

# David A. Sherman | PT, DPT, ATC, PhD

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Updated; January 16, 2026

## EDUCATION

May 2022	<b>Doctor of Philosophy (PhD), Exercise Science</b> <i>University of Toledo, Toledo, OH</i> College of Health & Human Services, School of Exercise & Rehabilitation Science <i>Dissertation Title: Sensorimotor Neuroplasticity after ACL Reconstruction: Insights into Neuromodulation in Orthopedic Clinical Rehabilitation</i>
Sept 2014	<b>Doctor of Physical Therapy (DPT)</b> <i>Boston University, Boston, MA</i> College of Health and Rehabilitation Sciences: Sargent College
Sept 2012	<b>Bachelor of Science (BS), Athletic Training</b> <i>Boston University, Boston, MA</i> College of Health and Rehabilitation Sciences: Sargent College

## PROFESSIONAL POSITIONS

### Academic Research

July 2024-Present	<b>Assistant Professor</b> <i>Northeastern University, Boston, MA</i> Bouvé College of Health Sciences & College of Engineering Department of Physical Therapy, Movement and Rehabilitation Sciences Department of Electrical and Computer Engineering Co-Director: Movement Neuroscience Laboratory
June 2023-July 2024	<b>Postdoctoral Fellow (T32)</b> <i>Boston University, Boston, MA</i> Chobanian & Avedisian School of Medicine, Section of Rheumatology Boston University Rheumatology Research Training (PI: Neogi)
July 2022-May 2023	<b>Postdoctoral Associate</b> <i>Harvard University, Cambridge, MA</i> Harvard John A. Paulson School of Engineering and Applied Sciences Biodesign Lab, MOVE Lab (PI: Walsh) <i>Specialization:</i> Low Back Pain, Clinical Trials, Wearable Robotics, Sensors, Biomechanics <i>Boston University, Boston, MA</i> College of Health and Rehabilitation Sciences: Sargent College Neuromotor Recovery Lab (PI: Awad)
Aug 2018-June 2022	<b>Graduate Teaching Assistant</b> <i>University of Toledo, Toledo, OH</i> School of Exercise and Rehabilitation Science

### Clinical

Aug 2014 – Aug 2018	<b>Texas Health Resources</b>
Aug 2017-Aug 2018	<i>Physical Therapist Supervisor, Ben Hogan Sports Medicine</i>
Jan 2016-Aug 2018	<i>Physical Therapist (Per Diem), Inpatient Physical Therapy Services</i>
Feb 2015-Aug 2017	<i>Physical Therapist, Ben Hogan Sports Medicine</i>
Aug 2014-Oct 2015	<i>Athletic Trainer (Per Diem), Ben Hogan Sports Medicine</i>
Aug 2014-Feb 2015	<b>Wise Regional Health System</b> <i>Physical Therapist, Fit-N-Wise Physical Therapy</i>
Jan 2013-July 2014	<b>Precision Athletic Training LLC</b> <i>Athletic Trainer – Per Diem</i>

## Leadership

Jan 2021-Present | **LIVE<sup>4</sup> Physical Therapy and Wellness, West Acton, MA**  
Co-Owner & Vice President

## Advisory

May 2021-May 2023 | **University of Toledo**  
University Teaching Center Advisory Board Member, Office of the Provost

Oct 2019-June 2023 | **O2X Specialist, Human Performance & Data Analyst Consultant**  
O2X Human Performance, Scituate, MA

## RESEARCH FUNDING

### Ongoing Research Support

**American Academy of Sports Physical Therapy (New Investigator Award)**, 07/2025-06/2026

Title: Quantifying afferent contributions to quadriceps muscle weakness via tibial and femoral nerves

Role: PI

Amount: \$10,000

**NIH / NIAMS – Loan Repayment Program (L30AR084781)**, 07/2024-6/2026

Title: Effects of Effusion, Pain, and Pain Sensitivity on Muscle Strength and Function in Knee Osteoarthritis

Role: PI

Amount: \$108,317

### Pending Research Support

**NIH / NICHD – Mentored Clinical Scientist Research Career Development Award (K23)** (K23 TBD), 7/2026-6/2031

Title: Targeting pain sensitization in knee osteoarthritis by conditioning the endogenous pain control system using reflex conditioning.

Role: PI

Amount: \$814,320

**NIH NIBIB – Trailblazer Award for New and Early-Stage Investigators (R21) (R21 AG103764)**, Submitted 10/2025

Title: Leveraging user preference in the design and evaluation of adaptive neuromuscular electrical stimulation.

Role: PI

Amount: \$630,621

**NIH / NIAMS - Exploratory Clinical Trial Grants in Arthritis and Musculoskeletal and Skin Diseases (R61 Clinical Trial Required)** (R61AR087704), Submitted 7/2025

Title: Priming Motor Pathways to Restore Knee Extension Strength in People with Knee Osteoarthritis

Role: PI

Amount: \$943,501

**NIH / NICHD – Mentored Clinical Scientist Research Career Development Award (K23)** (K23HD118599), 4/2025-3/2030

Title: Neural substrates of pain sensitization in knee osteoarthritis: a basis for neurofeedback therapies

Role: PI

Amount: \$814,160

Impact Score / Percentile: 30 – \*Priority Score for K awards at NICHD was 31 in Fiscal Year 2025

### Completed Research Support

**Academy of Orthopedic Physical Therapy**, 09/2023-08/2025

Title: Neurophysiologic Mechanisms of Quadriceps Voluntary Activation Failure in Knee OA  
Role: Co-I (PI: Joshua Stefanik)  
Amount: \$40,000

**NIH / NIAMS – Cooperative Agreement (UH3AR076731), 09/2021-08/2024**

Title: Development, Evaluation and Translation of Robotic Apparel for Alleviating Low Back Pain  
Role: Postdoctoral Associate, Clinical Trial Director (PI: Conor Walsh)  
Amount: \$2,138,911

**American College of Sports Medicine (ACSM) – Doctoral Grant (#21-01419), 05/2021-09/2022**

Title: Effect of Sensory and Attention Manipulations on Brain Activity and Motor Performance Following ACL Reconstruction  
Role: PI  
Amount: \$5,000

**Ohio Athletic Trainers' Association (OATA) – Doctoral Grant, 01/2021-01/2022**

Title: Effect of Sensory Manipulation on Brain Activity and Balance Performance Following ACL Reconstruction  
Role: PI  
Amount: \$996

**Ohio Physical Therapy Association (OPTA), 01/2019-01/2020**

Title: Influence of sensory system constraints on electrocortical activity during postural control task performance  
Role: PI  
Amount: \$1,658

**National Athletic Trainers' Association (NATA) – Doctoral Grant, 01/2019-01/2020**

Title: Novel assessment of quadriceps motor unit behavior after anterior cruciate ligament reconstruction  
Role: PI  
Amount: \$2,500

**deArce-Koch Memorial Endowment Fund, The University of Toledo, 01/2019-01/2021**

Title: Novel assessment of quadriceps motor unit behavior after anterior cruciate ligament reconstruction  
Role: Co-I (PI: Norte)  
Amount: \$22,997

## Unsuccessful Funding Submissions

**Foundation for Physical Therapy Research, Foundation Research Grant, Submitted 06/205**

Title: Patient-Controlled NMES Parameter Selection: Improving Treatment Tolerance and Clinical Outcomes  
Role: PI  
Amount: \$40,000  
Overall Score: 6

**NIH / NIA - Developmental Research Grant Program (R21), Submitted 2/2025**

Title: Sensorimotor contributions to quadriceps function in knee osteoarthritis  
Role: Co-Investigator (PI: Joshua Stefanik)  
Amount: \$440,000  
Impact Score / Percentile: 47 / 38

**Rheumatology Research Foundation - Innovative Research Award, Submitted 1/2025**

Title: Sensorimotor contributions to quadriceps function in knee osteoarthritis  
Role: Co-Investigator (PI: Joshua Stefanik)  
Amount: \$400,000

**NIH / NICHD – NCMRR Early Career Research Award (R03 Clinical Trial Optional), Submitted 1/2025**

Title: Treating pain sensitization in knee osteoarthritis by conditioning the endogenous pain control system using neurofeedback  
Role: PI  
Amount: \$307,908  
Impact Score / Percentile: 46 / 40

**NIH / NICHD – Mentored Clinical Scientist Research Career Development Award (K23),**

Submitted 6/2024

Title: Neural substrates of pain sensitization in knee osteoarthritis: a basis for neurofeedback therapiesRole: PIAmount: \$814,160Impact Score / Percentile: 49**NIH / NIA - Developmental Research Grant Program (R21),** Submitted 6/2024Title: Sensorimotor contributions to quadriceps function in knee osteoarthritisRole: Co-Investigator (PI: Joshua Stefanik)Amount: \$440,000Impact Score / Percentile: 50 / 39**NIH / NIA - Developmental Research Grant Program (R21),** Submitted 11/2023Title: Sensorimotor contributions to quadriceps function in knee osteoarthritisRole: Co-Investigator (PI: Joshua Stefanik)Amount: \$440,000Impact Score / Percentile: 53 / 38**Other Funding Submissions****Northeastern University Tier 1,** Submitted 3/2025*\*No grants awarded in FY26 due to budget cuts*Title: Adaptive Multiple Pathway Stimulation (AMPS): Next Generation Muscle Stimulation for RehabilitationRole: PIAmount: \$50,000**NIH / NIAMS – Loan Repayment Program (L30AR083194),** 07/2023-6/2025*\*Scored 2.3 – Withdrawn due to change of institution*Title: Translation of Robotic Apparel for Alleviating Low Back PainRole: PIAmount: \$100,000**NIH / NINDS - HEAL Initiative Career Enhancement Supplement (UH3AR076731),***\*Withdrawn due to change of institution*Title: Cost-effectiveness and 6-month outcomes of exosuit-augmented physical therapy for low back painRole: Trainee (PI: Walsh)Amount: \$62,728**PEER-REVIEWED PUBLICATIONS**

- Huang CH, Segal NA, Felson DT, **Sherman DA**, Lewis CI, Bacon CL, Lynch J, Lewis CE, Stefanik J. Relation of Knee Extensor Power to Worsening Knee Pain in People with or at Risk for Knee Osteoarthritis: The Multicenter Osteoarthritis Study. *Journal of Rheumatology*. Accepted August 2025.  
*\*Manuscript selected by the Editor-in-Chief as best of the quarter*
- Koohestani M, Schwartz A, **Sherman DA**, Rush JL, Norte GE. Hamstrings Corticomotor and Neuromechanical Function in Individuals with Anterior Cruciate Ligament Reconstruction. *Journal of Electromyography and Kinesiology*. 2025, 84: 103048. <https://doi.org/10.1016/j.jelekin.2025.103048>
- Norte GE, Murray AM, Rush JL, **Sherman DA**, Glaviano NR. Hamstrings Volumetric Adaptations to a 4-Week Nordic Hamstring Exercise Protocol in Individuals with ACL Reconstruction: A Preliminary Case Series. *International Journal of Sports Physical Therapy*. Accepted July 2025.
- Sherman DA**, Neogi T, Hornsby S, Felson D, Lavalley M, Stefanik JJ. Association of Knee Pain Frequency and Severity with Quadriceps Strength but Not Rate of Decline Over Four Years. *ACR Open Rheumatology*, 2025, 7: e70067. <https://doi.org/10.1002/acr2.70067>
- Norte GE, Glaviano NR, **Sherman DA**, Rush JL, Murray AM. Four-Week Nordic Hamstring Exercise Intervention for Individuals with ACL Reconstruction via Hamstrings Tendon Autograft: A Feasibility Trial. *BMC Pilot and Feasibility Studies*. 2025 Apr 3;11(1):37. doi: 10.1186/s40814-025-01624-6.

6. **Sherman DA**, Beausejour JP, Koohestani M, Stock MS, Norte GE. Quadriceps Motor Unit Properties Following ACL Reconstruction are Associated with Corticospinal Excitability and Motor Cortex Activations. *J Appl Physiol*. 2025 Mar 10. doi: 10.1152/japplphysiol.00641.2024.  
\*Manuscript Awarded the American Physiological Society "APSselect" in May 2025.
7. **Sherman DA**, Rush JL, Glaviano NR, Norte GE. Knee Joint Pathology and Efferent Pathway Dysfunction: Mapping Muscle Inhibition From Motor Cortex to Muscle Force. *Musculoskeletal Science & Practice*. 2024 Nov;74:103204. doi: 10.1016/j.msksp.2024.103204.
8. Schwartz AL, Koohestani M, **Sherman DA**, Stock MS, Norte GE. Quadriceps and Hamstrings Force Control After ACL Injury and Reconstruction: A Systematic Review & Meta-Analysis. *Medicine & Science in Sports & Exercise*. 2025;57(2):238-251. doi:10.1249/MSS.0000000000003574.
9. Norte GE, **Sherman DA**, Rush JL, Ingersoll CD, Bodkin SG, Snyder-Mackler L, Grindstaff TL, Burland JP, Hopkins JT, Blackburn T, Chaput M, Konishi Y, Rice DA, Hart JM, Harkey MS, Zarzycki R, Palmieri-Smith RM, Lepley LK, Lepley AS, Pamukoff DN, Park J, Lisee C, Pietrosimone B, Thomas AC, Goetschius J, Tourville TW, Kidgell DJ, Kuenze CM. Advancing Clinical Evaluation and Treatment of Arthrogenic Muscle Inhibition: A Need for Validation and Innovation—Letter to the Editor. *American Journal of Sports Medicine*. 2024 Oct;52(12):NP34-NP36. doi: 10.1177/03635465241272410.
10. Rush JL, **Sherman DA**, Gokeler A, Murray AM, Norte GE. Single Leg Hop Performance After Anterior Cruciate Ligament Reconstruction: Ready for Landing but Cleared for Take-Off? *J Athl Train*. 2024 May 23. doi: 10.4085/1062-6050-0628.23.
11. **Sherman DA**,\* Smith EM,\* Duncan S, Murray A, Chaput M, Murray AM, Bazett-Jones DM, Norte GE. Test-Retest Reliability and Visual Perturbation Performance Costs During Two Reactive Agility Tasks. *J Sport Rehabil*. 2024 Jul 19;33(6):444-451. doi: 10.1123/jsr.2023-0433.  
\*Denotes shared first author designation.
12. **Sherman DA**, Darendeli A, Soto O, Tunik E, Stefanik JJ, and Yarossi M. Beyond Force Steadiness: Potential Challenges in Measuring Smoothness of Force Through Yank. *J Appl Physiol (1985)*. 2024 May 1;136(5):1266-1267. doi: 10.1152/japplphysiol.00207.2024.
13. Schwartz AL, Norte GE, Bonnette S, Stock MS, Chaput M, **Sherman DA**. Steadiness, Smoothness, and Regularity: Looking Beyond Force Variability to Construct a Holistic Description of Force Quality. *J Appl Physiol (1985)*. 2024 May 1;136(5):1271-1272. doi: 10.1152/japplphysiol.00208.2024.
14. Fernandes C, Norte GE, Gokeler A, Schwab SM, Murray AM, Bazett-Jones DM, **Sherman DA**. Interpersonal Coordination between Female Soccer Players: Leader-Follower Roles within a Collision-Avoidance Task. *International Journal of Sports Physical Therapy*. 2024 May 1. doi: 10.26603/001c.116156.
15. Collimore A, Alvarez J, **Sherman DA**, Gerez LF, Barrow N, Choe DK, Binder-Macleod S, Walsh C, Awad L. A Portable, Neurostimulation-Integrated, Force Measurement Platform for the Clinical Assessment of Plantarflexor Central Drive. *Bioengineering*. 2024 Jan 30. doi: 10.3390/bioengineering11020137.
16. Riehm CD, Bonnette S, Rush JL, Diekfuss J, Koohestanijavan M, Myer GD, Norte GE, **Sherman DA**. Cortico-muscular Cross Recurrence Analysis of Electroencephalography and Electromyography Signals Differentiates Individuals with ACLR and Controls. *Experimental Brain Research*. 2023 Dec 13. doi: 10.1007/s00221-023-06751-1.
17. **Sherman DA**, Rush JL, Stock M, Ingersoll CD, Norte GE. Neural drive and motor unit characteristics after anterior cruciate ligament reconstruction: Implications for quadriceps weakness. *PeerJ*. 2023. 11:e1626. doi: 10.7717/peerj.16261.
18. **Sherman DA**, Stock MS, Baumeister J, Murray AM, Bazett-Jones DM, Norte GE. Brain Activation and Single-Limb Balance Deficits following Anterior Cruciate Ligament Reconstruction. *Clinical Neurophysiology*. 2023. doi: 10.1016/j.clinph.2023.02.175.
19. Quirk DA, Chung J, Schiller G, Cherin J, Arens P, **Sherman DA**, Zeligson E, Dalton D, Awad L, Walsh C. Reducing back exertion and improving confidence of individuals with low back pain with a back exosuit: A feasibility study for use in BACPAC. *Pain Medicine*. 2023. doi: 10.1093/pm/pnad003.
20. Chaltroon C, **Sherman DA**, Pamukoff D, Bazett-Jones DM, Glaviano NR, Norte GE. Whole-body vibration reduces hamstrings neuromuscular function in uninjured individuals. *Phys Ther Sport*. 2023. doi: 10.1016/j.ptsp.2023.01.004.
21. Kuenze C, Weaver A, Grindstaff TL, Ulman S, Norte GE, Roman DP, Giampetruzzi N, Lisee C, Birchmeier T, Triplett A, Farmer B, Hopper H, **Sherman DA**, Ness BM, Collins K, Walaszek M, Baez S, Harkey MS, Tulchin-Francis K, Ellis H, Wilson PL, Chang E, Wilcox L, Schorfhaar A, Shingles M, Hart JM. Age-, Sex-, and Graft-specific Reference Values From 783 Adolescent Patients At 5-7 months

- After ACL Reconstruction: IKDC, PEDI-IKDC, KOOS, ACL-RSI, Single-leg Hop, and Thigh Strength. *J Orthop Sports Phys.* 2023. doi: 10.2519/jospt.2023.11389.
22. **Sherman DA**, Stock MS, Baumeister J, Murray AM, Bazett-Jones DM, Norte GE. Weaker quadriceps corticomuscular coherence in individuals following anterior cruciate ligament reconstruction during force tracing. *Medicine & Science in Sports & Exercise*, Vol. 55, No. 3. pp. 00-00, 2023. doi: 10.1249/MSS.0000000000003080.
  23. **Sherman DA**, Baumeister J, Stock MS, Murray AM, Bazett-Jones DM, Norte GE. Inhibition of Motor Planning and Response Selection after Anterior Cruciate Ligament Reconstruction. *Medicine & Science in Sports & Exercise*, Vol. 55, No. 3. pp. 00-00, 2023. doi: 10.1249/MSS.0000000000003072.
  24. Norte GE, Rush JL, **Sherman DA**. Arthrogenic Muscle Inhibition: Best Evidence, Mechanisms, and Theory for Treating the Unseen in Clinical Rehabilitation. *Journal of Sport Rehabilitation*. 2021 Dec 9; 31(6):717-735. <https://doi.org/10.1123/jsr.2021-0139>.
  25. Rush JL, **Sherman DA**, Bazett-Jones D, Ingersoll C, Norte GE. Understanding Athletic Trainers' knowledge, intervention, and barriers towards arthrogenic muscle inhibition. *Journal of Sport Rehabilitation*. 2021 Dec 1;31(6):667-675. doi: 10.1123/jsr.2021-0162.
  26. **Sherman DA**, Lehmann T, Baumeister J, Grooms D, Norte GE. Somatosensory perturbations influence cortical activity associated with single limb balance performance. *Experimental Brain Research*. 2022 Feb;240(2):407-420. doi: 10.1007/s00221-021-06260-z.
  27. **Sherman DA**, Lehmann T, Gokeler A, Baumeister J, Donovan L, Norte GE. External focus of attention influences cortical activity associated with single limb balance performance. *Physical Therapy Journal*. 2021 Dec 1;101(12):pzab223. doi: 10.1093/ptj/pzab223.
  28. **Sherman DA**, Glaviano NR, Norte GE. Hamstrings neuromuscular function after anterior cruciate ligament reconstruction: a systematic review and meta-analysis. *Sports Med*. 2021 Aug;51(8):1751-1769. doi: 10.1007/s40279-021-01433-w
  29. **Sherman DA**, Rush JL, Glaviano NR, Norte GE. Hamstrings muscle morphology after anterior cruciate ligament reconstruction: a systematic review and meta-analysis. *Sports Med*. 2021 Aug; 51(8):1733-1750. doi: 10.1007/s40279-021-01431-y
  30. Jacobson J, Chaltron C, **Sherman DA**, Glaviano NR. Blood flow restriction training in clinical musculoskeletal rehabilitation: A critically appraised paper. *International Journal of Athletic Therapy and Training*. 2020 Apr; 25(6):303-306. doi: 10.1123/ijatt.2019-0010.
  31. Scheurer SA, **Sherman DA**, Glaviano NR, Ingersoll CD, Norte GE. Corticomotor function is associated with quadriceps rate of torque development in individuals with ACL surgery. *Experimental Brain Research*. 2020 Feb;238(2):283-294. doi: 10.1007/s00221-019-05713-w.
  32. **Sherman DA**, Birchmeier T, Kuenze C, Garrison CJ, Hannon J, Bothwell J, Bush CA, Norte GE. Thigh muscle and patient-reported function early after ACL reconstruction: clinical cutoffs unique to graft-type and age. *Journal of Athletic Training*. 2020 Jul;55(8):000-000. doi: 10.4085/1062-6050-370-19.
  33. **Sherman DA**, Sherman SG, Norte GE. The power of language: utilizing the optimal theory to coach your patients to recovery. *Athletic Training & Sports Health Care*. 2020 Dec;12(6):246-248. doi: 10.3928/19425864-20200205-02.

## MANUSCRIPTS IN REVIEW / FINAL PREPARATION

1. **Sherman DA**, Neogi TN, Westerland M, Corrigan DP, Lavalley M, Frey-Law L, Lewis CE, Nevitt M, Stefanik JJ. Pain Sensitization and Functional Decline in Knee Osteoarthritis: A Two-Year Analysis in MOST. IN PREP. Journal Target: *Osteoarthritis and Cartilage*.
2. Koohestani M, Chaput M, Schwartz A, Rush JR, **Sherman DA**, Gokeler A, Norte GE. The Effect of Dual-task Paradigm on Balance after Anterior Cruciate Ligament Reconstruction: A Systematic Review and Meta-Analysis. IN REVIEW. *Gait & Posture*.
3. Collimore A, **Sherman DA**, Bonato P, Awad L. The Dynamic Motor Control Index as a Marker of Impaired Neuromotor Control After Stroke. IN REVIEW. *Neurorehabilitation and Neural Repair*.
4. Araromi OA, Shah K, Baker L, Wendel N, Graule MA, Wu H, **Sherman DA**, Lui A, Chang A, Niemi J, Ellis TD, Wood RJ, Walsh CJ. Muscle deformation biomarkers for the detection of medication-induced changes in muscle rigidity in Parkinson's disease using wearable curvature sensors. IN REVIEW. *npj Parkinson's Disease*.

## CONFERENCE PRESENTATIONS

## National and International Conferences

1. Upcoming: Schwart AL, **Sherman DA**, Stock MS, DeFreitas JM, Bonnette S, Chaput M, Norte GE. Fatigue response of quadriceps motor units in individuals with ACLR. **Isokinetic Medical Group 2026 Football Medicine Conference**. Athens, Greece. April 2026.
2. Upcoming: Wang Y, Hornsby S, **Sherman DA**, Yarossi M, Stefanik J. Relationship between pain sensitivity and quadriceps neurophysiological measures in people with knee osteoarthritis. (POSTER) **Osteoarthritis Research Society International (OARSI) 2026 World Congress**. West Plam Beach, Florida. April 2026.
3. Upcoming: Hornsby S, Wang Y, Savage M, Espinola Coombs P, Stefanik J, Culvenor AG, **Sherman DA**. Comparative effectiveness of quadriceps resistance training between individuals with and without knee osteoarthritis: a meta-analysis. (POSTER) **American Physical Therapy Association Combined Sections Meeting**. Anaheim, CA. February 2026.
4. Upcoming: Wang Y, Hornsby S, **Sherman DA**, Yarossi M, Stefanik J. Short-latency afferent inhibition of quadriceps in knee osteoarthritis shows no group differences but indicates subgroups. (PRESENTATION) **American Physical Therapy Association Combined Sections Meeting**. Anaheim, CA. February 2026.
5. Upcoming: Norte GE, **Sherman DA**, Chaput M, Toole A. Beyond brawn: rethinking muscle weakness and optimizing rehabilitation of patients with knee joint injury. (SESSION) **American College of Sports Medicine (ACSM) 2026 Annual Meeting**. Salt Lake City, UT. May 2026.
6. **Sherman DA**, Stefanik JJ, Guermazi A, Issa W, He X, Jang AW, Liu F, Jarraya M. Can combined neurophysiological and MRI evaluation help gain new insights in arthrogenic muscle inhibition among patients with knee pain? ABSTRACT. 2025 International Workshop on Osteoarthritis Imaging. Magdalene College, Cambridge UK.
7. Wang Y, Hornsby S, Deegan KD, Caulfield BM, **Sherman DA**, Stefanik JJ, Yarossi M. Comparing physiological recruitment during neuromuscular electrical stimulation and volitional contraction. **XV Progress in Motor Control. International Society of Motor Control**. July 2025. South Kingston, RI.
8. Norte GE, Chaput M, Sherman DA. Patients with ACL reconstruction perform Nordic hamstring exercise ineffectively. (ORAL - Next Generation Leaders Session) **Isokinetic Medical Group 2025 Football Medicine Conference**. Madrid, Spain. May 2025.
9. Schwartz AL, Bonnette S, **Sherman DA**, Hart JM, Norte GE. Differential Effects of Sex and ACLR Status on Quantity and Quality of Force Output. **American College of Sports Medicine (ACSM) 2025 Annual Meeting**. Atlanta, GA. May 2025.
10. Chaput M, Toole A, **Sherman DA**, Norte GE. Beyond Strength: Rethinking Muscle Weakness and Optimizing Rehabilitation of Patients with Knee Joint Injury. (SESSION – American Academy of Sports Physical Therapy) **American Physical Therapy Association Combined Sections Meeting**. Houston, TX. February 2025.
11. Thoma, L, **Sherman DA**. To Post-Doc or Not... That Is the Question! (SESSION – Academy of Research) **American Physical Therapy Association Combined Sections Meeting**. Houston, TX. February 2025.
12. Wang Y, Carter M, Stefanik JJ, **Sherman DA**, Yarossi M. Quantifying Quadriceps Muscle Inhibition through Modulation of Corticospinal Drive Via Tibial and Femoral Nerve Afferents. (POSTER) **American Physical Therapy Association Combined Sections Meeting**. Houston, TX. February 2025.
13. **Sherman DA**, Schwartz AL, Norte GE, Garcia MC. Torqlab: Parameter Optimization for Torque Steadiness Analysis to Improve Implementation in Physical Therapy Research. (POSTER) **American Physical Therapy Association Combined Sections Meeting**. Houston, TX. February 2025.
14. Hornsby S, **Sherman DA**, Schwartz AL, Norte GE, Garcia MC. Alterations in Quadriceps Torque Steadiness after ACL Reconstruction: Which Metrics Provide Unique Information?. (POSTER) **American Physical Therapy Association Combined Sections Meeting**. Houston, TX. February 2025.
15. Norte GE, Murray AM, **Sherman DA**, Gokeler A, Rush JL. Quadriceps Strength Symmetry Influences Movement Generation During Single Leg Hop Performance Among Individuals with ACL Reconstruction. (POSTER) **National Athletic Trainers' Association 2024 Annual Meeting**. New Orleans, LA. June 2024.
16. Smith EM, Sherman DA, Duncan S, Murray A, Chaput M, Murray AM, Bazett-Jones DM, Norte GE. Test-Retest Reliability and Visual Perturbation Performance Costs During Two Reactive Agility Tasks.

- (RAPID FIRE PRESENTATION) **National Athletic Trainers' Association 2024 Annual Meeting.** New Orleans, LA. June 2024.
17. Caulfield B, Deegan K, **Sherman DA**, Stefanik JJ, Yarossi M. Personalisation and Optimisation of NMES to Enhance Adherence and Clinical Effectiveness . (INVITED TALK) **International Society of Electrophysiology and Kinesiology (ISEK) 2024 Annual Meeting.** Nagoya, Japan. June 2024.
  18. Schwartz AL, Koohestani M, **Sherman DA**, Rush JL, Norte GE. Relationship Between Joint Angle and Patterns of Hamstrings Activation After ACL Reconstruction. (POSTER) **International Society of Electrophysiology and Kinesiology (ISEK) 2024 Annual Meeting.** Nagoya, Japan. June 2024.
  19. **Sherman DA**, Fernandes C, Schwab S, Gokeler A, Norte G. Interpersonal Coordination Between Female Soccer Players: Leader-Follower Roles. (ORAL) **Isokinetic Medical Group 2024 Football Medicine Conference.** Madrid, Spain. May 2024.
  20. Norte GE, Stock MS, **Sherman DA**. Injury History, Not Corticospinal Excitability, Explains Slower Quadriceps Motor Unit Firing After ACL Reconstruction. (POSTER) **American College of Sports Medicine (ACSM) 2024 Annual Meeting.** Boston, MA. May 2024.
  21. **Sherman DA**, Stock MS, Norte GE. Corticospinal Excitability Is Associated With Quadriceps Motor Unit Action Potential Amplitudes Irrespective of ACL Reconstruction. (POSTER) **American College of Sports Medicine (ACSM) 2024 Annual Meeting.** Boston, MA. May 2024.
  22. Schwartz AL, Koohestani M, **Sherman DA**, Stock MS, Norte GE. Quadriceps and Hamstrings Force Control After ACL Injury and Reconstruction: A Systematic Review & Meta-Analysis. (POSTER) **American College of Sports Medicine (ACSM) 2024 Annual Meeting.** Boston, MA. May 2024.
  23. **Sherman DA**, Neogi T, Stefanik J. Frequent Knee Pain Contributes To Lower Quadriceps Strength, But Not Decline In Strength Over 4-Years: Data From The Osteoarthritis Initiative. (POSTER) **Osteoarthritis Research Society International (OARSI) 2024 World Congress.** Vienna, Austria. April 2024.
  24. **Sherman DA**, McGinley B, Neogi T, Felson D, LaValley M, Torner, JC, Lewis CE, Nevitt M, Stefanik J. Association Between Frequent Knee Pain And Pain Severity With Quadriceps Strength Over 5-Years: Multicenter Osteoarthritis Study. (POSTER) **Osteoarthritis Research Society International (OARSI) 2024 World Congress.** Vienna, Austria. April 2024.
  25. **Sherman DA**, Sherman SG, Chaput M, Hannon J, Kunz RT. Reconstructing our Athletes: Optimizing Rehabilitation of Persons with Anterior Cruciate Ligament Injury. (SESSION – American Academy of Sports Physical Therapy) **American Physical Therapy Association Combined Sections Meeting.** Boston, MA. February 2024.
  26. **Sherman DA**, Capin JJ, DiStasi S, White DK, Michener L. Running a Research Lab is Like Running a Small Business. (SESSION – Academy of Research) **American Physical Therapy Association Combined Sections Meeting.** Boston, MA. February 2024.
  27. Schwab SM, **Sherman DA**, Corbin SF, Carver NS, Cooper D, DeSilva A. Methods, Tools, and Measurement for the Advancement of Interpersonal Motor Coordination Research in Physical Therapy. (SESSION – Academy of Research) **American Physical Therapy Association Combined Sections Meeting.** Boston, MA. February 2024.
  28. **Sherman DA**. Neural Determinants of Motor Function in ACL Rehabilitation. (INVITED TALK) **Institute of Exercise Physiology and Rehabilitation Science 4<sup>th</sup> Annual Conference.** University of Central Florida, Orlando, FL. February 2024.
  29. Collimore A, Alvarez J, **Sherman DA**, Walsh C, Binder-Macleod, Awad L. Plantarflexor Central Drive Symmetry is Associated with Poststroke Walking Function in Community Ambulators. **American Society of Biomechanics.** Knoxville, TN. August 2023.\*  
\*American Society of Biomechanics Clinical Biomechanics Award Finalist
  30. **Sherman DA**, Sherman SG. Acix: TED Style Dialogues Covering the Scope and Depth of ACL Injury, Rehabilitation, and Return to Sport. (FEATURE) **National Athletic Training Association Convention & Expo.** Indianapolis, IN. June 2023. *Deferred due to family medical leave.*
  31. **Sherman DA**, Stock M, Baumeister J, Murray AM, Bazett-Jones DM, Norte GE. Weaker quadriceps corticomuscular coherence in individuals following anterior cruciate ligament reconstruction during force tracing. (ORAL – American Academy of Sports Physical Therapy) **American Physical Therapy Association Combined Sections Meeting.** San Diego, CA. February 2023.
  32. **Sherman DA**, Stock M, Baumeister J, Murray AM, Bazett-Jones DM, Norte GE. Brain activation and single-limb balance deficits following anterior cruciate ligament reconstruction: neuroplasticity and potential treatments. (ORAL – American Academy of Sports Physical Therapy) **American Physical Therapy Association Combined Sections Meeting.** San Diego, CA. February 2023.



33. Malafronte J, Sherman DA. 'AM I' doing this right? Treating Arthrogenic muscle inhibition after ACLR. (POSTER – American Academy of Sports Physical Therapy) **American Physical Therapy Association Combined Sections Meeting**. San Diego, CA. February 2023.
34. Collimore A, Alvarez J, Barrow N, **Sherman DA**, Walsh C, Binder-Macleod S, Awad L. Accuracy of a Portable Device for Measuring Plantarflexor Muscle Strength and Central Drive. (POSTER – Academy of Neurologic Physical Therapy) **American Physical Therapy Association Combined Sections Meeting**. San Diego, CA. February 2023.
35. **Sherman DA**, Rush JL, Stock M, Ingersoll CD, Norte GE. Deficits in motor unit amplitude and recruitment threshold following ACL reconstruction: Evidence of diminished quadriceps motor neuron pool. (ORAL) **National Athletic Training Association Convention & Expo**. Philadelphia, PA. June 2022.
36. Chaput M, **Sherman DA**, Grooms D. Reframing the ACL Problem: Integrating a Neurological Approach to Rehabilitation. (SCIENCE MEETS PRACTICE SESSION – American Academy of Sports Physical Therapy). Dialogue: *Open and Exploit: Leverage Sensory Pathways to Boost Muscle Activation and Motor Recovery*. **American Physical Therapy Association Combined Sections Meeting**. San Antonio, TX. February 2022.
37. **Sherman DA**, Rush J, Norte GE. Arthrogenic Muscle Inhibition: Best Evidence, Mechanisms, and Theory for Treating the Unseen in Clinical Rehabilitation. (POSTER – American Academy of Sports Physical Therapy) **American Physical Therapy Association Combined Sections Meeting**. San Antonio, TX. February 2022.
38. **Sherman DA**, Rush J, Glaviano NR, Norte GE. Hamstrings muscle morphology in individuals with ACL reconstruction: Systematic review and meta-analysis. (ORAL) **National Athletic Training Association Convention & Expo**. Orlando, FL. June 2021.
39. **Sherman DA**, Vorst NT, Lehmann TL, Baumeister J, Norte GE. External focus of attention influences brain activity associated with single limb balance performance. (ORAL) **National Athletic Training Association Convention & Expo**. Orlando, FL. June 2021.
40. **Sherman DA**, Lehmann TL, Baumeister J, Gokeler A, Donovan L, Norte GE. External focus of attention influences brain activity associated with single limb balance performance. (ePOSTER – American Academy of Sports Physical Therapy) **American Physical Therapy Association Combined Sections Meeting**. February 2021.
41. **Sherman DA**, Vorst NT, Lehmann TL, Baumeister J, Grooms D, Norte GE. Transcutaneous electrical nerve stimulation influences brain activity associated with single limb balance performance. (ePOSTER – American Academy of Sports Physical Therapy) **American Physical Therapy Association Combined Sections Meeting**. February 2021.
42. **Sherman DA**, Glaviano NR, Norte GE. Hamstrings neuromuscular function in individuals with ACL reconstruction: Systematic review and meta-analysis. (ORAL) **National Athletic Training Association Convention & Expo**. Atlanta, GA. June 2020.
43. Sadeqi S, Erbulut D, Murray AM, Norte GE, **Sherman DA**, Noe K, Barnett M, Goel V. Comparison of ACL strain and knee kinematics during two tasks of single leg cross drop jump and single leg drop jump: a multibody and finite element study. (POSTER) **Orthopedic Research Society Annual Meeting**. Phoenix, AZ. February 2020.
44. Scheurer SA, **Sherman DA**, Glaviano NR, Ingersoll CD, Norte GE. Relationships Between Quadriceps Corticomotor and Neuromechanical Function after Anterior Cruciate Ligament Reconstruction. (POSTER) **National Athletic Trainers' Association Annual Meeting**. Las Vegas, NV. July 2019.
45. **Sherman DA\***, Kuenze C, Garrison CJ, Hannon J, Bothwell J, Bush CA, Norte GE. Thigh muscle and patient-reported function early after ACLR: Clinical cutoffs unique to graft type and age. (POSTER) **National Athletic Training Association Convention & Expo**. Las Vegas, NV. July 2019.  
\*NATA Research & Education Foundation Doctoral Poster Award Finalist
46. **Sherman DA**, Scheurer SA, Glaviano NR, Ingersoll CD, Norte GE. Relationships between quadriceps corticomotor and neuromechanical function after anterior cruciate ligament reconstruction. (POSTER) **Osteoarthritis Research Society International (OARSI) 2019 World Congress**. Toronto, Ontario, Canada. May 2019.
47. **Sherman DA**, Hannon J, Goto S, Creed K, Bothwell J, Bush C, Garrison JC. Relationship between Y balance performance, single limb vertical jump displacement, and single limb hop tests following Anterior Cruciate Ligament Reconstruction. (POSTER – American Academy of Sports Physical Therapy) **American Physical Therapy Combined Sections Meeting**. Washington, DC. January 2019.
48. **Sherman DA**, Garrison JC, Goto S, Creed K, Bothwell J, Hannon J. Differences in lower extremity energy absorption contribution between age groups in healthy female athletic cohorts during a jump

- landing task. (POSTER – American Academy of Sports Physical Therapy) **American Physical Therapy Association Combined Sections Meeting**. New Orleans, LA. February 2018
49. **Sherman DA**, Robertson SM, Marinko LN. do deficits in hip strength and abdominal endurance correlate to incidence of shoulder injury in the collegiate throwing athlete: A pilot study. (POSTER – Academy of Orthopedic Physical Therapy) **American Physical Therapy Association Combined Sections Meeting**. Las Vegas, NV. February 2014

## Regional Conferences

1. **Sherman DA**. Arthrogenic Muscle Inhibition Following Knee Injury or Surgery: Implications for Rehabilitation. (INVITED TALK) **Mass General Sports Medicine Conference: Lower Extremity Sports Medicine Summit: Caring for Athletes at All Levels**. Boston, MA. June 2025.
2. **Sherman DA**, Lehmann TL, Baumeister J, Gokeler A, Donovan L, Norte GE. External focus of attention influences brain activity associated with single limb balance performance. (ORAL) **Great Lakes Athletic Training Association Annual Meeting**. March 2021.
3. Vorst NT, **Sherman DA**, Lehmann TL, Baumeister J, Grooms D, Norte GE. Transcutaneous electrical nerve stimulation influences brain activity associated with single limb balance performance. (ePOSTER) **Great Lakes Athletic Training Association Annual Meeting**. March 2021.
4. **Sherman DA**, Lehmann T, Baumeister J, Gokeler A, Donovan L, Norte G. External focus of attention influences brain activity and single-limb balance performance in healthy individuals. (ORAL) **Ohio Physical Therapy Association LEAP 2020**. Columbus, OH. Sept 25<sup>th</sup> 2020.
5. **Sherman DA**. Current Research topics: persistent muscle dysfunction after ACL reconstruction. (INVITED SPEAKER) **Indiana State University Doctor of Athletic Training Weekend**. Terre Haute, ID. April 2020.
6. Norte GE, **Sherman DA**. Hamstrung by the hamstrings? Simple solutions for complex problems after ACL reconstruction. (FEATURE) **Great Lakes Athletic Training Association Annual Meeting**. Wheeling, IL. March 2020.
7. **Sherman DA**, Norte GE. The effect of eccentric exercise on hamstrings corticomotor function among individuals with ACL reconstruction: A pilot study. (ORAL) **Great Lakes Athletic Training Association Annual Meeting**. Wheeling, IL. March 2020.
8. Norte GE, **Sherman DA**. Life after ACL-Reconstruction: How do I know when my patient is ready to return to activity? (INSTRUCTIONAL LAB). Toledo, OH. April 2019.
9. Lee BJ, **Sherman DA**. Specific Rehabilitation Strategies after Periacetabular Osteotomy. (INSTRUCTIONAL LAB) **Fifteenth Annual Dallas Fort Worth Sports Medicine Symposium**. Southlake, TX. March 2018.
10. **Sherman DA**. Do Deficits In Hip Strength and Abdominal Endurance Correlate to Incidence of Shoulder Injury in the Collegiate Throwing Athlete: A Pilot Study. (ORAL) **American Physical Therapy Association of Massachusetts**. Newton, MA. October 2013

## Invited Seminars

1. **ACL Institute**. Arthrogenic Muscle Inhibition Following Knee Injury: Implications for Rehabilitation. Detroit, MI. July 2025.
2. **Motor Control Summer School # XXII**. Rethinking Muscle Weakness: Applying Motor Control in Joint Injury Rehabilitation. *International Society of Motor Control*. Andover, MA. June 2025.
3. **Boston ACTION Club**. Beyond Strength: Rethinking Muscle Weakness in Patients with Joint Injury. Boston, MA. May 2025.

## MEDIA

1. **Sherman DA** and Bien D. Treating arthrogenic muscle inhibition (AMI) after knee injury. *Rehab Exercise and Sports Therapy (REST) Podcast*. October 2024.
2. **Sherman DA**. Masterclass: Neural Determinants of Quadriceps Muscle Recovery after LCA Reconstruction (Translated and Disseminated in French). *Full Physio*. February 2024. (<https://www.fullphysio.com/>)
3. **Sherman DA** and Reinold M. Neural Determinants of Muscle Function in ACL Rehabilitation. *Sports Physical Therapy Podcast*. October 2023. (<https://sportsphysicaltherapypodcast.buzzsprout.com/>)

4. Synder-Mackler L, Lepley L, Wellsandt E, Grooms D, Norte G, **Sherman DA**. Quadriceps (dys)function after ACL Injury 2023. *Evidence & Practice*. Online Course & Virtual Q&A. June 2023. (<https://www.evidenceandpractice.com>)
5. **Sherman DA**. Unravelling the complexity: the future of ACL resilience remains hidden within the complex sensorimotor system. *Evidence & Practice*. Blog & Virtual Q&A. April 2021. (<https://www.evidenceandpractice.com>)

## SOFTWARE

1. TorqLab (2026). Secure, HIPAA-compliant torque time curve analysis platform for clinicians and patients. <https://www.thetorqlab.com>

## DIDACTIC IN-SERVICES

### Matriculation and Commencements

1. **Boston University Doctor of Physical Therapy White Coat Ceremony**. Kenote: Honored Alumni. Boston, MA. Sept 2025.

### On Scholarship of Teaching and Learning

1. **Northwestern University Advanced Orthopedic Physical Therapy Practice, Research and Education Fellowship**. Literature Review in the Age of Artificial Intelligence. Chicago, IL. Sept 2025.
2. Kusina J, Martin C, Nonekowsky S, **Sherman DA**, Bartell D. Course Design Institute. University of Toledo Center for Equity and Excellence in Teaching and Learning. Toledo, OH. May 2022.
3. **Sherman DA**, Bartell D. Teaching Assistant Training. University of Toledo Center for Equity and Excellence in Teaching and Learning. Toledo, OH. August 2021.

### On Rehabilitation

1. **Sherman DA**. Treating arthrogenic muscle inhibition (AMI) after knee injury: "Am I" doing this right? Harvard University Sports Medicine. Cambridge, MA. December 2024.
2. **Sherman DA**. Sensorimotor Neuroplasticity after ACL Reconstruction: Insights into Neuromodulation in Orthopedic Clinical Rehabilitation. Residency Didactic Topic. Texas Health Resources. Texas Health Sports Medicine. Fort Worth, TX. September 2023.
3. **Sherman DA**. Sensorimotor Neuroplasticity after ACL Reconstruction: Insights into Neuromodulation in Orthopedic Clinical Rehabilitation. Residency Didactic Topic. Texas Health Resources. Texas Health Sports Medicine. Fort Worth, TX. September 2022.
4. **Sherman DA**. Sensorimotor Neuroplasticity after ACL Reconstruction: Insights into Neuromodulation in Orthopedic Clinical Rehabilitation. Seminars in Neuroscience. University of Paderborn, Paderborn, Germany. May 18, 2022.
5. **Sherman DA**. Treating the patient with a knee injury: 2021 Updates. *Learning lab: the power of language: use of motor learning principles to improve movement and recovery*. University of Toledo College of Health and Human Services. Ohio Physical Therapy Association EBP Event. Toledo, OH. November 2021.
6. **Sherman DA**, Kuenze C, Garrison CJ, Hannon J, Bothwell J, Bush CA, Norte GE. Thigh muscle and patient-reported function early after ACLR: Clinical cutoffs unique to graft type and age. Motion Analysis and Integrative Neurophysiology Lab Inservice. University of Toledo, College of Health and Human Services. Toledo, OH. November 2019.
7. **Sherman DA**. Neuromuscular aspects of common musculoskeletal injuries. Physical Therapy Program Inservice. University of Toledo, College of Health and Human Services. Toledo, OH. September 2019.
8. **Sherman DA**. Progression and Regression of Therapeutic Exercise. Physical Therapy Program Inservice. University of Toledo, College of Health and Human Services. Toledo, OH. March 2019.
9. **Sherman DA**. Functional Anatomy of the Knee. Residency Didactic Topic. Texas Health Resources. Ben Hogan Sports Medicine. Fort Worth, TX. January 2019.
10. **Sherman DA**. Overhead Throwing Athlete and the Ulnar Collateral Ligament (UCL): From Injury Prevention to Return to Throwing. Physical Therapy Program Inservice. University of Toledo, College of Health and Human Services. Toledo, OH. October 2018.

11. **Sherman DA.** Functional Anatomy of the Knee. Residency Didactic Topic. Texas Health Resources. Ben Hogan Sports Medicine. Fort Worth, TX. December 2017.
12. Hannon J, **Sherman DA**, Ortega K. Sports Medicine Seminar. Doctor of Physical Therapy Program Lecture Series. Texas Woman's University. Dallas, TX. April 2017.
13. **Sherman DA**, Garrison JC. Post-op ACL Reconstruction: From Three Months to Return to Sport. Residency Didactic Topic. Texas Health Resources. Ben Hogan Sports Medicine. Fort Worth, TX. January 2017.
14. **Sherman DA.** Don't Be A Pain: Physical Therapist's Role in Pain Management Acutely Post-Operatively. In-service. University of Virginia Health System. Physical and Occupational Therapy Department. Charlottesville, VA. May 2014.
15. **Sherman DA.** Mindset and Its Role in Low Back Pain: Clinical Considerations for Management of Physiological and Psychological Aspects of Low Back Pain. In-service. EXOS. Frisco, TX. March 2013.

## OTHER FUNDING

### Sponsored Trainee Funding

#### **Boston University – Undergraduate Research Opportunities Program**

Student: Noah Barrow (Summer 2023)

Title: Translation of Robotic Apparel for Alleviating Low Back Pain

Role: Project Lead (PI: Awad)

#### **University of Toledo - Undergraduate Research and Creative Activities Program**

Student: Alekhya Varada (Fall 2021)

Title: *Response selection, motor planning, and response execution following ACL reconstruction*

Role: Graduate Student Advisor (Sponsor & Advisor: Norte)

#### **University of Toledo - Undergraduate Research and Creative Activities Program**

Student: Alekhya Varada (Summer 2021)

Title: *Behavioral dynamics of collision avoidance in sport: Insights into ACL injury prevention*

Role: Graduate Student Advisor (Sponsor & Advisor: Norte)

#### **University of Toledo - Undergraduate Research and Creative Activities Program**

Student: Alyssa Jordan (Summer 2021)

Title: *Brain to muscle coherence quality between individuals following ACLR and controls: Differences and potential treatments.*

Role: Graduate Student Advisor (Sponsor & Advisor: Norte)

#### **University of Toledo - Undergraduate Research and Creative Activities Program**

Student: Nathan Vorst (Fall 2020)

Title: *Influence of sensory system constraints on brain activity during postural control task performance*

Role: Graduate Student Advisor (Sponsor & Advisor: Norte)

#### **University of Toledo - Undergraduate Research and Creative Activities Program**

Student: Trentin Harris (Summer 2020)

Title: *Adaptation in quadriceps motor unit characteristics after ACL reconstruction*

Role: Graduate Student Advisor (Sponsor & Advisor: Norte)

#### **University of Toledo - Undergraduate Research and Creative Activities Program**

Student: Noah Fiala (Summer 2019)

Title: *Use of Nordic hamstring exercise to improve hamstrings function in patients after ACL reconstruction*

Role: Graduate Student Advisor (Sponsor & Advisor: Norte)

### Small Business

#### **Town of Acton Economic Development Office - Acton Business Incubator, 6/27/2022**

Description: Small business accelerator grant for the development of small business within the Acton, MA community. Awarded to the business whose mission and vision align with the Town's values and who demonstrates strong potential for growth.

Role: Vice President (President: Sarah Sherman)

Amount: \$5,000

## HONORS AND AWARDS

June 2024	<b>Nominee, The David H. Perrin Doctoral Dissertation Award</b> , National Athletic Trainers Association Research and Education Foundation
June 2021	<b>GLATA Living Pinky Newell Graduate Scholarship</b> , National Athletic Trainers Association
April 2019	<b>Robert N. Memorial Scholarship</b> , The University of Toledo Graduate Council
April 2016	<b>Mosaic Pin Award for Exemplary Modelling of Promise Behaviors: Support of Diversity in the Workplace and Patient Satisfaction</b> Texas Health Resources, Arlington, TX

## LEADERSHIP

July 2021-July 2023	<b>Center for Equity and Excellence in Teaching and Learning Advisory Council*</b> Nominated Member, Two-Year Appointment <a href="#">*Institutional development role</a>
Oct 2020-July 2021	<b>University of Toledo Teaching Center Task Force*</b> Sole Graduate Student Member, Office of the Provost, University of Toledo <a href="#">*Institutional development role</a>
May 2020-June 2022	<b>MAIN Lab Human Biomechanics Undergraduate Student Group</b> Founder & Graduate Student Advisor, University of Toledo, Toledo, OH
Oct 2018-May 2020	<b>Midwest Graduate Research Symposium Steering Committee</b> Graduate Student Association, University of Toledo, Toledo, OH
May 2012-May 2013	<b>Residence Assistant</b> Residence Life, South Campus, Boston University, Boston, MA
Sept 2011-May 2012	<b>Treasurer</b> Residence Life, Student Village II, Boston University, Boston, MA

## ADDITIONAL SCHOLARLY TRAINING

Spring 2025	<b>GROW Program</b> , AtKisson Training Group and Bouve College of Health Sciences Research Development, Boston, MA
Spring 2025	<b>Training in Grantsmanship for Rehabilitation Research (TIGRR)</b> , Shepherd Center, Charleston, SC (NIH/NICHD R25HD074546)
Fall 2024	<b>Shirley Ryan Ability Lab Targeted-Neuroplasticity-Workshop</b> , Shirley Ryan Ability Lab, Chicago, IL
Fall 2024	<b>National Center for Neuromodulation in Rehabilitation (NM4R) Workshop</b> , Medical University of South Carolina, Charleston, SC
Spring 2023 – Present	<b>Boston University Rheumatology Research Training (BURRT) T32 Program</b> , Boston University, Chobanian & Avedesian School of Medicine, Rheumatology
Spring 2023	<b>Program for Early Research Career Development (PERC)</b> , Boston University Clinical and Translational Science Institute, Boston University
Summer 2022	<b>The Postdoc Academy: Building Skills for a Successful Career</b> , Professional Development and Postdoctoral Affairs, Boston University
Spring 2021	<b>Equity Champion</b> , College Transition Collaborative Student Experience Project*, University of Toledo <i>*Interdisciplinary community of practice surrounding course redesign to optimize principles of diversity, equity, and inclusion</i>
Spring 2021	<b>Advanced Leadership Academy</b> , College of Business Innovation, University of Toledo
Spring 2018	<b>Scholar Institute Program</b> , Office of Research and Sponsored Programs (Grant Writing Workshop), University of Toledo

## RESEARCH ADVISING

## Doctor of Philosophy Student

Samantha Hornsby – Northeastern University, PhD Advisor, 2024-Present

Yuxuan “Jerry” Wang – Northeastern University, Dissertation Committee Member, 2023-Present

Ava Schwartz – University of Central Florida, Dissertation Committee Member, 2022-Present

Moein Koohestanijavan – University of Central Florida, Dissertation Committee Member, 2022-Present

Corey Lanois – Northeastern University, Dissertation Committee Member, 2023-2025

Project Title: Ultrasound-Assessed Femoral Cartilage Thickness and Deformation: Relationships to Pain, Function, and Gait Mechanics in Knee Osteoarthritis

Ashley Collimore - Boston University, Postdoctoral Advisor, 2022-2024

Project Title: Neuromotor control after stroke: Understanding neuromechanical contributors to propulsion deficits.

Jonathon Alvarez – Harvard University, Postdoctoral Advisor, 2022-2024

Project Title: Neuromotor control after stroke: Understanding neuromechanical contributors to propulsion deficits.

Philipp Arens – Harvard University, Postdoctoral Advisor, 2022-2024

Project Title: Development, Evaluation & Translation of Robotic Apparel for Alleviating Low Back Pain

## Graduate Student Theses and Capstones

Cydney Barnes – Bioengineering and Mechanobiology, Northeastern University, 2025-2026

Fabricio Valdez Ordenez, Gordon Institute of Engineering Leadership, Northeastern University, 2024-2025

Challenge Project Title: Joint Biomechanic Assessment in a Customized Knee Exoskeleton

Ellen Smith - University of Toledo, Primary Graduate Student Advisor, 2021-Present

Thesis Title: Test-retest reliability and influence of visual constraint during two novel reactive-agility tasks.

Courtney Fernandes - University of Toledo, Primary Graduate Student Advisor, 2020-2022

Thesis Title: Self-organized interpersonal collision-avoidance: implications for sport and fear of injury.

Mitchell Anderson – University of Toledo, Co-advisor, 2020-2022

Thesis Title: Effects of an Eccentric Biased at Home Exercise Program on Hamstrings Muscle Function

Samantha Duncan – University of Toledo, Primary Graduate Student Advisor, 2019-2021

Thesis Title: Test-retest reliability and influence of visual constraint during two novel reactive-agility tasks.

Kelsie Langenderfer - Physical Therapy, University of Toledo, 2019-2020

McKenna Shives - Physical Therapy, University of Toledo, 2019-2020  
Cale Chaltron – University of Toledo, Primary Graduate Student Advisor, 2018-2020

Thesis Title: Effects of whole-body vibration on hamstrings neuromuscular function.

John Walker – University of Toledo, Co-advisor, 2018-2019

Thesis Title: Use of Nordic hamstring exercise to improve hamstrings function in patients after ACL reconstruction.

## Northeastern Co-Op Students

Isaac Thean – Khoury College of Computer Science (Fall 2025)

Sarthak Kakker – Khoury College of Computer Science (Spring 2025)

## Undergraduate Researchers

Noah Barrow – Sargent College, Boston University, 2022-2023.

Sanjana Nath – College of Engineering, University of Toledo, 2021-2022.

Alekhyia Varada – College of Engineering, University of Toledo, 2020-2022.

Alyssa Jordan - College of Health and Human Services, University of Toledo. 2020-2022.

Trentin Harris – College of Health and Human Services, University of Toledo. 2020.

Nathan Vorst – College of Health and Human Services, University of Toledo. 2019-2021.

Noah Fiala – College of Health and Human Services, University of Toledo. 2018-2020.

## CLASSROOM TEACHING EXPERIENCE

July 2024-Present | **Instructor**, Northeastern University

Fall	PT5138 – <i>Neuroscience</i>
	PT5976 – <i>Directed Study in Neurophysiology</i>
Summer	PT8986 - <i>Research</i>
	BIOE7945 - <i>Master's Project</i>
Aug 2022–Dec 2022	<b>Lab Instructor</b> , Boston University
Fall 2022	PT521 – <i>Musculoskeletal Systems I (Upper Extremity)</i>
May 2019–June 2022	<b>Part-Time Instructor</b> , University of Toledo
Spring 2022	EXSC 3200 – <i>Advanced Human Anatomy</i>
Fall 2021	ATTR6720 – <i>Advanced Clinical Anatomy</i>
Summer 2019 - 2021	PHYT5000 – <i>Gross Anatomy</i>
Aug 2018–June 2022	<b>Teaching Assistant</b> , University of Toledo
Spring 2020-Fall 2020	Biomechanics of Human Motion
Spring 2019 - 2022	Biomechanical Instrumentation
Fall 2021	ATTR6730 – <i>Optimization of Performance &amp; Wellness</i>
Spring 2020 - 2022	EXSC4640 – <i>Neurological &amp; Pathological Foundations of Rehabilitation</i>
Fall 2019-Fall 2020	KINE1460- <i>Fundamentals of Anatomy and Physiology (In-person &amp; online sections)*</i>
	<i>*Revised course to incorporate principles of diversity, equity, and inclusion</i>
Fall 2018-Spring 2019	KINE2460 - <i>Anatomy and Physiology 1</i>
Spring 2019	PHYT5070/5080- <i>Neuroscience &amp; Neuroscience Seminar</i>

## CLINICAL PRECEPTOR EXPERIENCE

Spring 2017–Fall 2018	<b>Clinical Preceptor</b> Doctor of Physical Therapy Program, UT Southwestern, Dallas, TX Doctor of Physical Therapy Program, Oklahoma University, Norman, OK Doctor of Physical Therapy Program, Texas Tech University, Lubbock, TX
Fall 2016–Fall 2018	<b>Clinical Preceptor</b> Masters' of Athletic Training Program, Texas Wesleyan University, Dallas, TX Masters' of Athletic Training Program, University of Texas Arlington, Arlington, TX Bachelor of Athletic Training Program, Texas Christian University, Fort Worth, TX
Summer 2016 & 2017	<b>Clinical Preceptor</b> SAR PT791 – <i>Clinical Education Experience 1</i> Doctor of Physical Therapy Program, Boston University, Boston, MA Athletic Training Program, Boston University, Boston, MA

## SCHOLARLY SERVICE

### American Physical Therapy Association

June 2023-Present	<b>Abstract Reviewer</b> – American Physical Therapy Association, Academy of Physical Therapy Research
July 2021-Present	<b>Abstract Reviewer</b> - American Physical Therapy Association, American Academy of Sports Physical Therapy

### University of Toledo Provost Office

July 2021-July 2023	<b>Center for Equity and Excellence in Teaching and Learning Advisory Council</b> Nominated Member, Two-Year Appointment
Oct 2020-July 2021	<b>Teaching Center Task Force &amp; Advisory Board</b> Sole Graduate Student Member

### Ad hoc Reviewer

Aug 2018-Present	American Journal of Sports Medicine British Journal of Medicine – Open British Journal of Sports Medicine Clinical Biomechanics
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Current Opinions in Biomechanical Engineering  
 Experimental Brain Research  
 International Journal of Sports Medicine  
 International Journal of Sports Physical Therapy  
 Journal of Athletic Training  
 Journal of Applied Physiology  
 Journal of Physiology  
 Journal of Science and Medicine in Sport  
 Journal of Sports Medicine and Allied Health Sciences  
 Journal of Sports Rehabilitation  
 Medicine & Science in Sports & Exercise  
 Physical Therapy in Sport  
 Scandinavian Journal of Medicine & Science in Sports  
 Scientific Reports  
 Sports Health

## LICENSURE

April 2022-Present	<b>Licensed Physical Therapist</b> (#26067), Commonwealth of Massachusetts Division of Professional Licensure in Allied Health Professions
June 2018-Oct 2023	<b>Licensed Physical Therapist</b> (#PT017750), State of Ohio Ohio Occupational Therapy, Physical Therapy, & Athletic Trainers Board
June 2018-Oct 2023	<b>Licensed Athletic Trainer</b> (#AT005713), State of Ohio Ohio Occupational Therapy, Physical Therapy, & Athletic Trainers Board
Aug 2014-Aug 2018	<b>Licensed Physical Therapist</b> (#1249019), State of Texas Texas Board of Physical Therapy Examiners
July 2014-July 2018	<b>Licensed Athletic Trainer</b> (#AT5955), State of Texas Texas Department of State Health Services
Dec 2012-Aug 2016	<b>Licensed Athletic Trainer</b> (#2414), Commonwealth of Massachusetts Division of Professional Licensure in Allied Health Professions

## MEMBERSHIPS AND CERTIFICATIONS

	<b>National Provider Identifier (NPI)</b> 1184127136
Sept 2024-Present	<b>Graduate Faculty Scholar</b> , University of Central Florida, Orlando, FL
June 2022-Present	<b>Member</b> , Academy of Physical Therapy Research
May 2019-Present	<b>Community Member</b> , Project DAWN (Deaths Avoided With Naloxone)
Sept 2018-Present	<b>Member</b> , Neuromodulation for Rehabilitation (NM4R)
Sept 2018-Present	<b>Member</b> , Osteoarthritis Research Society International (OARSI)
Mar 2018-Present	<b>Member</b> , American Academy of Sports Physical Therapists (AASPT)
June 2016-Aug 2018	<b>Credentialed Trainer</b> , EPIC/Care Connect Medical System
Feb 2015-Mar 2018	<b>Member</b> , Orthopedic Section of American Physical Therapy Association
Feb 2015-Present	<b>Member</b> , American Physical Therapy Association (APTA)
Sept 2012-Present	<b>Certified Athletic Trainer</b> , Board of Certification (BOC)
Jan 2010-Present	<b>Member</b> , National Athletic Trainers Association (NATA)
May 2009-Present	<b>Emergency Cardiac Care Certified</b> (BLS)

## VOLUNTEER

Oct 2020-May 2022	<b>Precinct Election Official</b> , Lucas County Board of Elections
Apr 2013-Present	<b>Volunteer Certified Athletic Trainer</b> , Athletic Training Team Boston Athletic Association Medical Team, Boston Marathon, Boston, MA
Apr 2010, Apr 2012	<b>Volunteer Student Athletic Trainer</b> , Athletic Training Team Boston Athletic Association Medical Team, Boston Marathon, Boston, MA



## PERSONAL INFORMATION

Citizenship:	United States of America
Pronouns:	He / Him / His