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ACADEMIC WORK EXPERIENCE

- 2022- Associate Professor, Department of Kinesiology, University of Virginia, Charlottesville, VA
- 2021-2022 Associate Professor, Department of Kinesiology, Michigan State University, East Lansing, MI
- 2019-2022 Clinical Assistant Professor, Department of Orthopaedics, Michigan State University, East Lansing, MI
- 2015-2021 Assistant Professor, Department of Kinesiology, Michigan State University, East Lansing, MI
Post-professional Graduate Athletic Training Program Director
- 2013-2015 Assistant Professor, Department of Exercise and Sport Sciences, University of Miami, Coral Gables, FL
- 2009-2013 Graduate Research Assistant, Department of Orthopaedics, University of Virginia, Charlottesville, VA
- 2007-2009 Graduate Assistant Athletic Trainer, University of North Carolina, Chapel Hill, NC

RELATED WORK EXPERIENCE

- 2022 Research Analyst, INOVA Sports Medicine, Fairfax, VA
Context: INOVA Sports Medicine will provide a 1 course buyout and travel funding to support a formal collaboration between the Sports Medicine service line and Dr. Kuenze. The goal of this collaboration is to develop multisite clinical outcomes studies that lead to multisite federal grant submissions with Dr. Kuenze as the PI and his institution of primary employment serving as the submitting institution.

EDUCATION

- University of Virginia, Charlottesville, VA. Doctor of Philosophy (2013)
Curry School of Education, Department of Human Services
Program: Sports Medicine
Dissertation: Lower Extremity Function in Active Individuals following ACL Reconstruction
- University of North Carolina, Chapel Hill, NC, Master of Arts (2009)
College of Arts and Sciences, Department of Exercise and Sports Science
Program: Athletic Training
Thesis: The Effects of Functional Ankle Instability and Induced Fatigue on Ankle Stiffness
- Boston University, Boston, MA, Bachelor of Science (2007)
Sargent College of Health and Rehabilitation, Department of Athletic Training
Program: Athletic Training
Minor: Biology

PUBLISHED MANUSCRIPTS IN REFEREED JOURNALS (*senior authorship, † corresponding authorship, ‡ doctoral student contribution, § medical student or resident contribution)

1. Burghardt WP, Pfeiffer KA, Kuenze C. Assessing the Relationship Between External Workloads and Noncontact Injuries During Summer Conditioning and Preseason Practice in National Collegiate Athletic

Association Division 1 Football Players. *J Strength Cond Res.* 2022 Jul 21. Epub ahead of print. PMID: 35876439. Impact Factor: 4.415. Citations: 0

2. Pfeiffer KA, Lisee C, Westgate BS, Kalfsbeek C, **Kuenze C**, Bell D, Cadmus-Betram L, Montoye AHK. Using accelerometers to detect activity type in a sport setting: Challenges with using multiple types of conventional machine learning approaches. *Meas Phys Educ Exerc Sci. (Accepted)* Impact Factor: 2.304. Citations: 0
3. Ripic Z, **Kuenze C**, Andersen MS, Theodorakos I, Signorile J, Eltoukhy M. Ground Reaction Force and Joint Moment Estimation during Gait using an Azure Kinect-driven Musculoskeletal Modeling Approach. *Gait & Posture.* Accepted. Impact Factor: 2.273. Citations: 0
4. Oh J, Ripic Z, Signorile J, Andersen MS, **Kuenze C**, Letter M, Best T, Eltoukhy M. Monitoring Joint Mechanics in Anterior Cruciate Ligament Reconstruction Using Depth Sensor-Driven Musculoskeletal Modeling and Statistical Parametric Mapping. *Medical Engineering & Physics.* Accepted. Impact Factor: 2.242. Citations: 0
5. Harkey M, Michel N, **Kuenze C**, Fajardo R, Driban J, Hacihaliloglu I. Validating a Semi-Automated Technique for Segmenting Femoral Articular Cartilage on Ultrasound Images. *Cartilage.* Accepted. Impact Factor: 4.634. Citations: 0
6. Collins K‡, Fajardo R, Harkey MS, Knake J, Lisee C, Wilcox L, Tasco J, **Kuenze C***. Knee Symptoms Do Not Affect Walking Biomechanics among Women 6-months after Anterior Cruciate Ligament Reconstruction. *J Ortho Res.* 2022 Jan 9. Online Ahead of Print. PMID: 35001419. Impact Factor: 3.494. Citations: 0
7. **Kuenze C**†, Farner N§, Lewis J§, Lisee C, Schorfhaar A, Erickson K. Patient, Parent, and Physical Therapist Perceptions of Rehabilitation following ACL Reconstruction: A Multiple Stakeholder Qualitative Study. *J Athl Train.* 2022 Feb 10. Online Ahead of Print. PMID: 35142825.
8. **Kuenze C**, Collins K‡, Triplett A‡, Bell DR, Norte GE, Baez SE, Harkey MS, Lisee C. Adolescents are Less Physically Active than Adults 6 to 12 months after Anterior Cruciate Ligament Reconstruction. *Ortho J Sport Med.* Accepted. Impact Factor: 3.426. Citations: 0
9. Pietrosimone B, Lepley AS, **Kuenze CM**, Harkey MS, Hart JM, Blackburn JT, Norte GE. Arthrogenic Muscle Inhibition Following Anterior Cruciate Ligament Injury. *J Sport Rehabil.* Accepted. Impact Factor: 1.931. Citations: 0
10. Harkey M, Baez S, Lewis J§, Grindstaff T, Hart J, Driban J, Schorfhaar A, **Kuenze C***. Prevalence of Early Knee Osteoarthritis Illness Among Various Patient-Reported Classification Criteria After Anterior Cruciate Ligament Reconstruction. *Arthritis Care Res (Hoboken).* 2021 Nov 4. Online Ahead of Print. PMID: 34738341. Impact Factor: 4.794. Citations: 0
11. Lisee C‡, Harkey M, Walker Z§, Pfeiffer K, Covassin T, Kovan J, Currie K, **Kuenze C***. Longitudinal Changes in Ultrasound-Assessed Femoral Cartilage Thickness in Individuals From 4 to 6 Months Following Anterior Cruciate Ligament Reconstruction. *Cartilage.* Online Ahead of Print. PMID: 34384276. Impact Factor: 4.634. Citations: 0
12. Petit KM, **Kuenze C**, Pfeiffer KA, Fitton N, Saffarian M, Covassin, T. Relationship Between Physical Activity Participation and Recovery Outcomes in College-Aged Adults with a Concussion. *J Athl Train.* Online Ahead of Print. PMID: 34329439. Impact Factor: 2.319. Citations: 0
13. **Kuenze C**†, Collins K, Pfeiffer KA, Lisee C. Assessing Physical Activity after ACL Injury: Moving Beyond Return to Sport. *Sports Health.* Online Ahead of Print. PMID: 34184945. Impact Factor: 2.694. Citations: 1
14. Harkey MS, Driban JB, **Kuenze C**, Salzler MJ. Pre-Operative Femoral Trochlear Cartilage Ultrasound Echo-Intensity Associates with Patient-Reported Outcomes at One Year Following Anterior Cruciate Ligament

Reconstruction: A Preliminary Investigation. *Ultrasound Med Biol*. 2021 Feb;84:232-237. PMID: 33931287. Impact Factor: 2.514. Citations: 0

15. Oh J, **Kuenze C**, Signorile JF, Anderson MS, Letter M, Best T, Ripic Z, Eltoukhy M. Estimation of Ground Reaction Forces during Stair Climbing in Patients with ACL Reconstruction Using a Depth Sensor-Driven Musculoskeletal Model. *Gait Posture*. Dec 25;84:232-237. PMID: 33383533. Impact Factor: 2.273. Citations: 0
16. Triplett A‡, **Kuenze C***. Characterizing Body Composition, Cardiorespiratory Fitness, and Physical Activity in Women with Anterior Cruciate Ligament Reconstruction. *Phys Ther Sport*. 2021 Mar;48:54-59. PMID: 33373903. Impact Factor: 1.919. Citations: 1
17. **Kuenze C†**, Pfeiffer KA, Pfeiffer M, Driban JB, Pietrosimone B. Feasibility of a Wearable-based Physical Activity Goal Setting Intervention among Individuals with ACL Reconstruction. *J Athl Train*. 2021 Jun 1;56(6):555-564. PMID: 34375982. Impact Factor: 2.319. Citations: 0
18. **Kuenze C†**, Bell DR, Grindstaff T, Lisee C‡, Birchmeier T‡, Triplett A‡, Pietrosimone B. A Comparison of Psychological Readiness and Patient-Reported Function Between Sexes after ACL Reconstruction. *J Athl Train*. 2020 Dec 28;56(2):164-9. PMID: 33370438. Impact Factor: 2.319. Citations: 0
19. Lisee C‡, DiSanti J, Ling J, Chan M, Erickson K, Shingles M, **Kuenze C***. Gender differences in perceived barriers to return to activity following ACL reconstruction. *J Athl Train*. 2020 Oct 1;55(10):1098-1105. PMID: 32966569. Impact Factor: 2.319. Citations: 8
20. Lisee C‡, McGrath M, **Kuenze C**, Zhang M, Salzler M, Driban JB, Harkey MS. Reliability of a Novel Semi-Automated Ultrasound Segmentation Technique for Assessing Compartmental Femoral Articular Cartilage Thickness. *J Sports Rehabil*. 2020 May 29;29(7):1042-1046. PMID: 32473587. Impact Factor: 1.811. Citations: 3
21. Lisee C‡, Montoye A, Lewallen N§, Hernandez M, Bell DR, **Kuenze C*†**. Assessment of Free-Living Cadence using Actigraph Accelerometers among Individuals with and without ACL Reconstruction. *J Athl Train*. 2020 Sep 1;55(9):994-1000. PMID: 32818959. Impact Factor: 2.319. Citations: 2
22. Sherman D, **Kuenze C**, Garrison CJ, Hannon J, Bothwell J, Bush CA, Ingersoll CD, Norte GE. Thigh Muscle and Patient-Reported Function Early After ACL Reconstruction: Clinical Cutoffs Unique to Graft Type and Age. *J Athl Train*. 2020;55(8):826-833. PMID: 32688373. Impact Factor: 2.319. Citations: 1
23. Oh J, Eltoukhy M, **Kuenze C**, Andersen MS, Signorile JF. Comparison of predicted kinetic variables between Parkinson's disease patients and healthy age-matched control using a depth sensor-driven full-body musculoskeletal model. *Gait Posture*. 2020 Feb;76:151-156. PMID: 31862662. Impact Factor: 2.273. Citations: 6
24. Lisee C‡, Birchmeier T‡, Yan A§, **Kuenze C***. Associations between isometric quadriceps strength characteristics, knee flexion angles, and knee extension moments during single leg step down and landing tasks after anterior cruciate ligament reconstruction. *Clin Biomech (Bristol, Avon)*. 2019;70:231-236. PMID: 31669921. Impact Factor: 1.863. Citations: 9
25. Birchmeier T‡, Lisee C‡, Kane K§, Brazier B§, Triplett A‡, **Kuenze C***. Quadriceps Muscle Size Following ACL Injury and Reconstruction: A Systematic Review. *J Orthop Res*. 2020;38(3):598-608. PMID: 31608490. Impact Factor: 3.414. Citations: 13
26. Leszczynski EC, **Kuenze C**, Brazier B§, Visker J, Ferguson DP. The Effect of ACL Reconstruction on Involved and Contralateral Limb Vastus Lateralis Morphology and Histology: A Pilot Study. *J Knee Surg*. 2021 Apr;34(5):533-537. PMID: 31569259. Impact Factor: 1.591. Citations: 1

27. **Kuenze C**, Lisee C‡, Birchmeier T‡, Triplett A‡, Wilcox L, Schorfhaar A, Shingles M. Sex differences in quadriceps rate of torque development within 1 year of ACL reconstruction. *Phys Ther Sport*. 2019;38:36-43. PMID: 31042614. Impact Factor: 1.919. Citations: 12
28. Hart JM, **Kuenze C**, Norte G, Bodkin S, Patrie J, Denny C, Hart J, Diduch DR. Prospective, Randomized, Double-Blind Evaluation of the Efficacy of a Single-Dose Hyaluronic Acid for the Treatment of Patellofemoral Chondromalacia. *Orthop J Sports Med*. 2019;7(6):2325967119854192. PMID: 31263727. Impact Factor: 2.589. Citations: 6
29. Morrison R, Petit K, **Kuenze C**, Moran RN, Covassin T. Pre- to Post-Season Changes on The BTrackS Force-Plate in a Sample of Collegiate Athletes. *J Sport Rehabil*. 2019:1-12. PMID: 31034328. Impact Factor: 1.811. Citations: 3
30. Lisee C‡, Birchmeier T‡, Yan A§, Geers B§, O'Hagan K§, Davis C, **Kuenze C***. The Relationship Between Vertical Ground Reaction Force, Loading Rate and Sound Characteristics During a Single Leg Landing. *J Sport Rehabil*. 2019:1-24. PMID: 31034335. Impact Factor: 1.811. Citations: 3
31. Birchmeier T‡, Lisee C‡, Geers B§, **Kuenze C***. Reactive Strength Index and Knee Extension Strength Characteristics Are Predictive of Single-Leg Hop Performance After Anterior Cruciate Ligament Reconstruction. *J Strength Cond Res*. 2019;33(5):1201-1207. PMID: 30844991. Impact Factor: 2.325. Citations: 13
32. **Kuenze C†**, Lisee C‡, Pfeiffer KA, Cadmus-Bertram L, Post EG, Biese K, Bell DR. Sex differences in physical activity engagement after ACL reconstruction. *Phys Ther Sport*. 2019;35:12-17. PMID: 30396146. Impact Factor: 1.919. Citations: 15
33. Lisee C‡, Lepley AS, Birchmeier T‡, O'Hagan K§, **Kuenze C***. Quadriceps Strength and Volitional Activation After Anterior Cruciate Ligament Reconstruction: A Systematic Review and Meta-analysis. *Sports Health*. 2019;11(2):163-179. PMID: 30638441. Impact Factor: 2.694. Citations: 46
34. **Kuenze C†**, Pietrosimone B, Lisee C‡, Rutherford M, Birchmeier T‡, Lepley A, Hart J. Demographic and surgical factors affect quadriceps strength after ACL reconstruction. *Knee Surg Sports Traumatol Arthrosc*. 2019;27(3):921-930. PMID: 30327821. Impact Factor: 3.210. Citations: 18
35. Hunnicutt JL, Hand BN, Gregory CM, Slone HS, McLeod MM, Pietrosimone B, **Kuenze C**, Velozo CA. KOOS-JR Demonstrates Psychometric Limitations in Measuring Knee Health in Individuals After ACL Reconstruction. *Sports Health*. 2019;11(3):242-246. PMID: 30444674. Impact Factor: 2.694. Citations: 4
36. Eltoukhy M, **Kuenze C**, Oh J, Apanovitch E, Butler L, Signorile JF. Concurrent Validity of Depth-Sensing Cameras for Noncontact ACL Injury Screening During Side-Cut Maneuvers in Adolescent Athletes: A Preliminary Study. *J Appl Biomech*. 2019;35(1):2-10. PMID: 29989470. Impact Factor: 1.390. Citations: 5
37. **Kuenze C**, Cadmus-Bertram L, Pfeiffer K, Trigsted S, Cook D, Lisee C‡, Bell D. Relationship Between Physical Activity and Clinical Outcomes After ACL Reconstruction. *J Sport Rehabil*. 2019;28(2):180-187. PMID: 29140161. Impact Factor: 1.811. Citations: 20
38. Oh J, Signorile J, **Kuenze C**, Jacopetti M, Eltoukhy M. Validity of the Microsoft Kinect in Spatiotemporal and Lower Extremity Kinematics During Stair Ascent and Descent in Healthy Young Individuals. *Med Eng Phys*. 2018 Oct; 60: 70-76. PMID: 30097314. Impact Factor: 1.923. Citations: 26
39. **Kuenze C†**, Trigsted S, Lisee CL‡, Post E, Bell DR. An Evaluation of Sex Differences on the Landing Error Scoring System for Individuals with ACL Reconstruction. *J Athl Train*. 2018 Sep;53(9):837-843. PMID: 30273009. Impact Factor: 2.319. Citations: 7

40. DiSanti J, Lisee C‡, Erickson K, Bell DR, Shingles M, **Kuenze C***. Perceptions of Rehabilitation and Return to Sport among High School Athletes with ACL Reconstruction: A Qualitative Research Study. *J Orthop Sport Phys.* 2018 Dec; 48(12): 951-959. PMID: 29932875. Impact Factor: 3.090. Citations: 32
41. Warner K, Covassin T, Savage JL, **Kuenze C**, Erkenbeck AN, Comstock RD. A Comparison of High School Boys' and Girls' Lacrosse Injuries Academic Years 2008/09 through 2015/16. *J Athl Train.* 2018 Nov; 53(11): 1049-1055. PMID: 30451536. Impact Factor: 2.319. Citations: 9
42. Eltoukhy M, **Kuenze C**, Oh J, Signorile. Prediction of Ground Reaction Forces for Parkinson's Disease Patients Using a Kinect-driven Musculoskeletal Analysis Model. *Med Eng Phys.* 2017 Dec; 50: 75-82. PMID: 29102274. Impact Factor: 1.923. Citations: 27
43. Eltoukhy M, **Kuenze C**, Oh J, Wooten S, Signorile J. Kinect-based assessment of lower limb kinematics and dynamic postural control during the star excursion balance test. *Gait Posture.* 2017 Oct; 58: 421-427. PMID: 28910654. Impact Factor: 2.273. Citations: 34
44. Pietrosimone B, **Kuenze C**, Hart JM, Thigpen C, Lepley AS, Blackburn JT, Padua DA, Grindstaff T, Davis H, Bell D. Weak Associations between Body Mass Index and Self-reported disability in People with Unilateral Anterior Cruciate Ligament Reconstruction. *Knee Surg Sports Traumatol Arthrosc.* 2018 May, 26(5): 1326-1334. PMID: 28849248. Impact Factor: 3.210. Citations: 8
45. Lepley A, **Kuenze CM***. Hip and Knee Kinematics and Kinetics During Landing Tasks After Anterior Cruciate Ligament Reconstruction: A Systematic Review and Meta-Analysis. *J Athl Train.* 2018 Feb, 53(2): 144-159. PMID: 29350551. Impact Factor: 2.319. Citations: 16
46. Eltoukhy ME, **Kuenze C**, Oh J, Signorile J. Microsoft Kinect Can Distinguish Differences in Over-ground Gait Between Older Persons With and Without Parkinson's Disease. *Med Eng Phys.* 2017 Jun; 44: 1-7. PMID: 28408157. Impact Factor: 1.923. Citations: 56
47. Eltoukhy ME, **Kuenze C**, Oh J, Signorile J. Validation of Static and Dynamic Balance Assessment using the Microsoft Kinect for Young and Elderly Populations. *IEEE J. Biomed Health Inform.* 2018 Jan, 22(1): 147-153. PMID: 28333650. Impact Factor: 3.850. Citations: 32
48. Norte GE, Knaus KR, **Kuenze C**, Handsfield GG, Meyer C, Blemker SS, Hart JM. MRI-Based Assessment of Lower Extremity Muscle Volumes in Patients Before and After ACL Reconstruction. *J of Sport Rehabil.* 2018 May; 27(3): 201-212. PMID: 28290752. Impact Factor: 1.811. Citations: 37
49. Leyva A, Britton JC, Eltoukhy M, **Kuenze C**, Meyers ND, Signorile JF. The Development and Examination of a New Walking Executive Function Test for People over 50 Years of Age. *Physiol Behav.* 2017 Mar 15; 171: 100-109. PMID: 28063787. Impact Factor: 2.517. Citations: 6
50. Bell DR, Pfeiffer KP, Cadmus-Bertram L, Hart JM, Kelly AR‡, Trigsted SM, Post EG, Dunn WR, **Kuenze CM***. Objectively Measured Physical Activity in Patients after ACL Reconstruction. *Am J Sport Med.* 2017 Jul; 45(8): 1893-1900. PMID: 28419817. Impact Factor: 6.057. Citations: 57
51. **Kuenze CM†**, Kelly AR‡, Jun HP. Unilateral Quadriceps Strengthening with Disinhibitory Cryotherapy and Quadriceps Symmetry After Anterior Cruciate Ligament Reconstruction. *J Athl Train.* 2017 Nov, 52 (11): 1010-1018. PMID: 29257714. Impact Factor: 2.319. Citations: 4
52. Slater L, Kelly AR‡, Hart JM, **Kuenze CM***. Progressive Changes in Walking Kinematics and Kinetics After Anterior Cruciate Ligament Injury and Reconstruction: A Review and Meta-Analysis. *J Athl Train.* 2017 Sep, 11 (9): 847-860. PMID: 28800252. Impact Factor: 2.319. Citations: 64
53. Eltoukhy M, Oh J, **Kuenze CM**, Signorile J. Improved Kinect-based Spatiotemporal and Kinematic Treadmill Gait Assessment. *Gait and Posture.* 2017 Jan; 51: 77-83. PMID: 27721202. Impact Factor: 2.273. Citations: 97

54. **Kuenze CM†**, Eltoukhy M, Kim CY, Kelly A‡. Impact of Quadriceps Strengthening on Response to Fatiguing Exercise following ACL Reconstruction. *J Sci Med Sport*. 2017 Jan; 20(1): 6-11. PMID: 27247167. Impact Factor: 3.929. Citations: 4
55. Travascio F, Jun HP, Eltoukhy M, **Kuenze C**, Asfour, Signorile J. Fluoroscopic Imaging Allows Quantification of Changes in Patellar Tracking due to Taping in Subject with Patellofemoral Pain. *J Sport Med*. 2016; 3(1): 020. Impact Factor: N/A. Citations: 0
56. Gribbin TC, Slater L, Herb CC, Hart JM, Chapman RM, Hertel J, Hart JM, **Kuenze CM***. Differences in Hip-Knee Joint Coupling During Gait after Anterior Cruciate Ligament Reconstruction. *Clin Biomech*. 2016 Feb; 32: 64-71. PMID: 26851564. Impact Factor: 1.863. Citations: 29
57. **Kuenze CM†**, Blemker S, Hart JM. Quadriceps Function Relates to Muscle Size following ACL Reconstruction. *J Ortho Res*. 2016 Sep; 34(9): 1656-62. PMID: 26763833. Impact Factor: 3.414. Citations: 47
58. Ni M, Signorile JF, Mooney K, Balachandran A, Potiaumpai M, Luca C, Moore JG, **Kuenze CM**, Eltoukhy M, Perry AC. Comparative Impact of Power Training and High-Speed Yoga on Motor Function in Older Patients with Parkinson's Disease. *Arch Phys Med Rehabil*. 2016 Mar; 97(3): 345-54. PMID: 26546987. Impact Factor: 3.077. Citations: 83
59. Eltoukhy M, Jun HP, Kelly A‡, Campbell R, Kim CY, **Kuenze CM***. Validation of the Microsoft Kinect camera system for measurement of lower extremity landing and squatting kinematics. *Sports Biomech*. 2016; 15(10): 89-102. PMID: 26835547. Impact Factor: 1.209. Citations: 26
60. **Kuenze CM†**, Eltouhky M, Thomas A, Sutherlin M, Hart JM. Validity of Torque Data Collection at Multiple Sites: a Framework for Collaboration on Clinical Outcomes Research in Sports Medicine. *J Sport Rehabil*. 2016 May; 25(2): 173-80. PMID: 26308985. Impact Factor: 1.141. Citations: 5
61. Eltouhky M, **Kuenze C**, Hyung-Pil J, Asfour S, Travascio F. Assessment of Dynamic Balance via Measurement of Lower Extremities Tortuosity. *Sports Biomech*. 2015 Mar; 14(1): 18-27. PMID: 25895607. Impact Factor: 1.141. Citations: 5
62. Goetschius J, **Kuenze CM**, Hart JM. Knee Extension Torque Variability and Exercise in ACL Reconstructed Knees. *J Ortho Res*. 2015 Aug; 33(8): 1165-70. PMID: 25994515. Impact Factor: 3.414. Citations: 17
63. **Kuenze C†**, Foot N, Saliba S, Hart JM. Drop landing performance and knee extension strength following ACL reconstruction. *J Athl Train*. 2015 Jun; 50(6): 596-602. PMID: 25978101. Impact Factor: 2.319. Citations: 30
64. **Kuenze CM†**, Hertel J, Weltman A, Diduch DR, Saliba SA, Hart JM. Persistent Neuromuscular and Corticomotor Quadriceps Asymmetry after Anterior Cruciate Ligament Reconstruction. *J Athl Train*. 2015 Mar; 50(3): 303-12. PMID: 25622244. Impact Factor: 2.319. Citations: 107
65. **Kuenze CM†**, Hertel J, Saliba SA, Diduch DR, Weltman AR, Hart JM. Clinical thresholds for quadriceps assessment following ACL reconstruction. *J Sport Rehabil*. 2015 Feb; 24(1): 36-46. PMID: 25203517. Impact Factor: 1.811. Citations: 67
66. **Kuenze CM†**, Hertel J, Hart JM. Quadriceps Muscle Function following Exercise in Men and Women with a History of ACL Reconstruction. *J Athl Train*. 2014 Nov-Dec; 49(6): 740-6. PMID: 25243735. Impact Factor: 2.319. Citations: 16
67. Hart JM, **Kuenze CM**, Diduch DR, Ingersoll CM. Quadriceps Muscle Function after Rehabilitation with Cryotherapy in Patients with ACL Reconstruction. *J Athl Train*. 2014 Nov-Dec; 49(6): 733-9. PMID: 25299442. Impact Factor: 2.319. Citations: 56

68. **Kuenze CM†**, Hertel J, Weltman A, Diduch DR, Saliba S, Hart JM. Jogging Biomechanics After Exercise in Individuals with ACL Reconstructed Knees. *Med Sci Sports Exerc.* 2014 June; 46(6): 1067-76. PMID: 24247199. Impact Factor: 4.291. Citations: 50
69. Norte GE, **Kuenze CM**, Hart JM. Closed Chain Assessment of Quadriceps Activation Using the Superimposed Burst Technique. *J Electromyogr Kines.* 2014 June; 24(3): 341-47. PMID: 24731724. Impact Factor: 1.568. Citations: 1
70. Tompkins M, **Kuenze CM**, Diduch DR, Miller M, Milewski M, Hart JM. Clinical and Functional Outcomes Following Primary Repair versus Reconstruction of the Medial Patellofemoral Ligament for Recurrent Patellar Instability. *J Sports Med.* 2014 March. PMID: 26464893. Impact Factor: N/A. Citations: 22
71. **Kuenze CM†**, Hertel J, Hart JM. Effects of Exercise on Lower Extremity Muscle Function following ACL reconstruction. *J Sport Rehabil.* 2013 Feb; 22(1): 33-40. PMID: 23307572. Impact Factor: 1.811. Citations: 41
72. Goetschius J, **Kuenze CM†**, Saliba SA, Hart JM. Reposition Acuity and Postural Control After Exercise in ACL Reconstructed Knees. *Med Sci Sports Exerc.* 2013 Dec; 45(12): 2314-21. PMID: 24240119. Impact Factor: 4.291. Citations: 21
73. Hart JM, **Kuenze CM**, Pietrosimone BG, Ingersoll CD. Quadriceps Function in Anterior Cruciate Ligament-deficient Knees Exercising with Transcutaneous Electrical Nerve Stimulation and Cryotherapy: A Randomized Controlled Study. *Clin Rehabil.* 2012 Nov; 26(11): 974-981. PMID: 22399575. Impact Factor: 2.930. Citations: 37
74. Roberts D, **Kuenze CM†**, Saliba S, Hart JM. Accessory Muscle Activation During the Superimposed Burst Technique. *J Electromyogr Kines.* 2012 Aug; 22(4): 540-5. PMID: 22321959. Impact Factor: 1.568. Citations: 34
75. Stern A, **Kuenze CM†**, Herman DC, Sauer LK, Hart JM. A Gender Comparison of Central and Peripheral Neuromuscular Function after Exercise. *J Sport Rehabil.* 2012 Aug; 21(3): 209-217. PMID: 22234944. Impact Factor: 1.811. Citations: 11
76. Cross KM, **Kuenze CM**, Grindstaff TL, Hertel J. Does Thoracic Manipulation Improve Pain and Function in Patients with Mechanical Neck Pain: A Systematic Review. *J Orthop Sport Phys.* 2011 Sept; 41(9): 633-643. PMID: 21885904. Impact Factor: 3.090. Citations: 157
77. **Kuenze CM†**, Zinder S, Blackburn JT, Norcross MF. Effects of Chronic Ankle Instability and Induced Fatigue on Ankle Stiffness. *Athletic Training and Sports Health Care.* 2011 Sept; 3(5): 211-217. Impact Factor: N/A. Citations: 4
78. **Kuenze CM†**, Hart JM. Cryotherapy to treat persistent muscle weakness after joint injury. *The Phys Sportsmed.* 2010 October; 38(3): 38-44. PMID: 20959694. Impact Factor: 1.545. Citations: 14

MANUSCRIPTS IN REVIEW (*senior authorship, † corresponding authorship, ‡ doctoral student contribution, § medical student or resident contribution)

1. **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. Reference Values for Clinical Outcomes in Adolescent Patients Recovering from ACL Reconstruction: Considerations for Biologic Sex and Age. *J Ortho Phys Ther.*

2. **Kuenze C**, Pietrosimone B, Currie KD, Walton SR, Kerr ZY, Brett BL, Chandran A, DeFreese JD, Mannix R, Echemendia RJ, McCrea M, Guskiewicz KM, Meehan WP. Joint Injury and OA are Associated with Cardiovascular Disease Risk Factors in Former NFL Athletes: An NFL-LONG study. *Sports Health*.
3. Baez SE, Harkey M, Birchmeier T‡, Triplett A‡, Collins K‡, **Kuenze C**. Psychological Readiness and Injury-Related Fear are Associated with Early Knee Osteoarthritis Illness after ACL Reconstruction. *Knee Surg Sports Traumatol Arthrosc*.
4. Walaszek M‡, Grindstaff TL, Hart JM, Birchmeier T‡, Triplett A‡, Collins K‡, Harkey MS, **Kuenze C***. Meeting Quadriceps Strength Recommendations Does Not Influence Knee-Related Symptom State 5-7 Months after Anterior Cruciate Ligament Reconstruction. *J Athl Train*.
5. Burghardt W‡, Kuenze C, Ferguson D, Pfeiffer KA. Workloads and Non-contact Injuries during Football Pre-season Training among Division 1 Collegiate Football Players. *J Strength Cond Res*.
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INVITED MANUSCRIPTS (*senior authorship, † corresponding authorship, ‡ doctoral student contribution, § medical student or resident contribution)

1. Eltouhky M, **Kuenze C***. Moving Toward Clinic-Based Motion Analysis: Kinect® Camera as an Example. *Sports and Exercise Medicine Journal*. 2015 October.
2. **Kuenze CM**†, Kelly AR‡. Quadriceps Symmetry after ACL Reconstruction. *Lower Extremity Review Magazine*. 2015 November.

PUBLISHED BOOK CHAPTERS

1. **Kuenze CM**, Hart JM. Sports Knee Rating Systems and Related Statistics. In: Insall JN & Scott WN. *Surgery of the Knee*. Churchill Livingstone, Inc., New York, NY. 2017.
2. Hart JM, **Kuenze CM**. Sports Knee Rating Systems and Related Statistics. In: Insall JN & Scott WN. *Surgery of the Knee*. Churchill Livingstone, Inc., New York, NY. 2011.
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PUBLISHED SCHOLARLY ABSTRACTS (*senior authorship, ‡ doctoral student contribution, § medical student or resident contribution)

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REFEREED PRESENTATIONS NOT RESULTING IN A PUBLISHED ABSTRACT (*senior authorship, † corresponding authorship, ‡ doctoral student contribution, § medical student or resident contribution)

1. Collins K, Triplett A, Harkey M, Winn B, Williams DB III, Kuenze C. Peak knee extension torque is related to total bone mineral density among female collegiate field sport athletes. To be presented at the 2022 North American Congress on Biomechanics. Ottawa, Canada. August 2022.
2. Anderson, M., Kuenze, C., Pivarnik, J.M., Fenn, K.M., & Covassin, T. The influence of habitual, device-measured sleep duration on baseline computerized neurocognitive performance and concussion

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5. Baez SE, Harkey MS, Birchmeier, Triplett A, Collins K, Kuenze CM. Psychological Readiness and Injury-Related Fear are Associated with Early Knee Osteoarthritis Illness after ACL Reconstruction. Presented at the 2022 ACL Research Retreat IX: The Pediatric Athlete. March 2022.
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22. Collins K, Lisee C, Birchmeier T, Triplett A, Kuenze C*. Walking Speed Is Not Associated with Knee-related Symptoms Acutely Following ACL Reconstruction. Orthopaedic Research Society 2021 Annual Meeting.
23. Woeber NA§, Triplett AN†, Kuenze CM*. Cardiovascular and Body Composition Characteristics Following Anterior Cruciate Ligament Reconstruction: A Pilot Study. American Osteopathic Academy of Orthopedics 2021 Fall Meeting, October 28-30, 2021. Louisville, KY.
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25. Collins K‡, Lisee C‡, Birchmeier T‡, Triplett A‡, Walaszek M‡, Shingles M, Kuenze C*. Walking Biomechanics Do Not Differ Between Symptomatic and Asymptomatic Patients 6-Months Following Anterior Cruciate Ligament Reconstruction. Presented at the 2021 OARSI Virtual World Congress. May 2021.
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27. Birchmeier TB‡, **Kuenze C***. The Effects of a Four Week Home Exercise Plan using Low Load Plyometric Exercise After ACL Reconstruction. To be presented at the 2020 Michigan Athletic Trainers Society Annual Meeting, East Lansing, MI.

28. Collins K‡, Lisee C‡, Birchmeier T‡, Triplett A‡, Straus MW, Wilcox CL, Schorfhaar A, Joseph S, Shingles M, **Kuenze C***. Drop-Landing Asymmetries in Young Individuals 6-Months Following ACL Reconstruction. Presented at the 2020 American Society of Biomechanics Virtual Annual Meeting.
29. Triplett A‡, **Kuenze C***. Physical Activity and Body Composition of Women with Anterior Cruciate Ligament Reconstruction. Poster Presentation. 2019 Midwest American College of Sports Medicine Annual Meeting.
30. **Kuenze C**. Walk On By: Translating Gait Assessment to the Clinical Environment. Evidence-based Forum. Presented at the 2019 National Athletic Trainers' Association Annual Meeting, Las Vegas, NV.
31. **Kuenze C**, Pietrosimone B. Optimal Loading after Knee Injury: A Biomechanical and Physical Activity Perspective. Symposium Presentation. 2019 American College of Sports Medicine Annual Meeting. Orlando, FL. May 2019.
32. Kuenze C, Lisee C‡. Psychosocial and Environmental Barriers to Functional Recovery after Knee Injury. Symposium Presentation. Presented at the 2019 Great Lakes Athletic Trainers' Association Meeting, Wheeling, IL.
33. Lisee C‡, Birchmeier T‡, Yan A, **Kuenze C**. Different Quadriceps Strength Characteristics Predict Sagittal Plane Movement during Activities of Daily Living and Sport Specific Movement. Oral Presentation. Presented at the 2019 Great Lakes Athletic Trainers' Association Meeting, Wheeling, IL.
34. Hunnicutt JL, Gregory CM, Pietrosimone BG, Hand B, **Kuenze C**, Veloza C. Psychometric Evaluation using Rasch Analysis of Patient-Reported Quality of Life Post-ACL Reconstruction. Oral Presentation. Presentation at the American Physical Therapy Association Combined Sections Meeting. New Orleans, LA 2018.
35. Oh J, Eltoukhy M, **Kuenze C**, Anderson M, Signorile J. Comparison of Ground Reaction Forces and Knee Joint Moments between Parkinson's Disease and Healthy Older Adults using a Kinect-Driven Musculoskeletal Gait Analysis Model. Poster Presentation. The American Society of Biomechanics Annual Meeting. Rochester, MN. 2018.
36. O'Hagan K§, Yan A§, Geers B§, Lisee C‡, **Kuenze C***. Physical Activity Monitoring Machine Learning Model in ACLR and Healthy Populations. Poster Presentation. Poster Presentation. American Academy of Osteopathy Convocation. New Orleans, LA. 2018.
37. **Kuenze C**, Bell DR. Assessment of Physical Activity following Musculoskeletal Injury: Beyond Return to Play. Symposium Presentation. Symposium Presentation. Great Lakes Athletic Trainers' Association Annual Meeting. Wheeling, IL. 2018.
38. Hart JM, **Kuenze C**, Bodkin S, Hart J, Denny C, Diduch DR. Prospective, Randomized, Double Blind Evaluation of the Efficacy of a Single Dose Hyaluronic Acid for the Treatment of Patellofemoral Chondromalacia. Oral Presentation. Presentation at the American Orthopaedic Society for Sports Medicine Annual Meeting. San Diego, CA 2018.
39. DiSanti JS, Lisee C‡, Erickson K, **Kuenze C**, Shingles M, Bell D. Perceptions of rehabilitation and return to sport among high school athletes with ACL Reconstruction: A qualitative research study. Oral Presentation. Presented at the Midwest Sport & Exercise Psychology Symposium, Oxford, OH. February 2018.
40. **Kuenze C**, DiSanti J, Lisee CL‡, Bell DR, Erikson KT. Barriers to Physical Activity and Return to Sport among Adolescents with a Recent History of ACL Reconstruction. Oral Presentation. Presentation at the Pediatric Research in Sports Medicine Society Annual Meeting, Fort Lauderdale, FL. January 2018.
41. **Kuenze C**, Donovan L. Translating Time Loss into Wins and Losses: Strategies for Promoting Injury Prevention. Evidence-Based Forum. National Athletic Trainers' Association, Houston, TX. June 2017.

42. **Kuenze CM.** Quadriceps Weakness and Return to Activity: The Impact of Avoidance Gait after Knee Injury. Feature Presentation. National Athletic Trainer's Association Annual Meeting. Baltimore, MD. June 2016.
43. **Kuenze CM.** Patient Values: The Forgotten Aspect of Evidence Based Practice. Ethnic Diversity Committee Featured Presentation. National Athletic Trainer's Association Annual Meeting. Baltimore, MD. June 2016.
44. Donovan L, **Kuenze CM**, Hart JM. Counseling Physically Active Patients about Life after Lower Extremity Injury. Evidence-based Forum. National Athletic Trainer's Association Annual Meeting. Baltimore, MD. June 2016.
45. **Kuenze CM**, Tourville TM, Hart JM. Mitigating the Impact of Muscle Dysfunction on Joint Health and Physical Activity after Knee Injury. Symposium Presentation. The American College of Sports Medicine Annual Meeting. San Diego, CA. June 2015.
46. **Kuenze CM**, Hertel J, Weltman A, Diduch DR, Saliba SA, Hart JM. Neuromuscular Symmetry following Return to Activity in Individuals with a History of ACL Reconstruction. Poster Presentation. The American College of Sports Medicine Annual Meeting. Orlando, FL. May 2014.
47. Goetschius J, **Kuenze CM**, Hart JM. Knee Extensor Torque Variability after Exercise in Patients with a History of ACL Reconstruction. Oral Presentation. The American College of Sports Medicine Annual Meeting. Orlando, FL. May 2014.
48. Jun H, Harriell K, **Kuenze CM**, Signorile JF, Whole Body Vibration Effect on Time-to-Boundary Measures in Persons with Chronic Ankle Instability. Poster Presentation. The American College of Sports Medicine Annual Meeting. Orlando, FL. May 2014.
49. Werner BC, **Kuenze CM**, Griffin JW, Matthew LL, Garrett C, Hart JM, Brockmeier SF. Validation of an Innovative Measurement Method of Shoulder Range of Motion. Poster Presentation. American Academy of Orthopaedic Surgeons Annual Meeting. New Orleans, LA. March 2014.
50. Goerger B, **Kuenze CM.** Biomechanical Outcomes of ACLR: Strategies for Improving Rehabilitation. Oral Presentation. Southeastern Athletic Trainers Association Annual Meeting. Atlanta, GA. February 2014.
51. Werner BC, **Kuenze CM**, Griffin JW, Matthew LL, Hart JM, Brockmeier SF. Shoulder Range of Motion: Validation of an Innovative Measurement Method using a Smartphone. Oral Presentation. American Orthopaedic Society for Sports Medicine Annual Meeting. Chicago, IL. July 2013.
52. Tompkins M, **Kuenze CM**, Milewski MD, Hart J, Miller MD, Diduch DR, Hart JM. Clinical and Functional Outcomes Following Primary Repair Versus Reconstruction of the Medial Patellofemoral Ligament for Chronic Patellar Instability. Oral Presentation. The American Orthopaedic Society for Sports Medicine Annual Meeting. San Diego, CA, July 2011.
53. Cross KM, **Kuenze CM**, Grindstaff TL, Hertel J. Does Thoracic Manipulation Improve Pain and Function in Patients with Mechanical Neck Pain: A Systematic Review. Oral Presentation. Mid-Atlantic Athletic Trainers' Association Meeting. Virginia Beach, VA, May 2010.

INVITED PRESENTATIONS

1. **Kuenze C.** Considering Patient Perspectives to Enhance Clinical Outcomes after ACL Reconstruction. Seminar Presentation. Orthopaedic Research Laboratories, Department of Orthopaedic Surgery, University of Michigan. March 2022.
2. **Kuenze C.** Response to Cumulative Loading During Early Phases of Recovery Following ACLR. Seminar Presentation. College of Osteopathic Medicine OST 599 Research Course. February 2022.

3. **Kuenze C.** Promoting Physical Activity after Traumatic Knee Injury. Grand Rounds Presentation. Inova Health Care. November 2021.
4. **Kuenze C.** Anterior Cruciate Ligament Research at Michigan State University: An Update. Symposium Presentation. Michigan State University Sport Medicine Conference. August 2021.
5. **Kuenze C.** Summarizing Recommendations of the Physical Activity Workgroup. Workgroup Presentation. 2021 Athletic Trainers' Osteoarthritis Consortium Annual Meeting. June 2021.
6. **Kuenze C.** Evidence Based Assessment and Treatment of ACL Injury. Guest Lecture. Temple University Doctorate of Athletic Training Program. November 2020
7. **Kuenze C.** Getting Started with Basic Science and Biomechanics Research. Seminar Presentation. Presented at the 2019 PRISM Annual Meeting, Atlanta, GA.
8. **Kuenze CM.** Evidence Based Return to Physical Activity after ACL Reconstruction. Presentation to the Michigan Tech Department of Kinesiology. September 2018.
9. **Kuenze CM.** Evidence Based Return to Physical Activity after ACL Reconstruction. MSU College of Osteopathic Medicine. Orthopaedic and Physical Medicine Interest Groups. July 2018.
10. **Kuenze CM.** Keep It Movin': Physical Activity following ACL Reconstruction. United States Bone and Joint Young Investigator Initiative Alumni Lecture. November 2017. Toronto, ON, CA.
11. **Kuenze CM.** Evidence Based Return to Play after ACL Injury. Athletic Training Educational Endowment Fund. November 2017.
12. **Kuenze CM.** Evidence Based Assessment and Treatment of ACL Injury. Guest Lecture. Temple University Doctorate of Athletic Training Program. November 2017.
13. **Kuenze CM.** Evidence Based Return to Play after ACL Injury. Evidence-Based Forum. Michigan Athletic Trainers' Association Annual Meeting. June 2017.
14. **Kuenze CM.** Evidence Based Assessment and Treatment of ACL Injury. Guest Lecture. Temple University Doctorate of Athletic Training Program. November 2016.
15. **Kuenze CM.** Evidence Based Return to Play after ACL Injury. Illinois Athletic Trainers' Association Annual Meeting. November 2016.
16. **Kuenze CM.** Low Cost Motion Analysis Solutions. Illinois Athletic Trainers' Association Annual Meeting. November 2016.
17. **Kuenze CM.** Factors Influencing Physical Activity after ACL Injury. Athletic Trainers Osteoarthritis Consortium Webinar. August 2016.
18. **Kuenze CM.** Physical Activity after ACL Reconstruction. University of Wisconsin Department of Kinesiology, Madison, WI. February 2016.
19. **Kuenze CM.** Foundations of Evidence Based Sports Medicine. McBride Orthopaedic Hospital, Oklahoma City, OK. July 2015.
20. **Kuenze CM.** Improving Patient Outcomes Following ACL Reconstruction. Korean Society of Biomechanics. Ewha Women's University, Seoul, South Korea. March 2015.
21. **Kuenze CM.** Improving Patient Outcomes Following ACL Reconstruction. Yonsei Univeristy, Seoul, South Korea. March 2015.

22. **Kuenze CM.** Quadriceps Weakness and Return to Activity: The Impact of Quadriceps Avoidance Gait after Knee Injury. National Athletic Trainers Association Evidence Based Webinar. February 2015.
23. **Kuenze CM.** Introductions to Research Methods and Evidence Based Practice. SEATA Athletic Training Student Symposium. February 2015.
24. **Kuenze CM.** Concepts in Evidence Based Practice. SEATA Athletic Training Student Symposium. February 2015.
25. **Kuenze CM.** Physical Activity after Return to Play. Art and Science of Sports Medicine Symposium. Charlottesville, VA, June 2014.
26. **Kuenze CM.** Evidence Based Sports Medicine at the Undergraduate Level. Florida Athletic Training Educators Symposium. Lakeland, FL, May 2014.
27. **Kuenze CM.** Neuromuscular and Biomechanical Impact of ACL Reconstruction. Art and Science of Sports Medicine Symposium. Charlottesville, VA, June 2014.
28. **Kuenze CM.** Physical Activity Following ACL Reconstruction. Art and Science of Sports Medicine Symposium. Charlottesville, VA, June 2013.
29. **Kuenze CM.** The Effect of Exercise Exertion in Previously Injured Orthopedic Populations. Virginia Athletic Trainers Association Meeting. Reston, VA, January 2013.
30. **Kuenze CM.** Return to Activity following Knee Injury. Art and Science of Sports Medicine Symposium. Charlottesville, VA, June 2012.
31. **Kuenze CM.** Effects of Fatigue on Muscle Inhibition. Art and Science of Sports Medicine Symposium. Charlottesville, VA, June 2011.
32. **Kuenze CM.** Return to Play Considerations following Joint Injury. Virginia Athletic Trainers Association Meeting. Richmond, VA, January 2011.
33. **Kuenze CM.** Effects of Fatigue on Muscle Inhibition. Art and Science of Sports Medicine Symposium. Charlottesville, VA, June 2010.
34. **Kuenze CM.** Ankle Impingement Syndromes. Carolina Sports Medicine Seminar, Chapel Hill, NC, February 2009.
35. **Kuenze CM, Venis L.** Psychological Barriers to Orthopedic Rehabilitation. College Athletic Trainers' Society Meeting. Anaheim, CA, June 2007.

EXTRAMURAL GRANT FUNDING

Source: Nike, Inc.

Title: Performance, Mechanics and Injuries in NCAA Athletes Using Wearable Technology

Role: Co-I (PI Harkey)

Effort: In-kind

Period: July 2022 – December 2022

Description: The objective of this research is to compare injuries, mechanics, metabolics and performance in NCAA basketball, soccer and field hockey athletes during a season of competition. Funds will support 2 ½ time graduate research assistant.

Source: Inova Health Care Services

Title: Support for Collaborative Clinical Research at INOVA

Effort: 25%

Period: 2022

Description: The objective of this research is to develop and implement a multisite prospective cohort study to monitor and describe surgical outcomes among patients who have undergone orthopaedic reconstructive surgery for a variety of joint pathologies.

Source: Nike, Inc.

Title: Performance, Mechanics and Injuries in NCAA Athletes Using Wearable Technology

Role: PI

Effort: In-kind

Period: 2020-2022

Description: The objective of this research is to compare injuries, mechanics, metabolics and performance in NCAA soccer and field hockey athletes during a season of competition. Funds supported a ½ time graduate research assistant and purchase of equipment needed for data collection.

Source: Nike, Inc.

Title: Performance, Mechanics and Injuries in NCAA Cross-Country Runners Using Wearable Devices

Role: PI

Effort: In-kind

Period: 2020-2022

Description: The objective of this research is to compare injuries, mechanics, metabolics and performance in NCAA cross-country runners during a season of competition. Funds supported a ½ time graduate research assistant and purchase of equipment needed for data collection.

Source: Dr. Norman Kagan Scholarship Fund

Title: Understanding Communication Dynamics among Stakeholders during Orthopedic Rehabilitation

Role: PI

Effort: In-kind

Period: 2019-2020

Description: To compare the perceptions of patient education, interpersonal communication, and rehabilitation structure between teenaged patients who have experienced a traumatic knee injury, parents of these patients, and the orthopedic rehabilitation specialists (licensed physical therapist or athletic trainer) who were primarily responsible for their rehabilitative care.

Source: Great Lakes Athletic Trainers' Association

Title: Quality and Quantity of Knee Joint Loading in Post-Traumatic Osteoarthritis Development.

PI: Lisee

Role: Doctoral Advisor

Period: 2019-2021 (extension granted due to COVID-19)

Description: Identification of potential risk factors for early cartilage structural change following ACL reconstruction using advanced ultrasound-based imaging techniques.

Source: American College of Sports Medicine Foundation

Title: Characterizing Body Composition and Aerobic Fitness in Individuals with Anterior Cruciate Ligament Reconstruction

PI: Triplett

Role: Doctoral Advisor

Period: 2019-2021 (extension granted due to COVID-19)

Description: Evaluation of cardiovascular function and body composition among young individuals with and without ACL reconstruction.

Source: Great Lakes Athletic Trainers' Association

Title: Contextual factors impacting functional outcomes at the Time of Medical Clearance after ACL reconstruction: A mixed methods study.

Role: PI

Period: 2017-2018

Description: Evaluate the effects of participant sex on a participant's ability to meet evidence based RTS criteria at the end of structured clinical care following ACLR and to evaluate the role that psychosocial factors may play in the RTS process.

Source: National Athletic Trainers' Association Research and Education Foundation

Title: Physical Activity Participation in Adolescent Athletes with a Recent History of ACL Reconstruction

Role: PI

Period: 2018-2021 (extension granted due to COVID-19)

Description: Assess the natural history of device-measured physical activity characteristics among adolescent individuals with ACL reconstruction at 6-, 9-, and 12-months post-surgery.

Source: National Athletic Trainers' Association Research and Education Foundation

Title: The impact of involved limb quadriceps dysfunction on single leg movement quality after ACL reconstruction

PI: Lisee

Role: Doctoral Advisor

Period: 2017-2018

Description: Identification of lower extremity movement patterns associated with measures of quadriceps function among individuals with a history of ACL reconstruction.

Source: Great Lakes Athletic Trainers' Association

Title: The Impact of Arthroscopic Partial Meniscectomy on Clinical measures of Functional Performance.

PI: Kelly

Role: Doctoral Advisor

Period: 2016-2017

Description: Identification of potential patient-reported and functional limitations that persist following return to activity after arthroscopic partial meniscectomy.

Source: Mid Atlantic Athletic Trainers' Association

Title: Influence of gender on neuromuscular control of the lower extremity following an exercise program.

Role: PI

Period: 2010-2011

Description: Gender comparison after exercise regarding neuromuscular control.

INTERNAL GRANT FUNDING

Source: University of North Carolina TraCS

Title: Preventing Posttraumatic Osteoarthritis with Physical Activity Promotion

Role: Co-I

Period: March 2021 – March 2022

Description: To reverse poor knee joint health changes related to early posttraumatic osteoarthritis (PTOA) in those with an anterior cruciate ligament reconstruction (ACLR) using individualized physical activity promotion to normalize free-living mechanical loading.

Source: College of Education Seed Grant

Title: Promoting Physical Activity Participation after ACL Reconstruction via a Novel Mobile Application

Role: PI

Effort: In-kind

Period: 2019-2020

Description: Improve proof of concept data to facilitate re-submission of our recent NIH R21 application titled *Promoting Physical Activity Participation after ACL Reconstruction via a Novel Mobile Application*.

Source: College of Education Institute for Research on Teaching and Learning Seed Grant

Title: Development of an Individualized Intervention to Promote Physical Activity in High School-aged Individuals with a History of ACL Reconstruction.

Role: PI

Period: January – June, 2019

Description: A multi-phase investigation to develop and implement clinically applicable interventions to aid in the promotion and facilitation of physical activity after ACLR among young and previously active individuals.

Source: University of Miami Provost Research Award

Title: The impact of power training versus progressive strength training on lower extremity function and response to exercise in patients with ACL reconstruction.

Role: PI

Period: 2015-2016

Description: An investigation to measure the effects of quadriceps strengthening on response to fatiguing exercise in individuals with a history of ACL reconstruction.

Source: University of Miami Citizen's Board

Title: The Effectiveness of Kinesio® Tape and the McConnell Taping Technique on Neuromuscular Characteristics of the Vastus Medialis Oblique and Vastus Lateralis, Joint Kinematics, and Pain in Individuals with and without Patellofemoral Pain Syndrome during Functional Task Performance.

PI: Eltoukhy (UM)

Period: 2013-2014

Description: Collaborative student driven project to investigate the effectiveness of common taping techniques in improving patellofemoral pain symptoms.

RECENT UNFUNDED GRANT PROPOSALS

Source: National Institute of Health (R21 PAR- 21-045)

Title: Establishing In Vivo Mechanistic Links between Daily Steps and Cartilage Health Following Knee Injury

Role: Co-PI

Effort: 10.0%

Period: 2022-2024

Description: The overall objective of this study is to establish the in vivo mechanistic link between loading frequency (i.e., daily steps) and outcomes of joint health related to posttraumatic osteoarthritis (PTOA) development.

Source: National Institute of Health (R01 PAR-21-053)

Title: Mechanical Loading as a Risk Factor for Early Posttraumatic Osteoarthritis in Adults and Adolescents after ACL Reconstruction

Role: PI

Effort: 12.5%

Period: 2022-2025

Description: The overall objective of this study is to determine the association between cumulative mechanical loading and early posttraumatic knee osteoarthritis among adolescent and adult patients with a history of ACL reconstruction.

Source: National Athletic Trainers' Association Research and Education Foundation

Title: Monitoring Knee Structural Pathologies with Ultrasound to Predict Clinical Knee Osteoarthritis Following ACL Reconstruction

Role: Co-I

Effort: In Kind

Period: 2021-2023

Description: To assess multiple OA-related structural pathologies at 4 and 9 months post-ACLR, as well as determining which structural pathologies predict early clinical knee OA at 1 year post-ACLR.

Source: The Arthritis Foundation

Title: Development of a Clinical Monitoring Strategy for Post-Traumatic Knee Osteoarthritis

Role: PI

Effort: 10.0%

Period: 2021-2024

Description: To use monthly assessments of walking biomechanics, physical activity, and femoral cartilage structure during the first year post-ACLR to identify how and when depth sensors, wearable devices, and

diagnostic ultrasound should be used as prognostic enrichment biomarkers to predict the development of knee OA 1 year after ACLR.

Source: National Institute of Health (R01 PAR-18-597)

Title: Post-Traumatic Knee Osteoarthritis Following ACL Reconstruction: Development of a Clinical Monitoring Strategy for Knee Osteoarthritis Prevention Clinical Trials

Role: PI

Effort: 10.0%

Period: 2021-2024

Description: To use monthly assessments of walking biomechanics, physical activity, and femoral cartilage structure during the first year post-ACLR to identify how and when depth sensors, wearable devices, and diagnostic ultrasound should be used as prognostic enrichment biomarkers to predict the development of knee OA 1 year after ACLR.

Source: The Arthritis Foundation

Title: Physical Activity Promotion for Preventing Posttraumatic Osteoarthritis (PAPPO): A Phase II Randomized Trial

Role: Multiple PI Kuenze and Pietrosimone (UNC-CH)

Effort: 10.0%

Period: 2021-2024

Description: The overall objective of this proposal is to report the feasibility and determine the initial effects of a daily, individualized PA promotion intervention delivered over an 8-week period for the purposes of improving PA volume and indicators of early PTOA development in individuals 12-months following ACLR.

Source: National Athletic Trainers' Association Research and Education Foundation

Title: Promoting Physical Activity after ACL Reconstruction via a Novel Individualized Goal Setting Intervention

Role: PI

Effort: 3%

Period: 2021-2024

Description: To determine the effects of individualized PA promotion in patients with inadequate PA and poor QOL and determine if PA during the first year post-ACLR is associated with clinically meaningful change in cartilage structure.

Source: National Institute of Health (R21 PAR-18-595)

Title: Optimizing Physical Activity for Posttraumatic Osteoarthritis Prevention

Role: Multiple PI Kuenze and Pietrosimone (UNC-CH)

Effort: 10.0%

Period: 2021-2024

Description: The overall objective of this R21 is to report the feasibility and determine the initial effects of a daily, individualized PA promotion intervention delivered over an 8-week period for the purposes of improving PA volume and indicators of early PTOA development in individuals 6-months following ACLR.

Source: National Institute of Health (R21 PAR-18-595, Re-submission)

Title: Promoting Physical Activity Participation after ACL Reconstruction via a Novel Mobile Application

Role: PI

Effort: 12.5%

Period: 2019-2021

Description: Determine the feasibility, acceptability, and efficacy of a novel mobile application (ACL GOALS) tasked with promoting physical activity via adaptive goal setting in adolescents and young adults with a recent history of an ACLR.

Source: National Institute of Health (R21 PAR-18-595)

Title: Promoting Physical Activity Participation after ACL Reconstruction via a Novel Mobile Application

Role: PI

Effort: 12.5%

Period: 2019-2021

Description: Determine the feasibility, acceptability, and efficacy of a novel mobile application (ACL GOALS) tasked with promoting physical activity via adaptive goal setting in adolescents and young adults with a recent history of an ACLR.

Source: National Institute of Health (R21 PAR-18-489)

Title: Quantification of Impairments in GNAO1 Movement Disorders

Role: Consultant

Period: 2020-2022

Description: To quantify the developmental motor impairment in children associated with the most common GNAO1 mutations and determine the contributions of candidate neural mechanisms to their movement impairments.

Source: American Osteopathic Association

Title: The effects of osteopathic manipulative treatment on persistent neuromuscular, functional and morphological asymmetries in patients who have undergone anterior cruciate ligament reconstruction surgery

Effort: 9.5%

Period: 2020-2021

Description: A study to evaluate if osteopathic manipulative treatment (OMT) can improve the persistent neuromuscular, functional and morphological asymmetries in patients who have undergone anterior cruciate ligament reconstruction (ACLR) surgery.

Source: The William T. Grant Foundation

Title: Use of Research Evidence in High School Sport: Needs Assessment with a State-wide Governing Organization

Effort: 5.0%

Period: 2019-2020

Description: This project is an exploratory needs-assessment of knowledge translation in Michigan high school sport, examining the communication of empirical evidence to inform both coaching and medical care practices for youth athletes, in partnership with state- and local-level program stakeholders.

Source: American College of Sports Medicine Doctoral Student Grant

Title: Quality and Quantity of Knee Joint Loading in Post-traumatic osteoarthritis Development (LOAD) after ACL Reconstruction

PI: Lisee

Role: Doctoral Mentor

Period: 2019-2020

Description: To determine if individuals with recent ACLR experience altered involved limb cartilage deformation 4- and 6-months post-ACLR.

Source: American College of Sports Medicine Research Endowment

Title: Physical Activity and Thigh Muscle Intramuscular Fat Fraction among Young Individuals with ACL Reconstruction

Role: PI

Period: 2019-2020

Description: To determine if individuals with recent ACLR experience involved limb thigh intramuscular fatty infiltration and to what degree this is influenced by thigh muscle strength and PA participation during rehabilitation.

Source: National Institute of Health (R21 PAR-18-489)

Title: Physical Activity Participation during Return to Sport after ACL Reconstruction

Role: PI

Effort: 12.5%

Period: 2019-2021

Description: Determine the ability to accurately assess physical activity and sport-related-activity using tri-axial accelerometers among young, physically active individuals with a history of ACL reconstruction.

Source: National Institute of Health (R21 PAR-18-489)

Title: Objective Monitoring of Sport Characteristics after ACL Reconstruction

Multiple PI: Kuenze and Bell (UW-Madison)

Effort: 12.5%

Period: 2019-2021

Description: Determine the ability to accurately assess sport participation characteristics using GPS monitoring technology among individuals with a history of ACL reconstruction and compare characteristics to team-matched healthy athletes.

Source: National Institute of Health (R01 PAR-18-484)

Title: Field-based activity type detection following ACL reconstruction

Multiple PI: Pfeiffer (MSU) and Montoye (Alma College)

Role: Co-Investigator

Effort: 25%

Period: 2018-2023

Description: Determine the ability to accurately assess physical activity type using tri-axial accelerometers among young, physically active individuals with a history of ACL reconstruction.

Source: National Collegiate Athletics Association

Title: Down, But Not Out: An Examination of the Psychological Health of Student-Athletes Recovering from ACL Injury.

Role: Co-I

Effort: 5%

Period: 2017-2018

Description: Examines student-athlete experiences during the tumultuous transition between pre- and post-surgery, as well as their mental state as they reflect on their rehabilitation and prepare to return to play.

Source: National Institute of Arthritis, Musculoskeletal and Skin Disease Research (R01 PAR-18-484, Resubmission)

Title: The Natural Progression of Instrumented Physical Activity Monitoring after ACL Reconstruction

Multiple PI: Kuenze, Bell, (UW-Madison) and Hart (UVA)

Effort: 12.5%

Period: 2017-2022

Description: Determine why physical activity changes after ACLR and identify which factors are able to predict physical activity 2 years after surgery.

Source: National Institute of Arthritis, Musculoskeletal and Skin Disease Research (R01 PAR-18-484)

Title: The Natural Progression of Instrumented Physical Activity Monitoring after ACL Reconstruction

Co-PI: Christopher Kuenze, PhD, ATC and David Bell, PhD, ATC, Joe Hart, PhD, ATC

Effort: 12.5%

Period: 2017-2022

Description: Determine why physical activity changes after ACLR and identify which factors are able to predict physical activity 2 years after surgery.

Source: National Athletic Trainers' Association

Title: The Impact of Power Training on Lower Extremity Function and Response to Exercise in Participants with Persistent Quadriceps Strength Asymmetry following ACLR.

PI: Christopher Kuenze, PhD, ATC

Period: 2016-2018

Description: To compare the effects of traditional strength-based rehabilitation and lower extremity power training on patient reported function, lower extremity function, and quadriceps muscle structure in participants experiencing quadriceps dysfunction after ACL reconstruction.

TEACHING EXPERIENCE

Michigan State University

Summer 2022

KIN 800: Functional Anatomy and Pathophysiology

Spring 2022

KIN 835: Pharmacology for Athletic Trainers

KIN 125: First Aid and Personal Safety

Fall 2021

KIN 833: Lower Extremity Rehabilitation

KIN 834: Evidence-Based Practice

Summer 2021

KIN 800: Functional Anatomy and Pathophysiology

Spring 2021

KIN 835: Pharmacology for Athletic Trainers

KIN 825: Injury Control in Sports and Physical Activity

Fall 2020

KIN 833: Lower Extremity Rehabilitation (new prep)

KIN 834: Evidence-Based Practice (new prep)

Summer 2020

KIN 800: Functional Anatomy and Pathophysiology (new prep)

Spring 2020

KIN320: Pathology of Sports Injury

Fall 2019

KIN 423: Therapeutic Modalities

KIN320: Pathology of Sports Injury

Spring 2019

KIN 825: Injury Control in Physical Activity

KIN320: Pathology of Sports Injury

KIN 125: First Aid and Personal Safety (Instructor of Record)

Fall 2018

KIN 423: Therapeutic Modalities

KIN 320: Pathology of Sports Injury

KIN 125: First Aid and Personal Safety (Instructor of Record)

Summer 2018:

KIN 125: First Aid and Personal Safety

Spring 2018

KIN 960: Sports Injury Biomechanics

KIN320: Pathology of Sports Injury

KIN 125: First Aid and Personal Safety (Instructor of Record)

Fall 2017

KIN 423: Therapeutic Modalities

KIN320: Pathology of Sports Injury

KIN 125: First Aid and Personal Safety (Instructor of Record)

Spring 2017

KIN 825: Injury Control in Physical Activity

KIN 125: First Aid and Personal Safety (Instructor of Record)

Spring 2016

KIN 320: Pathology of Sports Injury

KIN 125: First Aid and Personal Safety (Instructor of Record)

Fall 2015

KIN 320: Pathology of Sports Injury

KIN 125: First Aid and Personal Safety (Instructor of Record)

University of Miami*Spring 2015*

KIN 615: Evidence Based Medicine in Sports Medicine

KIN 415: Evidence Based Medicine in Sports Medicine

KIN 345: Kinesiology

Fall 2014

KIN 470: Administrative Aspects of Athletic Training

KIN 455: Athletic Training Clinical Laboratory III

KIN 234: Functional Human Anatomy

KIN 184: Athletic Sports Injuries

Summer 2014

KIN 184: Athletic Sports Injuries

Spring 2014

KIN 615: Evidence Based Medicine in Sports Medicine

KIN 415: Evidence Based Medicine in Sports Medicine

Fall 2013

KIN 234: Functional Anatomy

KIN 455: Athletic Training Clinical Laboratory III

UNIVERSITY SERVICE**Michigan State University**

Member: Assistant Director of Academic Affairs Search Committee

2021-present

Member: Department of Kinesiology Graduate Studies Committee

2021-present

Member: College Curriculum Committee

2020-present

Chairperson: Athletic Training Search Committee (successful)

2019-2020

Member: Sports Science Collaborative Development Committee

2019-present

Member: Department of Kinesiology Personnel Committee

2018-2020

Member: College of Education Seed Grant Review Committee

2018-2019

Member: Athletic Training Search Committee (successful)

2018-2019

Member: College Curriculum Committee

2017-2018

Member: Kinesiology Faculty Advisory Committee

2017-2018

Presentation Judge: UURAF Research Forum

2016-2019

Instructor: Athletic Training Doctoral Student Seminar

2016-present

Director: Graduate Athletic Training Program

2015-2021

Member: MSU Athletic Training Educational Endowment Fund Planning Committee

2015-present

Member: Undergraduate and Curriculum Committee

2015-2017

University of Miami

Member: Graduate Curriculum Committee

2014-2015

Mentor: Undergraduate Honors Research Program

2014-2015

PROFESSIONAL SERVICE

Treasurer: Athletic Trainers' Osteoarthritis Consortium	2021
Member: Pediatric Research in Sports Medicine Motion Analysis Research Interest Group	2020-present
Member: OA Action Alliance Secondary Prevention Taskforce	2020-present
Member: National Athletic Trainers Association Research and Education Foundation Free Communications Committee	2020-present
Member: Pediatric Research in Sports Medicine Awards Committee	2018-present
Member: Great Lakes Athletic Trainers' Association Research Assistance Committee	2017-present
Work-Group Leader: Athletic Trainers' Osteoarthritis Consortium	2015-2020
University of Miami Sports Institute Member	2014-2015
Session Moderator: Student SEATA Annual Meeting	2014
Session Proposal Reviewer: National Athletic Trainers Association Annual Meeting	2014-2016
Session Moderator: Curry Research Conference, Charlottesville, VA	2012
Session Moderator: Virginia Athletic Trainers Association Annual Meeting	2012
Blog Contributor: Sports Medicine Research Blog	2011-2013
Quiz Bowl Item Writer: Mid-Atlantic Athletic Trainers Association Annual Meeting	2011
Quiz Bowl Coordinator: Virginia Athletic Trainers Association Annual Meeting	2010-2013

EDITORIAL BOARDS

Associate Editor for Digital Applications: Journal of Athletic Training	2017-present
Biomechanics Section Editor: Measurement in Physical Education and Exercise Science	2017-present

GRANT REVIEWER

Maurice and Phyllis Paykel Trust	2019
National Athletic Trainers Association Research and Education Foundation	2015-present

MANUSCRIPT REVIEWER

Arthritis and Rheumatism	2020-present
The Knee	2018-present
Medicine and Science in Sport and Exercise	2018-present
BMC Musculoskeletal Disorders	2018-present
Journal of Orthopaedic Research	2017-present
Journal of Rheumatology	2017-present
Physical Therapy in Sport	2017-present
Muscle and Nerve	2016-present
Sports Medicine	2016-present
European Journal of Physical and Rehabilitation Medicine	2015-present
Physiotherapy Theory and Practice	2015
Athletic Training and Sports Health Care	2015
Journal of Sports Sciences	2015-present
Sports Biomechanics	2014-present
American Journal of Sports Medicine	2014-present
Sports Health	2014-present
Archives of Physical Medicine and Rehabilitation	2013-present
American Journal of Physical Medicine and Rehabilitation	2013-present
Journal of Athletic Training	2011-present
Journal of Sports Rehabilitation	2010-present

AWARDS

Michigan State University Teach Scholar Award. Nominated in September 2021 and application will be under review until February 2022.

Kevin G. Shea Award for Best Scientific Poster. Pediatric Research in Sports Medicine Society. Awarded February 2020.

Alice Becker Hinchliffe Williams Scholarship. Awarded by The Curry School of Education Foundation, University of Virginia. April 2013.

Doctoral Oral Award Finalist. Awarded by the National Athletic Trainers Association Research and Education Foundation. June 2012.

Elsie Hughes Cabell Scholarship. Awarded by the Curry School of Education. University of Virginia. April 2012.
David H. Perrin Athletic Training and Sports Medicine Scholarship. Awarded by The Curry School of Education Foundation, University of Virginia. April 2011.

Awarded Membership into The McCue Society for recognition of leadership, education, and service in sports medicine. June 2010.

LICENCES AND CERTIFICATIONS

American Red Cross Professional CPR Instructor Certified	2016-present
Michigan Licensed Athletic Trainer	2015-present
Certified Athletic Trainer (BOC# 050702165, NPI# 1801082029)	2007-present
American Red Cross Professional CPR Certified	2004-present
North Carolina Licensed Athletic Trainer	2007-2009

PROFESSIONAL ORGANIZATIONS

European Society for Sports Traumatology, Knee Surgery and Arthroscopy (ESSKA)	2019-2020
Osteoarthritis Research Society International (OARSI)	2018-present
Pediatric Research in Sports Medicine Society (PRISM)	2017-present
Great Lakes Athletic Trainers Association	2015-present
Michigan Athletic Trainers Association	2015-present
American College of Sports Medicine	2011-present
National Athletic Trainers Association (Member # 22688)	2006-present
Southeast Athletic Trainers Association	2013-2015
Mid-Atlantic Athletic Trainers Association	2009-2013
Virginia Athletic Trainers Association	2009-2013

PROFESSIONAL DEVELOPMENT

Training in Grantsmanship for Rehabilitation Research, Medical University of South Carolina, Accepted Fall 2021

- Attending in January 2022
- Primary Mentor: Alice Ryan, PhD, University of Maryland School of Medicine
- Secondary Mentor: Richard Souza, PhD, PT, University of California, San Francisco

Michigan State University Academic Communications Fellowship Program Fall 2019

U.S. Bone and Joint Initiative, Young Investigators Initiative (YII) 2016-2018

- Institutional Research Mentor: Karin Pfeiffer, Ph.D.

NATA Research & Education Foundation's Research Mentor Program 2014

- Research Mentor: Erik Wikstrom, University of North Carolina at Charlotte

DOCTORAL STUDENTS ADVISED

Michigan State University

Michelle Walaszek: Expected graduation May 2024

- College of Education Summer Research Fellowship (\$6,000.00, 2022)
- College of Education Summer Research Development Fellowship (\$5,000.00, 2021)

Katherine Collins: Expected graduation May 2023

- Henry J. and Betty Montoye Endowed Scholarship (\$2,000.00, 2022)
- Department of Kinesiology Endowed Fellowship (\$700.00, 2022)
- College of Education Summer Research Fellowship (\$6,000.00, 2022)

- Henry J. and Betty Montoye Endowed Scholarship (\$2,000.00, 2021)
- College of Education Summer Research Development Fellowship (\$6,000.00, 2021)
- College of Education Dissertation and Research Practicum Funding (\$2,540.00, 2021)
- College of Education Summer Research Development Fellowship (\$5,000.00, 2020)
- Michigan State University College of Education Dean's Fellow (2019-2023)

Tom Birchmeier: 2017-2021

- Current position: Post-doctoral research fellow at the University of North Carolina at Chapel Hill
- Dissertation Completion Fellowship (\$7,000.00, 2021)
- National Athletic Trainers' Association Doctoral Research Grant (\$2,500.00, 2020-2021)
- Henry J. and Betty Montoye Endowed Scholarship (\$1,180.00, 2020)
- College of Education Summer Research Fellowship (\$6,000.00, 2020)
- College of Education Summer Research Fellowship (\$6,000.00, 2019)
- Michigan Athletic Trainers' Society Doctoral Research Grant (\$500.00, 2019-2020)
- College of Education Summer Research Development Fellowship (\$5,000.00, 2018)

Ashley Triplett: 2016-2021 (Delayed by the COVID-19 pandemic)

- Current position: Adjunct faculty member, Department of Kinesiology, Michigan State University
- Dissertation Completion Fellowship (\$7,000.00, 2021)
- Henry J. and Betty Montoye Endowed Scholarship (\$1,180.00, 2019)
- American College of Sports Medicine Doctoral Research Grant (\$5,000.00, 2019)
- College of Education Summer Research Fellowship (\$6,000.00, 2018)

Caroline Lisee: 2016-2020

- Current position: Post-doctoral research fellow at the University of North Carolina at Chapel Hill
- Dissertation: Femoral articular cartilage response to cumulative loading in individuals during early phases of recovery following ACLR.
- Clinically Applied Loadsol National Biomechanics Day Contest Winner (2020)
- Dissertation Completion Fellowship (\$7,000, 2020)
- Great Lakes Athletic Trainers' Association Research Advisory Committee Doctoral Grant (\$2,5000.00, 2019-2020)
- Michigan State University Research Enhancement Award (\$1,000.00, 2019)
- College of Education Summer Research Fellowship (\$6,000.00, 2019)
- Dissertation and Research Practicum Funding (\$3,465.00, 2019)
- NIH Clinical Center's Clinical and Translational Research Course for Ph.D. Students (2018)
- Department of Kinesiology Endowed Scholarship (\$2,300.00, 2018)
- College of Education Research Practicum/Dissertation Development Fellowship (\$5,000.00, 2018)
- National Athletic Trainers' Association Research and Education Foundation Doctoral Grant (\$2,5000.00, 2017-2018)
- College of Education Summer Research Development Fellowship (\$5,000.00, 2017)

Adam Kelly: 2014-2016

- Left program prior to graduation to pursue personal goals outside of academia
- Great Lakes Athletic Trainers' Association Doctoral Student Grant (\$1,500.00, 2016-2017)
- Michigan State University College of Education Summer Research Development Fellowship (\$2,500.00, 2016)

MASTERS STUDENTS ADVISED

Michigan State University

Chelsea Casper: Expected Graduation 2023

Dean Puranovic: Expected Graduation 2023

Kelsey Malven: Expected Graduation 2023

Katherine Bigelow: Expected Graduation 2023

Allison Gawinski: 2018-2020

- Project: Agreement between Manual and Automated Methods Used to Measure Rate of Torque Development

Katie Boltz: 2018-2020

- Project: Return to Sport Testing following Anterior Cruciate Ligament Reconstruction in Division I Athletes

Chastity Chov: 2017-2019

- Jason D'Amelio Graduate Impact Fund Scholarship (\$1,000.00, 2019)
- Return to Sport in Patients with Medial Patellofemoral Ligament Surgery.

Colleen Rogers: 2017-2019

- Return to Sport in Patients with Medial Patellofemoral Ligament Surgery.

Austin Herman: 2016-2018

- Effects of Cryotherapy and Compression on Knee Joint Function in Individuals with a History of ACL Reconstruction.

Stephen Waltersdorf: 2016-2018

- Effects of Cryotherapy and Compression on Knee Joint Function in Individuals with a History of ACL Reconstruction.

Eric Jackson: 2016-2018

- The Relationship between Lower Extremity Range of Motion and FMS Score among NCAA Track and Field Athletes.

Sean O'neil: 2015-2017

- Validation of the Microsoft Kinect v2. Sensor for Measurement of Jump Landing Kinematics.

Erika Ralston: 2015-2017

- Relationships among Lower Extremity Ranges of Motion, Dynamic Balance, and Squat Kinematics among Competitive Distance Runners.

DOCTORAL DISSERTATION COMMITTEE MEMBERSHIP

Michigan State University

Aaron Zynda: 2019-2023

Morgan Anderson: 2017-2021

- Dissertation: The Clinical Utility and Influence of Habitual, Device-measured Sleep Duration on Baseline Neurocognitive Performance and Total Concussion Symptom Severity in College-aged Individuals.

William Burghardt: 2017-2021

- Dissertation: Modeling the Relationship Between Workload and Non-contact Injuries in American College Football Players.

Kyle Petit: 2016-2020

- Dissertation: The Relationship Between Post-Concussion Physical Activity and Concussion Recovery Outcomes in College-Aged Adults

Jennifer Savage: 2015-2019

- Dissertation: Examining Simulated Driving Performance among Athletes with a Sport-related Concussion.

Abigail Bretzin: 2015-2019

- Dissertation: Exploring Long-term Effects of Contact Sports Participation.

Meghan LaFevor: 2015-2017

- Dissertation: Examining Concurrent Validity of the ImPACT Quick Test-Pediatric Version with the ImPACT ediatric, and Assessing Age and Sex Normative Values.

University of Miami

Connie Sol: 2013-2016

- Dissertation: Effectiveness of a Proprioceptive Resistance Device in Changing Landing Style in Recreational Runners Learning to Land on the Ball of the Foot.

Sean Nicole: 2013-2016

- Dissertation: Effects of Two Kinds of Dance, Differing in Movement Complexity, on Computer-Based and Movement-Based Cognitive Performance.

Nicole Rendos: 2013-2016

- Dissertation: Identification of Sling Systems in Economical and Non-economical runners.

Arturo Leyva: 2013-2015

- Dissertation: The Comparative Effects of Treadmill Training Versus Multi-Directional Variable-Speed Training on Muscle Fiber Types, Daily Living and Executive Function in Elderly Men and Women.

Hector Heredia: 2013-2015

- Dissertation: Squat vs. Power Cleans: Post-activation Potentiation Effects in Division I Track Athletes.

Hyung-Pil Jun: 2013-2014

- Dissertation: The Effectiveness of Kinesio Tape and McConnell Tape on Neuromuscular Characteristics of VMO and VL, Joint Kinematics, and Pain in Individuals with PFP during Functional Task.

Meng Ni: 2013-2014

- Dissertation: The Comparative Impacts of a Specifically Designed Yoga Program and Power Training on Physical Performance in Older Adults with Parkinson's disease.

Cole Myers: 2013-2014

- Dissertation: Bicycle Shoe Insoles and their Effect on Foot Excursion, Leg Muscle Activation Patterns and Performance in Experienced Cyclists.

MASTERS COMMITTEE MEMBERSHIP

Michigan State University

Hannah Miller: 2020-2022

Kevin Lam: 2020-2022

- Use of Mindfulness Meditation to Reduce Lower Extremity Injury Risk: A Critically Appraised Topic

Megan Murray: 2020-2022

- Examining Perceptions of Motivation, Athlete Burnout, and Injury-related Fear in Patients following ACL Reconstruction: A Mixed Methods Design

Hannah Miller: 2021-2023

- An Investigation of Elite U.S. Figure Skaters' Social Media Use, Purposes for Use, and Subsequent Perceived Psychosocial Implications

Cody Stemple: 2021-2022

- Capstone: Internship at Premier Rehabilitation in Grand Ledge, MI

Brett Bernstein: 2018-2020

- Baseline VOMS and History of Concussion Among Collegiate Athletes

Colton Seibel: 2018-2020

- Project: Examining High School Specialization and Injury Incidence Patterns of College Athletes

Erin Moncrief: 2017-2019

- Project: Baseline SCAT5 Results in Contact vs. Non-contact Athletes.

Conor McDonough: 2017-2019

- Project: Baseline Balance Performance in Division I Collegiate and Club-Sport Athletes: A Comparison of the BESS, SWAY, and BTrackS.

Kelsey Clausen: 2016-2018

- Project: Examining Competitive Trait Anxiety in NCAA Division I Collegiate Athletes.

Ryan Morrison: 2016-2018

- Project: Normative Values for Balance Performance in Division I Collegiate and Club-Sport Athletes.

Max Elder: 2016-2018

- Project: Examining Return to Learn Protocols in Concussion Diagnosed Athletes in Collegiate Athletics.

Daniel Colvin: 2016-2018

- Project: Merging Medicine and Technology to Improve Safety in Motorsports.

Vincent Del Valle: 2015-2016

- Project: To Examine Injury Rates, Incidence and Mechanism of NCAA Track and Field Athletes.

Tamaria Hollis: 2015-2016

- Project: Exploring the Dimensions of Competitive Anxiety and Self-Confidence and Its Association with an Athletes Perceived Risk of Injury.

Keegan Warner: 2015-2016

- Project: A Comparison of High School Men's and Women's Lacrosse Injuries Academic Years 2009-2010 through 2013-2014.

University of Virginia

Zihida Mitha: 2012-2013

- Thesis: Single Leg Squat Assessment in Knee Injured Individuals.

Nathaniel Foot: 2012-2013

- Thesis: Drop Landing Performance Following ACL Reconstruction.
- National Athletic Trainers Association Master Oral Presentation Award Runner-up: June 2014

John Goetschius: 2011-2012

- Thesis: Balance and Joint Position Sense after Exercise in Individuals with ACL Reconstructed Knees.

Jay Clark: 2011-2012

- Thesis: Effect of EMG Biofeedback on Quadriceps Function following Knee Injury: A Pilot Study.

Natalie Kramer: 2011-2012

- Thesis: Hamstring Strain Injury History and Muscle Strength, Volume, and Flexibility in Sprinters and Jumpers.

Devin Roberts: 2010-2011

- Thesis: Techniques for Estimating Quadriceps Central Activation.
- National Athletic Trainers Association Master Oral Presentation Award Runner-up: June 2013

Meghan Lockerby: 2010-2011

- Thesis: Hamstring to Quadriceps Mean Torque Ratio Does Not Change After 30 Minutes of Exercise in Persons With Recurrent Low Back Pain.

Ashley Stern: 2009-2010

- Thesis: Neuromuscular Function after Exercise in Males and Females.

MICHIGAN STATE COLLEGE OF OSTEOPATHIC MEDICINE MENTORSHIP Clerkship Research Students

Brett Brazier: Spring 2018

- Quadriceps Muscle Size following ACL Reconstruction: A Systematic Review and Meta-analysis
 - Presented at the 2018 Statewide Campus System (SCS) Scholarly Activity Poster Day
- Quadriceps Muscle Histology and Morphology following ACL Reconstruction
- Prospective Outcomes after Medial Patellofemoral Ligament Surgery

Pre-Clerkship Research Students

Ian Stuart: 2021 (ongoing)

Kyle Huber: 2021 (ongoing)

Hunter Janowiak: 2021 (ongoing)

Noah Fiala: 2021 (ongoing)

Jordan Lewis: 2020 (ongoing)

- Project: Understanding Communication Dynamics among Stakeholders during Orthopedic Rehabilitation
 - Oral presentation at the 2021 National SOMA Research Symposium

Nate Farner: 2020 (ongoing)

- Project: Understanding Communication Dynamics among Stakeholders during Orthopedic Rehabilitation

Michael Moran: 2020-2021

- Project: Lower Extremity Outcomes after ACL Reconstruction

Nathan Woeber: 2019-2020

- Project: Characterizing Body Composition and Aerobic Fitness in Individuals with Anterior Cruciate Ligament Reconstruction.

Zach Walker: 2019-2020

- Project: Lower Extremity Outcomes after ACL Reconstruction

Forrest Lewallen: 2018-2019

- Lewallen F, Koch Z, Ballard E, Charlick M, Lisee C‡, Birchmeier T‡, Triplett A‡, Kuenze C. Sex Differences in Hop Performance and Psychological Readiness for Sport 6-months after ACL Reconstruction. Presented at the 2019 SCS Scholarly Activity Poster Day.
- Charlick M, Ballard E, Koch Z, Lewallen F, Lisee C‡, Birchmeier T‡, Triplett A‡, Kuenze C. Graft Choice Versus Quadriceps Strength at 6-months Post-ACL Reconstruction. Presented at the 2019 SCS Scholarly Activity Poster Day. (2nd Place Award Winner)

Arthur Yan: 2017-2018

- Validation of a Machine Learning Algorithm for the Measurement of Physical Activity Characteristics
 - Presented at the 2018 Michigan State University College of Osteopathic Medicine Research Day
 - Presented at the 2018 Michigan State University Council of Graduate Students Annual Meeting

Medical Student Research Assistants

Brandon Henry: 2020 (ongoing)

- Project: Thigh Muscle Composition after ACL Reconstruction

Moriah Moore: 2019-2020

- Project: Prospective outcomes following ACL reconstruction.

John Italiano: 2019-2020

- Project: Prospective outcomes following ACL reconstruction.

Kevin Kane: 2018-2020

- Project: Patient-reported outcomes among male and female patients with ACL reconstruction.
- Project: Quadriceps size and structure among young men and women with ACL reconstruction.
- Began residency at McLaren Lansing in Summer 2019.

Matthew Charlick: 2018-2019

- Project: Prospective outcomes following ACL reconstruction.
- Charlick M, Ballard E, Koch Z, Lewallen F, Lisee C‡, Birchmeier T‡, Triplett A‡, Kuenze C. Graft Choice Versus Quadriceps Strength at 6-months Post-ACL Reconstruction. Presented at the 2019 SCS Scholarly Activity Poster Day. (2nd Place Award Winner)
- Lewallen F, Koch Z, Ballard E, Charlick M, Lisee C‡, Birchmeier T‡, Triplett A‡, Kuenze C. Sex Differences in Hop Performance and Psychological Readiness for Sport 6-months after ACL Reconstruction. Presented at the 2019 SCS Scholarly Activity Poster Day.

Zachary Koch: 2018-2019

- Project: Prospective outcomes following ACL reconstruction.
- Charlick M, Ballard E, Koch Z, Lewallen F, Lisee C‡, Birchmeier T‡, Triplett A‡, Kuenze C. Graft Choice Versus Quadriceps Strength at 6-months Post-ACL Reconstruction. Presented at the 2019 SCS Scholarly Activity Poster Day. (2nd Place Award Winner)
- Lewallen F, Koch Z, Ballard E, Charlick M, Lisee C‡, Birchmeier T‡, Triplett A‡, Kuenze C. Sex Differences in Hop Performance and Psychological Readiness for Sport 6-months after ACL Reconstruction. Presented at the 2019 SCS Scholarly Activity Poster Day.

Eric Ballard: 2017-2019

- Project: Prospective outcomes following ACL reconstruction.
- Charlick M, Ballard E, Koch Z, Lewallen F, Lisee C‡, Birchmeier T‡, Triplett A‡, Kuenze C. Graft Choice Versus Quadriceps Strength at 6-months Post-ACL Reconstruction. Presented at the 2019 SCS Scholarly Activity Poster Day. (2nd Place Award Winner)

Jennifer Polin: 2017-2019

- Project: Prospective outcomes following ACL reconstruction.
- Project: The Impact of Involved Limb Quadriceps Function on Single Leg Movement Quality after ACL Reconstruction.

Garry Jawanda: 2017-2018

- Project: Effects of Knee Injury History on Knee Function and Quality of Life among Young Individuals
 - Presented at the 2018 Michigan State University College of Osteopathic Medicine Research Day

Ryan Kaylor: 2017-2018

- Project: Effects of Knee Injury History on Knee Function and Quality of Life among Young Individuals
 - Presented at the 2018 Michigan State University College of Osteopathic Medicine Research Day

Brent Geers: 2017-2018

- Project: Validation of a Machine Learning Algorithm for the Measurement of Physical Activity Characteristics
 - Presented at the 2018 Michigan State University College of Osteopathic Medicine Research Day
 - Presented at the 2018 Michigan State University Council of Graduate Students Annual Meeting

Kaitlin O'Hagan: 2017-2018

- Project: Validation of a Machine Learning Algorithm for the Measurement of Physical Activity Characteristics
 - Presented at the 2018 Michigan State University College of Osteopathic Medicine Research Day
 - Presented at the 2018 Michigan State University Council of Graduate Students Annual Meeting
 - Presented at the 2018 American Academy of Osteopathy Convocation

UNDERGRADUATE RESEARCH ASSISTANT MENTORSHIP

Michigan State University

Valerie Itsell: 2021-present

Pia Gandrothu: 2021-present

Brody Lineman: 2021-present

Skylar Mack: 2019-present

- Michigan State University Honor College Professorial Assistant

Henry Burghardt: 2019-2020

Tess McGuire: 2017-2020

- McGuire T, Orourke M, Lisee C†M, Birchmeier T†, Kuenze C. Sex Related Differences in Single-Leg Hopping, Quadriceps Strength, and Patient Reported Outcomes After ACL Reconstruction. University Undergraduate Research and Arts Forum. April, 2018. (Poster Presentation)

Seth Warren: 2018-present

Micaela O'Rourke: 2017-2018

- McGuire T, Orourke M, Lisee C†M, Birchmeier T†, Kuenze C. Sex Related Differences in Single-Leg Hopping, Quadriceps Strength, and Patient Reported Outcomes After ACL Reconstruction. University Undergraduate Research and Arts Forum. April, 2018. (Poster Presentation)

Eric Leszczynski: 2015-2017

- Leszczynski E, Triplett A†, Kuenze C, Ferguson D. Vastus Lateralis Fiber Type Shift after ACL Reconstruction. University Undergraduate Research and Arts Forum. April, 2017. (Oral Presentation)
- College of Education Undergraduate Research Funding. 2016-2017

Megan VerHage: 2015-2017

- VerHage M, Kelly AR†, Lisee C†M, Kuenze C. Lower Extremity Functional Asymmetry following ACL Reconstruction. University Undergraduate Research and Arts Forum. April, 2017. (Poster Presentation)
- College of Education Undergraduate Research Funding. 2016-2017

Callum Davis: 2015-2018

- Lisee C†, Birchmeier T†, Yan A, Geers B, O'Hagan K, Davis C, Kuenze C. The Relationship between Vertical Ground Reaction Force and Sound Characteristics during a Single Leg Landing. *J Sport Rehabil.* 2019 Apr 29: 1-24. PMID: 31034335.
- Davis C, Lisee C†M, Birchmeier T†, Kuenze C. Relationship between Fear of Re-injury and Single Leg Crossover Landing Biomechanics in Individuals with a History of ACLR. University Undergraduate Research and Arts Forum. April, 2018. (Poster Presentation)
- Davis C, Lisee C†M, Kuenze C. Sex Differences in Single Leg Landing Forces Among College-Aged Individuals. College of Education Undergraduate Research Funding. University Undergraduate Research and Arts Forum. April, 2017. (Poster Presentation)
- College of Education Undergraduate Research Funding. 2016-2018

Emily Emerick: 2016-2017

Marissa Ozog: Fall 2016

Emily Cooper: Fall 2016

University of Miami

Richard Campbell: 2014-2015

- Biomechanical Lower Extremity Assessment in Division 1 Basketball Players: A Novel Application of the Microsoft Kinect® Camera System.
- General Honors Program Summer Research Internship Funding (2014-2015)