

Curriculum Vitae
Sara A. Harper, PhD
Assistant Professor of Exercise Science
Department of Kinesiology
University of Alabama in Huntsville
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EDUCATION

- 2019 – 23 **Postdoctoral Fellow II** - Utah State University (USU), Logan UT
Department of Kinesiology and Health Science | Sorenson Legacy Foundation
Center for Clinical Excellence | Emma Eccles Jones College of Education and
Human Services.
- 2018 – 19 **Postdoctoral Fellow** - the University of Alabama at Birmingham (UAB),
Birmingham, AL | Department of Medicine, Division of Gerontology, Geriatrics,
and Palliative Care | UAB Center for Exercise Medicine, Mentor: Dr. Thomas W.
Buford
- 2014 – 16 **Ph.D., Exercise Physiology** | Kent State University, Kent, OH
Dissertation: *The influence of BDNF Val66Met polymorphism on cognition,
depression, quality of life, and motor symptoms in individuals with Parkinson's
disease after dynamic cycling.* Mentor: Dr. Angela L. Ridgel
- 2013 – 14 **MS, Exercise Physiology** | Kent State University, Kent, OH
Thesis: *The influence of lateral foot displacement on cycling efficiency and
maximal cycling power.* Mentor: Dr. John McDaniel
- 2008 – 12 **BS, Physical Education - Exercise Science Concentration** | Kent State
University, Kent, OH
- 2010 Attended BS Exercise Science | University of Northern Colorado, Greeley, CO
National Student Exchange Program

PROFESSIONAL EXPERIENCE

- 2023 – Pres. **Assistant Professor of Kinesiology**, University of Alabama at Huntsville, AL
Kinesiology Department, College of Education
- Human factors/Healthy, Age-Related Physical function &
Ergonomics/Exercise Research (HARPER) laboratory
 - Instructor of record for Exercise Physiology, Research in Exercise Science I,
Research in Exercise Science II, Exercise Prescription & Testing,
Measurement & Evaluation
- 2019 – 23 **Postdoctoral Fellow II** - USU, Logan UT
- Neuromechanics laboratory
 - Perception-Action laboratory
 - Neuromuscular Research laboratory
 - Body Composition laboratory
- 2018 – 19 **Postdoctoral Fellow**, University of Alabama at Birmingham, Birmingham, AL
- UAB Center for Exercise Medicine
 - Translational Exercise, Aging, and Microbiome laboratory
- 2017 **Research Assistant II**, Case Western Reserve University, Cleveland, OH
- School of Medicine, Department of Epidemiology & Biostatistics

- Rewving Up Exercise for Sustained Weight Loss by Altering Neurological Reward and Drive (REWARD) Study. NIH R01CA175100 Award
- 2016 – 17 **Visiting Assistant Professor**, Tiffin University, Tiffin, OH
- 2013 – 16 **Graduate Assistant**, Kent State University, Kent, OH
 - Motor Control and Vascular Health Laboratories
 - Department of Exercise Physiology, School of Health Sciences
- 2015 **Guest Contributing Free-Lance Writer**, Haywood Doe Consulting Co. LLC, Niles, OH
- 2014 – 15 **Health Fitness Specialist**, Health Fitness Corporation, Cleveland, OH
- 2010 – 11 **Contributing Writer**, Ohio Sport & Fitness Magazine, Cleveland, OH
- 2010 **Personal Trainer**, Fitness Together, Hudson, OH
- 2009 **Specialized Sports Coach**, Skyhawks Sports Academy, Cleveland, OH

PROFESSIONAL CERTIFICATIONS

- 2001 – **Adult & Pediatric CPR/AED/First Aid**, American Red Cross (Adult First Aid/CPR/AED valid through 09/2025)
- 2016 – **Certified Exercise Physiologist**, American College of Sports Medicine certified in 2016, recertified through 12/2028
- 2017 – **Exercise is Medicine Credential: Level II**, American College of Sports Medicine, expires 2027
- 2021 – 23 **Utah State Licensed Radiologic Practical Technician**, American Registry of Radiologic Technologists (AART) Bone Densitometry Equipment Operator Exam, expires 05/31/2023
- 2019 – 21 **HeartCode® BLS**, American Heart Association, expired 09/2021
- 2018 – 20 **General Electric Healthcare DXA Operator Training**, American Society of Radiologic Technologists

PROFESSIONAL AFFILIATIONS

- 2011 – Pres. Member, American College of Sports Medicine
- 2022 – Pres. Member, Human Factors and Ergonomics Society
- 2023 – Pres. Member, Southeast American College of Sports Medicine Chapter
- 2023 – Pres. Member-At-Large, American Council of the Blind
- 2023 – Pres. Building Safety Professional Member, International Code Council
- 2023 – Pres. Member, Tennessee Valley Human Factors and Ergonomics Society
- 2023 – Pres. Associate Member, UAB Integrative Center for Aging Research
- 2023 – Pres. Member, IEA Slips, Trips, and Falls Technical Committee
- 2019-23, 24- Member, Gerontological Society of America
- 2018 – 23 American Heart Association
- 2021 – 22 Council on Undergraduate Research
- 2020 – 22 Southwest American College of Sports Medicine Chapter
- 2012 – 17 Midwest American College of Sports Medicine Chapter
- 2016 – 17 National Strength and Conditioning Association

HONORS/AWARDS

Utah State University

- 2021 **Utah State University Student Association**, Distinguished Service Award Recipient, nominated by mentee Alex Braeger

The University of Alabama at Birmingham

- 2018 **UAB Clinical Investigator Training Program**

Kent State University

2016 – 17	Level III Leadership and Mentorship Program , Midwest American College of Sports Medicine (MWACSM)
2016	Best Doctoral Student Poster Presentation , MWACSM
2016	Graduate Student Volunteer of the Year Award , College of Education, Health and Human Services (EHHS)
2015	Graduate Student Research Award Recipient , MWACSM
2015	Regional President's Cup Award , MWACSM
2014	Outstanding Master Student , Department of Exercise Science
2014	Best Master's Student Presentation , Northeast Ohio Exercise Science Conference
2012	Service and Leadership Award , EHHS
2011, 12	Excellence in Leadership Award , EHHS
2011	Most Impactful Service Award , EHHS
2011	Spirit of Service Award , EHHS

TEACHING EXPERIENCE

University of Alabama in Huntsville, instructor of record

Spring 2025	KIN 451 Research in Exercise Science I KIN 452 Research in Exercise Science II KIN 457 Measurement and Evaluation (Statistics)
Fall 2024	KIN 351 Exercise Prescription & Testing KIN 327 Exercise Physiology KIN 452 Research in Exercise Science I
Summer 2024	KIN 351 Exercise Prescription & Testing
Spring 2024	KIN 327 Exercise Physiology KIN 452 Research in Exercise Science II
Fall 2023	KIN 451 Research in Exercise Science I KIN 327 Exercise Physiology

Olli Lifelong Learning Institute, University of Alabama in Huntsville, instructor of record

Spring 2024	Stairway Safety
Spring 2025	Bonus Lecture scheduled for May 2025

Utah State University, instructor of record

2022 – 23	Co-Director, SCCE – Interprofessional Education
2020 – 23	SCCE – Interprofessional Education Facilitator/Mentor
Sum 2022	KHS – KIN 5100 – Fitness Assessment and Prescription
Fall 2021	Independent Study – SCCE – Interprofessional Education

Utah State University, guest lectures

Fall 2021	KHS – Exercise Physiology – Epigenetics Overview
Spr. 2022	KHS – Exercise Physiology – Epigenetics Overview
Spr. 2021	SCCE – Interprofessional Education – <i>Marketing your IP Experience</i>
Spr. 2021	KHS – Measurement and Evaluation – <i>Reliability and Validity Chapters</i>
Spr. 2021	KHS – Biostatistics – <i>Surveys & Other Descriptive Research Methods</i>
Fall 2020	KHS – Neuroscience Symposia Course – <i>Emotional Recognition</i>

Fall 2020 Masters in Athletic Training Program – Youngstown State University – *The Research Process*
 Spr. 2020 KHS – Biomechanics Laboratory – *Running Kinematics*
 Spr. 2020 SCCE – Interprofessional Education – *Marketing your IP Experience*
 Note: Sorenson Center for Clinical Excellence (SCCE); Kinesiology and Health Sciences (KHS).

Tiffin University, instructor of record

Spring 2017 EXS 146 Introduction to Exercise Science (two sections)
 NAT 124 Introduction to Athletic Training (two sections)
 Fall 2016 EXS 442 Exercise Prescription
 EXS 442L Exercise Prescription Laboratory
 NAT 260 Lifetime Fitness and Wellness
 NAT Survey of Health Issues

Note: Exercise Science (EXS).

Tiffin University, Guest lecture

Fall 2016 EXS 422 Exercise Physiology – *The IRB Process*
 Note: Exercise Science (EXS).

Kent State University, Exercise Physiology Adjunct Professor

Sum 2016 EXSC 45080 Physiology of Exercise
 Note: Exercise Science (EXSC).

Kent State University, Graduate Assistant

Spring 2016 EXSC 35068 Statistics for the Exercise Scientist Laboratories (two sections)
 EXSC 45080 Physiology of Exercise Laboratory
 Fall 2015 EXSC 35068 Statistics for the Exercise Scientist Laboratories (three sections)
 Spring 2015 EXSC 35068 Statistics for the Exercise Scientist Laboratories (three sections)
 Fall 2014 EXSC 35068 Statistics for the Exercise Scientist Laboratories (two sections)
 EXSC 35022 Exercise Leadership
 Spring 2014 EXSC 35022 Exercise Leadership for the Older Adult
 EXSC 35022 Exercise Leadership
 Fall 2013 EXSC 40612 Exercise Leadership for the Older Adult
 EXSC 45080 Physiology of Exercise Laboratories

Note: Exercise Science (EXSC).

Kent State University, Guest lectures

Mar 2016 Speaker, Cleveland Heights Parkinson's disease support group
 Apr 2016 Speaker, Avon Rock Steady Boxing Parkinson's disease support group
 Nov 2015 Guest lecturer, KSU EXSC 35068 Statistics for the Exercise Scientist *Post-Hoc Analyses*
 Oct 2015 Guest lecturer, KSU EXSC 35068 Statistics for the Exercise Scientist *Between and Within T-tests*
 Oct 2015 Speaker, Hudson Laurel Lake Parkinson's disease support group
 Feb 2015 Guest lecturer, KSU EXSC 35022 Exercise Leadership *Risk Factor Analysis*
 Oct 2014 Guest lecturer, KSU EXSC 35068 Statistics for the Exercise Scientist *Post-Hoc Analyses*
 Sept 2014 Guest lecturer, KSU EXSC 35068 Statistics for the Exercise Scientist *Descriptive Statistics*

MENTORING EXPERIENCE

The University of Alabama in Huntsville, Faculty Mentoring

RCEU = UAH Research Creative Experience for Undergraduates

- 2023 – Pres. Hicks H, master's student, College of Engineering
- 2024 – Pres. Cook AW, undergraduate student, College of Engineering
- 2024 – Pres. Barnes E, undergraduate student, College of Education
- 2024 – Pres. Olusegun S, undergraduate student, College of Science
- 2024 – Pres. Daren D, undergraduate student, College of Engineering
- 2024 – 2025 Nelson P, undergraduate student, College of Education, RCEU
- 2024 – 2025 Roberson J, undergraduate student, College of Engineering, RCEU
- 2023 – 2025 Northam A, master's student, College of Engineering
- 2024 Barker B, undergraduate student, College of Engineering
- 2023 – 2024 Mills M, undergraduate student, College of Education

Utah State University, Postdoctoral Fellow Mentoring

URCO = USU Undergraduate Creative and Opportunity Award; UG = undergraduate; CEHS = College of Education and Human Services

- 2019 – 23 Abubukker K, Kinesiology master's student committee member
- 2020 – 23 Brown CB, Kinesiology UG/MPH student
- 2020 – 23 Long C, Kinesiology URCO Awardee, master's thesis committee member
- 2021 – 23 Turner A, Kinesiology UG student
- 2021 – 23 Burch T, Kinesiology UG student
- 2021 – 23 Jordin T, Kinesiology UG student
- 2022 – 23 Lu B, Kinesiology master's student, thesis committee member
- 2022 – 23 Fisher C, Kinesiology master's student
- 2022 – 23 Dickey T, Kinesiology master's student
- 2022 – 23 Cafferty L, Kinesiology master's student
- 2021 – 23 Baggett C, Kinesiology CEHS Awardee
- 2021 – 23 Mitton C, Kinesiology UG student
- 2021 – 23 Carroll P, Kinesiology UG student
- 2020 – 23 Poulsen SL, Kinesiology UG student
- 2022 Beckwith A, Research Engineer Technician
- 2020 – 22 Jensen S, Kinesiology UG student
- 2022 – 22 Perkes K, Kinesiology UG student
- 2021 – 22 Kennington D, Kinesiology UG student
- 2021 – 22 Gray C, UG student
- 2021 – 22 Abugu E, Kinesiology master's student
- 2021 – 22 Speth J, Kinesiology UG student
- 2021 – 22 Hellstern B, Kinesiology UG student
- 2021 – 22 Marks M, Kinesiology UG student
- 2020 – 22 Harrison K, Kinesiology master's student
- 2020 – 22 Zollinger BJ, Kinesiology UG student
- 2020 – 22 Boman T, Kinesiology UG student
- 2020 – 22 Gibbs N, Research Engineer Technician
- 2021 – 22 Reel K, Kinesiology URCO Awardee
- 2021 – 22 Ashworth L, Kinesiology master's student, major committee professor
- 2021 – 22 Overson C, Kinesiology UG student
- 2021 – 22 Simonson AA, Kinesiology UG student
- 2022 Fullmer S, Research Engineer Technician
- 2020 – 21 Corbridge S, Kinesiology URCO Awardee
- 2020 – 21 Hale AE, Kinesiology UG student
- 2020 – 21 Rolfe E, Kinesiology UG student

2020 – 21 Wilding M, Kinesiology UG student
 2019 – 21 Braeger A, Kinesiology master's student
 2021 Earley G, Kinesiology master's student
 2021 Warner J, Kinesiology UG student
 2021 Rowley AM, URCO Awardee
 2019 – 20 Schultz A, Mechanical Engineering UG student

University of Alabama at Birmingham, Postdoctoral Fellow Mentoring

2019 Connor K, Research Coordinator
 2018 – 19 Peramsetty S, UG Research Assistant
 2018 – 19 Knighton A, UG Research Assistant
 2018 – 19 Haggag R, UG Intern
 2018 – 19 Holt C, Research Coordinator I
 2018 – 19 Balagee V, UG Intern

Kent State University, Graduate Student Mentoring

2016 Dowdell BT, doctoral student
 2015 – 16 Wisniewski J, UG student

PUBLICATIONS cited 835 times (*h-index: 11*)

†Mentees, IF = Impact Factor, NA = Impact Factor unavailable (e.g., new journal)

1. Wagner DR, Cafferty EA, **Harper SA**, Vakula MN. *Validity of A-Mode Ultrasound for Estimating Body Fat Percentage of Young Adult Athletes: A Multicomponent Model Study*. *Medicine & Science in Sports & Exercise*. doi:10.1249/MSS.0000000000003651. In Press ([ublished online ahead of print]). IF = 4.1.
2. **Harper SA**, Brown CB[†], Poulsen SL[†], Barrett TS, Dakin CJ. *Inter-step Variations of Stairways and Associations of High-Contrast Striping and Fall-related Events: An Observational Study*. *Interactive Journal of Medical Research*. 2025, 14(e60622). doi: 10.2196/60622. IF = 1.9.
3. Wagner DR, Heath EM, **Harper SA**, Cafferty EA[†], Teramoto M, Evans A[†], Burch T[†], McBride J[†], Spencer S[†], Vakula MN. *Multicomponent Body Composition Reference Data for University Club Sport Athletes*. *Journal of the International Society of Sports Nutrition*. 2025, 22(1). doi: 10.1080/15502783.2024.2446575. IF = 5.1.
4. **Harper SA**, Brown CB[†], Dakin CJ. *Real-World Stairways: Need for Visual Contrast Enhancement to Mitigate the Hazards of Variable Step Geometry*. *Ergonomics in Design*. 2024. doi: 10.1177/106480462412750. IF = 1.1.
5. Long C[†], Dakin CJ, **Harper SA**, Park J, Folau A, Crandall M, Christensen N, Louder T. *Lower Limb Muscle Activation in Young Adults Walking in Water and on Land*. *Applied Sciences*. 2024. doi: 10.3390/app14125044. IF = 2.7.
6. **Harper SA**. *Health Science Approaches for Fall and Injury Prevention: Editorial*. *Research Directs in Health Sciences*, 2024, 4(1). doi: 10.53520/rdhs2024.104105. IF = NA.
7. Abugu E[†], **Harper SA**, Kim Y[†], Bolton DAE. *Prefrontal activation when suppressing an automatic balance recovery step*. *Gait & Posture*. 2024;107. doi: 10.1016/j.gaitpost.2023.10.016. IF = 2.84.
8. Bolton DAE, Baggett CC[†], Mitton CA[†], **Harper SA**, Richardson JK. *Suppressing a blocked balance recovery step: A novel method to assess an inhibitory postural response*. *Brain Sciences*. 2023;13, 1488. doi: 10.3390/brainsci13101488. IF = 3.3.
9. Brown CB[†], Barrett TS, Long C[†], Corbridge S[†], Braeger A[†], Zollinger BJ[†], Hale AE[†], Harrison K[†], Poulsen SL[†], Boman T[†], Dakin CJ, **Harper SA**. *Step edge highlighters and*

- illuminance changes influence stair descent in a real-world setting*. *Ergonomics*. 2023;66(9). doi: 10.1080/00140139.2022.2141347. IF = 2.561.
10. **Harper SA**, Thompson BJ. *Interaction between age and fatigue on antagonist muscle coactivation during an acute post-fatigue recovery phase*. *Frontiers in Aging – Musculoskeletal Aging*. 2022. doi: 10.3389/fragi.2022.1005080. IF = NA.
 11. **Harper SA**, Long C[†], Corbridge S[†], Barrett, TS, Braeger A[†], Zollinger BJ[†], Hale AE[†], Brown CB[†], Harrison K[†], Poulsen SL[†], Boman T[†], Dakin CJ. *Stairway visual contrast enhancement to reduce fall-related events*. *Journal of Ergonomics* 2022;12(303) doi: 10.35248/2165-7556-22.12.30. IF = 2.93.
 12. Rowley MA[†], Warner J[†], **Harper SA**, Beethe AZ, Whelan R, Ruddy KL, Bolton DAE. *A method to assess response inhibition during a balance recovery step*. *Gait & Posture* 2022. PMID: 35453084. doi: 10.1016/j.gaitpost.2022.04.009. IF = 2.84.
 13. Lavin KM, Coen PM, Baptista LC, Bell MB, Drummer D, **Harper SA**, Lixandrão ME, McAdam JS, O'Bryan SM, Ramos S, Roberts LM, Vega RB, Goodpaster BH, Bamman MM, Buford TW. *State of Knowledge on Molecular Adaptations to Exercise in Humans: Historical Perspectives and Future Directions*. *Comprehensive Physiology*. 2022;12(2):3193-279. PMID: 35578962; PMCID: 9186317. doi: 10.1002/cphy.c200033. IF = 9.09.
 14. **Harper SA**, Corbridge S[†], Long C[†], Barrett TS, Braeger A[†], Zollinger BJ[†], Hale AE[†], Brown CB[†], Harrison K[†], Poulsen SL[†], Boman T[†], Dakin CJ. *Safe stairway negotiation: distraction's influence on handrail use and successful stairway negotiation*. *Journal of Safety Research*. 2022 Sep; 82:314-322. PMID: 36031259. doi: 10.1016/j.jsr.2022.06.007. IF = 3.487
 15. **Harper SA**, Thompson BJ. *Potential benefits of a minimal dose eccentric resistance training paradigm to combat sarcopenia and age-related muscle and physical function deficits in older adults*. *Frontiers in Physiology*. 2021;12. PMID: 34916963. doi: 10.3389/fphys.2021.790034. IF = 4.556.
 16. **Harper SA**, Peters FJ, Pollock BS, Burns KJ, McDaniel J, Ridgel AL. *Design of an eccentric recumbent ergometer to elicit delayed onset muscle soreness*. *Research Directs in Health Science*. 2021;1(1). PMID: 34368818. IF = NA.
 17. **Harper SA**, Beethe AZ, Dakin CJ, Bolton DAE. *Promoting Generalized Learning in Balance Recovery Interventions*. *Brain Sciences*. 2021;11(3):402. PMID: 33810159. doi:10.3390/brainsci11030402. IF = 3.394.
 18. **Harper SA**, Kleinoeder J, Ingalls V. *Student Response System Liking and Performance in Kinesiology Active Learning Classroom Environments*. *Proceedings of the 12th International Conference on Society and Information Technologies*. Mar 2021.
 19. **Harper SA**, Bassler JR, Peramsetty S[†], Yang Y, Roberts LM, Drummer D, Mankowski RT, Leeuwenburgh C, Ricart K, Patel RP, Bamman MM, Anton SD, Jaeger BC, Buford TW. *Resveratrol and exercise combined to treat functional limitations in late life: A pilot randomized controlled trial*. *Experimental Gerontology*. 2020;111:111. PMID: 33068691. doi: 10.1016/j.exger.2020.111111. IF = 4.032.
 20. Bagley MC, **Harper SA**, McDaniel J, Custer LE. *Single leg aerobic capacity and strength in individuals with surgically repaired anterior cruciate ligaments*. *Physical therapy in sport: official journal of the Association of Chartered Physiotherapists in Sports Medicine*. 2020;46:131-6. PMID: 32932122. doi: 10.1016/j.ptsp.2020.08.013. IF = 2.365.
 21. Loyd C, Markland AD, Zhang Y, Fowler M, **Harper SA**, Wright NC, Carter CS, Buford TW, Smith CH, Kennedy R, Brown CJ. *Prevalence of Hospital-Associated Disability in Older Adults: A Meta-analysis*. *Journal of the American Medical Directors Association*. 2020;21(4):455-61.e5. PMID: 31734122. doi: 10.1016/j.jamda.2019.09.015. IF = 4.669.
 22. **Harper SA**, Baptista LC, Roberts LM, Wherry SJ, Boxer RS, Hildreth KL, Seay RS, Allman PH, Carter CS, Aban I, Kohrt WM, Buford TW. *Angiotensin Converting Enzyme*

- Inhibitors Combined with Exercise for Hypertensive Seniors (The ACES Trial): Study Protocol of a Randomized Controlled Trial.* *Frontiers in Medicine* (Lausanne). 2019;6:327. PMID: 32039215. doi: 10.3389/fmed.2019.00327. IF = 5.091.
23. Roberts LM, Jaeger BC, Baptista LC, **Harper SA**, Gardner AK, Jackson EA, Pekmezi D, Sandesara B, Manini TM, Anton SD, Buford TW. *Wearable Technology To Reduce Sedentary Behavior And CVD Risk In Older Adults: A Pilot Randomized Clinical Trial.* *Clinical Interventions in Aging.* 2019;14:1817-28. PMID: 31695350. doi: 10.2147/CIA.S222655. IF = 4.458.
 24. **Harper SA**, Dowdell BT[†], Kim JH, Pollock BS, Ridgel AL. *Non-Motor Symptoms after One Week of High Cadence Cycling in Parkinson's Disease.* *International Journal of Environmental Research and Public Health.* 2019;16(12):2104. doi: 10.3390/ijerph16122104. PMID: 31197095. IF = 3.390.
 25. **Harper SA***, Roberts LM*, Layne AS, Jaeger BC, Gardner AK, Sibille KT, Wu SS, Vincent KR, Fillingim RB, Manini TM, Buford TW. *Blood-Flow Restriction Resistance Exercise for Older Adults with Knee Osteoarthritis: A Pilot Randomized Clinical Trial.* *J Journal of Clinical Medicine.* 2019;8(2). PMID: 30795545. doi: 10.3390/jcm8020265. IF = 4.241.
 26. **Harper SA**, Biagley M., Custer, L., McDaniel, J. *Comparison of Peak Torque and Aerobic Capacity Asymmetries in the Lower Limbs.* *Journal of Exercise and Nutrition.* 2019;2(1). IF = NA.
 27. Baptista LC, Jaeger BC, Anton SD, Bavry AA, Handberg EM, Gardner AK, **Harper SA**, Roberts LM, Sandesara B, Carter CS, Buford TW. *Multimodal Intervention to Improve Functional Status in Hypertensive Older Adults: A Pilot Randomized Controlled Trial.* *J Clin Med.* 2019;8(2). PMID: 30736317. doi: 10.3390/jcm8020196. IF = 4.241.
 28. Bowen PG, Mankowski RT, **Harper SA**, Buford TW. *Exercise is Medicine as a Vital Sign: Challenges and Opportunities.* *Translational Journal of the American College of Sports Medicine.* 2019;4(1):1-7. PMID: 30828640. IF = NA.
 29. Hower IM, **Harper SA**, Buford TW. *Circadian Rhythms, Exercise, and Cardiovascular Health.* *Journal of Circadian Rhythms.* 2018;16:7. PMID: 30210567. doi: 10.5334/jcr.164. IF = 2.1.

PRE-PRINT PUBLICATIONS

1. Brown CB[†], Poulsen SL[†], Barrett TS, Dakin CJ, **Harper SA**. *Inter-step Variations of Stairways and Associations of High-Contrast Striping and Fall-related Event Observations.* medRxiv. 2023. 2023.01.28.23285143; doi: 10.1101/2023.01.28.23285143.
2. **Harper SA**, Long C[†], Corbridge S[†], Barrett TS, Braeger A[†], Zollinger BJ[†], Hale AE[†], Brown CB[†], Harrison K[†], Poulsen SL[†], Boman T[†], Dakin CJ. *Stairway visual contrast enhancement to reduce fall-related events.* medRxiv. 2022. 2022.03.25.22271716. doi: 10.1101/2022.03.25.22271716.

PUBLICATIONS IN REVIEW

1. Bolton DAE, McNickle E, Whelan R, Beethe AZ, **Harper SA**, Ruddy KL. *Establishing a neural marker for inhibitory control during balance recovery.* Psychophysiology, Registered Report.
2. Bolton DAE, Beethe AZ, **Harper SA**, Whelan R, Ruddy KL. *Learning to suppress a balance recovery step: Implications for improving behavioral flexibility in reactive balance control.*

POPULAR PRESS ARTICLES

1. **Harper SA**, Doe V. *Preparing for winter riding*. Vicki Doe Fitness, Nov 2015.
2. **Harper SA**, Doe V. *Cyclocross exercise recommended for bone health*. Vicki Doe Fitness, Oct 2015.
3. **Harper SA**, Doe V. *Cycling and lifestyle choices; six tips to enhance performance*. Vicki Doe Fitness, Sept 2015.
4. **Harper SA**, Doe V. *Ride away your stress and anxiety there are psychosocial benefits*. Vicki Doe Fitness, Sept 2015.
5. **Harper SA**, Doe V. *Find the right bike for you*. Vicki Doe Fitness, Aug 2015.
6. **Harper SA**, Doe V. *Bike 101: Biking, great addition to exercise regimen; five easy bike checklist steps*. Vicki Doe Fitness, Jun 2015.
7. **Harper SA**. Shifting Gears. *Roll into winter safety. Race preview: Chili bowls and bike*. Ohio Sport & Fitness Magazine. Oct/Nov 2011.
8. **Harper SA**. Shifting Gears. *BMX park makes jump to Ohio. Race preview: ride big. Race across the states, injured & all*. Ohio Sport & Fitness Magazine. Aug/Sept 2011.
9. **Harper SA**. Shifting Gears. *Local cyclists ready to tackle 3,000-mile race. Gear saddle up!* Ohio Sport & Fitness Magazine. Jun/Jul 2011.
10. **Harper SA**. Shifting Gears. *Cycling projects face headwinds. Mountain biking. Women, grab your bikes. GOBA: the great Ohio bike adventure*. Ohio Sport & Fitness Magazine. Apr/May 2011.
11. **Harper SA**. Shifting Gears. *Improve performance with base training. Race feature: vulture's knob winter training series. Gear: five winter cycling training must-haves*. Ohio Sports & Fitness Magazine. Feb/Mar 2011.
12. **Harper SA**, Jackson C. *Tis the season for crossing over*. Ohio Sport & Fitness Magazine. Sept/Oct 2010.

EXTRAMURAL RESEARCH GRANTS FUNDED

- 2024 – Pres. **Human Factors and Ergonomics DE&I Seed Grants Targeting the Intersections of HF/E and Anti-Racism/Anti-Bias**. Title: Improving Stairway Designs for Individuals with Vision Impairment Seed Grant Targeting the Intersections of HFE and AntiBias. Role: PI, PoP: 11/14/2024-11/13/2025 (\$5,000).
- 2024 CFDR-CAH, DOD **SBIR phase II sub-contract for the Naval Air Systems Command (NAVAIR)**. Role: Co-I, PoP: 2/1/2024-12/31/2024 (\$60,000).
- 2024 **Defense Health Agency DHA-23C-003 STTR phase I. GRIPMASTER – Grip Reinforcement Integrated Power with Magnetic Actuation for Seamless Tactical Exoskeleton Response**. Role: Co-I, PoP: 02/01/2024-09/01/2024 (\$100,000).
- 2020 – 21 **American Heart Association**, Postdoctoral Fellowship, 20POST34990005. *Resveratrol and exercise combined to enhance mitochondrial function among older adults*. Role: PI, PoP: 01/01/2020-12/31/2021 (\$131,356).
- 2018 – 19 **National Institutes of Health**, T32HD071866 Interdisciplinary Training in Pathobiology and Rehabilitation Medicine Program Trainee. Role: Trainee, Mentors: Dr. Thomas Buford, Co-mentors: Drs. Marcos Bamman, Gary Cutter. PoP: 03/2018-11/2019 (\$87,879).
- 2016 **Ohio Parkinson Foundation Northeast Region**, role: PI, dissertation. *The influence of BDNF Val66Met polymorphism on cognition, depression, quality of life, and motor symptoms in individuals with Parkinson's disease after dynamic cycling* (\$3,048).
- 2015 **Midwest American College of Sports Medicine**, Graduate Student Research Award Recipient, role: PI, dissertation. *The influence of BDNF Val66Met*

- 2013 *polymorphism on cognition, depression, quality of life, and motor symptoms in individuals with Parkinson's disease after dynamic cycling* (\$500).
Motion Resolution, LLC, industry grant, role: P.I., graduate student. *The influence of lateral foot displacement on cycling efficiency and maximal cycling power* (\$17,000+).

INTERNAMURAL RESEARCH GRANTS FUNDING

- 2024 – Pres. **UAH New Faculty Research Program**. *Evaluating Foot Placement on Instrumented Stairway Steps*. Role: PI, PoP: 7/8/2024-7/15/2025 (\$10,000).
 2023 – Pres. **UAH Internal Support**. *Evaluating stair contrast markings through augmented reality*. Role: PI, PoP: no time restriction (\$5,000).
 2024 **Research and Creative Experience for Undergraduates** (RCEU) Proposal. *Evaluation of stair contrast markings for older adults and individuals experiencing low vision*. Summer 2024. Student: Nelson P.
 2021 **Utah State University**, Research Catalyst program, role: Co-I. *Establishing a neural marker for inhibitory control during balance recovery* (\$19,652.98).
 2021 **Utah State University**, Undergraduate Research and Creative Opportunity, role: Co-Mentor. *The Effects of Anterior Cruciate Ligament Injuries on Global Motor Control Deficit Measured by Motor Inhibition* (\$1,895.20).
 2021 **Utah State University College of Education and Human Services**, Undergraduate Research Grant, role: Co-Mentor. *Blocking a balance recovery step* (\$1,740.00).
 2020 **Utah State University**, Undergraduate Research and Creative Opportunity, role: Co-Mentor. *Developing a method to assess response inhibition during a balance recovery step* (\$2,000.00).
 2020 **Utah State University**, Undergraduate Research and Creative Opportunity, role: Co-Mentor. *Mobile Device use's impact on handrail grasp and fall avoidance strategies* (\$2,000.00).
 2020 **Utah State University Staff Employment Association**, Professional Development Scholarship, role: PI support to present at the 2020 Keystone Symposia (\$1,000.00).
 2015 **Kent State University School of Health Sciences**, Small Grant Program, role: PI. *The influence of BDNF Val66Met polymorphism on cognition, depression, quality of life, and motor symptoms in individuals with Parkinson's disease after dynamic cycling* (\$333.00).
 2012 – 15 **Kent State University Graduate Student Senate**, Domestic Travel Grant Award Recipient, \$350.00 for four years (\$1,400.00).
 2012 **Kent State University Undergraduate Research Council**, Undergraduate Grant, role: Undergraduate Student, Co-I. *Single Leg Cycling Rehabilitation* (\$2,500.00).

GRANTS SUBMITTED / IN REVIEW

- 2025 **NIH Graduate Research Teaching Initiative for Student Enhancement (G-RISE)**. *Interdisciplinary Predoctoral Training Program for the Nursing, Biotechnology, Chemical Engineering, Material Science, and Chemistry PhD Programs*. Role: Faculty Collaborator.
 2024 **NIH Extramural LRP**. *Evaluating Stairway Designs for Individuals with Vision Impairment*. Role: PI, PoP: 11/01/2025-10/31/2027.
 2024 **National Institute on Disability, Independent Living, and Rehabilitation Research Field-Initiated Project**. HHS-2025-ACL-

NIDILRR-IFRE-0104. *Evaluation of stair contrast markings for adults experiencing difficulty seeing*. Role: PI, PoP: 09/01/2025-08/30/2028 (\$749,572).

GRANTS SUBMITTED / NOT FUNDED

- 2024 **Defense Health Agency DHA-23C-003 STTR phase II GRIPMASTER II – Grip Reinforcement Integrated Power with Magnetic Actuation for Seamless Tactical Exoskeleton Response**. Role: Co-PI. \$425,000. Effort: 26% summer. Not funded.
- 2024 **NAVAIR STTR 24.B Real-Time Detection of Operator Workload as Input to Scalable Autonomy During Dynamic Flight Operations**. Role: Co-I. \$134,760. Effort: 40 hours. Not funded.
- 2024 **Medical Technology Enterprise Consortium (MTEC)-24-01**. Military Prototype Advancement Initiative (MPAI). Title: AirLiFFT – Aircraft Maintainers Lifting Fatigue Failure Tool. Role: Co-I, PoP: 12 months. \$500,000. Effort: 120 hours. Not funded.
- 2024 **National Council on Aging – National Falls Prevention Fellowship**. Role: PI, PoP: 12 months. \$50,000. Effort 20%. Not funded.
- 2023 HHS-2024-ACL-NIDILRR-IFRE-0073. **National Institute on Disability, Independent Living, and Rehabilitation Research Proposal** (\$598,508). *Evaluation of stair contrast markings for adults experiencing low vision*. Role: PI. Not funded.
- 2023 **AL NASA Established Program to Stimulate Competitive Research (EPSCoR) R3**. RFA-055 Video based mocap system. The top six submissions from UAH were chosen and forwarded for the limited submission. Role: Co-I. \$80,000, PoP 1 year. Effort: 10.5% summer. Not funded.
- 2022 **Hanover Grant Academy**, College of Education and Human Services, Utah State University, Alzheimer's disease and Dementia Research Center Grant Academy program. Not funded.
- 2022 **National Institute on Aging**, R21 Grant Application Submission, role: Co-I: *Minimal dose, low intensity eccentric resistance training for older adults: A paradigm to enhance physical function and muscle function through improved tolerance and efficiency*. \$389,814.00 requested. Not discussed.
- 2021 **National Institute on Aging**, R21 Grant Application Submission, role: Co-I: *Minimal dose, low intensity eccentric resistance training for older adults: A paradigm to enhance physical function and muscle function through improved tolerance and efficiency*. \$389,814.00 requested. Scored: 35, 18%.
- 2021 **National Institute on Aging**, R21 Grant Application Submission, role: Co-I: *Minimal dose, low intensity eccentric resistance training for older adults: A paradigm to enhance muscle and physical function through improved participation and tolerability*. \$389,814.00 requested. Score: 51, 43%.
- 2021 **National Institute on Aging**, Butler-Williams Scholars Program. *Relationship of eccentric strength and forward perturbation foot contact restabilization in older adults*. NIA grant development requested.
- 2020 **Utah State University**, Research Catalyst program, role: Co-I., title: *Establishing a neural marker for inhibitory control during balance recovery*. \$20,000.00 requested.
- 2020 **American College of Sports Medicine** Research Endowment Grant, role: P.I., title: *Lower limb asymmetries among older adults*. \$2,596.00 requested.

- 2019 **National Institute on Aging**, F32 Postdoctoral Fellowship, role: P.I. *Resveratrol and exercise to enhance mitochondrial function in older adults*. 16-months of trainee support requested.
- 2019 **National Institute on Aging**, Butler-Williams Scholars Program. *Resveratrol and exercise to enhance mitochondrial function in older adults*. NIA grant development requested.
- 2018 **National Institute on Aging**, Butler-Williams Scholars Program. *Prevalence of lower limb asymmetries in older adults*. Waitlisted. NIA grant development requested.

INVITED PRESENTATIONS

†Mentees, *presentation award.

1. **Harper SA**, Brown CB[†], Poulsen SL[†], Barrett, TS, Dakin JC. *Inter-step variation of stairways and observations of fall-related events*. UAB Center of Exercise Medicine Symposium on Exercise and Aging. Flash Talk. September 12, 2023.
2. **Harper SA**. *Code integration in health sciences research: a research perspective*. Akron Women in Technology. Mar 2022.
3. Roberts LM, **Harper SA**, Baptista LC, Bassler JR, Jaeger BC, Buford TW. *Resveratrol and exercise to treat functional limitations in late life (RESTORES): A pilot randomized controlled trial*. T32 Data Blitz Oral Presentation. University of Alabama at Birmingham Center for Exercise Medicine Conference. Birmingham, AL. Sept 2019.
4. **Harper SA**, Layne AS, Jaeger BC, Manini TM, Sibille KT, Vincent KR, Wu SS, Borsa PA, Buford TW. *Blood-flow restriction resistance exercise for older adults with knee osteoarthritis*. T32 Data Blitz Oral Presentation. University of Alabama at Birmingham Center for Exercise Medicine Conference. Birmingham, AL. Sept 2018.
5. ***Harper SA**, Bagley MC, Habowski S, Chinn LE, McDaniel J. *Comparison of strength and aerobic capacity imbalances in the lower limbs*. American College of Sports Medicine Conference President's Cup Competition, Boston, MA. Jun 2016. **ACSM President's Cup Presentation*.

REFERRED PRESENTATIONS

†Mentees, *presentation award

1. Coker J, Knight R, Chen H, **Harper SA**, Alban A, Moran M. *Challenges and opportunities of joint multimodal patient movement and high volume CASEVAC during large scale combat operations*. Military Health System Research Symposium (MHSRS). Kissimmee, FL. August 4-7, 2025. In Review.
2. Hicks H, **Harper SA**, Chen H. *Sensor fusion for enhancing motion capture: Integrating optical and inertial motion capture systems*. Aspire – the 69th Human Factors and Ergonomics Society Annual Meeting. Chicago, IL. October 13-17, 2025. In Review.
3. Agbeyaka S, Kleinstaub M, **Harper SA**, Simonsmier V. *From concept to classroom: Qualitative process evaluation into interprofessional education design*. 2025 American Psychological Association – Educational Psychology. August 7-9, 2025. Denver, CO. In Review.
4. Pickle N, Roos P, Whitley P, Middle R, Chen H, Hicks HN, **Harper SA**. *Comparison of a computational neck model to electromyography during pilot-relevant head motions with head-supported mass*. Aerospace Medical Association Annual Scientific Meeting. June 1-6, 2025. Atlanta, GA. Accepted.

5. Cafferty E[†], **Harper SA**, Wagner DR. *Upper-limb asymmetries of university club sport athletes*. Southwest American College of Sports Medicine Poster submission. October 2024.
6. Conners, RT, **Harper SA**. *Going beyond traditional measures of program evaluation: What is success for undergraduate exercise science students?* National American College of Sports Medicine Annual Meeting. Tutorial lecture. Boston, MA. May 31, 2024. Accepted.
7. Conners RT, Whitehead PN, Reno-Smith, AM, **Harper SA**. *Where are they now? Importance of alumni feedback and engagement in exercise science programs*. Southeast American College of Sports Medicine. Pedagogy Tutorial Abstract. SC. Feb. 24, 2024.
8. Aguilar A, Kyle D, Zaharia N, **Harper SA**, Elliot J. *Expanding Beyond our Kinesiology Department: Identifying & Implementing Diverse Opportunities Through Relationships*. National Association for Kinesiology in Higher Education. Phoenix, AZ. Jan 2024. Accepted. Not presenting in person.
9. Warren CM, **Harper SA**, Bhattacharyya KK, Hancock A[†], Turner A[†], Bolton DAE. *The role of neuromodulation in reactive balance control*. 2023 Annual Meeting for the Society for Psychophysiological Research. New Orleans, LA. Sept 27 – Oct 1, 2023.
10. **Harper SA**, Brown CB[†], Poulsen SL[†], Barrett, TS, Dakin JC. *Inter-step variation of stairways and observations of fall-related events*. National American College of Sports Medicine Conference. Denver, CO. Jun 2, 2023.
11. Pauls J, Johnson D, Conner W, **Harper SA**. *Designing and Retrofitting for People Movement Safety in Facilities for Public Assembly Seating*. 2023 Slips, Trips, and Falls International Conference. Toronto, CA. Jun 1, 2023
12. Heap K[†], Wagner DR, **Harper SA**, Cafferty EA[†], Evans A[†]. *Multicompartiment Body Composition Reference Data for Female University Club Sport Athletes (Preliminary Data)*. 2023 National American College of Sports Medicine Conference. Denver, CO. May 31, 2023.
13. Turner A[†], **Harper SA**, Beethe AZ, Bolton DAE. *Relationship of Reacstick® Inhibition Accuracy and Inhibitory Control During Balance Recovery*. National American College of Sports Medicine Conference. Denver, CO. May 31, 2023.
14. Beethe AZ, **Harper SA**, Lu B[†], Horsley H[†], Harrison K[†], Bolton DAE. *Anterior Cruciate Ligament Injury Alters Cortical Motor Output*. 2023 National Athletic Trainers Association Clinical Symposium. Indianapolis, IN. Jun 2023
15. Brown CB[†], Poulsen SL[†], Barrett, TS, Dakin CJ, **Harper SA**. *Inter-step height variation and observation of fall-related events during stairway negotiation*. Southwest American College of Sports Medicine. Oral presentation. Costa Mesa, CA. Oct 2022.
16. Brown CB[†], Dakin CJ, **Harper SA**. *Inter-step height variation and observation of fall-related events during stairway negotiation*. Utah Society of Public Health Education Conference. Salt Lake City, UT. Nov 2022.
17. Abugu E[†], **Harper SA**, Kim Y[†], Bolton DAE. *Prefrontal activation during inhibition of a balance recovery step*. Society for Neuroscience Conference, San Diego, CA. Nov 2022.
18. Bagley MC, **Harper SA**, McDaniel J, Custer LE. *Postural control in individuals with anterior cruciate ligament reconstruction*. National Athletic Trainers Association. Philadelphia, PA. Jun 2022.
19. Reel K[†], Beethe AZ, **Harper SA**, Studenka BE. *The effect of an anterior cruciate ligament injury on global motor control deficits*. Annual meeting of the North American Society for the Psychology of Sport and Physical Activity. Kona, HI. Jun 2022.
20. **Harper SA**, Roberts LM, Baptista LC, Bassler JR, Jaeger BC, Buford TW. *Resveratrol and exercise to treat functional limitations in late life (RESTORES): A pilot randomized*

controlled trial. Keystone Symposia: New Insights into the Biology of Exercise. Keystone, CO. Mar 2020.

21. Roberts LM, Jaeger BC, Baptista LC, **Harper SA**, Jackson E, Gardner AK, Sandesara B, Manini TM, Anton SD, Buford TW. *Wearable technology to reduce sedentary behavior and CVD risk in older adults: A pilot trial*. National American College of Sports Medicine Conference. Orlando, FL. Jun 2019.
22. Dowdell BT[†], **Harper SA**, Kim JH, Varner AJ, Pollock BS, Ridgel AL FACSM. *The effects of high-cadence cycling on emotional recognition in individuals with Parkinson's disease*. National American College of Sports Medicine Conference. Orlando, FL. May 2019.
23. Baptista LC, Jaeger BC, Anton SD, Bavry AA, Handberg EM, Gardner AK, **Harper SA**, Roberts LM, Sandesara B, Carter CS, Buford TW. *Change in metabolic and inflammatory biomarkers after a 24-week multimodal intervention designed to improve functional status in hypertensive older adults: a pilot randomized controlled trial*. International Conference on Frailty and Sarcopenia Research. Miami Beach, FL. Feb 2019.
24. Varner AJ, Dowdell BT[†], Kim JH, **Harper SA**, Pollock BS, Ridgel AL, FACSM. *Does high-cadence cycling improve depression in individual with Parkinson's disease?* Midwest American College of Sports Medicine. Grand Rapids, MI. Nov 2018.
25. Dowdell BT[†], **Harper SA**, Kim JH, Varner AJ, Pollock BS, Ridgel AL FACSM. *The effects of high-cadence cycling on emotional recognition in individuals with Parkinson's disease*. Midwest American College of Sports Medicine. Grand Rapids, MI. Nov 2018.
26. **Harper SA**, Layne AS, Jaeger BC, Manini TM, Sibille KT, Vincent KR, Wu SS, Borsa PA, Buford TW. *Blood-flow restriction resistance exercise for older adults with knee osteoarthritis*. Poster Presentation. Integrative Physiology of Exercise Conference. San Diego, CA. Sept 2018.
27. Ridgel AL, **Harper SA**, Dowdell BT, Pollock BS. *The effects of dynamic cycling on emotional recognition in individuals with Parkinson's disease*. American College of Sports Medicine Conference. Minneapolis, MN. May 2018.
28. Bagley BC, Habowski S, **Harper SA**, McDaniel J, Custer LE. *Comparison of aerobic capacity in healthy and surgically repaired anterior cruciate ligament legs in recreationally active individuals*. National Athletic Training Association Conference. Houston, TX. Jun 2017.
29. **Harper SA**, Ridgel AL. *Effects of val66Met polymorphism on depression and responses to exercise in individuals with Parkinson's disease*. American College of Sports Medicine National Conference. Denver, CO. May 2017.
30. ***Harper SA**, Ridgel AL. *Effects of val66Met polymorphism on depression and responses to exercise in individuals with Parkinson's disease*. MWACSM Conference, Fort Wayne, IL. Nov 2016. **MWACSM Best Doctoral Student Poster Presentation Award*.
31. **Harper SA**, Bagley MC, Habowski S, Chinn LE, McDaniel J. *Comparison of strength and aerobic capacity imbalances in the lower limbs*. American College of Sports Medicine Conference, Boston, MA. Jun 2016.
32. ***Harper SA**, Bagley MC, Habowski S, Chinn (Custer) LE, McDaniel J. *Comparison of strength and aerobic capacity imbalances in the lower limbs*. MWACSM Conference, Fort Wayne, IL. Nov 2015. **MWACSM President's Cup Award Recipient*.
33. Pollock BS, Burns KJ, Stavres J, **Harper SA**, McDaniel J. *Determining the influence of limb and gender on blood pressure regulation and functional sympatholysis during the application of negative pressure*. Midwest American College of Sports Medicine Conference, Fort Wayne, IL. Nov 2015.
34. **Harper SA**, Burns KJ, Pollock BS, McDaniel J. *The influence of lateral foot displacement on cycling efficiency and maximal cycling power*. Midwest American College of Sports Medicine Conference, Merrillville, IL. Nov 2014.

35. **Harper SA**, Burns KJ, Pollock BS, McDaniel J. *The influence of lateral foot displacement on cycling efficiency and maximal cycling power*. American College of Sports Medicine Conference, Orlando, FL. Jun 2014.
36. **Harper SA**, Jetton AC, Landram MJ, Haines TL, Collier SR, Utter AC. *Markers of hydration status, cardiovascular function, and performance in ocean rescue employees*. Southeast American College of Sports Medicine, Greenville, SC. Feb 2013. Prepared but presented by another author.

NON-REFERRED PRESENTATIONS

†Mentees, *presentation award

1. *Nelson P[†], **Harper SA**. *Fall Risk on Laboratory Instrumented Stairways*. Research and Creative Experience for Undergraduates (RCEU) Poster Presentation. Huntsville, AL. September 17, 2024. *First place, UAH College of Education.
2. Roberson J[†], Nelson P[†], **Harper SA**, Chen H. *Toward improving stairway safety: Using depth cameras for foot clearance measurement*. Research and Creative Experience for Undergraduates (RCEU) Poster Presentation. Huntsville, AL. September 17, 2024.
3. **Harper SA**, Brown CB[†], Poulsen SL[†], Barrett, TS, Dakin JC. *Inter-step variation of stairways and observations of fall-related events*. UAB Center of Exercise Medicine Symposium on Exercise and Aging. Poster presentation. Birmingham, AL. Sept 2023.
4. Burch T[†], **Harper SA**, Cafferty E[†], Vakula M, Wagner DR. *Differences in bone data between sexes despite similar BMI for university club sport athletes*. Utah State University Student Research Symposium. Logan, UT. Apr 2023.
5. Evans A[†], Wagner DR, **Harper SA**, Spencer S, Heath EM. *Fat-free max index of university club sport athletes*. Utah Conference on Undergraduate Research. Salt Lake City, UT. Feb 2023.
6. Burch T[†], **Harper SA**, Cafferty E[†], Vakula M, Wagner DR. *Differences in bone data between sexes despite similar BMI for university club sport athletes*. Utah Conference on Undergraduate Research. Salt Lake City, UT. Feb 2023.
7. Poulsen SL[†], Brown CB[†], Barrett, TS, Dakin CJ, **Harper SA**. *Inter-step height variation and observation of fall-related events during stairway negotiation*. Utah State University Fall Student Research Symposium. Oral Presentation. Costa Mesa, CA. Dec 2022.
8. Lu B[†], **Harper SA**, Bolton DAE, Beethe AZ. *Reaction Times Altered by Anterior Cruciate Ligament Tear*. International Journal of Exercise Science. Southwest American College of Sports Medicine. Costa Mesa, CA. Oct 2022.
9. Turner A[†], **Harper SA**, Bolton DAE. *Relationship of Reacstick® Inhibition Accuracy and Inhibitory Control During Balance Recovery*. International Journal of Exercise Science. Southwest American College of Sports Medicine. Costa Mesa, CA. Oct 2022.
10. Cafferty E[†], **Harper SA**, Thompson BJ. *Interaction between age and fatigue on antagonist muscle coactivation during an acute post-fatigue recovery phase*. International Journal of Exercise Science. Southwest American College of Sports Medicine. Costa Mesa, CA. Oct 2022.
11. Brown CB[†], Kennington D[†], **Harper SA**. *Lower limb asymmetries among older adults*. Poster Presentation for the Spring Student Research Symposium at Utah State University. Logan, UT. Apr 2022.
12. Reel K[†], Beethe AZ, **Harper SA**, Studenka BE. *Global Motor Control Deficit Measured by Motor Inhibition*. Oral Presentation for the Spring Student Research Symposium at Utah State University. Logan, UT. Apr 2022.
13. Baggett C[†], Mitton C[†], Bolton, DAE, **Harper SA**. *Blocking a Recovery Balance Step*. Poster Presentation for the Spring Student Research Symposium at Utah State University. Logan, UT. Apr 2022.

14. Overson C[†], Ashworth L[†], **Harper SA**. *Does age affect the time to restabilize during a balance test?* Poster Presentation for the Spring Student Research Symposium at Utah State University. Logan, UT. Apr 2022.
15. Carroll P[†], Ashworth L[†], **Harper SA**. *The relationship between maximal, isometric strength and time to stabilize.* Poster Presentation for the 2022 Spring Student Research Symposium at Utah State University. Logan, UT. Apr 2022.
16. Rowley M[†], Warner J[†], **Harper SA**, Beethe AZ, Bolton DAE. *Developing a Method to Assess Response Inhibition During a Balance Recovery Step.* Oral Presentation for the 2021 Fall Student Research Symposium at Utah State University. Logan, UT Dec 2021.
17. *Long C[†], Corbridge S[†], Braeger A[†], Dakin CJ, **Harper SA**. *The effect of step edge highlighters and face contrast on stair falls in an applied setting.* Utah State University Student Research Symposium. Virtual oral presentation. Logan, UT. Apr 2021. *Student Research Symposium Social Sciences and Education Oral Presentation Award.
18. Boman T[†], Long C[†], Corbridge S[†], Braeger A[†], Dakin CJ, **Harper SA**. *Secondary effects of stair striping distractions on stair negotiation.* Utah State University Student Research Symposium. Virtual oral presentation. Logan, UT. Apr 2021.
19. Boman T[†], Long C[†], Corbridge S[†], Braeger A[†], Dakin CJ, **Harper SA**. *Secondary effects of stair striping distractions on stair negotiation.* Department of Biology Undergraduate Research Symposium (BURS). Virtual poster presentation. Logan, UT. Apr 2021.
20. ^**Harper SA**, Bassler JR, Jaeger BC, Buford TW. *Resveratrol and exercise to treat functional limitations in late life (RESTORES): A pilot randomized controlled trial.* 2020 Utah State University Student Research Symposium. Oral presentation. Logan, UT. Apr 2020. ^ postponed.
21. Baptista LC, **Harper SA**, Roberts LM, Aban I, Wherry SJ, Boxer RS, Hildreth KL, Seay RS, Kohrt WM, Buford TW. *ACE Inhibitors Combined with Exercise for Hypertensive Seniors: Design of a Randomized Controlled Trial.* UAB Aging Symposium. Birmingham, AL. Oct 2019.
22. **Harper SA**, Roberts LM, Baptista LC, Bassler JR, Jaeger BC, Buford TW. *Resveratrol and exercise to treat functional limitations in late life (RESTORES): A pilot randomized controlled trial.* UAB Aging Symposium. Birmingham, AL. Oct 2019.
23. **Harper SA**, Roberts LM, Baptista LC, Aban I, Wherry SJ, Boxer RS, Hildreth KL, Seay RS, Kohrt WM, Buford TW. *ACE Inhibitors Combined with Exercise for Hypertensive Seniors: Design of a Randomized Controlled Trial.* 30th Annual Vascular Biology and Hypertension Symposium. Birmingham, AL. May 2019.
24. **Harper SA**, Roberts LM, Layne AS, Jaeger BC, Gardner AK, Manini TM, Sibille KT, Vincent KR, Wu SS, Borsa PA, Buford TW. *Blood-flow restriction resistance exercise for older adults with knee osteoarthritis: A pilot randomized clinical trial.* National Center for Medical Rehabilitation Research (NMCRR). Birmingham, AL. Mar 2019.
25. Lloyd C, Markland AD, Zhang Y, Fowler K, **Harper SA**, Wright NC, Carter CS, Buford TW, Kennedy R, Brown CJ. *Prevalence of Hospital-associated Disability in Older Adults: A Systematic Review and Meta-analysis.* 35th Annual Department of Medicine Trainee Research Symposium. Birmingham, AL. Mar 2019.
26. Roberts LM, Jaeger BC, Baptista LC, **Harper SA**, Jackson E, Gardner AK, Sandesara B, Manini TM, Anton SD, Buford TW. *Wearable technology to reduce sedentary behavior and CVD risk in older adults: A pilot trial.* 35th Annual Department of Medicine Trainee Research Symposium, poster presentation. Birmingham, AL. Mar 2019.
27. Baptista LC, Jaeger BC, Anton SD, Bavry AA, Handberg EM, Gardner AK, **Harper SA**, Roberts LM, Sandesara B, Carter CS, Buford TW. *24-week multimodal intervention designed to improve functional status in hypertensive older adults: a pilot randomized controlled trial.* 35th Annual Department of Medicine Trainee Research Symposium, poster presentation. Mar 2019.

28. **Harper SA**, Roberts LM, Layne AS, Jaeger BC, Gardner AK, Manini TM, Sibille KT, Vincent KR, Wu SS, Borsa PA, Buford TW. *Blood-flow restriction resistance exercise for older adults with knee osteoarthritis: A pilot randomized clinical trial*. 35th Annual Department of Medicine Trainee Research Symposium. Birmingham, AL. Mar 2019.
29. **Harper SA**, Roberts LM, Layne AS, Jaeger BC, Gardner AK, Manini TM, Sibille KT, Vincent KR, Wu SS, Borsa PA, Buford TW. *Blood-flow restriction resistance exercise for older adults with knee osteoarthritis: A pilot randomized clinical trial*. University of Alabama at Birmingham Postdoctoral Research Day. Birmingham, AL. Feb 2019.
30. Baptista LC, Jaeger BC, Anton SD, Bavry AA, Handberg EM, Gardner AK, **Harper SA**, Roberts LM, Sandesara B, Carter CS, Buford TW. *Change in metabolic and inflammatory biomarkers after a 24-week multimodal intervention designed to improve functional status in hypertensive older adults: a pilot randomized controlled trial*. University of Alabama at Birmingham Postdoctoral Research Day. Birmingham, AL. Feb 2019.
31. **Harper SA**, Dionne-Odom JN, Gbolahan O, Singh H, McFarland G. *A pilot randomized control trial of daily symptom and peak flow reporting via smartphone vs. usual care for patients with persistent asthma*. Clinical Investigation Training Program. University of Alabama at Birmingham, Birmingham, AL. Oct 2018.
32. **Harper SA**, Layne AS, Jaeger BC, Manini TM, Sibille KT, Vincent KR, Wu SS, Borsa PA, Buford TW. *Blood-flow restriction resistance exercise for older adults with knee osteoarthritis*. T32 poster presentation. University of Alabama at Birmingham Center for Exercise Medicine Conference. Birmingham, AL. Sept 2018.
33. **Harper SA**, Ridgel AR. *Effects of val66Met polymorphism on depression and responses to exercise in individuals with Parkinson's disease*. 31st meeting of the Ohio Physiological Society. Nov 2016.
34. **Harper SA**, Pollock BS, Ridgel AL. *Effects of Brain-derived neurotrophic factor (BDNF) polymorphism on non-motor symptoms in individuals with Parkinson's disease*. Take Control! A Symposium to Advance Research on Parkinson's disease. Northeast Ohio Medical College of Pharmacy, Rootstown, OH. May 2016.
35. *Wisniewski J[†], **Harper SA**, Bagley MC, Habowski S, Chinn LE, McDaniel J. *Comparison of muscular strength and aerobic capacity imbalances in the lower limbs*. Northeast Ohio Exercise Science Conference, Cleveland, OH. Apr 2016. *Best Undergraduate Student Presentation.
36. **Harper SA**, Pollock BS, Ridgel AL. *Effects of Brain-derived neurotrophic factor (BDNF) polymorphism on non-motor symptoms in individuals with Parkinson's disease*. Kent State University's College of Education, Health and Human Services Gallery of Research, Kent, OH. Apr 2016.
37. **Harper SA**, Bagley MC, Habowski S, Chinn LE, McDaniel J. *Comparison of strength and aerobic capacity imbalances in the lower limbs*. Graduate Student Symposium, Kent, OH. Apr 2016.
38. **Harper SA**, Pollock BS, Ridgel AL. *Effects of Brain-derived neurotrophic factor (BDNF) polymorphism on non-motor symptoms in individuals with Parkinson's disease*. Kent State University's Neuroscience Symposium, Kent, OH. Apr 2016.
39. **Harper SA**, Peacock CA, Wilson KA, Ridgel AL. *Cognitive function and fitness improvements after a multidimensional exercise intervention in older adults*, Northeast Ohio Exercise Science Conference. Youngstown, OH. Apr 2015.
40. **Harper SA**, Peacock CA, Wilson KA, Ridgel AL. *Cognitive function and fitness improvements after a multidimensional exercise intervention in older adults*, College of Education, Health and Human Services Gallery of Research. Kent, OH. Apr 2015.

41. **Harper SA**, Peacock CA, Wilson KA, Ridgel AL. *Cognitive function and fitness improvements after a multidimensional exercise intervention in older adults*, Kent State University's Neuroscience on Aging Symposium. Kent, OH. Apr 2015.
42. **Harper SA**, Peacock CA, Wilson KA, Ridgel AL. *Cognitive function and fitness improvements after a multidimensional exercise intervention in older adults*, Graduate Student Symposium. Kent, OH. Apr 2015.
43. Peters F, **Harper SA**, McDaniel J, Ridgel AL. *Development of an eccentric cycling paradigm to produce delayed onset muscle soreness*. Northeast Ohio Exercise Science Conference. Youngstown, OH. Apr 2015.
44. ***Harper SA**, Burns KJ, Pollock BS, McDaniel J. *The influence of lateral foot displacement on cycling efficiency and maximal cycling power*. NEOESC, Kent, OH. Apr 2014. **Best Master's Student Presentation*.
45. **Harper SA**, Burns KJ, Pollock BS, McDaniel J. *The influence of lateral foot displacement on cycling efficiency and maximal cycling power*. Kent State University Graduate Student Symposium, Kent, OH. Apr 2014.
46. **Harper SA**, Burns KJ, Pollock BS, LaScola P, McDaniel J. *Single leg cycling: implications for rehabilitation*. NEOESC, Alliance, OH. Apr 2012.

UAH – KINESIOLOGY DAY – POSTER RESEARCH PRESENTATIONS – APRIL 2024

†Mentees

1. Dervis J[†], Elrod-Erickson M[†], Jones C[†], Penfield S[†]. *Effect of postural stability on biolateral deficit in hand grip strength*.
2. Tran CN[†], Faulkner BR[†], Reynolds EJ[†]. *Effects of fatigue on balance in sedentary versus active adults*.
3. Conkle C[†], Eaton C[†], Dillashaw J[†]. *Effects of isometric shoulder exercises on shoulder movement*.
4. Brown E[†], Kennedy C[†], Singley L[†], Springer I[†]. *Foam rolling on shoulder range of motion and pain threshold in baseball pitchers*.
5. Dingo C[†], Nichols C[†]. *L-Citrulline effects on maximal vertical jump performance*.

UAH – KINESIOLOGY DAY – PLANNED RESEARCH PRESENTATIONS – APRIL 2025

†Mentees

6. Hoover K[†], Murray K[†], Peters J[†], Patel R[†], Tewell J[†]. *Assessing shoulder strength: A comparison of peak torque in collegiate baseball pitchers and position players*.
7. Dunn F[†], Evans L[†], Milligan H[†], Stoker W[†]. *Effects of blood flow restriction on the acute blood lactate accumulation during isotonic exercise*.
8. Amano M[†], Mills M[†], Sharbutt K[†]. *Effects of ankle range of motion on trampoline jump performance in elite athletes*.

UAH – IN DEVELOPMENT – DECEMBER 2025

†Mentees

9. Compton N[†], Filiyaw L[†], Roinrson A[†]. *ArmCare evaluation of recovery among baseball pitchers*.
10. Hughes E[†], Steinman O[†], Thomas W[†], Rashid A[†]. *Free-throwing shooting accuracy: Comparison on NOAH basketball and eye-tracking*.
11. Tucker A[†], Cuenco I[†], Mayonset JO[†], Guzman F[†]. *Assessing squat performance – where to look for form*. Measures of muscle activation, motion capture, force, and eye-tracking.

UAH – SPONSORED PROJECTS – UNDERGRADUATE INVOLVEMENT

12. CFDR-UAH, DOD SBIR phase II sub-contract for the Naval Air Systems Command (NAVAIR). Role: Co-I, PoP: 2/1/2024-12/31/2024. Undergraduate students mentored: Barker B[†], Nelson P[†], Cook AW[†].
13. Defense Health Agency DHA-23C-003 STTR phase I. *GRIPMASTER – Grip Reinforcement Integrated Power with Magnetic Actuation for Seamless Tactical Exoskeleton Response*. Role: Co-I, PoP: 02/01/2024-09/01/2024. Undergraduate students mentored: Barker B[†], Nelson P[†], Neese J[†].

SERVICE TO THE PROFESSION

- 2025 – Pres. Reviewer Board, *OBM Geriatrics*
- 2024 – Pres. Host, 2026 Slips, Trips, and Falls International Conference
- 2024 – Pres. Editorial Board, *Advances in Rehabilitation Science and Practice*
- 2024 – Pres. *Musculoskeletal Rehabilitation Sciences* Study Section, National Institutes of Health, February 2025 review
- 2023 – Pres. Member, Slips, Trips, and Falls Technical Committee
- 2023 – Pres. Review Editor, *Frontiers of Aging*
- 2023 – Pres. Editor-in-Chief, *Research in Health and Medicine*
- 2023 – 2024 International Code Council A117.1 Sub-committees on contrast
- 2023 Abstract Reviewer, Southeast American College of Sports Medicine Conference
- 2023 Abstract Reviewer, Gerontology Society of America Annual Scientific Meeting
- 2021 – 23 Associate Editor, *Research Directs in Health Sciences*
- 2020 – 23 Reviewer, *International Journal of Environmental Research and Public Health*
- 2020 – 23 Review Board, *Healthcare*
- 2020 – 23 Senior Editor, *Curiosity: USU Undergraduate Research Journal*
- 2021 – 22 Fellowship Human Studies 1 Committee Reviewer, American Heart Association
- 2022 Reviewer, Human Factors and Ergonomics Seed Grant Review *Targeting the Intersections of HF/E and Anti-Racism/Anti-Bias*
- 2021 Reviewer-in-Training Program for Fellowships Human Studies 1, American Heart Association
- 2021 Abstract Reviewer, Gerontology Society of America Annual Scientific Meeting
- 2020 Interactive Science for Everyone Series, American Heart Association

Ad Hoc External Reviewer

- 2025 Scientific Reports, Aging Clinical and Experimental Research
- 2024 PLoS One, Arthritis Care & Research, BMC Geriatrics, Frontiers in Aging – Interventions in Aging, Experimental Gerontology, Current Nutrition Reports, Frontiers in Rehabilitation Science – Medical and Surgical Rehabilitation, OBM Geriatrics, Journal of Geriatric Psychiatry and Neurology, Translational Journal of American College of Sports Medicine, Frontiers in Aging - Musculoskeletal Aging
- 2023 Archives of Physical Medicine and Rehabilitation, Frontiers in Public Health (Aging and Public Health), BMC Geriatrics, Medicine & Science in Sports & Exercise, PLoS One, Experimental Gerontology
- 2022 Experimental Gerontology, Perceptual and Motor Skills

- 2021 Frontiers in Neurology Neurorehabilitation, Journal of Clinical Medicine, BMC Sports Science, Medicine & Rehabilitation, Applied Sciences, Arthritis Care & Research, BMC Geriatrics
- 2020 BMC Geriatrics, Physiology and Behavior, Journal of Frailty & Aging, Physical & Occupational Therapy in Geriatrics
- 2019 Experimental Gerontology, Journal of Geriatric Medicine and Gerontology, Frontiers in Aging Neuroscience, International Journal of Sports Science & Coaching, Aging Clinical and Experimental Research, Journal of Biomechanics, Medicine, Science, Sport and Exercise
- 2018 Experimental Gerontology, Journal of Science and Medicine in Sport, Frontiers in Physiology, Technology, Knowledge, and Learning

SERVICE TO THE UNIVERSITY

- 2024 – Pres. IRB Board Member, College of Education, Huntsville, AL
- 2023 – Pres. UAH Cycling Club Faculty Support (unofficial capacity), Huntsville, AL
- 2023 – 24 Strategic Enrollment Planning Working Group – Undergraduate Programs, Huntsville, AL
- 2023 UAH Inclusive Hiring Workshop, Huntsville, AL
- 2023 Evaluator/Moderator, USU Student Research Symposium, Logan, UT
- 2023 URCO Grant Review Panel, Presidential Doctoral Research Fellows, Logan, UT
- 2021 – 22 Office of Research, Undergraduate Student Research Fair, Logan, UT
- 2021 – 22 Reviewer, USU Spring URCO Awards, Logan, UT
- 2022 Escort, USU KHS Spring Undergraduate Graduation Ceremony, Logan, UT
- 2021 Judge, Fall USU Student Research Symposium, Logan, UT
- 2021 USU Faculty Research Mentor Orientation, Logan, UT
- 2021 Reviewer, USU Summer GRCO Awards, Logan, UT
- 2021 Asst. Reader, USU KHS Spring Graduation Ceremony, Logan, UT
- 2021 Interviewer, Aggies Elevated Program for practice job interviews, Logan, UT
- 2021 Judge and Speaking Fellow, USU Student Research Symposium, Logan, UT
- 2020 Utah Conference on Undergraduate Research volunteer, USU, Logan, UT
- 2020 Wellness Exposition KHS volunteer, Logan, UT
- 2018 Three-minute thesis judge, UAB Graduate School, Birmingham, AL
- 2017 Celebration of Service Award Ceremony Committee, KSU, Kent, OH
- 2016 MWACSM student quiz bowl representative, Tiffin University, Tiffin, OH
- 2015 Graduate Research Award Committee, KSU, Kent, OH
- 2014 Graduate International Travel Award Committee, KSU, Kent, OH
- 2013 Researcher, University Hospitals Parkinson's Boot Camp, Cleveland, OH

Thesis Committee Service

- 2023 – Pres. Hailey Hicks, masters student committee
Sensor fusion for enhancing motion capture: Integrating optical and inertial motion capture systems
- 2022 – 23 Bonny Lu, masters student committee

- 2022 – 23 *Reaction times altered by an anterior cruciate ligament tear*
Christopher Long, masters student committee
Comparing dorsiflexor muscle activity during the swing phase of gait while walking in water versus on land
- 2020 – 23 Kareem Abubukker, masters student committee
Relationships between muscle characteristics and step outcomes in young and old adults
- 2021 – 22 Leandra Ashworth, masters student committee chair (major professor)
Relationship of eccentric strength and forward perturbation restabilization after foot contact

SERVICE TO THE COLLEGE

- 2024 – Pres. College of Education Externally-Sponsored Projects, Huntsville, AL
- 2023 – Pres. College of Education Alumni Engagement Committee, Huntsville, AL
- 2023 – Pres. College of Education Signature Lectures Committee, Huntsville, AL
- 2024 CoED Student Orientation volunteer – June 6th, June 20th, June 28th, August 8th. Huntsville, AL
- 2020 – 23 SCCE Interprofessional Experience leadership and planning team, Logan, UT
- 2022 – 23 Co-Director, SCCE Interprofessional Experience, Logan, UT
- 2022 – 23 Rural Education Center working group, USU, Logan, UT

SERVICE TO THE DEPARTMENT

- 2024 – Pres. Chair, 2025 Exercise Science Asst/Assoc. Search Committee, Huntsville, AL
- 2023 – Pres. Kinesiology Department Alumni Relations Committee, Huntsville, AL
- 2024 Kinesiology Department Shooting for Student Success Committee, Huntsville, AL
- 2023 Committee Member, Sport & Fitness Management Search Committee, Huntsville, AL
- 2024 UAH Health Services Kinesiology Table (October 2024)
- 2024 Kinesiology Department, Education Day, Huntsville, AL
- 2023 – 24 Sport & Fitness Management Faculty Hiring Committee, Huntsville, AL
- 2021 – 23 Certified Radiological Technician (DXA operator), Logan, UT
- 2021 – 22 KHS Seminar Series, Logan, UT
- 2021 – 22 KHS Journal Club, Logan, UT
- 2021 KHS Jeopardy Game, Logan, UT
- 2021 KHS Alumni Career Webinar, Logan, UT
- 2021 CEHS Education Week – KHS Carnival Booth, Logan, UT
- 2016 – 17 Exercise Science Club Co-Advisor, Tiffin University, Tiffin, OH
- 2017 Exercise Science Club Health Fair, Tiffin University, Tiffin, OH

SERVICE TO THE COMMUNITY

- 2023 – Pres. Board Member (Grant Writer) Huntsville Area Mountain Bike Riders (HAMR), Huntsville, AL

2025	Osher Lifelong Learning Institute, Bonus Lecture (May 2025), Huntsville, AL
2025	Community Guest Speaker, Honoring Veterans Legacies, Huntsville, AL
2025	Community Guest Speaker, UAH Retirees Association, Huntsville, AL
2024	Community Guest Speaker (August 2024), Huntsville, AL
2024	Osher Lifelong Learning Institute, Stairway Safety course, Huntsville, AL
2023	Beginner's Mountain Bike Clinic, September 2023, Huntsville, AL
2023	Volunteer, Agility Sports Network, Bocchia Clinic (July 2023)