Joint Connections

Fall 2023

Highlights from UNMC's Physical Therapy Program

In This Issue

Physical Therapy Program

Department of Health and Rehabilitation Sciences

College of Allied Health Professions

University of Nebraska Medical Center

984420 Nebraska Medical Center
Omaha, Nebraska 68198

Contact Us:
pteducation@unmc.edu
www.unmc.edu/alliedhealth/pt

Pictured (l-r): Associate Professor Elizabeth Wellsandt, PT, DPT, PhD, OCS and Alyx Jorgensen, DPT

Alyx Jorgensen, DPT, recipient of prestigious award

Alyx Jorgensen, PT, DPT (CAHP PT Class of 2023) was recently named a recipient of the American Physical Therapy Association's (APTA) Mary McMillan Scholarship award, considered the most prestigious award given to a student by the national organization. She is one of six DPT/PTA students from across the country to receive the award. Jorgensen was nominated for this distinguished scholarship award while in her third and final year as a student in the UNMC Doctor of Physical Therapy (DPT) Program.

In addition to Dr. Jorgensen's superior scholastic performance, criteria consideration for this award was based on productivity and evidence of potential contributions to the profession of physical therapy.

As a DPT student, Jorgensen was concurrently enrolled part-time in the Patient-Oriented Research track of the Medical Sciences Interdepartmental Area PhD Program under the mentorship of Elizabeth Wellsandt, PhD, associate professor in UNMC's Physical Therapy Program.

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Message From the Program Director, Betsy J. Becker, PT, DPT, PhD

Betsy J. Becker, PT, DPT, PhD

Imagine a future where health and movement unite to redefine the possibilities! The UNMC Physical Therapy Program is committed to advancing health for all by optimizing movement through our education, research, and service. Our Fall 2023 newsletter highlights achievements over the past several months.

The DPT curriculum prepares graduates by focusing on clinical reasoning, team-based care, evidence-based practice and PT in society so graduates can advance the profession. This May 2024, we will recognize the 20th Doctor of PT graduating class, marking another exciting milestone on the heels of celebrating the 50th class last year.

The orthopedic PT residency continues to advance specialty practice with Nebraska Medicine, our clinical partner. The application cycle begins soon for our next cohort.

The PT faculty lead the charge with scholarly pursuits that shape evidence and drive change in clinical and educational practices. We just completed a DPT summer research elective where 15 students engaged with faculty projects. In addition, 4 graduate students continue their education with dedication to pursue Masters and PhD degrees.

Engaging in impactful professional service reflects the ethos of UNMC. Examples include faculty writing specialty certification standards and serving as officers in professional organizations. In addition, we strengthen the faculty-student relationships through continuing education offerings, pro-bono clinical work, legislative advocacy, and service to the Omaha- and Kearney-area communities.

Jorgensen receives prestigious award *Continued from page 1*

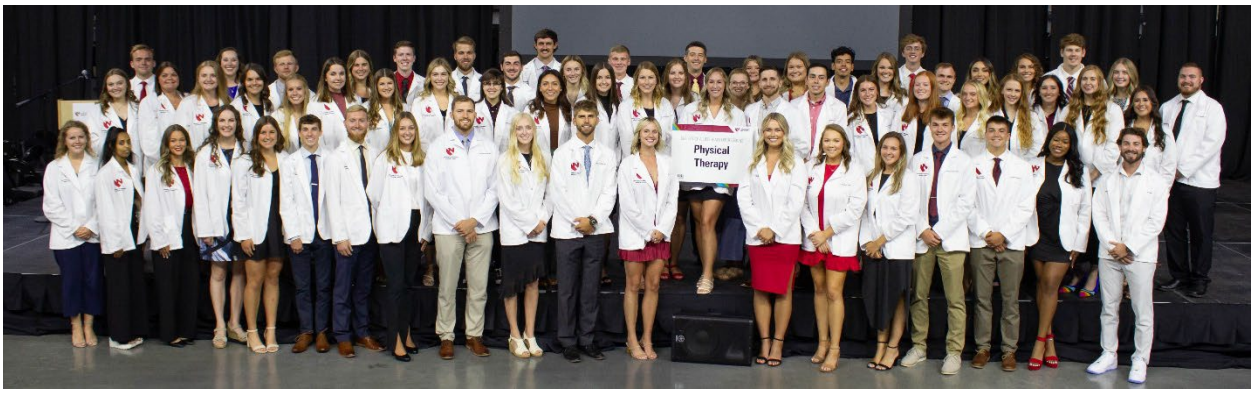
Dr. Jorgensen's primary research interest is biomechanical outcomes after anterior cruciate ligament (ACL) reconstruction, particularly their influence on return-to-sport outcomes and the development of knee osteoarthritis. Her goal is to be a leading clinician-scientist in the field. As a DPT student, she submitted three manuscripts, and co-authored four peer-reviewed poster presentations and eight peer-reviewed oral presentations, all at regional/national scientific meetings.

As noted by Dr. Betsy J. Becker, Physical Therapy Program Director, Dr. Jorgensen's "determination to contribute to the physical therapy profession shows in her active service in student and professional associations."

Select examples of Dr. Jorgensen's service while a DPT student include being elected as UNMC Class Representative (2020) and later President (2021-22) of APTA-Nebraska Student Special Interest Group, in which she represented student members from three DPT and four PTA programs in Nebraska. In this role, she planned the PT Day of Service events for PT and PTA students across Nebraska and hosted the first annual Student and Early Professional Conclave in Nebraska.

She was selected and sponsored by the UNMC Physical Therapy Program to participate in the inaugural 2020 APTA Centennial Scholars Program, a national program designed to build future leaders in the profession. In this capacity, with the guidance of Dr. Becker, Jorgensen led a team of four UNMC DPT students to obtain competitive internal funding supporting the creation of an e-learning module for adapting delivery of healthcare services for patients who are deaf or hard of hearing.

Dr. Jorgensen will be presented her award by APTA's Board of Directors at the 2024 APTA national event.



The UNMC PT Class of 2026 pictured at the College of Allied Health Professions' Professionalism Ceremony on Friday, August 18.

Welcome, Class of 2026

On Friday, August 18, family members and friends came to support the entering Doctor of Physical Therapy Class of 2026 as they received their white coats in the College of Allied Health Professions Professionalism Ceremony held at the Baxter Arena. The Professionalism Ceremony is a rite of passage for students as they begin their journeys in the Physical Therapy Program.

Less formal orientation activities for the new PT students included a game of "Password" directed by several PT3 class officers. Words pertaining to physical therapy were used as the passwords. The game served to encourage communication between the Omaha and Kearney campuses, engage the class, and introduce them to the classroom technology.

The UNMC PT Class of 2026 is the fifty-fourth entering class in the PT program. It consists of 65 students, 49 students based on the Omaha campus and 16 students based on the Kearney campus. The class is composed of 57 students from Nebraska and 8 students from 6 other states.

PT students focus on fitness

(l-r) UNMC DPT students Allison Eggert, Allegra Berglund, MacKenzie DeHoff, Sydney Slosson, Jaime Trouster, and Kyla Kasuske at Power Life.

UNMC PT students continue to participate in their own fitness and movement-related activities.

This fall, fitness studio Power Life offered one free month to students, faculty and staff of the UNMC DPT program. Those who registered for the free month had unlimited access to classes for a full 30 days at all three Omaha locations: Aksarben, Blackstone and One Pacific Place. Those who opted to use the complimentary 30-day pass had the opportunity to try new activities including Yoga, Barre and other fitness classes.

PT student Sydney Slosson said, "I had a great experience every time I attended a class at Power Life! The staff were welcoming, motivating, and did an excellent job of offering modifications to exercises. This was a great way to reduce stress and I always left class feeling energized."

UNMC PT3 student Allison Eggert (pictured at left) instructs Barre at Power Life three times per week.

Student Making an ImPacT: Kailey Weichel, Class of 2025

Hometown: Plymouth, Nebraska

Undergraduate degree:
Concordia University Nebraska
Seward, Nebraska | 2018-2022
Bachelor of Science in Biology
Bachelor of Science in Exercise Science
Minor in Psychology

Professional affiliations, leadership and volunteer activities

- American Physical Therapy Association, Nebraska Chapter, *student member*
- American College of Sports Medicine, *student member*
- DPT Class of 2025 Vice President
- SUN-APTA Student Assembly Liaison
- Volunteer with Kearney community patient

What are a few of your favorite things about learning on the Kearney campus?

- *The small-town feel and close-knit faculty, staff, students, community, and school feel! It truly feels so special to be able to grow with and encourage these people around me who share the same passion as me every single day.*
- *The amount of opportunity at Kearney. The ability to get out into the community and work with others is something really special about Kearney. The community is very supportive and wants us to succeed on a personal level. In the classroom, being able to have individual direction and direct hands-on experiences is irreplaceable to my career development and learning.*

Tell us about your recent Clinical Experience.

This rotation has been one of the most empowering experiences I have had yet in this DPT program. After being in the classroom for the whole first year, it is a very good reminder of why I chose to go into this amazing field. I have learned so much and I never knew I could learn so much in such a short time! I want to get as much as I can throughout this experience and carry that information with me along the way to help as many people as I can. I have met so many colleagues and patients who have shaped me as a future clinician and person. This has been my favorite experience hands down, so far. Time really does fly when you're having so much fun!

Kailey Weichel, SPT

What has been a challenge?

One of the biggest challenges of PT school for me can be summed up in the phrase "progress over perfection." PT school is such a journey and learning how to shed some grace on yourself while still working hard for your goals is one of the biggest challenges I often work through in PT school.

Advice for others who are seeking to enter the PT profession.

Remembering "YOUR WHY" is one of the most empowering things that is strictly unique to you. Everyone has their own reasons and experiences of why they want to be a PT, but remembering what makes YOU want to be a PT is what sets you apart. Remembering why you're here and what qualifies you to be the future clinician you've always dreamt of is what lifts you up during your worst times and humbles you in your best times! Keep going!

Residency

Megan Frazee, PT, DPT, OCS, MTC, FAAOMPT

The Orthopedic Physical Therapy Residency is pleased to announce that the program recently received full initial accreditation from the American Board of Physical Therapy Residency and Fellowship Education (ABPTRFE) through January 2028. This 13-month, post-professional training program includes a structured didactic curriculum, clinical practice and weekly one-on-one mentoring at Nebraska Medicine's Lauritzen Outpatient Center, observation with physicians and other rehab providers, teaching in the area of orthopedics, and completion of a scholarly activity project.

Each year, up to two residents are accepted into the program, that starts around the first of August. The inaugural cohort of residents, Renee Herbers and Caleb Nabower, graduated on August 19, 2022 and the subsequent orthopedic resident, Hena Ybay, completed all program requirements on August 18, 2023. Graduates of an accredited physical therapy residency program qualify to sit for that specialty's board examination and have higher first-time pass rates than non-residency graduates.

The accreditation process is a highly structured process, that formally started at UNMC in 2020, as the residency was being developed. Accreditation focuses on assuring programs deliver, and participants complete, quality programs to support continuous improvement that enhances patient care and advances the profession. The ABPTRFE Quality Standards provide programs with a framework to demonstrate and communicate their commitment to physical therapists through the achievement of its mission, goals, and outcomes.

Betsy J. Becker, PT, DPT, PhD, Chair of the Department of Health and Rehabilitation Sciences and Program Director for the Physical Therapy Program, thanked Residency Program Director Megan Frazee, DPT, Residency Clinical Coordinator Mike Wellsandt, DPT, and everyone involved in the accreditation process. Dr. Becker also added, "Our residency program advances opportunities in Nebraska to help grow the availability of orthopedic physical therapy clinical specialists in our area. Thank you to all who contributed to reach this milestone."

Dr. Frazee also expressed gratitude to everyone involved in the process. "Creating the first physical therapy residency program at UNMC involved multiple stakeholders who have been involved in the development and accreditation process," she said. "From College of Allied Health Professions and Nebraska Medicine leadership, to the individual faculty, staff, and residents, this was a collective effort."

Amy Collison, PT, DPT, Manager of Rehabilitation Sciences at Nebraska Medicine's outpatient rehab department is "extremely grateful for the opportunity to participate in the UNMC's orthopedic residency program. The collaboration between Nebraska Medicine and UNMC has been beneficial to both the residents and our physical therapists. Teaching opportunities with the residents has contributed to the professional growth of our therapists. The combination of clinical experience from our therapists and fresh perspectives from the residents has resulted in innovative care for our patients. We are thankful to have the residents in our clinics; their quest for knowledge is infectious."

For more information, please visit the Orthopedic PT Residency website.

The 2019 SEED cohort pictured on the UNMC Omaha campus.

Summer Experiential Education (SEED) Program

In 2017, the UNMC Summer Experiential EDucation (SEED) program in physical therapy was established for international PT students. The purpose of this annual program is to provide a unique opportunity for students to develop a global perspective on rehabilitation and to learn about physical therapy practice in the United States. Students in the SEED program gain the latest PT knowledge from UNMC PT faculty and local PT clinicians and communicate with UNMC DPT students during the students roundtable session.

Over the years, the program has changed in duration and delivery format. When the program was delivered in person, SEED students could visit local PT clinics and rehabilitation facilities to observe how PTs practice in the United States. They were also given opportunities to conduct fundamental human movement activities at the clinical movement analysis laboratory at UNMC.

Due to the global pandemic, in 2020 the SEED program moved from in-person to online delivery. The transition to virtual delivery was quite challenging due to the highly interactive and hands-on design of the original courses. The SEED program team needed to be creative and adaptive to transform those in-person experiences to virtual classes. Fortunately, the virtual SEED program maintained most of the lectures and some lab activities were modified for online delivery. Clinical experiences were transformed into virtual introduction and discussion through clinician meetup sessions. With all the challenges the program faced, one unexpected positive outcome was the increased enrollment. There was no limit to the number of participants. As a result, the virtual SEED program attracted a larger cohort of students. The 2023 SEED program was 3 weeks long and delivered virtually.

Based on evaluations and feedback from SEED graduates, this program is highly successful. When asked if they would apply to the UNMC DPT program in the future, one student in 2023 replied, “Yes. Not only because the experience I got in this summer program was brilliant, but also because applying for DPT in the U.S. is a part of my future plan.”

To date, 6 cohorts and more than 100 international PT students have participated in this summer program. In fact, about 10% of SEED graduates were successfully enrolled in the UNMC DPT program.

Returning to in-person delivery

SEED 2024 will be a refreshing year because it will be back in-person delivery. The integrated lecture with clinical observation model will be used in the program. Global Health Opportunities Program director Dr. Joseph Siu anticipates having more interactive learning activities for the students. He would also like to include cultural events for students to experience in the area. However, to ensure excellent quality and experience, the program size will return to a limited number of students. SEED 2024 will be a summer program that exceeds students' expectations and imprints a positive and long-lasting impact on students' career development in physical therapy.

Alumni

Recent graduate obtains clinical research position

Haoyu Xie, DPT

Haoyu Xie, DPT graduated from the UNMC Physical Therapy Program in May 2023. He entered the DPT program in 2019 through the Global Health Opportunity Program (GHOP). While at UNMC, he also earned a Master's degree in Patient-Oriented Research under Medical Sciences Interdepartmental Area Program, as well as a certificate in public health.

Dr. Xie has returned to China and is a Postdoctoral Researcher in Biomechanics at his alma mater, the First Affiliated Hospital of Sun Yat-Sen University.

Dr. Xie states, "For the 3 years of studying in the DPT program at UNMC, I had learned about physical therapy deeply and widely from coursework and clinical rotations. Particularly in PT courses related to scientific research and biomechanics, such as Critical Inquiry and Human Movement II, arouse my strong interest in scientific research, thus helping me to pursue further scientific exploration and study in this direction. Learning scientific research in PT at UNMC assists me to master the basic theories of clinical research and experimental methods, which gives me a preliminary understanding of evidence-based research. UNMC DPT program also teaches a great importance of PT students' scientific research literacy. I would like to thank many PT faculty at UNMC and give a special thanks to my research mentor, Dr. Chien (a former PT faculty), who provided me with patient guidance and assistance, as well as leading me to carry out the research in the PT Clinical Movement Analysis Laboratory. With the unremitting efforts of the whole research team, I successfully published two research articles as the first author, which makes me a competitive candidate for my current postdoctoral position."

Dr. Xie further notes that the UNMC DPT program not only taught him to become a well-equipped physical therapist, it also aided in his pursuits as a clinical researcher.

Continuing Education

UNMC PT Program hosts Dry-Needling Continuing Education Course

UNMC Physical Therapy Program continuing education participants

On August 26-27 and September 23-24, the UNMC Physical Therapy Program hosted a continuing education event, “Dry-Needling Level 1 – Foundations” offered through Dry Needling Pro (www.dryneedlingpro.com).

Course participants learned the theory behind dry needling; the differences from traditional acupuncture; the basic physiology of trigger points; and the foundations and techniques for safe and effective dry needling of the upper and lower extremities and the spine. They also learned about safe handling of needles and proper blood borne pathogen management. Upon completion of the course, participants are able to take these skills directly into the clinic to add to their interventions.

A Level II course will be offered in the near future.

For information on future continuing education offerings, check our website here.

Faculty Accomplishments

Siu presents at international conference

Joseph Siu, PhD, with his poster at the WorldPhysio Congress in Dubai.

Joseph Siu, PhD, attended the 2023 WorldPhysio Congress in June in Dubai and gave a podium presentation on, “The promising effects of virtual reality on physical, cognitive, and psychological outcome in cancer rehabilitation: A systematic review and meta-analysis.”

Dr. Siu also presented a poster to highlight the success and 10-year development of our Global Health Opportunities Program (GHOP). The WorldPhysio Congress is an international conference for physical therapists around the world. Dr. Siu plans to recruit more international students with diverse backgrounds into our global Doctor of Physical Therapy (DPT) program.

UNMC's Rosenthal an author of sports physical therapy description of specialty practice

Associate Professor Michael D. Rosenthal, PT, DSc, SCS, ATC is an author of the recently published Sports Physical Therapy Description of Specialty Practice *(full citation below).* The "Description of Specialty Practice" (DSP) is developed for each physical therapy specialty area and outlines the knowledge, skills, and abilities related to clinical practice in that area. DSP content is based on a detailed practice analysis, which involves extensive research, including survey data and judgments of subject matter experts, of the knowledge, tasks, and roles that describe advanced specialty practice. DSPs serve as the basis for the board certification specialty exams. The DSP is updated approximately every 10 years by a nationwide committee of subject matter experts.

Michael D. Rosenthal, PT, DSc, SCS, ATC

Sports Physical Therapy Description of Specialty Practice 2023. American Board of Physical Therapy Specialties. Zachazewski J, Rothschild C, Clark R, Liaos S, Rooney B, Belanger M, Donaldson A, Edwards H, Huebner B, Lucas K, Pabian P, Riley M, **Rosenthal M**, Schuemann T, Thein-Brody L, Vidale T., Reinking M.

Christensen accepted to Interprofessional Academy of Educators

Stacie Christensen, PT, DPT, NCS

Stacie Christensen, PT, DPT, NCS was recently inducted into UNMC's Interprofessional Academy of Educators (IAE).

The mission of the IAE "is to cultivate a community across professions that connects educators with like interests to drive collaboration, innovation and scholarship."

To qualify for academy membership, an individual should "exemplify dedication to teaching excellence."

Said Dr. Christensen,"I am honored to be a new member of the Interprofessional Academy of Educators, I look forward to learning from and with my fellow educators through this great organization and am eager to build relationships across the state through active collaboration to maximize our students' learning experiences."

Dr. Christensen joins several other PT faculty as members of the organization, including:

- Betsy J. Becker, PT, DPT, PhD
- Sara Bills, PT, DPT, GCS
- Teresa M. Cochran, PT, DPT, MA, GCS, FNAP
- Kellie Gossman, PT, DPT, CLT, PCS
- Nikki Sleddens, PT, MPT, CEEAA
- Kathleen G. Volkman, PT, MS, NCS

Administrative Staff Highlights

PT Program staff member Megan Krenzer attends enrichment workshop

Megan Krenzer, BA, LMT, Notary

On August 29-30, Associate Education Program Coordinator Megan Krenzer, B.A., attended UNMC's Design Thinking Workshop: Answering the Call: Using Principles of Design Thinking to Address Issues in Behavioral Health Workforce Development.

Said Megan of the experience, "I enjoyed learning the Design Thinking Process and working with an interprofessional team to come up with solutions for a very important problem that will impact society if not addressed. I look forward to putting this solution-based system into action/practice when addressing the needs of our students."

PT Program staff member Michelle Hawkins contributes to task force

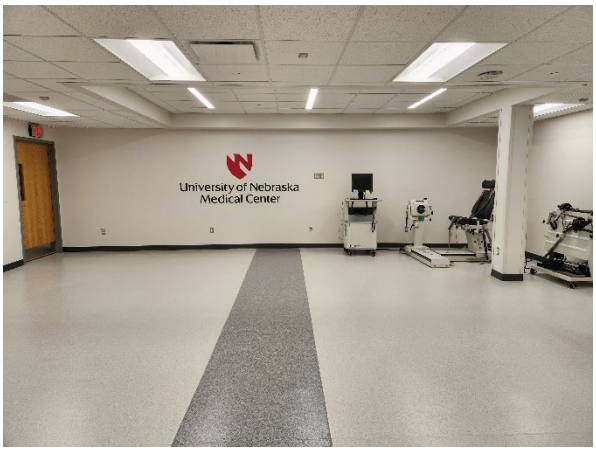
Clinical Education Associate Michelle Hawkins, M.S., recently completed her work assisting UNMC's campus-wide task force, the Nebraska Preceptor Task Force, with the process of creating clinical and non-clinical affiliation agreement templates for campus-wide use.

Michelle took a lead role developing these affiliation agreements for UNMC. In doing so, she worked with Nicole Carritt, director of rural health initiatives; as well as staff from the student success and legal offices.

"Michelle did an excellent job assisting the task force in their efforts to align processes and resources across the university. In addition, the new affiliation agreement meets the needs of the College of Allied Health Professions," noted Nikki Sleddens, PT, ABD, director of clinical education.

Michelle Hawkins, MS

Renovated lab open for collaboration on health and wellness



The renovated health and wellness clinical research lab

A collaboration space in the renovated lab

UNMC cut a ribbon June 12 to celebrate the opening of a renovated clinical research laboratory to provide researchers across the campus a facility for use in a broad spectrum of clinical research.

The UNMC College of Allied Health Professions, with support of the Office of the Chancellor and in collaboration with the Office of the Vice Chancellor for Research and stakeholders across the campus, recognized that more faculty were investigating behavior-related interventions using nutrition, physical activity and innovative therapies.

In the spirit of sharing resources and interdisciplinary collaboration, allied health, the chancellor and the vice chancellor for research set about renovating, redesigning and expanding the space.

The 3,000-square-feet remodeled laboratory is located on the lower level of the Student Life Center and is open for use to researchers from colleges and institutes across UNMC.

A permanent name for the renovated lab has not yet been determined, but for now it is referred to as the health and wellness clinical research lab.

“The vision for the lab emerged from collaborative conversations with researchers in the CAHP, as well as with colleagues across campus who do similar research,” said Laura D. Bilek, PT, PhD, associate dean for research at the UNMC College of Allied Health Professions. “Our goal was to design and develop the infrastructure needed to support clinical research related to health and wellness.”

The new lab includes resources for bone imaging, biomechanics and both metabolic and nutritional assessments, which will allow researchers to conduct innovative, team-based clinical research aimed at the primary prevention of chronic diseases, as well as secondary prevention to improve the quality of life in the managing these diseases.

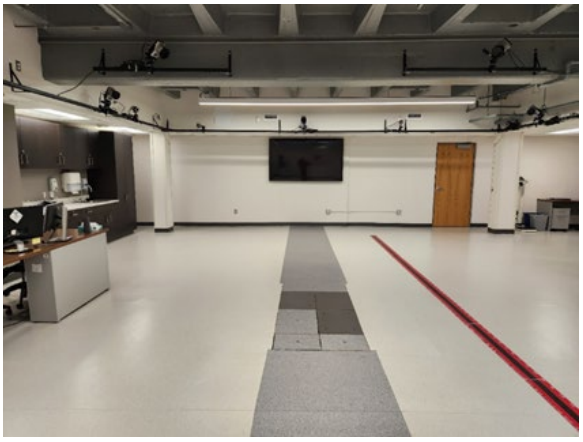
Highlights include:

- State of the art biomechanical equipment for the assessment of human movement;
- Imaging assessment of bone and body composition (DXA/peripheral CT scanner);
- Metabolic and cardiovascular fitness assessment (treadmill with metabolic cart to measure oxygen consumption);
- Biospecimen collection (dedicated space to draw blood and process biospecimens);
- Functional assessment (gym area with space to conduct tests such as walking speed or athletic agility); and
- Physical activity monitoring – (accelerometers and faculty expertise in activity assessment).

Rather than creating separate clinical research labs for individual faculty, the new lab offers shared resources – and opportunities for collaboration.

“The lab’s current design and planned use reflects contemporary research and funding – the sharing of ideas, equipment and resources across multiple disciplines working as teams to solve complex problems,” Dr. Bilek said.

Renovated lab open – *Continued from previous page*



Force plates embedded in the floor with motion analysis cameras mounted around the ceiling.

Dr. Bilek credited the UNMC Department of Facilities Management and Planning for its expertise, labor and support.

She also acknowledged the retired, inaugural CAHP assistant dean for research, Pat Leuschen, PhD, for laying the foundation for the college's research enterprise.

"I applaud the vision and work of all involved in bringing this amazing resource to fruition," said Kyle Meyer, PhD, dean of the UNMC College of Allied Health Professions. "I am sure the lab will serve as a catalyst for the continued growth of health and wellness clinical research at UNMC."

"The UNMC College of Allied Health Professions has had this vision for a decade," said Jennifer Larsen, MD, former vice chancellor for research. "I think this is a landmark moment to see all of that work come to fruition and continue to grow."

The newly renovated allied health clinical research laboratory is the latest iteration of this laboratory site, which has proven pivotal in the history of the UNMC College of Allied Health Professions.

It debuted in 1996 as the Clinical Movement Science Laboratory (CMSL), thanks to 94 donors and the Nebraska Foundation for Physical Therapy. Pat Hageman, PhD, was physical therapy program director and ushered in the vision. Greg Karst, PhD, former PT faculty and retired executive dean of the CAHP, was one of the driving forces behind creating a new laboratory dedicated to research.

"I think that was a transitional moment," said Laura Bilek, PhD, associate dean for research. That new emphasis on research, she said, helped lay the groundwork for allied health eventually becoming its own college.

The lab later became the PT Clinical Movement Analysis Lab (C-MOVA). It underwent a new grand opening and was directed by Joseph Siu, PhD, followed by Elizabeth Wellsandt, PT, DPT, PhD, OCS.

"The lab has transitioned to become more expansive than just movement analysis," Dr. Bilek said. There has been a growth in faculty that use the facility. Joseph Norman, PhD, retired director of physical therapy, had a long history of cardiovascular assessment in the lab. The updated lab offers additional state-of-the-art equipment. Also, the peripheral CT and DXA scanners are added with the availability of expanded space with the remodel.

Now, the lab makes yet another transition, to welcome faculty from across UNMC.

Small interaction room for participant consent, examination, interviewing, or consultation.

Summer Research Projects

Carly Christensen, SPT delivering her research presentation

As part of the curriculum, UNMC physical therapy students have the opportunity to complete a research elective experience during the summer semester following either their first or second year in the PT program. During this research experience, students participate in a faculty-driven research project or scholarly activity. Depending on the stage of the project, students may complete activities such as literature reviews, assisting with Institutional Review Board (IRB) applications, collecting and analyzing data, or writing conference abstracts or manuscripts. This past summer, 15 students completed a research elective experience. They participated in research projects with faculty from the UNMC PT program and the Munroe-Meyer Institute's Department of Physical Therapy. The topics included blood flow restriction training, wearables to assess movement in patients with Parkinson's Disease, barriers to clinical instruction in physical therapy, and virtual reality to promote bilateral hand use in children with cerebral palsy.

"The research elective provides our students with a chance to directly learn how evidence is developed within the physical therapy profession," says Dr. Liz Wellsandt, coordinator of the research elective. "Students get to experience the challenges and rewards to conducting research and scholarly activity. Their experiences will help them become better consumers of the literature in their future clinical roles, and perhaps also inspire a few to seek more formal research training like PhD training to pursue a research career."

Summer Elective Student Research Projects

Grace Blusys, SPT and **Hannah Diez, SPT:** *Effect of Blood Flow Restriction of the Lower Extremity on Gait* with faculty mentor Mike Rosenthal, PT, DSc, SCS, ATC

Tommy Childers, SPT: *The Use of Mobile Application in Patients with Parkinson's Disease in Nebraska: A Case Study* with faculty mentor Joseph Siu, PhD

Carly Christensen, SPT: *Factors Influencing Engagement in Physical Therapists* with faculty mentors Nikki Sleddens, PT, ABD; Tami Struessel, PT, DPT, OCS, MTC; and Lauren Hinrichs, PT, DPT, OCS, PhD

MacKenzie DeHoff, SPT and **Ruth Yang, SPT:** Interprofessional connections and patterns of knowledge exchange among students in the College of Allied Health Professions with faculty mentor Betsy J. Becker, PT, DPT, PhD

Sam Hayden, SPT: *Center of pressure changes during bilateral squatting after ACL reconstruction* with faculty mentor Elizabeth Wellsandt, PT, DPT, PhD, OCS and *It's not a DVT: differential diagnosis and management of COVID toes following ACLR* with faculty mentor Mike Rosenthal, PT, DSc, SCS, ATC

Yanfei Li, SPT: *Interlimb COP changes over time* with faculty mentor Elizabeth Wellsandt, PT, DPT, PhD, OCS

Lukas Pohlmann, SPT: *Does the way students navigate emodules matter?* with faculty mentor Stacie Christensen, PT, DPT, NCS

Faith Radebaugh, SPT: *Barriers to becoming a clinical instructor literature review* with faculty mentor Kaitlyn Uwazurike, DPT

Sydney Slosson, SPT: *Modified ride-on car usage and impact on global development in children with mobility delays* with faculty mentor Andrea Baraldi Cunha, PT, PhD

Mackenzie Sorenson, SPT: *Virtual Reality Habit Camp 2023* with faculty mentors from Munroe Meyer Institute

Madison Stenbo, SPT: *Jump test device reliability* with faculty mentor Mike Rosenthal, PT, DSc, SCS, ATC

Yao Yao, SPT: *Fall Risk Management Practices in Rural Health Clinics* with faculty mentors Dawn M. Venema, PT, PhD and Victoria Kennel, PhD

Associate Professor Elizabeth Wellsandt, PT, DPT, PhD, OCS and Rodrigo Scatonne da Silva, PT, MSc, PhD pictured at Memorial Stadium in Lincoln, Nebraska

PT hosts visiting scholar from Brazil

The UNMC Physical Therapy program hosted a visiting scholar, Rodrigo Scatonne da Silva, PT, MSc, PhD, on August 21-22, 2023. Dr. Scatonne da Silva traveled to UNMC from the Federal University of Rio Grande do Norte in Natal, Brazil. There, he lectures in physical therapy at the undergraduate and graduate levels and coordinates their Graduate Program in Rehabilitation Sciences.

As a visiting scholar, Dr. Scattone da Silva participated in discussions with faculty within the UNMC PT program and from UNL and UNO to build research and educational collaborations. He gave a continuing education presentation titled, “Low-Cost Interventions for the Treatment of Musculoskeletal Pain: Can We Do More with Less?” that highlighted his expertise in prevention and rehabilitation of patellar and Achilles tendon disorders, knowledge translation, and low-cost interventions for musculoskeletal disorders.
Over 80 people attended the presentation, including many clinicians that serve as UNMC clinical instructors from across Nebraska and the United States. Dr. Scattone da Silva also met with PhD students from the College of Allied Health Professions and sports medicine research fellows studying with Elizabeth Wellsandt, PhD, and Matt Tao, MD, (UNMC Dept. of Orthopaedic Surgery) to provide his expertise and feedback on their ongoing research work.

Lastly, Dr. Scattone da Silva toured the newly renovated Clinical Movement Analysis Lab in the UNMC Student Life Center and the Nebraska Athletic Performance Lab at UNL (pictured above).

PT hosts visiting scholar Elanna Arhos, PT, DPT, PhD

Elanna Arhos, PT, DPT, PhD

Visiting scholar Elanna Arhos, PT, DPT, PhD visited UNMC on September 28.

All PT students, clinical instructors and College of Allied Health Professions faculty and students were invited and encouraged to attend her presentation on September 28 at noon, From Surgery to Long-Term Health: Optimizing Post-Operative Outcomes. This presentation was offered as continuing education credit.

Dr. Arhos' visit included time with individuals and groups within PT and across the NU system to primarily discuss research experiences and opportunities. She was also given tours of the newly renovated Health and Wellness Clinical Research lab, UNMC, and the UNL Nebraska Athletic Performance Lab. In addition, graduate students and research fellows presented their work to her and she provided feedback to advance their work.

Physical Therapy Program Faculty are actively disseminating research and scholarly work on a variety of topics. Below is a list of publications, publications, awards and grants. Names in bold are faculty members in the Physical Therapy Program.

Publications

Venema DM, Hester A, Clapper K, Kennel V, Quigley P, Reames C, Skinner A. Description and implications of falls in patients hospitalized due to COVID-19. J Nurse Care Qual. Published online June 20, 2023. DOI: 10.1097/NCQ.0000000000000733

Wardian JL, **Wells** TM, **Cochran** TM. Creating patient context: Empathy and attitudes toward diabetes following virtual immersion. J Diabetes Sci Technol. 2023;0(0):1-9. doi:10.1177/19322968231174441

Zachazewski J, Reinking M, Rothschild C, Clark R, Liaos S, Rooney B, Bellanger M, Donaldson A, Edwards H, Huebner B, Lucas K, Pabian P, Riley M, **Rosenthal** M, Schuemann T, Thein-Brody L, Vidale T. Description of Specialty Practice, Sports Physical Therapy. American Board of Physical Therapy Specialties. American Physical Therapy Association 2023.

Presentations

Christensen S, Goldman A. Management of Patients Post-Stroke: An Evidence Update. American Heart Association Nebraska Mission: Lifeline Stroke Post-Acute Care Workshop. Lincoln, NE, June 15, 2023.

Cochran TM, Doll JD, Jessen J, Costanzo C, Arenson C, Younger T, Jensen GM. Leveraging Interprofessional Teams to Optimize Shared Decision Making in Health Care. Workshop presentation (virtual), Collaborating Across Borders Conference (CAB VIII), Toronto, Ontario, Canada, May 17, 2023.

Cochran TM, Miselis HH, Kian A, Galagoza M, Kenney S, Mahan M, Wenger M, Barrington N. Learner Insights from the Field: Strategies to Support Interprofessional Learning and Practice. Nexus Summit: Annual Conference of the National Center for Interprofessional Practice and Education. Virtual presentation, September 18, 2023.

Presentations – *Continued from previous page*

Crum G, Hao J, **Siu** KC. Effects of Virtual Reality on Stroke Rehabilitation: An Umbrella Review of Systematic Reviews. Midwest Student Biomedical Research Forum, Omaha, Nebraska, Oral Presentation March 2023.

Gavia A, Werner D, **Wellsandt** M, **Rosenthal** M, Tao MA, **Wellsandt** E. Differences in Temporospatial Hop Characteristics Between Limbs at Return to Sport After ACL Reconstruction. Midwest Student Biomedical Research Forum - Oral Presentation; Omaha, NE. March 2023.

+Gavia A, *Werner D, **Wellsandt** M, **Rosenthal** M, Tao M, **Wellsandt** E. Differences in Temporospatial Hop Characteristics Between Limbs at Return to Sport After ACL Reconstruction – Poster Presentation. International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine Biennial Congress; Boston, MA. June 2023.

Gossman K, **Christensen** S, DeHoff M, **Wellsandt** E. Bridge the Know-Do Gap by Building Effective E-modules-Poster Presentation. American Physical Therapy Association, Combined Sections Meeting; San Diego, CA. February 23, 2023.

Higgins CM, Kim HJ, **Venema** D, Boron JB, Yentes JM. “Sleep Quality and its Effect on Dual Task Cost when Examining Step Length in Healthy Adults.” Poster presentation at the American Society of Biomechanics 2023 Annual Meeting, Knoxville, TN, August 8-11, 2023.

Li Y, Hayden S, McManigal M, Werner D, Jorgensen A, Tao M, **Wellsandt** E. Can Compensatory Strategies During Bilateral Squats Predict Asymmetrical Knee Loading Patterns After ACL Reconstruction?. Midwest Student Biomedical Research Forum - Oral Presentation; Omaha, NE. March 2023

McKee Mikayla, Werner D, Golightly Y, Tao MA, **Wellsandt** E. Predictors of Cartilage Degradation After Anterior Cruciate Ligament Reconstruction. Midwest Student Biomedical Research Forum - Poster Presentation; Omaha, NE. March 2023

McKee M, Werner D, Golightly Y, Tao M, **Wellsandt** E. Gait Biomechanics and Physical Activity as Predictors of Cartilage Degradation After Anterior Cruciate Ligament Reconstruction - Poster Presentation. Osteoarthritis Research Society International Annual World Congress; Denver, CO. March 2023

Rosenthal MD. Blood Flow Restriction Training: Promoting Athlete Recovery. Mid-America Athletic Trainers’ Association Annual Conference. March 2023

Rosenthal MD. Blood Flow Restriction Training: The Science and Practical Applications. APTA Nebraska, Annual Meeting, Omaha, NE. April 2023

Venema DM, Clapper K. “Making Mobility Matter More.” Nebraska Methodist College 2023 Geriatrics Symposium. August 25, 2023.

Volkman K, Pietrzak J. American Heart Association’s Post-Acute Care Stroke Program Standards: Delivering Comprehensive Care Across the Continuum. Invited continuing education to Mission: Lifeline Stroke Post-Acute Care Workshop, Lincoln, NE June 15, 2023.

Weaver B, Gavia A, **Wellsandt** M, Werner D, Schelkopf S, Tao MA, **Wellsandt** E. Factors Impacting Return to Sport Timing Following ACL Reconstruction. Midwest Student Biomedical Research Forum - Oral Presentation; Omaha, NE. March 2023

Weaver B, **Gavia A, **Wellsandt** M, Werner D, ***Schelkopf S, Tao M, **Wellsandt** E. Factors Impacting Return to Sport Timing Following ACL Reconstruction – Poster Presentation. American Orthopaedic Society for Sports Medicine Annual Meeting; Washington, D.C. July 2023

Wellsandt E, Osteoarthritis and Exercise, International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine Biennial Congress, Boston, MA, June 18, 2023.

*Werner D, *Jorgensen A, +Weaver B, **Wellsandt** M, Tao M, **Wellsandt** E. Quadriceps Strength Symmetry and Not Absolute Strength Predicts Movement Patterns During Drop Vertical Jumps After ACL Reconstruction - Oral Presentation. International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine Biennial Congress; Boston, MA. June 2023.

Werner D; **Wellsandt** E, Sport and Physical Activity after Anterior Cruciate Ligament Injury and Reconstruction, Arcadia University, Movement Science PhD Program Seminar Series, Virtual, April 2023.

Yao Z, Leon M, Toh C, Gonzales K, **Siu** KC. The Use of Mobile Application in Patients with Parkinson's Disease in Nebraska: A Case Series. Combined Sections Meeting of the APTA. San Diego, California, February 2023.

Abstracts

Hemmingsen T, Sacco G, Werner D, Post A, Weaver B, Tao M, **Wellsandt** E. Association Between Kinesiophobia and Physical Activity Early After Anterior Cruciate Ligament Injury and Reconstruction. American Physical Therapy Association - Poster Presentation. American Physical Therapy Association, Combined Sections Meeting; San Diego, CA; J Orthop Sports Phys Ther. 2023 Feb, Vol. 53, Issue 2.

Jorgensen A, Werner D, Tao M, **Wellsandt** E. Knee Loading Asymmetry Is Greatest During Ascent Phase of Squatting After Anterior Cruciate Ligament Reconstruction. American Physical Therapy Association - Oral Presentation. American Physical Therapy Association, Combined Sections Meeting; San Diego, CA; J Orthop Sports Phys Ther. 2023 Feb, Vol. 53, Issue 2.

Li Y, Hayden S, McManigal M, Werner D, Jorgensen A, Tao M, **Wellsandt** E. Can Compensatory Strategies During Bilateral Squats Predict Asymmetrical Knee Loading Patterns After ACL Reconstruction? American Physical Therapy Association - Oral Presentation. American Physical Therapy Association, Combined Sections Meeting; San Diego, CA; J Orthop Sports Phys Ther. 2023 Feb, Vol. 53, Issue 2.

Pu Y, Williams C, Werner D, McManigal M, Jorgensen A, Tao M, **Wellsandt** E. Intralimb Compensations During Squatting Change in the 6 Months Following Anterior Cruciate Ligament Reconstruction. American Physical Therapy Association - Oral Presentation. American Physical Therapy Association, Combined Sections Meeting; San Diego, CA; J Orthop Sports Phys Ther. 2023 Feb, Vol. 53, Issue 2.

Werner D, Tao M, Conlin A, Murray PE, Sanny W, Thomsen CJ, **Wellsandt** M, **Wellsandt** E. Muscle Performance and Movement Patterns After Passing Clinic-Based Return-To-Sport Testing After ACL Reconstruction. American Physical Therapy Association - Oral Presentation. American Physical Therapy Association, Combined Sections Meeting; San Diego, CA; J Orthop Sports Phys Ther. 2023 Feb, Vol. 53, Issue 2.

Award

Spotlight on Scholarship - First Place for Outstanding Presentation for Immediate vs Delated Feedback in a Progressive Musculoskeletal E-module Case for Clinical Reasoning Development poster presentation. Megan **Frazee**, Krista Gipson (PT3), Elizabeth Lyden, and Stephanie Langel. Presented by the UNMC Interprofessional Academy of Educators. March 29, 2023. Omaha, NE.

Grants

PI: Primary Investigator
Co-PI: Co-Primary Investigator
Co-I: Co-Investigator

Elizabeth Wellsandt, PT, DPT, PhD, OCS (Co-PI)
Michael D. Rosenthal, PT, DSc, SCS, ATC (Co-I)
Funding Source: University of Nebraska, Collaborative Initiative Seed Grant
Title: Real-World Assessment of Knee Performance After Anterior Cruciate Ligament Injury
Dates: Jul 2023 – Jun 2025

Joseph Siu, PhD (Co-PI)
Funding Source: University of Nebraska, Collaborative Initiative Seed Grant
Title: Reducing Disease Burden after Acute Exacerbation Chronic Obstructive Pulmonary Disease (REBOUND)
Dates: 2023-2025

Newsletter Contributors:
Marcela Williams, BHM | Betsy J. Becker, PT, DPT, PhD | Megan Frazee, PT, DPT, OCS, MTC, FAAOMPT
Patricia A. Hageman, PT, PhD, FAPTA | Fran Higgins, MA, ADWR | Kerissa Robison, BA | Kalani Simpson
Elizabeth Wellsandt, PT, DPT, PhD, OCS