

SPRING 2019

Physical Therapy



DR. ERIC J. HEGEDUS PT, PHD, DPT, OCS

LETTER FROM THE CHAIR

Friends and Colleagues,

Spring has sprung! What a great time of year. The Department's big effort right now is in preparation of the self-study report for CAPTE and the visit of a site team in September. We also are completing our annual review and revision of our strategic plan. Despite these weighty administrative issues, we hosted the second annual Leadership Summit. Program Chairs and Directors of Clinical Education spent the day discussing all things related to PT educational programs in North Carolina and the nation.

Speaking of clinical education, our sites continue to expand both nationally and internationally and I personally want to thank all of our clinical partners!!

Our first class is finishing semester three and our second class is finishing semester six which means our third class is on deck to begin their first semester in June. In addition to preparation for finals, students are preparing for our end-of-year cumulative exams. As you might guess, anxiety levels are high but students are embracing this opportunity to practice for the Boards. Our 3rd cohort is full but as you may recall, this is the time of year where there is a lot of last minute changing of schools. Students say they choose HPU DPT for faculty, facilities, and the Pro Bono Clinic. I like their priorities!

LETTER FROM THE CHAIR, CONT'D

Faculty are incredible and a joy to work with. They are dedicated to teaching, where they get great reviews from students and research, where they produced 26 peer-reviewed publications in the past year to go with 26 abstracts and 2 book chapters. In addition, 8 students and 6 faculty were featured at APTA's Combined Sections Meeting in Washington, D.C. Unfortunately, Dr. Chris Bleakley will be leaving us to return home to Northern Ireland. We will miss him (and his wonderful family) both as a faculty member and as a human being.

The Pro Bono Clinic is running at maximum capacity and is a source of great pride for the Department and is a wonderful learning lab for our students. After 1 full year of operation the clinic has provided close to .5 million dollars of free service to our community and provided over 4,000 mentored clinical hours to our students.

Our Advisory Board returns to campus soon. Thanks to their thoughtful insight as well as great feedback from our students, we have revised our curriculum to include a typical development and aging course and a course dedicated to pain science. Dr Jeff Taylor as Director of Curriculum and Outcomes continues to lead these and other revisions so that we do not have a stagnant curriculum. I heard from a clinician and relative of one of our current students who was amazed at how well our students can evaluate and develop an intervention plan at such an early stage of their careers. Always nice to get these calls!

Thank you for all that you do to contribute to this family, this department.



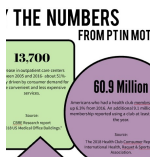
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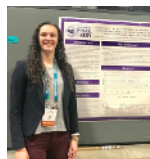
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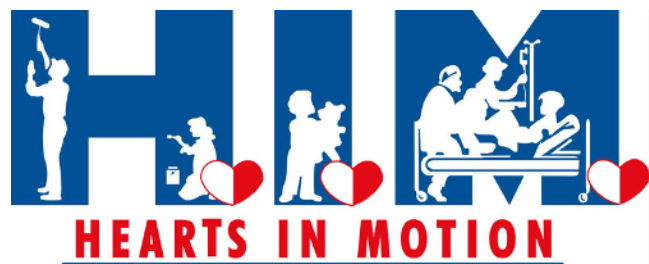
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**HIGH POINT
UNIVERSITY**

Department of
Physical Therapy





High Point University's Physical Therapy Class of 2021 students Claire Love, Mary Mahon, Shelby Bloomquist, Sarah Miller, Danja Woodard, and advisor, Lindsay Garren, will have the opportunity to travel to Rio Hondo, Zacapa April 26th to May 3rd to volunteer in various outpatient physical therapy clinics in communities that otherwise do not have

access to therapy. The group will be hosted by the non-profit organization Hearts in Motion. Throughout the week, they will be interacting with patients and learning from local physical therapists. In addition to their clinical experience, they will be participating in discussions about physical therapy and healthcare in Central and South America with opportunities to visit local nutrition centers, orphanages, and senior centers.

**WHERE IN THE WORLD IS
HPU DPT**

Accompanied by the Department of Physical Therapy's Neurological Rehabilitation professor Dr. Renee Hamel, Physical Therapy Class of 2020 students Emily Tower, Hope Walker, Cassidy Moorhouse, Hope Caddell, and Alexandria Nickles will be traveling to St. Elizabeth, Jamaica this summer from May 25th to June 5th to participate in a stroke camp hosted by Friends of the Redeemer United (FOR U). The FOR U clinic is located on the southwest side of the island in a small rural farming district called Ridge. Due to the high number of individuals that have suffered from strokes in Jamaica, there is a large need for extensive physical therapy treatment. The stroke camp allows both Jamaican and US based PT programs to work together for intensive neurological rehabilitation in a short amount of time. Students are excited to further their education and to give service to a population that deserves quality care.



BY THE NUMBERS

FROM PT IN MOTION

13,700

Increase in outpatient care centers between 2005 and 2016- about 51%- largely driven by consumer demand for more convenient and less expensive services.

Source:

CBRE Research report
"2018 US Medical Office Buildings."

60.9 Million

Americans who had a health club membership in 2017- up 6.3% from 2016. An additional 9.1 million without a membership reported using a club at least once during the year.

Source:

The 2018 Health Club Consumer Report.
International Health, Raquet & Sportsclub
Association.

1.5%

Drop in Medicaid enrollment between 2017 and 2018, with 34 states reporting shrinking numbers.

Source:

A2 Strategy Group report "The Enduring
State of Medicaid" released October
2018.

1 in 2

US adults aged 18 and over who reported a musculoskeletal medical condition in 2015- a higher rate than for either chronic circulatory or respiratory conditions.

Source: United States Bone and Joint Initiative: The Burden of Musculoskeletal Diseases in the United States, 4th Edition.

NEWS FROM CLINICAL EDUCATION

Happy Spring from HPU's Clinical Education Team!

As of January 2019, the Clinical Education curriculum is happening year-round with students from each of our cohorts engaged in one of five formal clinical experiences each semester of the year! The growth of our program brings excitement as well as welcomed challenges as we navigate the variable world of clinical education.

On March 1st we participated in the annual “March Mailing” process to send requests to our clinical affiliates to host our students for their 2020 long-term clinical experiences. Unlike last year, however, we sent requests for **two** clinical courses – PT 8900 (the first, long-term clinical experience for the class of 2021), and PT 8910 (the terminal, long-term clinical experience for the class of 2020). As we compile responses, we are making preparations for the annual lottery day where students will select their clinical experience slots. Outside of the March Mailing process, we also have students from the class of 2020 who have secured clinical experience slots with EXOS (high-performance sports rehabilitation company) and the University of Otago (in Dunedin, New Zealand); and students from the class of 2021 who are currently interviewing for these opportunities. Watch for a highlight on the students who are headed to EXOS and Otago in an upcoming newsletter update.

The class of 2021 is currently out on their first, part-time experience in local outpatient clinics. The students are eager to place their newly gained musculoskeletal examination and treatment skills to practice. It is always a joy to hear students return from clinic, inspired by their clinical instructors and patient interactions.

This summer, students in the class of 2020 will set out on their first, full-time clinical experience (PT 8050). Students are placed throughout the triad and triangle (including University of North Carolina Health Care) in inpatient and outpatient clinical settings. Mirroring the part-time experiences, students will be on their final split semester where half the class completes PT 8050 for seven weeks, while the other half completes didactic coursework. The classes rotate at the mid-semester mark to complete the semester. Following PT 8050, the class of 2020 can see the finish line of DPT school as they embark on the first of two, twelve-week clinical experiences starting in September (PT 8900).

We know that the clinic is where unparalleled learning occurs, and that this is a type of learning that is near impossible to recreate in the classroom. In this spirit, we thank all of our clinical affiliates, both near and far, for helping make the magic of clinical education happen!

Wishing you a warm and sun-filled start to your spring!

Dora Gosselin, PT, DPT, PCS, cNDT

Director of Clinical Education

Angela Spontelli Gisselman PhD, PT, DPT, OCS

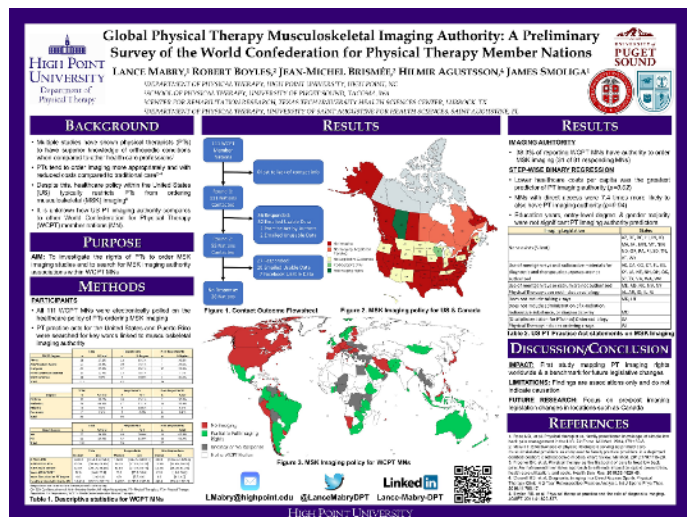
Associate Director of Clinical Education

Tiffany Hughes, MS

Clinical Education Specialist

SCHOLARLY WORK

Dr. James Smoliga and Dr. Lance Mabry and presented their research on which nations allow physical therapists to order diagnostic imaging within the Imaging Special Interest Group of the American Physical Therapy Association at the 2019 Combined Sections Meeting in Washington DC.



Citation: Mabry LM, Boyles RE, Brismée JM, Agustsson H, Smoliga JM. Global Physical Therapy Musculoskeletal Imaging Authority: A Preliminary Survey of the World Confederation for Physical Therapy Member Nations. American Physical Therapy Association Combined Sections Meeting, Washington, DC, Jan 2019.

Dr. Mabry had his research published in *Physical Medicine & Rehabilitation* on a patient he evaluated with an upper cervical congenital anomaly. His article focused on the diagnostic imaging of the condition and the mobility of the posterior arch of C1. Patients with this condition can experience wide-ranging symptoms to include quadriplegia due to the threat of upper spinal cord involvement.

Citation: Mabry LM, Ross MD, Dardenelle SI. Congenital Partial Aplasia of the Atlas Causing Functional Angular Displacement of the Posterior Arch. *Physical Medicine & Rehabilitation*. 2018 Dec;10(12):1434-1436.

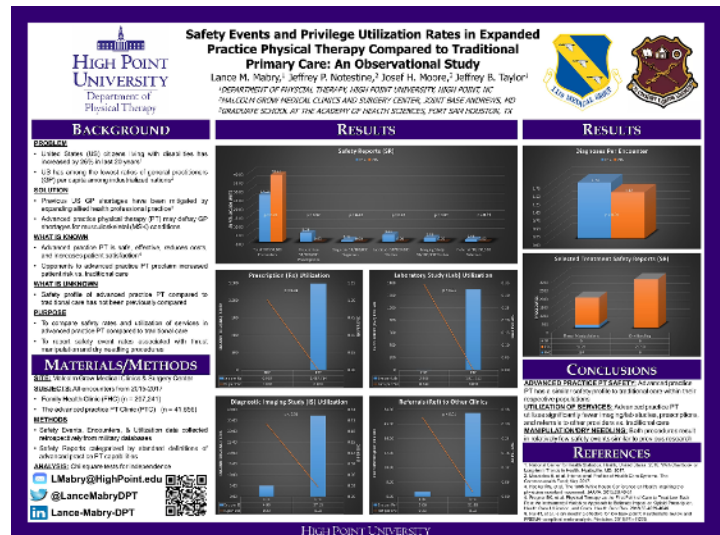
Dr. David R. Sinacore PT, PhD, FAPTA, Professor, presented an abstract titled “Uremic Myopathy: Dynapenia, Diabesity-associated Sarcopenia and Physical Frailty in disguise?” at the 9th Annual International Conference on Frailty & Sarcopenia Research. The ICFSR 2019 was held in Miami Beach, Florida, February 20-22, 2019. Dr. Sinacore’s abstract presentation was selected as an oral communication from the more than 200 abstracts submitted. Dr. Sinacore’s collaborators and co-authors were Daniel C. Bittel PT, PhD, DPT and Adam J. Bittel. PT, PhD, DPT who are Post-Doctoral Research Fellows at the Center for Genetic Medicine Research, Children’s National Medical Center, Washington DC, USA. Abstract published in *The Journal of Frailty & Aging* 8(1): S20-21, 2019.



SCHOLARLY WORK

Dr. Jeff Taylor and Dr. Lance Mabry presented their research on the Safety of Advanced Practice Physical Therapy within the Federal Section of the American Physical Therapy Association at the 2019 Combined Sections Meeting in Washington DC.

Citation: Mabry LM, Notestine JP, Moore JH, Taylor JB. Safety Events and Privilege Utilization Rates in Expanded Practice Physical Therapy Compared to Traditional Primary Care: An Observational Study. American Physical Therapy Association Combined Sections Meeting, Washington, DC, Jan 2019.



IN OTHER NEWS

The official date has been set for the 3rd Annual DPT Halloween Family 5K Fun Run & Walk: Sunday, October 13, 2019 at 2:00pm.

Just as this past year, we will incorporate the help of a race management company to assist with keeping our runners on course and timed.

Additionally, we are thrilled to make this more of a family event by bringing in food trucks, vendors, and more engaging family and children's activities.

Mark your calendars to attend this event as proceeds benefit the High Point University DPT Student Scholarship Fund. Should you be interested in sponsoring or participating, please visit: highpoint.edu/physicaltherapy/funrun/ for additional information.

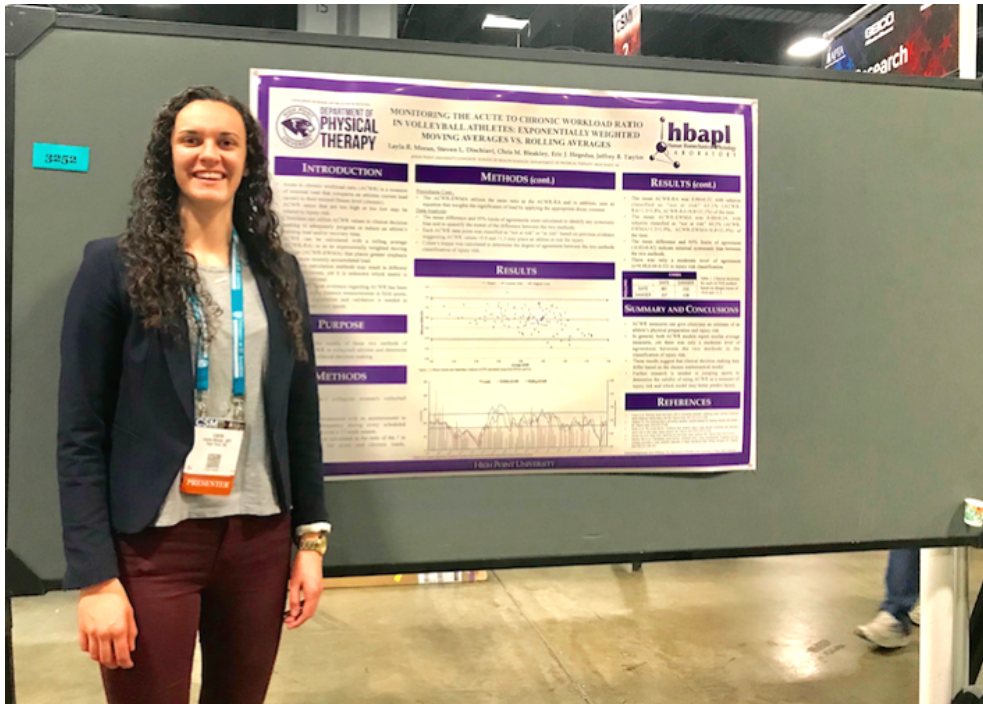


**HALLOWEEN FAMILY
5K FUN RUN & WALK**

HOSTED BY HIGH POINT UNIVERSITY'S DEPARTMENT OF PHYSICAL THERAPY

STUDENT SPOTLIGHT

HPU DPT Class of 2020 student, Layla Moran, presented at this year's Combined Sections Meeting (CSM) conference in Washington, DC. Continue reading to learn more about her research.



Title: Monitoring the Acute to Chronic Workload Ratio in Volleyball Athletes: Exponentially Weighted Moving Averages vs. Rolling Averages

Tell us about your research.

Under the guidance of Dr. Taylor, the majority of my research has revolved around workload monitoring and injury prevention. The acute to chronic workload ratio (ACWR) is a tool that clinicians and coaches can utilize to help athlete's optimize their performance while also reducing their risk of injury. Currently the literature shows that there are two different ways to calculate the ACWR. It is unknown which method is more informative, therefore the calculation that you choose could alter your clinical decision making. The research I presented at CSM compared the results of these two methods of calculating the ACWR in volleyball athletes and determined their impact on clinical decision-making. We found that both ACWR models report similar average measures, yet there was only a moderate level of agreement between the two methods in the classification of injury risk.

STUDENT SPOTLIGHT, CONT'D

What did you enjoy most about CSM?

The best part about CSM was having the opportunity to attend so many different presentations on new research and interesting topics that I didn't know about. Prior to attending the conference I had been interested in blood flow restriction (BFR) training but I didn't know much about it. While at CSM I was able to go to a great presentation on BFR training to learn more about the physiology behind it and the clinical benefits. Attending presentations like this was extremely valuable to expanding my knowledge.

Another great part about CSM was having the opportunity to meet and network with so many great clinicians, researchers, and students from other programs. To be able to talk to clinicians that are so experienced and successful was very beneficial. Having these conversations helped guide me to figuring out what I want to do with my career as a PT and how exactly I can achieve those goals.

Describe your experience presenting on a national conference level.

Having the opportunity to present my poster at CSM was an incredibly valuable experience. It was awesome to have such a variety of people – from students to experienced clinicians - interested in the research that I did and am passionate about. Having people ask questions about my research and how they can implement it into their clinical practice was very rewarding. It made me realize how valuable research is and how important it is to changing clinical practice.



CONTINUING EDUCATION:

The Department of Physical Therapy, Congdon School of Health Sciences Research Colloquium

The Department of Physical Therapy, Congdon School of Health Sciences have launched a new research colloquium. The overall goal of the colloquium seminars is to expand the body of knowledge in areas of movement science pertinent to the prevention and rehabilitation of neuro-musculoskeletal injuries and to translate movement science to the practice of Physical Therapy. Seminar topics in the colloquium will address basic, applied, and clinical science related to the areas of Bioenergetics, Biocontrol, and Biomechanics. Specific objectives in each topic area are directed toward enhancing 1) knowledge of body systems and impairment mechanisms and the evidence underlying intervention strategies to prevent and remediate movement impairments, 2) attitudes that support the pursuit of a practice philosophy that is guided in the search for evidence and the use of movement-related interventions and 3) development of new knowledge and skills in the application of optimal interventions to patients appropriate for physical therapy.

The research colloquium seminars will be held the third (3rd) Friday of each month from 1:30 to 2:30 pm or as scheduled by arrangement. The colloquium seminars will be held in Callicutt Auditorium, Congdon School of Health Sciences.

All are welcome to attend. Clinical PT faculty, local physical therapists and athletic trainers are welcome. Continuing Education Units (CEUs) are awarded for attendance and participation. The Department of Physical Therapy, High Point University is recognized by the North Carolina Board of Certification Inc. to offer continuing education (CE) for licensed Physical Therapists (PT) and Certified Athletic Trainers (AT).

Schedule of Spring/Summer 2019 Research Colloquium Series (subject to change)

Date	Title	Speaker	Location	CEU
March 15, 2019	Taking measurement of running biomechanics from the laboratory to the clinic and field.	Dr. Trey Brindle	Callicutt Auditorium, CSHS	1
April 8, 2019	Diagnostic Tests of the Cervical Spine & Shoulder.	Dr. Eric Hegedus	High Point Regional Medical Center	1
May 6, 2019	Diagnostic Tests of the Lower Quarter.	Dr. Eric Hegedus	High Point Regional Medical Center	1
May 17, 2019	Physical Therapy as a first step intervention for migraine headaches.	Dr. Stephen Shaffer	Callicutt Auditorium, CSHS	1
June 21, 2019	Techniques to reduce risk of ACL injury in young athletes: Can these be useful in the clinic?	Dr. Kevin Ford	Callicutt Auditorium, CSHS	1
July 19, 2019	'BEETing' the odds... The ergogenic potential of dietary nitrate.	Dr. Colin Carriker	Callicutt Auditorium, CSHS	1

Suggestions for topics and speakers can be sent to:

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THE RESEARCH BLOG

Welcome to spring edition of our research blog for our Department's Newsletter! Dr. Trey Brindle, our Post-Doctoral Fellow (see photo 1 and photo 2), will be leaving us in May to continue his running related research at West Point Military Academy. He starts his new role as a Research Scientist for The Geneva Foundation in West Point, NY. He will also serve as an Assistant Professor in The Baylor University – Keller Army Community Hospital Division 1 Sports Physical Therapy Fellowship at the Keller Army Hospital-Arvin Sports Physical Therapy Clinic, US Military Academy.



During Trey's time as a Postdoctoral Fellow, he has completed multiple research projects in the Human Biomechanics and Physiology Laboratory. The overarching goals of his research projects were two pronged: 1). To learn how running form influences overuse injury risk and 2). To determine the reliability and accuracy of products that can be used to measure running biomechanics in environments outside of the laboratory, such as physical therapy clinics. As a part of these projects, Trey collected running data from the High Point University Cross-Country and Track teams.

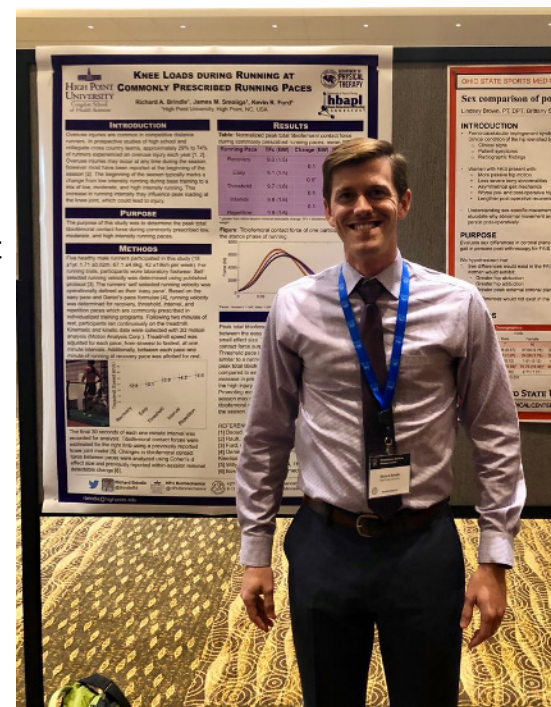


Using the kinematic data from the lab's three-dimensional motion capture system and force data from the force plate instrumented treadmill, Trey was able to estimate each runner's knee contact force during running at multiple speeds (see photo 3). With this information, we plan to model the biomechanical loads experienced by each runner on the team over the course of a normal week's training schedule. This work was presented at the American Society of Biomechanics Meeting (see photo 4). Additionally, Trey has completed research test the reliability and validity of devices that can be used to measure biomechanics outside of the lab, which include: a treadmill with a motion capture system to assess gait (Walker View, TecnoBody), and force instrumented insoles (Loadsol®, Novel).

Our Human Biomechanics and Physiology Lab is currently collaborating on a few military related projects. For instance, last summer (see photo 5) we brought several staff and students to Fort Bragg, NC to help with an overuse running injury project using innovative wearable sensors that measure foot strike patterns in soldiers. We hope to continue this line of research and collaborate with Trey at West Point!

Congratulations Dr. Brindle!

Kevin Ford, PhD





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