Updated October 27, 2026

Kylie K. Harmon, Ph.D., CSCS

Curriculum Vitae

Assistant Professor
Department of Exercise Science
Falk College of Sport
Syracuse University
Syracuse, NY, 13244
Office: (315) 443-9698
Email: kkharmon@syr.edu

Web Links
PubMed Bibliography
ResearchGate Profile
Google Scholar Page

Education and Academic Appointments

University Education

Ph.D. in Education; Exercise Physiology track
University of Central Florida
Department of Kinesiology
Mentor: Matt S. Stock, Ph.D.
Dissertation: *The effects of neural and mechanical interventions on muscle size and function during short term immobilization of the lower limb*
August 2022

Certificate in Transcranial Magnetic Stimulation
Intensive Course in Transcranial Magnetic Stimulation
Berenson-Allen Center for Noninvasive Brain Stimulation
Harvard Medical School
July 2024

Certificate in Advanced Quantitative Methodologies in Education and Human Sciences
University of Central Florida
Methodology, Measurement, and Analysis Program
College of Community Innovation and Education
August 2022

M.S. in Kinesiology
California State University, Fullerton
Department of Kinesiology
Mentor: Lee E. Brown, Ed.D.
December 2016

B.A. in Russian Studies; Minor in Health & Wellness
Binghamton University
Department of German & Russian Studies
May 2013

Academic and Professional Appointments

2022 – Present	**Assistant Professor** **Syracuse University** Falk College of Sport Department of Exercise Science
2022 – Present	**Aging Studies Institute Faculty Affiliate** **Syracuse University**
2022 – Present	**Aging, Health, and Neuroscience Faculty** **Syracuse University**
2018 – 2022	**Research Coordinator** **University of Central Florida** Neuromuscular Plasticity Laboratory School of Kinesiology and Physical Therapy Division of Physical Therapy
2018 – 2022	**Graduate Research Associate** **University of Central Florida** School of Kinesiology and Physical Therapy Department of Kinesiology
2018 – 2022	**Graduate Teaching Associate** **University of Central Florida** School of Kinesiology and Physical Therapy Department of Kinesiology
2017 – 2018	**Research Technician** **SUNY Research Foundation** Muscular Dystrophy Laboratory Binghamton University School of Pharmacy and Pharmaceutical Sciences
2014 – 2016	**Graduate Teaching Assistant** **California State University, Fullerton** College of Health & Human Development Department of Kinesiology
2014 – 2016	**Graduate Research Assistant** **California State University Fullerton** Center for Sport Performance College of Health & Human Development Department of Kinesiology

2014 – 2015	**Laboratory Director** **California State University, Fullerton** Human Performance Laboratory College of Health & Human Development Department of Kinesiology

Professional Development

Syracuse University	**Facilitating a Supportive Classroom Environment for All Types of Learners: Neurodiversity in the Classroom** Center on Disability and Inclusion
	Making Your Presentations Inclusive Office of Research Awareness
University of Central Florida	**Preparing Tomorrow's Faculty Program** Center for Teaching and Learning
National Institutes of Health	**NIH REACT & NC NM4R** Design & Analysis of Clinical Trials in Neuromodulation

Notable Graduate Courses

University of Central Florida

- PHT6115C Gross Anatomy/Neuroscience I *with cadaveric dissection*
- NGR7916 Research Grants Process & Proposal Writing

Awards and Honors

2025-2026	**Faculty of the Year Award for Excellence in Research** Falk College of Sport, Syracuse University
2023	**National Research Award** Alpha Eta Honor Society for Allied Health
2022	**American Kinesiology Association Doctoral Scholar Award** University of Central Florida recipient
2022	**American Kinesiology Association Graduate Writing Award** University of Central Florida recipient
2022	**Graduate Dean's Dissertation Completion Fellowship** University of Central Florida
2021	**Student Scholar Symposium Winner** University of Central Florida
2021	**Challenge Scholarship recipient** National Strength and Conditioning Association Foundation
2020	**Challenge Scholarship recipient**

National Strength and Conditioning Association Foundation

2019 **Outstanding Poster Presentation**
Society for Neurosports Annual Conference

2018 **Women's Scholarship recipient**
National Strength and Conditioning Association Foundation

2015 **Outstanding Graduate Student, Department of Kinesiology**
California State University, Fullerton

2015 **Women's Scholarship recipient**
National Strength and Conditioning Association Foundation

Research: Publications, Presentations, and Funding

**Denotes corresponding author*
Underline denotes a student under my mentorship

Manuscripts Accepted for Publication & In Press

Manuscripts Submitted and Under Review

1. Barreira TV, **Harmon KK**, Costa EC, Armstrong MK, Heffernan KS. Hematology analyzer change and blood-count measures of biological aging and inflammation in NHANES. Submitted to the *Journal of the American Medical Association* on October 26, 2026.

2. Saechao F, Pourhatami Z, DiMaio RS, Beinstein E, Van Boxtel L, Beausejour JP, Girts RM, **Harmon KK.*** Acute effects of action observation perspective on lower limb strength and corticospinal excitability. Submitted to *The Journal of Strength & Conditioning Research* for peer-review on October 15,2026.

3. **Harmon KK**,* Sanematsu PC, Armstrong MK, Costa EC, Heffernan KS, Schuna JM, Barreira TV. Descriptive movement behavior values for U.S. adults: NHANES 2011-2014. Revisions submitted to *Medicine & Science in Sports & Exercise* on October 10, 2026.

4. Pourhatami, Z, Girts, RM, Stock, MS, **Harmon, KK.*** Neuromuscular electrical stimulation does not preserve muscle quality or thickness during short-term knee joint immobilization. Submitted to the *Journal of Functional Morphology and Kinesiology* on February 26, 2026.

5. Shields JE, Smith CD, Andrushko JW, Lanza MB, **Harmon KK**, Barrera TV, Pourhatami Z, and Simonsick EM. The role of sensorimotor nerve function in predicting postural sway in older adults. Submitted to *Neurobiology of Aging* on August 3, 2026.

Published Manuscripts

1. Stock, MS, **Harmon, KK**, Andrushko, JW, Farthing, JP, Roberts, MD, Clark, BC, Ploutz-Snyder, L, Suetta, C, Wingfield, HCS, van Loon, LJC, Carr, JC. Limb disuse trials in humans: Key insights on study design, ethics, and project execution. (2026) *Exercise and Sport Sciences Reviews* 54(4):p 167-182, doi: 10.1249/JES.0000000000000392

2. Fraterrigo, NJ, DiMaio, RS, Girts, RM, Stock, MS, **Harmon, KK.*** Examination and quantification of motor evoked potentials in the non-target resting leg. (2026) *Brain Research* doi: doi.org/10.1016/j.brainres.2026.150228

3. Armstrong, MK, Bayly, A, **Harmon, KK,** Barreira, TV. (2026) Actigraphy-Derived Sleep Duration and Its Association with Blood Pressure. *Journal of Hypertension*. doi: 10.1097/HJH.0000000000004260

4. **Harmon KK,*** Pourhatami, Z, Malinowski, D, Girts, RM, Beausejour, JP, Wydra, JS, Carr, JC, Garcia, J, Stock, MS. (2025). Correlation of Physical Activity Level with Muscle Strength and Size During One Week of Knee Joint Immobilization. *Journal of Functional Morphology and Kinesiology.* doi.org/10.3390/jfmk10020192.

5. **Harmon, KK***, Girts, RM, Rodriguez, G, Beausejour, JP, Pagan, JI, Carr, JC, Garcia, J, Roberts, MD, Hahs-Vaughn, DL, Stout, JR, Fukuda, DF, Stock, MS. (2024). Combined action observation and mental imagery vs. neuromuscular electrical stimulation as novel therapeutics during short-term knee joint immobilization. *Experimental Physiology.* doi.org/10.1113/EP091827.

6. Pagan, JI, Bradshaw, BA, Bejte, B, Hart, JN, Perez, V, Knowles, KS, Beausejour, JP, Luzadder, M, Osorio, C, Menger, R, **Harmon, KK**, Hanney, WJ, Wilson, AT, Stout, JR, Stock, MS. (2024). Task-specific resistance training adaptations in older adults: Comparing traditional and functional exercise interventions. *Frontiers in Aging.* doi.org/10.3389/fragi.2024.1335534.

7. Girts, RM, **Harmon, KK***, Rodriguez G, Beausejour, JP, Pagan, JI, Carr, JC, Garcia, J, Stout, JR, Fukuda, DF, Stock, MS. (2024). Sex differences in muscle quality recovery following one week of knee joint immobilization and subsequent retraining. *Applied Physiology, Nutrition, and Metabolism*. doi.org/10.1139/apnm-2023-0242.

8. MacLennan, RJ, Hernandez-Sarabia, J, Reese, SM, Shields, JE, Stute, K, Collyar, J, Olmos, AA, Danielson, TL, MacLennan DL, Pagan, JI, Girts, RM, **Harmon, KK**, Coker N, Carr, JC, Ye, X, Perry, JW, Stock, MS, DeFreitas, J. (2024). fNIRS is capable of distinguishing laterality of lower body contractions. *Experimental Brain Research.* doi.org/10.1007/s00221-024-06798-8.

9. Parsowith, EJ, Stock, MS, Girts, RM, Beausejour, JP, Alberto, A, Carr, JC, **Harmon, KK.*** (2023). The influence of resistance training experience on the efficacy of motor imagery for acutely increasing corticospinal excitability. *Brain Sciences.* doi.org/10.3390/brainsci13121635.

10. Beausejour, JP, Bohlen, PS, **Harmon, KK**, Girts, RM, Pagan, JI, Hahs-Vaughn, DL, Herda, TJ, Stock, MS. (2023). A comparison of techniques for verifying the accuracy of precision decomposition-derived relationships between motor unit firing rates and recruitment thresholds from surface EMG signals. *Experimental Brain Research*. doi.org/10.1007/s00221-023-06694-7.

11. Knowles, KS, Beausejour, JP, **Harmon, KK**, Girts, RM, Fukuda, DH, Kidgell, DJ, Stock, MS. (2023). The influence of transcranial magnetic stimulation interpulse interval duration on knee extensor corticospinal excitability. *Brain Connectivity.* doi.org/10.1089/brain.2023.0020.

12. Candow, DG, Forbes, SC, Ostojic, SM, Prokopidis, K, Stock, MS, **Harmon, KK**, Faulkner, P. (2023) "Heads Up" for creatine supplementation and its potential applications for brain health and function. *Sports Medicine*. doi: 10.1007/s40279-023-01870-9

13. Pagan, JI, **Harmon, KK**, Girts, RM, MacLennan, RJ, Beausejour, JP, Hernandez-Sarabia, JA, Coker, NA, Carr, JC, Ye, X, Defreitas, JM, Stock, MS. (2023). Sex-specific reliability of lower limb corticospinal excitability and silent periods. *Journal of Strength and Conditioning Research.* doi: 10.1519/JSC.0000000000004525

14. **Harmon, KK**, Girts, RM, Pagan, JI, Rodriguez, G, Stock, MS. (2022). The acute effects of action observation on muscle strength/weakness and corticospinal excitability in older adults. *Experimental Brain Research.* doi: 10.1007/s00221-022-06370-2

15. Girts, RM, **Harmon, KK**, Pagan, JI, Alberto, A, Hernandez, MG, Stock, MS. (2022). The influence of ultrasound image depth and gain on skeletal muscle echo intensity. *Applied Physiology, Nutrition, and Metabolism.* doi.org/10.1139/apnm-2021-0810

16. Carr, JC, Gerstner, GR, Voskuil, CC, Harden, JE, Dunnick, DD, Badillo, KM, Pagan, JI, **Harmon, KK**, Girts, RM, Beausejour, JP, Stock, MS. (2021). The influence of sonographer experience on skeletal muscle image acquisition and analysis. *Journal of Functional Morphology and Kinesiology.* doi: 10.3390/jfmk6040091

17. **Harmon, KK,** Stout, JR, Fukuda DH, Pabian, PS, Rawson, ER, Stock, MS. (2021). The application of creatine supplementation in medical rehabilitation. *Nutrients*. doi: 10.3390/nu13061825

18. Girts RM, MacLennan RJ, **Harmon KK**, Stock MS. (2021). Is skeletal muscle echo intensity more indicative of voluntary or involuntary strength in young women? *Translational Sports Medicine*. doi: 10.1002/tsm2.234

19. **Harmon, KK**, Hamilton, AS, Johnson, BD, Bartek, FJ, Girts, RM, MacLennan, RJ, Hahs-Vaughn DL, Stock, MS. (2021). Motor unit action potential amplitude during low-

torque fatiguing contractions versus high-torque non-fatiguing contractions: A multilevel analysis. *European Journal of Applied Physiology.* doi: 10.1007/s00421-021-04606-7.

20. MacLennan RJ, **Harmon KK**, Shields JE, Andrushko JW, Girts RM, Danielson TL. (2020). Aspects of cortical area responsibilities while learning a visually cued spatiotemporal motor task., *The Journal of Physiology*, 0.00: 1-2. doi: 10.1113/JP280647

21. Girts, RM, **Harmon, KK**, Starling-Smith, TM, Abad, GKB, Logeson, Z, Methven, J. (2020). Motor learning adaptations at the spinal cord level are task- and time-dependent: Implications for future investigations and treatment interventions. *The Journal of Physiology*, 0.00: 1-2. doi: 10.1113/JP280473.

22. Bali, AU, **Harmon, KK**, Burton, AM, Phan, DC, Mercer, NF, Lawless, NW, Stock, MS. (2020) Muscle strength, not age, explains unique variance in echo intensity. *Experimental Gerontology,* 139: 111047. doi: 10.1016/j.exger.2020.111047

23. Girts, RM, Mota, JA, **Harmon, KK,** MacLennan, RJ, Stock, MS. (2020) Vastus lateralis motor unit recruitment thresholds are compressed towards lower forces in older men. *The Journal of Frailty & Aging.* doi:10.14283/jfa.2020.19

24. **Harmon, KK**, Girts, RM, MacLennan, RJ, Stock, MS. (2019). Is the motor unit mean firing rate versus recruitment threshold relationship linear? *Physiological Measurement*, 40. doi:10.1088/1361-6579/ab4025

25. Glenn, JM, Gray, M, Moyen, NE, Vincenzo, JL, **Harmon, KK**, Brown, LE. (2018). Test-retest reliability and the learning effect on isokinetic fatigue in female master's cyclists. *International Journal of Kinesiology and Sports Science,* 6(4):1-9. doi: http://dx.doi.org/10.7575/aiac.ijkss.v.6n.4p.1

26. **Malyszek, KK**, Harmon RA, Dunnick, DD, Costa, PB, Coburn, JW, Brown, LE. (2017). Comparison of Olympic and hexagonal barbells with mid-thigh pull, deadlift, and countermovement jump. *Journal of Strength and Conditioning Research,* 31(1): 140-145. doi: 10.1519/JSC.0000000000001485

27. Nealer, AL, Dunnick, DD, **Malyszek, KK**, Wong, MA, Costa, PB, Coburn, JW, Brown, LE. (2017). Influence of rest intervals following assisted sprinting on bodyweight sprint times in female collegiate soccer players. *Journal of Strength and Conditioning Research,* 31(1): 88-94. doi: 10.1519/JSC.0000000000001677

28. McLeland, KA, Ruas, CV, Arevalo, JA, Bagley, JR, Ciccone, AB, Brown, LE, Coburn, JW, Galpin, AJ, **Malyszek, KK**. (2016). Comparison of knee extension concentric fatigue between repetition ranges. *Isokinetics and Exercise Science*, 24(1): 33-38. doi: 10.3233/IES-150595

29. Murach, KA, Bagley, JR, McLeland, KA, Arevalo, JA, Ciccone, AB, **Malyszek, KK,** Wen, Y, Galpin, AJ. (2015). Improving human skeletal muscle myosin heavy chain fiber

typing efficiency. *Journal of Muscle Research and Cell Motility,* 37(1-2): 1-5. doi: 10.1007/s10974-016-9441-9

30. Galpin, AJ, **Malyszek, KK**, Davis, KA, Record, SM, Brown, LE, Coburn, JW, Harmon, RA, Steele, JM, Manolovitz, AD. (2015). Acute effects of elastic bands on kinetic characteristics during the deadlift at moderate and heavy loads. *Journal of Strength and Conditioning Research*, 29(12): 3271-8. doi: 10.1519/JSC.0000000000000987

31. Marsico, M, **Malyszek, KK**, Bagley, JR, Galpin, AJ. A supplemental aquatic speed training program for NFL Combine preparation. *Strength and Conditioning Journal*, 37(6): 58-64. doi: 10.1519/SSC.0000000000000155

Textbook Contributions

1. **Harmon, KK**, Dunnick, DD, Brown, LE. Safety, Soreness, and Injury in the 2nd Edition of *Strength Training* by Lee Brown (Ed.). Champaign, IL: Human Kinetics, 2017.

2. **Harmon, KK**, Dunnick, DD, Brown, LE. Strength Assessment in the 2nd Edition of *Strength Training* by Lee Brown (Ed.). Champaign, IL: Human Kinetics, 2017.

3. Dunnick, DD, **Harmon, KK**, Brown, LE. Types of Strength and Power Exercises in the 2nd Edition of *Strength Training* by Lee Brown (Ed.). Champaign, IL: Human Kinetics, 2017.

4. Dunnick, DD, **Harmon, KK**, Brown, LE. Workout Schedule and Rest in the 2nd Edition of *Strength Training* by Lee Brown (Ed.). Champaign, IL: Human Kinetics, 2017.

Conference Proceedings

1. Stock MS, **Harmon KK**, Carr JC, Andrushko JW. Neuromuscular adaptations to disuse: mechanisms, interventions, and knowledge gaps. Accepted for Highlighted Symposium of Biomechanics and Neural Control of Movement presentation at the 2027 American College of Sports Medicine Annual Meeting. Indianapolis, Indiana. June 1-4, 2027.

2. **Harmon, KK.** Neuromuscular control throughout the lifespan: How the brain can help us maintain function throughout aging, illness, and injury. Invited presentation at the 10th Annual Syracuse University Neuroscience Research Day, April 12, 2024.

3. **Harmon, KK,** Stout, JR. The Application of Creatine Supplementation in Medical Rehabilitation. Invited presentation at the 2022 Creatine in Health and Disease Throughout the Lifetime International Conference. Virtual Event. March 17, 2022.

4. Stock, MS, **Harmon, KK**, Girts, RM. Use of transcranial magnetic stimulation to study adaptation within the human neuromuscular system: Lecture and lab! Invited presentation at the 1st Annual Society for Neurosports Conference, 2019, Deerfield Beach, FL.

Peer Reviewed Scientific and Professional Presentations
Underline denotes students under my mentorship.

1. Saechao F, Pourhatami Z, Beinstein E, **Harmon KK**. Sex Differences in the Acute Strength Response to First- versus Third-Person Action Observation Perspectives. Submitted for presentation at the 2026 Mid-Atlantic Regional Chapter of the ACSM Conference. November 13-14, Harrisburg, PA.

2. Pourhatami Z, Saechao F, Pentzien A, Beinstein E, **Harmon KK**. Effect of a familiarization visit on between-session reliability of resting motor threshold. Accepted for presentation at the 2026 Mid-Atlantic Regional Chapter of the ACSM Conference. November 13-14, 2026. Harrisburg, PA.

3. Pentzien A, Pourhatami Z, Saechao F, Beinstein E, **Harmon KK**. Effect of a familiarization visit on state anxiety across repeated TMS sessions. Accepted for presentation at the 2026 Mid-Atlantic Regional Chapter of the ACSM Conference. November 13-14, 2026. Harrisburg, PA.

4. Beinstein E, Pourhatami Z, Saechao F, DiMaio RS, **Harmon KK**. Does habitual protein intake predict resistance to strength loss during short-term upper-limb immobilization? Accepted for presentation at the 2026 Mid-Atlantic Regional Chapter of the ACSM Conference. November 13-14, 2026. Harrisburg, PA.

5. DiMaio RS, Pourhatami Z, Saechao F, Beinstein E, Van Boxtel L, Bachert O, Padulo N, Smith CD, Shields JE, Girts RM, **Harmon KK**. Effects of combined action observation and neuromuscular electrical stimulation on muscle size during brief upper limb immobilization. 2026 National Strength and Conditioning Association Annual Conference. New Orleans, LA, July 10, 2026.

6. Beinstein E, DiMaio RS, Pourhatami Z, Saechao F, Van Boxtel L, Bachert O, Padulo N, Smith CD, Shields JE, Girts RM, **Harmon KK**. Effects of combined action observation and neuromuscular electrical stimulation on grip strength during brief upper limb immobilization. 2026 National Strength and Conditioning Association Annual Conference. New Orleans, LA, July 9, 2026.

7. Pourhatami Z, DiMaio RS, Saechao F, Beinstein E, Van Boxtel L, Bachert O, Padulo N, Smith CD, Shields JE, Girts RM, **Harmon KK**. Effect of combined action observation and neuromuscular electrical stimulation on muscle quality during brief upper limb immobilization. Submitted for presentation at the 2026 National Strength and Conditioning Association Annual Conference, New Orleans, LA. July 10, 2026.

8. Saechao FS, Pourhatami Z, Prestipino J, DiMaio RS, Beinstein E, **Harmon KK.** Impact of a familiarization visit on reliability of transcranial magnetic stimulation outcomes. 2026 National Strength and Conditioning Association Annual Conference, New Orleans, LA. July 9, 2026.

9. **Harmon KK**, Sanematsu PC, Amstrong MK, Costa EC, Heffernan KS, Barreira TV. 24 H physical behaviors composition in US adults aged 40-64 years: NHANES 2011-2014. American College of Sports Medicine Annual Meeting, Salt Lake City, UT. May 29, 2026.

10. Barreira TV, Sanematsu PC, Armstrong MK, Costa EC, **Harmon KK**, Heffernan KS. 24 H physical behaviors composition in US older adults: NHANES 2011-2014. American College of Sports Medicine Annual Meeting, Salt Lake City, UT. May 29, 2026.

11. Beinstein E, Saechao F, Pourhatami Z, DiMaio RS, **Harmon KK.** The acute effects of action observation perspective on lower limb strength. Mid-Atlantic Regional Chapter Conference of the American College of Sports Medicine, Harrisburg, PA. November 7, 2025.

12. DiMaio RS, Petry M, Saechao F, **Harmon KK**. Short-term creatine monohydrate supplementation does not impact muscle quality. Mid-Atlantic Regional Chapter Conference of the American College of Sports Medicine, Harrisburg, PA. November 7, 2025.

13. Pourhatami Z, Saechao F, DiMaio RS, **Harmon KK**. The acute effects of action observation perspective on lower limb corticospinal excitability. Mid-Atlantic Regional Chapter Conference of the American College of Sports Medicine, Harrisburg, PA. November 7, 2025.

14. Saechao F, Petry M, DiMaio RS, Beinstein E, **Harmon KK**. Three Days of Creatine Monohydrate Supplementation Does Not Impact Lower Limb Corticospinal Excitability. Mid-Atlantic Regional Chapter Conference of the American College of Sports Medicine, Harrisburg, PA. November 7, 2025.

15. Alidadi M, Barreira TV, **Harmon KK,** Moon Y, Armstrong MK. Agreement between self-reported and accelerometer derived nocturnal sleep durations. Mid-Atlantic Regional Chapter Conference of the American College of Sports Medicine, Harrisburg, PA. November 7, 2025.

16. DiMaio RM, Pourhatami Z, Saechao F, Dunnick DD, Girts RM, **Harmon KK.** Examination and quantification of motor evoked potentials in a non-target resting leg. National Strength and Conditioning Association Annual Conference, Kansas City, MO. July 18, 2025.

17. Saechao F, DiMaio RM, Pourhatami Z, Dunnick DD, Girts RM, **Harmon KK.** Impact of acute action observation on flexor carpi radialis corticospinal excitability in older adults. National Strength and Conditioning Association Annual Conference, Kansas City, MO. July 18, 2025.

18. Pourhatami Z, Saechao F, DiMaio RS, Dunnick DD, Girts RM, **Harmon KK.** Neuromuscular electrical stimulation does not affect echo intensity during short-term knee immobilization. National Strength and Conditioning Association Annual Conference, Kansas City, MO. July 18, 2025.

19. Brey LG, Malinowski D, Girts RM, Stock MS, **Harmon KK.** The association between physical activity levels and declines in muscle strength and mass during one week of knee joint immobilization. Accepted for presentation at the 2024 National Strength and Conditioning Association Annual Conference, Baltimore, MD, July 11, 2024.

20. Knowles K, Beausejour JP, Pagan, JI, **Harmon KK**, Girts RM, Kidgell D, Fukuda DH, Stock MS. The influence of TMS interpulse interval duration on lower limb corticospinal excitability. University of Central Florida Institute of Exercise Physiology and Rehabilitation Science 3rd Annual Conference. January 28, 2023.

21. MacLennan, RJ, Hernandez-Sarabia JA, Reese, S, Shields, JC, Smith, C, Stute, K, Collyar, J, Olmos, A, Danielson, T, MacLennan, D, Pagan, JI, Girts, RM, **Harmon, KK**, Coker, NA, Carr, JC, Ye, X, Perry, J, Stock, MS, DeFreitas, JM. fNIRS brain imaging is capable of discerning hemispheric laterality during lower-body contractions. Presented at Central States ACSM, March 2-3, 2023.

22. Stock, MS, MacLennan, RJ, Girts, RM, **Harmon, KK**, Garcia, JM. Participant retention, compensation, and compliance during knee joint immobilization research: an analysis of two clinical trials. MR3 Network Scientific Retreat. September 29-30, 2022.

23. Pagan, JI, **Harmon, KK**, Girts, RM, MacLennan, RJ, Hernandez Sarabia, JA, Coker, NA, Carr, JC, Ye, X, DeFreitas, JM, Stock, MS. Sex-specific reliability of lower limb corticospinal excitability and silent periods. National Strength and Conditioning Association, New Orleans, LA. July 6-9, 2022.

24. Beausejour, JP, Bohlen, PS, **Harmon, KK**, Girts, RM, Pagan, JI, Hahs-Vahn, DL, Herda, TJ, Stock, MS. A comparison of techniques for verifying the accuracy of motor unit firing rates from surface EMG signal decomposition. National Strength and Conditioning Association Annual Conference, New Orleans, LA. July 6-9, 2022.

25. MacLennan, RJ, Hernandez-Sarabia, J, Pagan, JI, Girts, RM, **Harmon, KK**, Stute, K, Coker, NA, Carr, JC, Ye, X, Stock, MS, DeFreitas, JM. Sensitivity of fNIRS brain imaging to determine hemispheric laterality during lower-body motor tasks. American College of Sports Medicine Annual Meeting, San Diego, CA, May 31-June 4, 2022.

26. Pagan, JI, **Harmon, KK**, Girts, RM, Rodriguez, G, MacLennan, RJ, Hernandez-Sarabia, J, Coker, N, Carr, JC, Ye, X, DeFreitas, JM, Stock, MS. Reliability of TMS measures of lower limb corticospinal excitability. Southwest ACSM Annual Meeting, Greenville, SC, February 17-19, 2022.

27. Beausejour, JP, Voskuil, CC, Harden, JE, Dunnick, DD, Badillo, KM, Pagan, JI, **Harmon, KK**, Girts, RM, Gerstner, GR, Carr, JC, Stock, MS. The influence of sonographer experience on measurements of skeletal muscle cross-sectional area. Southeast ACSM Annual Meeting, Greenville, SC, February 17-19, 2022.

28. Girts, RM, **Harmon, KK**, Stock, MS. Optimizing B-mode ultrasonography research methodology: Does image depth influence echo intensity? International Society of Sports Nutrition Conference, Clearwater, FL. June 10-12, 2021.

29. **Harmon, KK**, Girts, RM, Pagan, JI, Rodriguez, G, MacLennan, RJ, Hernandez Sarabia, JA, Coker, NA, Carr, JC, Ye, X, DeFreitas, JM, Stock, MS. Test-retest reliability of corticospinal excitability and inhibition of an agonist-antagonist pair. 2020 NSCA National Conference, Las Vegas, NV. July 8-11, 2020.

30. Pagan, JI, **Harmon, KK**, Girts, RM, Rodriguez, G, MacLennan, RJ, Hernandez Sarabia, JA, Coker, NA, Carr, JC, Ye, X, DeFreitas, JM, Stock, MS. Minimizing interpulse variability in corticospinal excitability: How many TMS pulses are optimal? 2020 NSCA National Conference, Las Vegas, NV. July 8-11, 2020.

31. Girts, RM, Mota, JA, **Harmon, KK**, Stock, MS. Optimizing B-mode ultrasonography research methodology: does image depth influence echo intensity? 2020 NSCA National Conference, Las Vegas, NV. July 8-11, 2020.

32. **Harmon, KK**, Girts, RM, MacLennan, RJ, Stock, MS. Changes in recruitment thresholds as a compensatory strategy during neuromuscular fatigue. 2020 Southeast American College of Sports Medicine Meeting, Jacksonville, FL. February 13-15, 2020.

33. Girts, RM, MacLennan, RJ, **Harmon, KK**, Stock, MS. Skeletal muscle echo intensity: Indicative of voluntary or involuntary strength? 2020 Southeast American College of Sports Medicine Meeting, Jacksonville, FL. February 13-15, 2020.

34. **Harmon, KK**, Girts, RM, MacLennan, RJ, Stock, MS. Do low force isometric contractions performed to exhaustion recruit high threshold motor units similar to non-fatiguing high force isometric tasks? 1st Annual Society for Neurosports Conference, Deerfield Beach, FL. November 15-16, 2019. **** Third place winner, Outstanding Poster Presentation****

35. Girts, RM, MacLennan, RJ, **Harmon, KK**, Stock, MS. Changes in muscle size, muscle quality, and voluntary activation do not predict muscle weakness following two weeks of knee joint immobilization. 1st Annual Society for Neurosports Conference, Deerfield Beach, FL. November 15-16, 2019.

36. **Harmon, KK**, Girts, RM, MacLennan, RJ, Stock, MS. Is the mean firing rate versus recruitment threshold relationship linear? ACSM Annual Meeting, Orlando, FL. May 28-June 1, 2019.

37. Girts, RM, Mota, JA, **Harmon, KK**, MacLennan, RJ, Stock, MS. Vastus lateralis motor unit recruitment thresholds in younger and older men. ACSM Annual Meeting, Orlando, FL. May 20-June 1, 2019.

38. Neltner, TJ, Ramos, GC, Grammer, EE, Addie, CD, Straughn, MK, Glenn, JM, Gray, M, Moyen, NE, Vincenzo, JL, **Harmon, KK**, Brown, LE. Examining the learning effect on an isokinetic fatigue test protocol. ACSM Annual Meeting, Orlando, FL. May 28-June 1, 2019.

39. Ramos, GC, Neltner, TJ, Grammer, EE, Addie, CD, Straughn, MK, Glenn, JM, Gray, M, Moyen, NE, Vincenzo, JL, **Harmon, KK**, Brown, LE. Test-retest reliability of an isokinetic fatigue test. ACSM Annual Meeting, Orlando, FL. May 28-June 1, 2019.

40. Munger, CN, Archer, DC, **Harmon, KK**, Harmon, RA, Pamukoff, D, Coburn, JW, Brown, LE. Low correlation between bench press one-repetition maximum and angle specific bench press. ACSM Annual Meeting, Denver, CO. May 30-June 3, 2017.

41. Bartolini, JA, Nealer, AL, Dunnick, DD, **Malyszek, KK**, Wong, MA, Costa, PB, Coburn, JW, Brown, LE. Elastic-cord assistance provides sustained supramaximal- sprint speed even after assistance has lapsed. SWACSM Annual Meeting, Costa Mesa, CA, October 21-22, 2016.

42. Bartolini, JA, Nealer, AL, Dunnick, DD, **Malyszek, KK**, Wong, MA, Costa, PB, Coburn, JW, Brown, LE. Elastic band assisted sprints increase acute acceleration speed in collegiate female soccer players. NSCA Annual Meeting, New Orleans, LA. July 6-9, 2016.

43. Thornberry, JH, Dunnick, DD, Barillas, SR, **Malyszek, KK**, Brown, LE. Relationship between Margaria-Kalamen stair climb and vertical jump power in males and females. NSCA Annual Meeting, New Orleans, LA. July 6-9, 2016.

44. **Malyszek, KK**, Harmon, RA, Dunnick, DD, Costa, PB, Coburn, JW, Brown, LE. Relationship between dynamic and isometric force measured at mid-thigh and deadlift positions. ACSM Annual Meeting, Boston, MA, May 31-June 4, 2016.

45. Harmon, RA**, Malyszek, KK**, Dunnick, DD, Costa, PB, Coburn, JW, Brown, LE. Isometric performance comparison of Olympic vs. hexagonal barbell and correlation to dynamic performance. ACSM Annual Meeting, Boston, MA, May 31-June 4, 2016.

46. Bagley, JR, Arevalo JA, **Malyszek KK**, Spencer, JA, Rosengarten, J, Barillas, SR, Leyva, WD, Mcmanus, R, Lee, D, Galpin, AJ. Skeletal muscle phenotype and performance of an elite mixed martial artist. ACSM Annual Meeting, Boston, MA, May 31-June 4, 2016.

47. **Malyszek, KK**, Dunnick, DD, Harmon, RA, Costa, PB, Coburn, JW, Brown, LE. Differences in rate of force development when gripping a hexagonal barbell with low vs. high handles. SWACSM Annual Meeting, Costa Mesa, CA, October 16-17, 2015.

48. Harmon, RA, **Malyszek, KK**, Dunnick, DD, Costa, PB, Coburn, JW, Brown, LE. Performance between the isometric mid-thigh pulls and the deadlift with different bars. SWACSM Annual Meeting, Costa Mesa, CA, October 16-17, 2015.

49. Barillas, SR, Dunnick, DD, **Malyszek, KK**, Brown, LE. Wingate power correlates with high intensity sprinting as distance increases. SWACSM Annual Meeting, Costa Mesa, CA, October 16-17, 2015.

50. Dunnick, DD, Barillas, SR, **Malyszek, KK**, Brown, LE. Effect of different Margaria Kalamen stair climb test analysis techniques on correlation with Wingate power. SWACSM Annual Meeting, Costa Mesa, CA, October 16-17, 2015.

51. Eckel, TL, Munger, CN, **Malyszek, KK**, Dunnick, DD, Harmon, RA, Tran, TT, Costa, PB, Coburn, JW, Brown, LE. Differences between dynamic strength index and delta dynamic strength index of a hex bar mid-thigh pull. SWACSM Annual Meeting, Costa Mesa, CA, October 16-17, 2015.

52. Munger, CN, Eckel, TL, **Malyszek, KK**, Dunnick, DD, Harmon, RA, Tran, TT, Costa, PB, Coburn, JW, Brown, LE. Differences in dynamic strength index between an isometric midthigh pull and isometric deadlift. SWACSM Annual Meeting, Costa Mesa, CA, October 16-17, 2015.

53. **Malyszek, KK**, Dunnick, DD, Harmon, RA, Galpin, AJ, Coburn, JW, Brown, LE. Prediction of dynamic bench press 1RM via isometric bench press force. NSCA Annual Meeting, Orlando, FL, July 8-11, 2015.

54. Harmon, RA, **Malyszek, KK**, Dunnick, DD, Galpin, AJ, Coburn, JW, Brown, LE. Methodological considerations for an isometric bench press protocol. NSCA Annual Meeting, Orlando, FL, July 8-11, 2015.

55. Record, SM, **Malyszek, KK**, Davis, KA, Harmon, RA, Manolovitz, AD, Steele JM, Ortiz, R, Brown, LE, Coburn, JW, Galpin, AJ. Acute effects of elastic bands on force, velocity and power during deadlifts at various loads. ACSM Annual Meeting, San Diego, CA, May 26-30, 2015.

56. **Malyszek, KK**, Record, SM, Davis, KA, Harmon, RA, Manolovitz, AD, Steele, JM, Ortiz, R, Brown, LE, Coburn, JW, Galpin, AJ. Acute effects of elastic bands on performance characteristics during deadlifts at various loads. ACSM Annual Meeting, San Diego, CA, May 26-30, 2015.

57. **Malyszek, KK**, Record, SM, Davis, KA, Harmon, RA, Manolovitz, AD, Steele, JM, Ortiz, R, Brown, LE, Coburn, JW, Galpin, AJ. Acute effects of elastic bands on power characteristics during deadlifts at various loads. SWACSM Annual Meeting, Costa Mesa, CA, October 17-18, 2014.

58. Record, SM, **Malyszek, KK**, Davis, KA, Harmon, RA, Manolovitz, AD, Steele, JM, Ortiz, R, Brown, LE, Coburn, JW, Galpin, AJ. Acute effects of elastic bands on force characteristics during deadlifts at various loads. SWACSM Annual Meeting, Costa Mesa, CA, October 17-18, 2014.

59. Meeves, CP, **Malyszek, KK**, Record, SM, Davis, KA, Harmon, RA, Manolovitz, AD, Steele, JM, Ortiz, R, Brown, LE, Coburn, JW, Galpin, AJ. Acute effects of elastic bands on velocity characteristics during deadlifts at various loads. Southern California Conference for Undergraduate Research, Fullerton, CA, November 22, 2014.

Funded Research Grants

2019 University of Central Florida
Learning Institute for Elders (LIFE) Gerontology Research Grant
Project Title: Project MNOP (Mirror Neurons in Older Participants): Acute effects of action observation on muscle strength/weakness and neurophysiological factors in older adults
Role: Co-Investigator
Co-Investigators: Matt Stock, Ph.D. (PI)
Amount Requested: $9,120.00
Amount Funded: $5,500.00

Research Grants Pending Review

2026 RRF Foundation for Aging
Project Title: Bridging the Gap: A Hybrid In-Person/At-Home Exercise Program to Strengthen Fall-Prevention and Social Connectedness Outcomes for Older Adults
Role: Co-investigator

2026 iWalk Free, Inc. Industry Research Grant
Project Title: Comparison of muscular characteristics in response to knee joint immobilization using traditional crutches, knee scooter, and hands-free crutch
Amount requested: $20, 595

2026 Alliance for Potato Research and Education
Project Title: Evaluation of consistent potato consumption on dietary quality, incretin response, and muscle maintenance in adolescent female athletes
Role: Co-investigator
Amount requested: $486,443.10

Funded University Research Support

Syracuse University

Spring 2026 Student Opportunities for Undergraduate Research and Creative Engagement Research Assistant Grant

Spring 2025 Student Opportunities for Undergraduate Research and Creative Engagement Research Assistant Grant

University of Central Florida

1. Graduate Dean's Dissertation Completion Fellowship ($10,000; Spring 2022)
2. Open-Access Publishing Fund Fellowship ($995; Spring 2020).
3. Graduate Presentation Fellowship ($500.00; Spring 2019).

Unfunded Grant & Fellowship Attempts

2026 National Basketball Association Tendon Health Program
Project Title: A validated survival model for tendon injury risk in elite basketball
Role: Co-investigator

2026 National Basketball Association Tendon Health Program
Project Title: Achilles tendon reflex as a game-readiness assessment tool for tendon health and function

2025 National Institute on Aging
NIH Loan Repayment Program
Project Title: Development of a multifaceted sarcopenia prevention program using telehealth

2025 National Strength and Conditioning Association Foundation
Directed Research Grant – Letter of Intent
Project Title: A combined program of resistance training and action observation for sarcopenia prevention

2025 Paffenbarger-Blair Fund for Epidemiological Research Grant
American College of Sports Medicine
Project Title: The impact of physical activity on muscle size and strength during one week of knee joint immobilization
Role: Primary Investigator
Amount Requested: $9,999

2025 National Institute of Arthritis and Musculoskeletal and Skin Diseases
R21
Project Title: Combined Rehabilitation Approaches for Preservation of Function During Limb Immobilization
Role: PI
Co-Is: Tiago Barreira (Syracuse University), Summer Cook (University of New Hampshire)
Period: 2025-2027

2023 National Institutes on Aging
R01
Project Title: Resistance Training Specificity Among Older Adults
Role: PI
Co-Is: Janet Wilmoth (Syracuse University), Sharon Brangman (SUNY Upstate Medical University), Matt S. Stock, Jeffrey R. Stout, Debbie L. Hahs-Vaughn (University of Central Florida)
Period: 2024-2029

2023 Syracuse University
Faculty Creative Activities and Research (FCAR) Program
Project Title: Improving methodologies for TMS research in clinical populations
Role: Primary Investigator
Amount Requested: $5,000

2022 American Federation for Aging Research
Grants for Junior Faculty – Letter of Intent
Project Title: Enhancing longevity in older adults: a neurophysiological approach to explaining the basic mechanisms of neural and muscular aging
Role: PI
Amount Requested: $150,000.00

2020 Foundation for Physical Medicine and Rehabilitation Encompass
Midcareer Investigator Research Grant
Project Title: Spasticity prevention via early intervention whole-body vibration protocols following traumatic brain injury
Role: Co-investigator
PI: Matt S. Stock, PhD.
Co-investigators: Craig Lichtblau, MD, Brittany Giammalvo, DPT
Amount Requested: $20,000.00

2020 University of Central Florida Multidisciplinary Doctoral Fellowship
Project Title: Muscle strength and corticospinal adaptations following physical therapy with mirror therapy in amputees
Role: Co-Investigator
Co-Investigators: Matt Stock, PhD
Fellowship Amount: $20,000.00 annually, plus tuition

2018 De Luca Foundation Research Grant
Project Title: Mirror neurons in older participants (Project MNOP): Acute effects of action observation on muscle strength/weakness and neurophysiological factors in older adults
Role: Co-Investigator
Co-Investigator: Matt Stock, Ph.D. (PI)
Award Requested: $15,000.00

Student Teaching and Mentorship

Course Development and Instruction

Syracuse University, Department of Exercise Science

- EXE 195 Introduction to Exercise Science (undergraduate; 3 credits)
- EXE 427/627 Exercise Testing & Interpretation (undergraduate/graduate; 3 credits)
- EXE 452 Advanced Metabolic Testing (undergraduate; 3 credits)
- EXE 606 Current Literature in Exercise and Sports Science (graduate; 3 credits)
- EXE 795 Skeletal Muscle Physiology (graduate; 3 credits)

University of Central Florida, Department of Kinesiology

- PET4550C Assessment and Evaluation in Kinesiology (undergraduate; 3 credits)
- PET3097 Health and Wellness (undergraduate; 3 credits)
- PET3125 Fitness and Weight Management (undergraduate; 3 credits)

California State University, Fullerton, Department of Kinesiology

- KNES146 Resistance Training (undergraduate; 3 credits)

Teaching Assistantships

University of Central Florida, Department of Kinesiology

- PET4552 Exercise Prescription for Special Populations (undergraduate; 3 credits)
- PET4050C Motor Development and Learning (undergraduate; 3 credits)
- PET3152 Fitness & Weight Management (undergraduate; 3 credits)

California State University, Fullerton, Department of Kinesiology

- KNES351 Principles of Strength and Conditioning (undergraduate; 3 credits)

Binghamton University, Department of German and Russian Studies

- RUSS101 Introductory Russian I (undergraduate; 4 credits)

Invited Guest Lectures

Columbia University

- Advanced Applied Physiology II
    - *Neuromuscular Control*

University of Central Florida

- PET 6153 – Physiological Assessment in Physical Therapy (doctoral level; 2 credits)
- PET 6521 – Exercise Physiology Instrumentation (graduate level; 3 credits)
- ATR 6308C – Athletic Training Practice (graduate level; 2 credits)

Auburn University

- KINE 8770 – Neuromuscular Adaptations in Exercise and Training (graduate level)

SUNY Research Foundation/Binghamton University School of Pharmaceutical Sciences

- Skeletal Muscle Structure and Function (graduate level)

Thesis and Dissertation Committees

Syracuse University

2024 – 2026 M.S. in Exercise Science: Zahra Pourhatami
Thesis Committee Chair
Project Title: Impact of combined central and peripheral intervention to preserve muscle size and strength during upper limb immobilization

2024 – 2026 M.S. in Exercise Science: Mark Petry
Thesis Committee Chair
Project Title: Neuromuscular adaptations to short-term creatine monohydrate supplementation

2025 – 2026 Ph.D. in Exercise Science: Claire Smith
Dissertation Committee Member
Project Title: Sensorimotor factors in fall risk assessment and prevention in older adults

2023 -2026 B.S. in Health and Exercise Science: Rylie DiMaio
Honors Thesis Chair
Thesis Chair
Project Title: Combined therapeutic interventions to prevent muscular weakness and atrophy in the upper limb

2022 – 2024 Ph.D. in Anthropology: Taylor Harman
Dissertation committee member
Project Title: Evolution on High: An exploration of the distinct evolutionary trajectories of two native high-altitude populations, and the narrative representations of their physiologies

University of Saskatchewan

2025 M.S. in Kinesiology: Aryan Ramdhika Kurniawan
Thesis committee member (external)
Project Title: The Effects of Unilateral Leg Immobilization on Muscle Strength, Size, and Activation

Pfeiffer University

2025 B.S. in Health and Exercise Science: Kaylee Ollis
Undergraduate Honors Thesis committee member (external)

Project Title: Evaluating the efficacy of Pfeiffer SWEAT as a student-led community-based exercise program for university faculty

2024 B.S. in Health and Exercise Science: Joshua Turner
Undergraduate Honors Thesis committee member (external)
Project Title: Neuromuscular implications of Long-COVID Syndrome; Review and Exercise Approach

University of Central Florida

2021 – 2022 B.S. in Kinesiology: Kevan Knowles
Honors Thesis committee member
Project Title: The influence of TMS interpulse interval duration on lower limb corticospinal excitability

Student Awards *earned under my mentorship*

2025-2026 Rylie DiMaio
University Scholar
Syracuse University

2025-2026 Rylie DiMaio
Falk Scholar
Syracuse University

2025-2026 Rylie DiMaio
Renee Crown Honors Thesis Funding
Project Title: Combined therapeutic interventions to prevent muscular weakness and atrophy in the upper limb
Award Amount: $2000

2025-2026 Zahra Pourhatami
Graduate Excellence in Research Award
Syracuse University Department of Exercise Science

2025-2025 Rylie DiMaio
Undergraduate Excellence in Research Award
Syracuse University Department of Exercise Science

2024-2025 Farmchan Saechao
Bridge Grant for Undergraduate Research
SU Office of Undergraduate Research & Creative Engagement
Project Title: Impact of Viewer Perspective on Corticospinal Excitability and Muscular Strength During Action Observation
Award Amount: $2000

2024-2025 Farmchan Saechao
Undergraduate Excellence in Research Award
Syracuse University Department of Exercise Science

2023-2024 Dylan Malinowski
Undergraduate Excellence in Research Award
Syracuse University Department of Exercise Science

Professional Service

Manuscript Reviewer

1. *European Journal of Applied Physiology* since 2025
2. *Journal of Aging and Physical Activity* since 2025
3. *Frontiers in Medicine* since 2025
4. *Medicine & Science in Sports & Exercise* since 2023
5. *Sports Medicine* since 2023
6. *Experimental Gerontology* since 2020
7. *International Journal of Kinesiology & Sports Science* since 2019
8. *Journal of Science in Sport and Exercise* since 2019
9. *Frontiers in Physiology* since 2018
10. *International Journal of Exercise Science* since 2017
11. *Kinesiology Journal* since 2016
12. *Journal of Strength and Conditioning Research* since 2014
13. *Strength and Conditioning Journal* since 2014

Abstract Reviewer

2022-2026 National Strength and Conditioning Association
Annual Meeting Abstract Submissions

Grant Reviewer

2024-2025 Fondazione Cariplo
Young Researchers Grant for Supporting
Postdoctoral Researchers

Additional Information

Current Memberships in Professional Organizations

- Professional Member – National Strength and Conditioning Association
- Professional Member – American College of Sports Medicine

Certifications

- NSCA Certified Strength and Conditioning Specialist (CSCS)

- Precision Nutrition - Level 1 Nutrition Certification
- American Heart Association Basic Life Support (CPR and AED) Certified

Non-Academic Service

2015-2016 Performance testing, Anaheim Ducks
2014 Performance testing, Los Angeles Kings

Non-Academic Employment in the Field

2016 Equinox Fitness Clubs Personal Trainer

Non-Academic Internships

2013 Mike Boyle Strength & Conditioning
2012 Binghamton University Strength & Conditioning