students can be found in the greenspace between Medical Education Building and Hardin Library, playing a wide variety of sports and games. They affectionately call these breaks “recess”, and the infectious energy they generate has been a huge highlight for our Department during the past 2 years.



Spikeball is a current favorite game, in which players circle up and spike a handball into a small trampoline. Another favorite is Soccer Bopper, which starts out like a nice enough game of hackysack with a volleyball, but then devolves into an all-out dodgeball melee.

The department procured new weatherproof patio furniture just steps away from the classrooms, creating a space where students can share meals together outdoors. Any time class isn't in session and the weather is decent, our students can be found there, enjoying each other's company and taking a break from the hard work of PT school.



Having nearby greenspace has given our students critical access to daily physical activity – and all its ancillary benefits to physical and emotional health. One of the most satisfying things about the emergence of “recess” in our Department’s daily routine is that it was entirely student-initiated. They internalized lessons about the power of daily exercise and they found creative ways to “walk the walk.”

Heading into a cold Iowa winter, we won't be surprised if we see them playing the occasional game of Soccer Bopper in ankle-deep snow. Their energy (and their competitive streak) seem boundless.

DPT2 Class Attends CSM 2022

In February the DPT2 class attended CSM 2022 in San Antonio, TX. As part of their professionalism development training, they attended poster and platform sessions and engaged with APTA career resources.



Congratulations, Class of 2021!

Commencement exercises for our department's 80th graduating class took place on December 16, 2021. Dr. Peter Snyder, Associate Dean of Faculty Affairs and Development, provided the keynote address.

Thanks to the generosity of many individual and corporate donors, each student in the class received Departmental scholarship support during their studies. Recipients of these awards are:

- **Alumni Scholarships:** Isaac Holtz
- **Boldt Family Professional Service Award:** Maria Deeter
- **Frank and Marion Hazelton Memorial Scholarships:** Jack Moss, Dallyn Putz
- **IEND Trainee Scholarship Award:** Carter Stigge, Hope Yates
- **Jean Hammill Scholarship for Physical Therapy:** Courtney Ralfs
- **Kepros Physical Therapy Scholarship:** Garrett Olson
- **Kincart Family Rural PT Scholarship:** Mackenzie Haag
- **Louis & Dorothy Laubenthal Memorial Scholarships:** Allison Moser, Taylor Quandt, Katie Riedell, Zoe Sirotiak
- **Marilyn M. McCoid Scholarships:** Aaron Buelow, Andrew Flaherty, Brett Kowalczyk
- **Mary Lou Fairchild Clinical Excellence Award:** Dallyn Putz
- **Norman and Ruth Goldman Scholarships:** Kelly Crowley, Ashley Espinosa, Courtney Ralfs, Kayla Stolfa, Nicole Varichak
- **Phil & Marge Abood Scholarship:** William Carr, Kelly Crowley, Joshua Long, Jack Moss, Sarah Rohloff, Brett Velasquez, Marisa Zajac
- **Rock Valley Physical Therapy Scholarship:** Kessandra Kuyper
- **Tracy Dahl Memorial Scholarships:** Amanda Corrin, Mackenzie Haag, Jacob Kaufman, Zachariah Kaufman, Brett Kowalczyk, Benjamin Mardis, Caroline Marnin, Courtney Ralfs, Elizabeth Rankin, Katie Riedell, Madeline Schneider, Nicole Varichak, Brett Velasquez
- **Experiential Scholarship Awards:** Aaron Buelow, William Carr, Amanda Coffin, Kylee Cooksley, Kelly Crowley, Maria Deeter, Ashley Espinosa, Andrew Flaherty, Mackenzie Haag, Jacob Kaufman, Anthony Kollasch, Brett Kowalczyk, Kessandra Kuyper, Joshua Long, Benjamin Mardis, Caroline Marnin, Emily Menges Jack Moss, Elyse Prescott, Dallyn Putz, Taylor Quandt, Courtney Ralfs, Sarah Rohloff, Madeline Schneider, Dakota Streit, Robert VanderLinden, Nicole Varichak, Brett Velasquez, Marisa Zajac
- **Leadership Scholarship Awards:** Justin Bonzato, Andrew Capesius, Kasey Dougherty, Shawn Graves, Tyler Rogers, Hope Yates
- **Service Awards:** Ashley Espinosa, Joshua Long
- **Professional Development Awards:** All members of the class received scholarship support to attend CSM 2021.

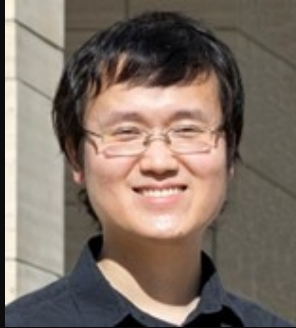
In addition, several special scholarship awards were announced at the graduation ceremony:

- **Judy Biderman Professionalism Scholarship:** Justin Bonzato
- **Byron E. Bork Dedication to Education & Service Scholarship:** Elyse Prescott
- **David G. Gerleman Doctor of Physical Therapy Award:** Dakota Streit and Aaron Buelow
- **First in Family Scholarship:** Shawn Graves

Congratulations to all our 2021 graduates, and best of luck in your PT careers!

PhD Graduates Begin Research and Teaching Careers

The Department is proud to recognize three colleagues who have recently received the PhD degree in Physical Rehabilitation Science:



Jinhyun Lee, DPT successfully defended his PhD dissertation in July. Dr. Lee was mentored by Dr. Rich Shields. His dissertation was entitled “Impact of Movement Control, Body Composition, and Stress on Cognitive Function in Humans.” Dr. Lee has accepted a position in the Department of Health Sciences and Human Performance at the University of Tampa.



In October, **Kristin Johnson PT, DPT** successfully defended her dissertation, entitled “Mechanical, Neural, and Hormonal Influences on Neural Regulation, Plasticity, and Precision in Movement Control.” Dr. Johnson was mentored by Dr. Rich Shields, and plans to pursue postdoctoral research training opportunities.



In November, **Joseph Lesnak, DPT** defended his dissertation, entitled “Sex, Drugs, and Physical Activity: Their Role in the Protection Against and Production of Muscle Pain.” Dr. Lesnak was mentored by Dr. Kathleen Sluka and will be taking a postdoctoral research position at the University of Texas at Dallas.

PhD Students Receive Foundation Scholarships

Two current Iowa PhD students have received Promotion of Doctoral Studies (PODS) scholarships from the Foundation for Physical Therapy Research. These highly competitive awards recognize the potential shown by these individuals to make important contributions as future rehabilitation researchers.



PODS I - \$7,500 award:
Adam Janowski, DPT, is mentored by Dr. Kathleen Sluka. Dr. Sluka’s Neurobiology of Pain Laboratory works to improve the management of pain for people with musculoskeletal pain conditions by discovering the underlying mechanisms that lead to chronic pain, discovering new therapies for pain management, and improving the use of currently available treatments for pain.



PODS II - \$15,000 award:
Andrew Post, DPT, is mentored by Dr. Ruth Chimenti. Dr. Chimenti’s Movement, Imaging and Rehabilitation Laboratory works to enhance the evaluation and treatment of tendon pain, with a focus on altered movement strategies, tissue pathology identified via imaging, sensitization of the central nervous system, and psychological factors.

Faculty Publications for 2021-2022

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Bisson JA, Dupre JR, **DeJong SL**. Training of isometric force tracking to improve motor control of the wrist after incomplete spinal cord injury: a case study. *Physiother Theory Pract*. 2022 Mar 14:1-12. Online ahead of print. PMID: 35287525.

Bringman CL, **Shields RK**, **DeJong SL**. Corticospinal modulation of vibration-induced H-reflex depression. *Exp Brain Res*. 2022 Mar;240(3):803-812. PMID: 35044475.

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Research Grant Support

Ruth Chimenti PT, PhD **Assistant Professor**

National Institutes of Health: \$739,529 (PI)
Mechanism-based Treatment Approach to Chronic Tendinopathy Pain

American Medical Society for Sports Medicine: \$149,972 (Multi-PI)
Safety of Ultrasound-Guided Tenotomy for Achilles Tendinopathy and Feasibility of a Standardized Ultrasound Imaging Protocol, A Multi-Site Study

Johns Hopkins University/NIAMS: \$263,067 (Multi-PI)
A Sequenced-Strategy for Improving Outcomes in Patients with Knee Osteoarthritis Pain

Stacey DeJong, PT, PhD, PCS **Assistant Professor**

University of Iowa Institute for Clinical and Translational Science: \$50,000 (PI)
Noninvasive Spinal Neuromodulation to Improve Upper Limb Recovery after Stroke

Laura Frey Law, MPT, MS, PhD **Professor**

National Institutes of Health: \$1,501,709 (Co-PI)
Metabolic Biomarkers for Fibromyalgia

National Institutes of Health: \$14,367,913 (Multi-PI)
Clinical Coordinating Center for the Acute to Chronic Pain Signatures Program

Richard Shields, PT, PhD, FAPTA **Professor**

National Institutes of Health: \$1,574,628 (PI)
Musculoskeletal Plasticity after Spinal Cord Injury

National Institutes of Health: \$1,575,397 (PI)
Long Duration Activity and Metabolic Control after Spinal Cord Injury

University of Iowa Carver College of Medicine: \$40,000 (PI)
Benchmarking Tolerance for Ambiguity to Understand the Medical and Physical Therapist Student Educational Experience

Kathleen Sluka, PT, PhD, FAPTA **Professor**

National Institutes of Health: \$2,546,756 (PI)
Role of Macrophages in Activity-Induced Pain and Analgesia

National Institutes of Health: \$1,501,709 (Co-PI)
Metabolic Biomarkers for Fibromyalgia

National Institutes of Health: \$8,160,433 (Multi-PI)
Fibromyalgia TENS in Physical Therapy Study (TIPS): An Embedded Pragmatic Clinical Trial

National Institutes of Health: \$14,367,913 (Multi-PI)
Clinical Coordinating Center for the Acute to Chronic Pain Signatures Program

Jason Wilken PT, PhD **Associate Professor**

Congressionally Directed Medical Research Programs: \$2,437,788 (Multi-PI)
Comparative Effect of Commercially Available Custom Dynamic Orthoses

Department of Defense: \$349,225 (PI)
OP210037 - Carbon Fiber Orthosis Cuff Design

Congressionally Directed Medical Research Programs: \$3,969,294 (Multi-PI)
From Opinion to Evidence: Multi-site Evaluation of Custom Dynamic Orthosis Best Practices



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