### Matthew P. Harber, PhD, FACSM

### Professor of Health Sciences Taylor University

### **Education & Research Training**

Post-Doc Substrate Metabolism – University of Michigan – 2003 – 2005

Ph.D. Human Bioenergetics – Ball State University – 2003

M.S. Human Movement Science – University of Memphis – 1999

B.S. Exercise, Health, and Leisure Science – University of Tennessee – 1997

# **Professional Appointments**

2024-present	Professor of Health Sciences, Taylor University
2019-2024	Professor of Clinical Exercise Physiology, Ball State University Coordinator, Clinical Exercise Physiology Program Director, Adult Physical Fitness Program
2019-present	Adjunct Lecturer, Cellular & Integrative Physiology, Indiana University School of Medicine
2015-2019	Associate Professor of Clinical Exercise Physiology, Ball State University Coordinator, Clinical Exercise Physiology Program Director, Adult Physical Fitness Program
2013-2015	Associate Professor of Exercise Science, Taylor University
2010-2013	Associate Professor of Exercise Science, Ball State University
2005-2010	Assistant Professor of Exercise Science, Ball State University
2003-2005	Post-Doctoral Research Scholar, Substrate Metabolism Laboratory, University of Michigan
2000-2003	Doctoral Fellow, Human Performance Laboratory, Ball State University
2000	Instructor- Division of Science, Mt. Hood Community College, Gresham, OR
1999	Project Coordinator, United States Olympic Committee
1997-1999	Graduate Research Assistant, Exercise Biochemistry Laboratory, University of Memphis

### **Peer-Reviewed Publications**

Carlini NA, Harber MP, Fleenor BS. Lower estimates of myocardial perfusion are associated with greater aortic perivascular adipose tissue density in humans independent of aortic stiffness. Am J Physiol Heart Circ Physiol. Accepted Aug 12, 2024.

Watso JC, Robinson AT, Arena R, Harber MP, Kaminsky LA, Myers J. Hypertension and Ventilatory Responses During Exercise in the Fitness Registry and the Importance of Exercise National Database (FRIEND). J Am Heart Assoc. 2024 Aug 6;13(15):e034114. doi: 10.1161/JAHA.123.034114. Epub 2024 Jul 26. PMID: 39056327.

Carlini NA, Stump OE, Lumadue EJ, Harber MP, Fleenor BS. Aortic Stiffness Is Associated With Higher Nighttime Ambulatory Blood Pressure in Middle-Aged and Older Adults. J Cardiopulm Rehabil Prev. 2024 Jul 1;44(4):289-294. doi: 10.1097/HCR.0000000000000869. Epub 2024 Jun 17. PMID: 38875161.

Bonikowske AR, Taylor JL, Larson KF, Hardwick J, Ozemek C, Harber MP, Kaminsky LA, Arena R, Lavie CJ. Evaluating current assessment techniques of cardiorespiratory fitness. Expert Rev Cardiovasc Ther. 2024 Jun;22(6):231-241. doi: 10.1080/14779072.2024.2363393. Epub 2024 Jun 10. PMID: 38855917.

Spencer E, Imboden MT, Peterman JE, Whaley MH, Kaminsky LA, Fleenor BS, Harber MP. Chronic use of Antihypertensive Medications and Peak Exercise Blood Pressure in Adult Men and Women from the BALL ST Cohort. Med Sci Sports Exerc. 2024 May 15. doi: 10.1249/MSS.0000000000003476. Epub ahead of print. PMID: 38768045.

Carlini NA, Harber MP, Fleenor BS. Acute effects of MitoQ on vascular endothelial function are influenced by cardiorespiratory fitness and baseline FMD in middle-aged and older adults. J Physiol. 2024 May;602(9):1923-1937. doi: 10.1113/JP285636. Epub 2024 Apr 3. PMID: 38568933.

Dykstra BJ, Griffith GJ, Renfrow MS, Mahon AD, Harber MP. Cardiorespiratory and Muscular Fitness in Children and Adolescents with Obesity. Curr Cardiol Rep. 2024 May;26(5):349-357. doi: 10.1007/s11886-024-02036-3. Epub 2024 Mar 9. PMID: 38460068.

Harber MP, Myers J, Bonikowske AR, Muntaner-Mas A, Molina-Garcia P, Arena R, Ortega FB. Assessing cardiorespiratory fitness in clinical and community settings: Lessons and advancements in the 100th year anniversary of VO<sub>2max</sub>. Prog Cardiovasc Dis. 2024 Mar-Apr;83:36-42. doi: 10.1016/j.pcad.2024.02.009. Epub 2024 Feb 27. PMID: 38417771.

Kambič T, Hansen D, Harber MP. Resistance Training in Cardiac Rehabilitation: PAST, PRESENT, AND FUTURE. J Cardiopulm Rehabil Prev. 2024 Mar 1;44(2):79-82. doi: 10.1097/HCR.0000000000000851. PMID: 38407806.

Santana EJ, Christle JW, Cauwenberghs N, Peterman JE, Busque V, Gomes B, Bagherzadeh SP, Moneghetti K, Kuznetsova T, Wheeler M, Ashley E, Harber MP, Arena R, Kaminsky LA, Myers J, Haddad F. Improving Reporting of Exercise Capacity Across Age Ranges Using Novel Workload Reference Equations. Am J Cardiol. 2024 Mar 15;215:32-41. doi: 10.1016/j.amjcard.2024.01.022. Epub 2024 Jan 30. PMID: 38301753.

Hughes RP, Carlini NA, Fleenor BS, Harber MP. Mitochondrial-targeted antioxidant ingestion acutely blunts VO<sub>2max</sub> in physically inactive females. Physiol Rep. 2023 Dec;11(23):e15871. doi: 10.14814/phy2.15871. PMID: 38061764; PMCID: PMC10703545.

Gil Araujo, C., Santos Ramos, P., Laukkanen, J. A., Myers, J., Kunutsor, S. K., Harber, M. P., Eijsvogels, T. M.H., Grune de Souza e Silva, C. (2023). High Cardiorespiratory Optimal Point Values Are Related to Cardiovascular Mortality in Men Aged 46 to 70 Years: a Prospective Cohort Study. International Journal of Cardiovascular Sciences, e20230090.

Carlini NA, Cloud RMT, Harber MP, Fleenor BS. Cardiorespiratory fitness is associated with estimates of myocardial perfusion: influence of age and sex. Am J Physiol Heart Circ Physiol. 2024 Jan 1;326(1):H103-H109. doi: 10.1152/ajpheart.00610.2023. Epub 2023 Nov 10. PMID: 37947437.

Harber MP. Missing the Target: HOW OFTEN IS EXERCISE INTENSITY APPROPRIATELY PRESCRIBED IN CARDIAC REHABILITATION? J Cardiopulm Rehabil Prev. 2023 Nov 1;43(6):398-399. doi: 10.1097/HCR.0000000000000830. PMID: 37890175.

Naruse M, Vincenty CS, Konopka AR, Trappe SW, Harber MP, Trappe TA. Cycle exercise training and muscle mass: A preliminary investigation of 17 lower limb muscles in older men. Physiol Rep. 2023 Aug;11(16):e15781. doi: 10.14814/phy2.15781. PMID: 37606179; PMCID: PMC10442866.

Reidy PT, Borack MS, Dickinson JM, Carroll CC, Burd NA, Drummond MJ, Fry CS, Lambert BS, Gundermann DM, Glynn EL, Markofski MM, Timmerman KL, Moro T, Volpi E, Trappe S, Trappe TA, Harber MP, Rasmussen BB. Postabsorptive muscle protein synthesis is higher in outpatients as compared to inpatients. Am J Physiol Endocrinol Metab. 2023 Aug 1;325(2):E113-E118. doi: 10.1152/ajpendo.00144.2023. Epub 2023 Jun 14. PMID: 37315157; PMCID: PMC10393319.

Fleenor BS, Carlini NA, Ouyang A, Du B, Harber MP. Greater aortic perivascular adipose tissue density is associated with aging, aortic stiffness, and central blood pressure in humans. J Appl Physiol (1985). 2023 Mar 1;134(3):703-709.

Carlini NA, Romanowski S, Rabalais EN, Kistler BM, Campbell MS, Krishnakumar IM, Harber MP, Fleenor BS. Coconut sugar derived from coconut inflorescence sap lowers systolic blood pressure and arterial stiffness in middle-aged and older adults: a pilot study. J Appl Physiol (1985). 2023 Mar 1;134(3):508-514.

Harber MP, Peterman JE, Imboden M, Kaminsky L, Ashton REM, Arena R, Faghy MA. Cardiorespiratory fitness as a vital sign of CVD risk in the COVID-19 era. Prog Cardiovasc Dis. 2023 Jan-Feb;76:44–8.

Peterman JE, Novelli DS, Fleenor BS, Whaley MH, Kaminsky LA, Harber MP. Oxygen Uptake Efficiency Slope as a Predictor of Mortality Risk: THE BALL STATE ADULT FITNESS LONGITUDINAL LIFESTYLE STUDY (BALL ST). J Cardiopulm Rehabil Prev. 2023 Jul 1;43(4):282-289. doi: 10.1097/HCR.00000000000000744. Epub 2022 Nov 17. PMID: 36394515.

Peterman JE, MP Harber, BS Fleenor, MH Whaley, CG Araujo, LA Kaminsky. Cardiorespiratory optimal point is a submaximal exercise test variable and a predictor of mortality risk: The Ball State Adult Fitness Longitudinal Lifestyle Study (BALL ST). J Cardiopulm Rehabil Prev. Nov 1;42(6)E90-96, 2022.

Peterman JE, Arena R, Myers J, Ades PA, Bonikowske AR, Harber MP, Marzolini S, Savage PD, Squires RW, Lavie CJ, Kaminsky LA. A Nonexercise Prediction of Peak Oxygen Uptake for Patients With Cardiovascular Disease: DATA FROM THE FITNESS REGISTRY AND THE IMPORTANCE OF EXERCISE INTERNATIONAL DATABASE (FRIEND). J Cardiopulm Rehabil Prev. 2023 Mar 1;43(2):115-121. doi: 10.1097/HCR.00000000000000722. Epub 2022 Sep 22. PMID: 36137212.

Rodriguez JC, JE Peterman, BS Fleenor, MH Whaley, LA Kaminsky, MP Harber. Cardiopulmonary exercise responses in individuals with metabolic syndrome: The Ball State Adult Fitness Longitudinal Lifestyle Study. Metab Syndr Relat Disord. Sep; 20(7):414-420, 2022.

Peterman JE, Arena R, Myers J, Harber MP, Bonikowske AR, Squires RW, Kaminsky LA. Reference Standards for Peak Rating of Perceived Exertion during Cardiopulmonary Exercise Testing: Data from FRIEND. Med Sci Sports Exerc. 2023 Jan 1;55(1):74-79. doi: 10.1249/MSS.0000000000003023. Epub 2022 Aug 12. PMID: 35977105.

Sumy MSA, M Begum, MP Harber, WH Finch, MYA Park, B Fleenor, MH Whaley, JE Peterman, LA Kaminsky. Subgroup identification with classification and regression tree-based algorithms: an application to the Ball State Adult Fitness Longitudinal Lifestyle Study. Bull Malays Math Sci Soc. 45:S445-449, 2022.

Smith BE, JE Peterman, MP Harber, MT Imboden, BS Fleenor, LA Kaminsky, MH Whaley. Change in metabolic syndrome and cardiorespiratory fitness following exercise training – The Ball State Adult Fitness Longitudinal Lifestyle Study (BALL ST). Diabetes Metab Syndr Obes. May 20;15:1553-1562, 2022.

Myers J, MP Harber, L Johnson, R Arena, LA Kaminsky. Current state of unhealthy living characteristics in White, African American and Latinx populations. Prog Cardiovasc Dis. Mar-Apr;71:20-26, 2022.

Fleenor BS, NA Carlini, A Ouyang, and MP Harber. Perivascular adipose tissue-mediated arterial stiffening in aging and disease: An emerging translational therapeutic target? Pharmacol Res. Apr;178:106150, 2022.

Kaminsky LA, R Arena, J Myers, JE Peterman, AR Bonikowske, MP Harber, JR Medina Inojosa, CJ Lavie, RW Squires. Updated reference standards for cardiorespiratory fitness measured with cardiopulmonary exercise testing: data from the Fitness Registry and the Importance of Exercise National Database (FRIEND). Mayo Clin Pro. Feb;97(2):285-293, 2022.

Peterman JE, MP Harber, S Chaudhry, R Arena, LA Kaminsky. Peak oxygen pulse and mortality risk in healthy women and men: the Ball State Adult Fitness Longitudinal Lifestyle Study (BALL ST). Prog Cardiovasc Dis. Sep-Oct;68: 19-24, 2021.

Peterman JE, DR Bassett, WH Finch, MP Harber, MH Whaley, BS Fleenor, LA Kaminsky. Associations between active commuting and cardiovascular disease in the United States. J Phys Act Health. Oct 23;18(12):1525-1531, 2021.

Carlini NA, MP Harber, BS Fleenor. Age related carotid extra-media thickening is associated with increased blood pressure and arterial stiffness, Clin Physiol Funct Imaging. Sep;41(5):461-466, 2021.

Carlini NA, MP Harber, BS Fleenor. Oscillometric estimates of aortic blood pressue as an alternative to carotid blood pressure to assess carotid stiffness in humans. Hypertens Res. Jul;44(7):888-890, 2021.

Arena R, Myers J, M Harber, SA Phillips, R Severin, C Ozemek, JE Peterman, LA Kaminsky. The Ve/VCO2 slope during maximal treadmill cardiopulmonary exercise testing: reference standards from FRIEND (Fitness Registry and the Importance of Exercise National Database). J Cardiopulm Rehabil Prev. May 1;41(3):194-198, 2021.

Peterman, JE, MP Harber, MT Imboden, MH Whaley, BS Fleenor, J Myers, R Arena, and LA Kaminsky. Accuracy of Exercise-based Equations for Estimating Cardiorespiratory Fitness. Medicine and Science in Sports and Exercise. 53(1), 74-82, 2021.

Parh, MYA, M Begum, MP Harber, B Fleenor, MH Whaley, WH Finch, JE Peterman, LA Kaminsky. Subgroup identification for differential cardio-respiratory fitness effect on cardiovascular disease risk factors: a model-based recursive partitioning approach. Journal of Statistical Research. 54(2), 147-165, 2020.

Harber, MP, M Metz, JE Peterman, MH Whaley, BS Fleenor, LA Kaminsky. Trends in cardiorespiratory fitness among apparently healthy adults from the Ball State Adult Fitness Longitudinal Lifestyle STudy (BALL ST) cohort from 1970-2019. PloS One. 15(12), e0242995. 2020.

Peterman, JE, MH Whaley, MP Harber, BS Fleenor, MT Imobden, J Myers, R Arena, LA Kaminsky. Comparison of non-exercise cardiorespiratory fitness prediction equations in apparently healthy adults. European Journal Preventative Cardiology. Apr 10;28(2):142-148, 2021.

Fleenor, B, NA Carlini, LA Kaminsky, MH Whaley, JE Peterman, MP Harber. Healthy Vascular Aging Is Associated with Higher Cardiorespiratory Fitness. Journal of Cardiopulmonary Rehabilitation and Prevention. Mar 1;41(2):122-125, 2021.

Harber, MP, A McCurry, N Carlini, BM Kistler, B Fleenor. Caffeine ingestion alters central hemodynamics following aerobic exercise in middle-aged men. European Journal of Applied Physiology. Feb;121(2):435-443, 2021.

Peterman JE, AP Grim, LA Kaminsky, MH Whaley, BS Fleenor, MP Harber. Methodological considerations for calculating ventilatory efficiency in healthy adults. Eur J Prev Cardiol. 27(14), 1566-1567, 2020.

Imboden, MT, LA Kaminsky, JE Peterman, HL Hutzler, MH Whaley, B Fleenor, MP Harber. Cardiorespiratory Fitness Normalized to Fat-Free Mass and Mortality Risk. Medicine and Science in Sports and Exercise, 52(7), 1532-1537, 2020.

Franklin, BA, P Brubaker, MP Harber, CJ Lavie, J Myers, LA Kaminsky. The Journal of Cardiopulmonary Rehabilitation and Prevention at 40 yr and Its Role in Promoting Preventive Cardiology: Part 2. Journal of Cardiopulmonary Rehabilitation and Prevention, Jul; 40(4), 209-214, 2020.

Franklin, BA, P Brubaker, MP Harber, CJ Lavie, J Myers, LA Kaminsky. The Journal of Cardiopulmonary Rehabilitation and Prevention at 40 yr and Its Role in Promoting Preventive

Cardiology: Part 1. Journal of Cardiopulmonary Rehabilitation and Prevention, May; 40(3), 131-137, 2020.

Ozemek, C, SJ Strath, K Riggin, MP Harber, MT Imboden, LA Kaminsky. Pedometer Feedback Interventions Increase Daily Physical Activity in Phase III Cardiac Rehabilitation Participants. Journal of Cardiopulmonary Rehabilitation and Prevention, 40(3), 183-188, 2020.

Peterman, JE, MP Harber, MT Imboden, MH Whaley, B Fleenor, J Myers, R Arena, WH Finch, LA Kaminsky. Accuracy of Nonexercise Prediction Equations for Assessing Longitudinal Changes to Cardiorespiratory Fitness in Apparently Healthy Adults: BALL ST Cohort. Journal of the American Heart Association, Jun 2; 9(11), 2020.

Arena, R, J Myers, MP Harber, U Wisloff, D Stensvold, LA Kaminsky. Peak Oxygen Pulse Responses During Maximal Cardiopulmonary Exercise Testing: Reference Standards from FRIEND (Fitness Registry and the Importance of Exercise: An International Database). International Journal of Cardiology, 301, 180-182, 2020.

Imboden MT, MP Harber, MH Whaley, WH Finch, DA Bishop, BS Fleenor, and LA Kaminsky. The influence of change in cardiorespiratory fitness with short-term exercise training on mortality risk from the Ball State Adult Fitness Longitudinal Lifestyle Study. Mayo Clin Proc. 94, 1408-1414, 2019.

Kaminsky LA, R Arena, O Ellingsen, MP Harber, J Myers, C Ozemek, and R Ross. Cardiorespiratory fitness and cardiovascular disease – the past, present, and future. Prog Cardiovasc Dis. Mar - Apr;62(2):86-93, 2019.

Imboden MT, MP Harber, MH Whaley, WH Finch, DL Bishop, and LA Kaminsky. The association between the change in directly measured cardiorespiratory fitness across time and mortality risk. Prog Cardiovasc Dis. Mar - Apr;62(2):157-162, 2019.

Imboden MT, MP Harber, MH Whaley, WH Finch, DL Bishop, and LA Kaminsky. Cardiorespiratory fitness and mortality in healthy men and women. Journal of the American College of Cardiology. Nov 6; 72(19), 2283-92, 2018.

Kaminsky LA, MP Harber, MT Imboden, R Arena, and J Myers. Peak ventilation reference standards from exercise testing: from the FRIEND Registry. Medicine and Science in Sports and Exercise. Dec; 50(12): 2603-2608, 2018.

Konopka AR, CA Wolff, MK Suer, and MP Harber. Relationship between intermuscular adipose tissue infiltration and myostatin before and after aerobic exercise training. American Journal of Physiology - Regulatory, Integrative and Comparative Physiology. 315, R461-R468, 2018.

Kelley E, MT Imboden, MP Harber, H Finch, LA Kaminsky, and MH Whaley. Cardiorespiratory fitness is inversely associated with clustering of metabolic syndrome risk factors: the Ball State Adult Fitness Program Longitudinal Lifestyle Study. Mayo Clinic Proceedings: Innovations, Quality & Outcomes. May 8; 2(2): 155-164, 2018.

Wolff CA, AR Konopka, MK Suer, TA Trappe, LA Kaminsky, and MP Harber. Increased cardiorespiratory fitness and skeletal muscle size following single-leg knee extension exercise training. The Journal of Sports Medicine and Physical Fitness. 59(6), 934-940, 2019.

Imboden MT, LA Witty, MH Whaley, MP Harber, BS Fleenor, and LA Kaminsky. Clinical perspectives on incorporating cardiorespiratory fitness in clinical practice. Medical Research Archives. 6(2), 2018.

Bock JM, LA Kaminsky, MP Harber, and AHK Montoye. Determining the reliability of several consumer-based physical activity monitors. Technologies. 5(47), 2017.

Harber MP, LA Kaminsky, R Arena, SN Blair, BA Franklin, J Myers, and R Ross. Impact of cardiorespiratory fitness on all-cause and disease specific mortality: advances since 2009. Prog Cardiovasc Diseases. Jun-Jul;60(1): 11-20, 2017.

Imboden, MT, AM Swartz, HW Finch, MP Harber, and LA Kaminsky. Reference standards for lean mass measures using GE dual energy x-ray absorptiometry in Caucasian adults. PLOS One. 12(4): e0176161, 2017.

Imboden, MT, WA Welch, AM Swartz, AHK Montoye, MP Harber, and LA Kaminsky. Reference standards for body fat measures using GE dual energy x-ray absorptiometry. PLOS One. 12(4): e0175110, 2017.

Hinkley JM, AR Konopka, MK Suer, and MP Harber. Short-term intense exercise training reduces stress markers and alters the transcriptional response to exercise in skeletal muscle. Am J Physiol Regul Integr Comp Physiol. Mar 1;312(3): R426-R433, 2017.

Reidy PT, JM Hinkley, TA Trappe, SW Trappe, and MP Harber. Protein composition of endurance trained human skeletal muscle. International Journal of Sports Medicine. Jun; 35(6): 476-481, 2014.

Konopka AR and MP Harber. Skeletal muscle hypertrophy after aerobic exercise training. Exercise and Sport Sciences Reviews. Apr; 42(2): 53-61, 2014.

Konopka AR, MK Suer, CA Wolff, and MP Harber. Markers of human skeletal muscle mitochondrial biogenesis and quality control: effects of age and aerobic exercise training. Journal of Gerontology: BIOLOGICAL SCIENCES. Apr; 69(4): 371-378, 2014.

Chapman RF, T Karlsen, GK Resaland, RL Ge, MP Harber, S Witkowski, J Stray-Gundersen, and BD Levine. Defining the "dose" of altitude training: how high to live for optimal sea level performance enhancement. Journal of Applied Physiology. Mar: 25; 116(6): 595-603, 2014.

Reidy PT, AR Konopka, JM Hinkley, MK Undem, and MP Harber. The effect of feeding during recovery from aerobic exercise on skeletal muscle intracellular signaling. International Journal of Sport Nutrition and Exercise Metabolism. Feb; 24(1): 70-78, 2014.

Harber MP, AR Konopka, MK Undem, JM Hinkley, K Minchev, LA Kaminsky, TA Trappe, and SW Trappe. Aerobic exercise training induces skeletal muscle hypertrophy and age-dependent adaptations in myofiber function in young and older men. Journal of Applied Physiology. Nov; 113(9): 1495-504, 2013.

Trappe TA, RA Standley, S Liu, B Jemiolo, SW Trappe, and MP Harber. Local anesthetic effects on gene transcription in human skeletal muscle biopsies. Muscle Nerve. Oct; 48(4): 591-3, 2013.

Suer MK, JD Crane, TA Trappe, B Jemiolo, SW Trappe, and MP Harber. Amino acid infusion

alters the expression of growth related genes in multiple skeletal muscles. Aviation, Space, and Environmental Medicine. Jul; 84(7): 669-74, 2013.

Standley RA, MP Harber, JD Lee, AR Konopka, SW Trappe, and TA Trappe. Influence of aerobic cycle exercise training on patellar tendon cross-sectional area in older women. Scand Journal of Medicine & Science in Sports. Jun; 23(3): 367-373, 2013.

Galpin AJ, U Raue, B Jemiolo, TA Trappe, MP Harber, K Minchev, and S Trappe. Human skeletal muscle fiber type specific protein content. Analytic Biochemistry. Jun 15; 425(2): 175-82, 2012.

Konopka AR, TA Trappe, B Jemiolo, SW Trappe, and MP Harber. Myosin heavy chain plasticity in aging skeletal muscle with aerobic exercise training. Journal of Gerontology: BIOLOGICAL SCIENCES. Aug;66(8): 835-41, 2011.

Harber MP, JD Dickinson, JD Crane, SW Trappe, and TA Trappe. Influence of tracer selection on protein synthesis rates at rest and post-exercise in multiple human muscles. Metabolism. May;60(5): 689-97, 2011.

Harber MP, AR Konopka, B Jemiolo, SW Trappe, TA Trappe, and PT Reidy. Muscle protein synthesis and gene expression during recovery from aerobic exercise in the fasted and fed states. American Journal of Physiology: Regulatory, Integrative, and Comparative Physiology. Nov;299(5): R1254-62, 2010.

Konopka AR, MD Douglass, LA Kaminsky, B Jemiolo, TA Trappe, S Trappe, and MP Harber. Molecular adaptations to aerobic exercise training in skeletal muscle of older women. Journal of Gerontology: MEDICAL SCIENCES. Nov;65(11): 1201-7, 2010.

Nagelkirk PR, R Scalzo, M Harber, and LA Kaminsky. The influence of acute resistance training and body composition on coagulation and fibrinolytic activity in low-risk women. International Journal of Sports Medicine. Jul;31(7):458-62, 2010.

Luden N, E Hayes, A Galpin, K Minchev, B Jemiolo, U Raue, TA Trappe, MP Harber, T Bowers, and S Trappe. Myocellular basis for tapering in competitive distance runners. Journal of Applied Physiology. June;108(6): 1501-9, 2010.

Dickinson JM, JD Lee, BE Sullivan, MP Harber, SW Trappe, and TA Trappe. A new method to study in vivo protein synthesis in slow- and fast-twitch muscle fibers and initial measurements in humans. Journal of Applied Physiology. May; 108(5): 1410-6, 2010.

Newsom SA, S Schenk, KM Thomas, MP Harber, ND Knuth, N Goldenberg, and JF Horowitz. Energy deficit after exercise augments lipid mobilization but does not contribute to the exercise-induced increase in insulin sensitivity. Journal of Applied Physiology. Mar; 108: 554-560, 2010.

Harber MP, AR Konopka, MD Douglass, K Minchev, LA Kaminsky, TA Trappe, and SW Trappe. Aerobic exercise training improves whole muscle and single myofiber size and function in older women. American Journal of Physiology - Regulatory, Integrative and Comparative Physiology. Nov; 297(5):R1452-9, 2009.

Schenk S, MP Harber, CR Shrivastiva, CF Burant, and JF Horowitz. Improved insulin sensitivity after weight loss and exercise training is mediated by a reduction in plasma fatty acid mobilization, not enhanced oxidative capacity. Journal of Physiology. Oct 15; 587(Pt 20): 4949-61, 2009.

Surya S, JF Horowitz, N Goldenberg, A Sakharova, M Harber, AS Cornford, K Symons, and AL Barkan. The pattern of growth hormone delivery to peripheral tissues determines insulin-like growth factor-1 and lipolytic responses in obese subjects. Journal of Clinical Endocrinology and Metabolism. Aug;94(8):2828-34, 2009.

Harber MP, JD Crane, JM Dickinson, B Jemiolo, U Raue, TA Trappe, and SW Trappe. Protein synthesis and the expression of growth-related genes are altered by running in human vastus lateralis and soleus muscles. American Journal of Physiology - Regulatory, Integrative and Comparative Physiology. Mar; 296(3):R708-14, 2009.

Harber, M, J Crane, M Douglass, K Weindel, T Trappe, S Trappe, and W Fink. Resistance exercise reduces muscular substrates in women. International Journal of Sports Medicine. Sept; 29: 719-725, 2008.

Fry AC, MH Ferkin, BK Schilling, ST Leonard, MP Harber, MR Rubin, JC Smith. Myosin heavy chain expression in peripheral muscles of male and female prarie voles Microtus ochrogaster. Acta Zoologica Sinica. 54(1): 104-110, 2008.

Harber M and S Trappe. Single muscle fiber contractile properties of young competitive distance runners. Journal of Applied Physiology. Aug; 105: 629-636, 2008.

Sakharova AA, JF Horowitz, S Surya, N Goldenberg, MP Harber, K Symons, and A Barkan. Role of growth hormone in regulating lipolysis, proteolysis, and hepatic glucose production during fasting. Journal of Clinical Endocrinology and Metabolism. Jul; 93: 2755–2759, 2008.

Mazzetti, S, M Douglass, A Yocum, and M Harber. Effect of explosive versus slow contractions and exercise intensity on energy expenditure. Medicine & Science in Sports & Exercise. Aug; 39(8): 1291-1301, 2007.

Weinheimer, E, B Jemiolo, C Carroll, M Harber, J Haus, N Burd, J LeMoine, S Trappe, and T Trappe. Resistance exercise and cyclooxygenase (COX) expression in human skeletal muscle: Implications for COX-inhibiting drugs and protein synthesis. American Journal of Physiology - Regulatory, Integrative and Comparative Physiology. Jun; 292(6): R2241-8, 2007.

Trappe S, M Harber, A Creer, P Gallagher, D Slivka, K Minchev, and D Whitsett. Single muscle fiber adaptations with marathon training. Journal of Applied Physiology. Sept; 101(3): 721-7, 2006.

Gallagher P, S Trappe, M Harber, A Creer, S Mazzetti, T Trappe, B Alkner, and P Tesch. Effects of 84-d of bedrest and resistance training on single muscle fiber myosin heavy chain distribution in human vastus lateralis and soleus muscles. Acta Physiologica Scandinavica, Sep; 184 (1), 61–9, 2005.

Harber MP, S Schenk, AL Barkan, and JF Horowitz. Effects of dietary carbohydrate restriction with high protein intake on protein metabolism and the somatotropic axis. Journal of Clinical Endocrinology and Metabolism. Sep; 90(9): 5175-81, 2005.

Harber MP, S Schenk, AL Barkan, and JF Horowtiz. Alterations in carbohydrate metabolism in response to short-term dietary carbohydrate restriction. American Journal of Physiology – Endocrinology and Metabolism. Aug;289(2):E306-12, 2005.

Horowitz JF, AE Kaufman, AK Fox, and MP Harber. Energy deficit without carbohydrate deprivation alters carbohydrate oxidation and fatty acid availability. Journal of Applied Physiology. May; 98(5): 1612-8, 2005.

Harber MP, PM Gallagher, AR Creer, KM Minchev, and SW Trappe. Single muscle fiber contractile properties during a competitive season in male runners. American Journal of Physiology - Regulatory, Integrative and Comparative Physiology. Nov; 287(5): R1124-31, 2004.

Harber MP, AC Fry, MR Rubin, JC Smith, and LW Weiss. Skeletal muscle adaptations to timed circuit weight training. Scandinavian Journal of Medicine, Science, and Sports. Jun; 14(3): 176-85, 2004.

Trappe S, T Trappe, P Gallagher, M Harber, B Alkner, and P Tesch. Human single muscle fibre function with 84 day bed-rest and resistance exercise. Journal of Physiology. Jun 1; 557(Pt 2): 501-513, 2004.

Trappe S, P Gallagher, M Harber, J Carrithers, J Fluckey and T Trappe. Single muscle fiber contractile properties in young and old men and women. Journal of Physiology. Oct 1; 552(Pt 1): 47-58, 2003.

Williamson DL, PG Gallagher, MP Harber, T Sevier, M Hollon, and SW Trappe. Mitogen-activated protein kinase (MAPK) pathway activation: effects of age and resistance exercise on human skeletal muscle. Journal of Physiology. Mar 15; 547(Pt 3):977-87, 2003.

Fry AC, JM Webber, LW Weiss, MP Harber, M Vaczi, and NA Pattison. Muscle fiber characteristics of elite power lifters. Journal of Strength and Conditioning Research. May; 17(2): 402-410, 2003.

Harber MP, PG Gallagher, and SW Trappe. Myosin heavy chain composition of single fibers from gastrocnemius of collegiate distance runners. International Journal of Sports Medicine. Oct;23(7):484-8, 2002.

Ge RL, S Witkowski, Y Zhang, C Alfrey, M Siveri, T Karlsen, GK Resaland, M Harber, J Stray-Gundersen, and BD Levine. Determinants of erythropoieten release in response to short term, hypobaric hypoxia. Journal of Applied Physiology. Jun;92(6):2361-7, 2002.

# **Grants & Contracts Funding**

Title: Cardiac, Pulmonary, and Oncology Rehabilitation Clinical Rotations

Agency: IU Health Amount: \$75,000

Date submitted: November 2023

Starting and ending date: 1/1/24 – 12/1/24 Principal Investigator: Matthew Harber

Title: Cardiac, Pulmonary, and Oncology Rehabilitation Clinical Rotations

Agency: IU Health Amount: \$75,000 Date submitted: November 2022

Starting and ending date: 1/1/23 – 12/1/23 Principal Investigator: Matthew Harber

Title: Promoting Physical Activity Among Female Patients Following Cardiac Rehabilitation

Agency: Trailblazer Award – Indiana CTSI Community Health Partnerships

Amount: \$25,000

Date submitted: May 2022

Starting and ending date: 10/1/22 – 09/30/23

Principal Investigator: Melissa Franks

Co-principal Investigator: Matthew Harber, Libby Richards, Katrina Riggin

Title: Cardiac, Pulmonary, and Oncology Rehabilitation Clinical Rotations

Agency: IU Health Amount: \$75,000

Date submitted: November 2021

Starting and ending date: 1/1/22 – 12/1/22 Principal Investigator: Matthew Harber

Title: Cardiopulmonary Exercise Testing and Mortality Outcomes

Agency: American Heart Association

Amount: \$153,917

Date submitted: October 2017

Starting and ending date: 2018 - 2020 Principal Investigator: Matthew Harber

Co-principal Investigator: Leonard Kaminsky, Mitchell Whaley

Title: Usability of MIO Slice in Cardiac Rehabilitation

Agency: Physical Enterprises

Amount: \$7,935

Starting and ending data: 11/1/2017 - 12/31/2018

Principal Investigator: Matthew Harber Co-Investigator: Leonard Kaminsky

Title: Healthy Lifestyle Interventions to Target Mental Health and Well-Being in Medical Students

Agency: Ball Brothers Foundation

Amount: \$5,000

Starting and ending data: 08/01/2016 – 05/30/2018

Principal Investigator: Matthew Harber Co-Investigator: Leonard Kaminsky

Title: Alternating Single-legged Exercise to Increase Muscle Mass and Enhance Functional

Agency: National Skeletal Muscle Research Center – UCSD – NIH R24

Amount: \$25,00 total costs

Starting and ending data: 7/1/2011 - 6/30/2013

Principal Investigator: Matthew Harber

Co-Investigator: Leonard Kaminsky, Todd Trappe

Title: Skeletal Muscle Heath with Aging and Life-Long Exercise

Agency: National Institutes of Health (NIA)

Amount: \$2,284,001 total costs

Starting and ending data: 7/1/2011 - 6/31/2016

Principal Investigator: Scott Trappe

Co-Investigator: Matthew Harber, Todd Trappe, Leonard Kaminsky

Title: Myocellular Contractile Function with Exercise Training in Older Adults

Agency: National Institutes of Health (NIA)

Amount: \$177,735

Starting and ending date: 9/15/09 – 8/31/12 Principal Investigator: Matthew Harber

Co-Investigator: Leonard Kaminsky, Scott Trappe, Todd Trappe

Title: Integrative Physiology of Exercise Countermeasures for Human Space Travel

Agency: National Aeronautical And Space Administration (NASA)

Amount: \$919,692 direct costs

Starting and ending date: 10/01/06 – 9/30/11

Principal Investigator: Scott Trappe

Co-principal Investigator: Matthew Harber, Todd Trappe, Anthony Mahon

Title: Influence of Nutrition on Post-Exercise Gene Expression in Human Skeletal Muscle

Agency: Gatorade Sports Science Institute/Pepsi Co.

Amount: \$37,440 direct costs

Starting and ending date: 8/15/08 – 12/31/2009

Principal Investigator: Matthew Harber

Title: Weight-loss, Exercise, and Oxidative Capacity in Obesity Agency: National Institutes of Health (NIDDK) (F32 DK070510)

Starting and ending date: 1/1/05 - 8/18/05 (terminated early to begin new position)

Principal Investigator: Matthew Harber

Mentor: Jeff Horowitz

Title: Resistance Training and Expression of Metabolic Factors in Young and Older Men and

Women

Agency: Michael L. Pollock Memorial Research Grant – Life Fitness Academy

Amount: \$5,000

Starting and ending date: June 2004 – July 2005

Principal Investigator: Matthew Harber

Co-Investigator: Jeff Horowitz

# **Grants Submitted (Not Funded)**

Title: Understanding the Mechanisms of How CRF Affects T Cell Function in Older Adults

Agency: National Institutes of Health

Requested Amount: \$143,185 Date submitted: June 2021

Starting and ending date: 4/1/2022 - 3/31/2024

Principal Investigator: Harber, Matthew

Title: Perivascular Inflammation and Age-Related Arterial Stiffness

Agency: National Institutes of Health

Requested Amount: \$459,020 Date submitted: June 2021 Starting and ending date: 4/1/2022 – 3/31/2025

Principal Investigator: Fleenor, Bradley Co-principal Investigator: Harber, Matthew

Title: Challenges and Opportunities: Involvement of Close Others as a Predictor of Exercise

Self-management among Female Patients Following Cardiac Rehabilitation

Agency: National Institutes of Health Requested Amount: \$104,198 Date submitted: March 2021

Starting and ending date: 4/1/2022 - 3/31/2024

Principal Investigator: Melissa Franks

Co-principal Investigator: Matthew Harber, Libby Richards, Katrina Riggin

Title: Ectopic fat and aortic stiffening with age in humans

Agency (Sponsor): National Institutes of Health

Requested Amount: \$1,838,000 Date submitted: June 2018

Starting and ending date: 2019 - 2024 Principal Investigator: Bradley Fleenor Co-principal Investigator: Matthew Harber

Title: Multifactorial training intervention to improve cardiovascular and neuromuscular function

in an aging population

Agency (Sponsor): American Heart Association

Requested Amount: \$750,000

Date submitted: November 2017

Starting and ending date: 2018 - 2021

Principal Investigator: Paul R Nagelkirk

Co-principal Investigator: Matthew P Harber, Andrew T Del Pozzi, Douglas C Dickin

Title: Zumba @ Buley

Agency: Robert Wood Johnson Foundation

Amount: \$287,126

Date submitted: March 2016

Starting and ending date: 2016 - 2018 Principal Investigator: Selen Razon Co-principal Investigator: Matthew Harber

Title: COX Inhibitors for Exercise and Sarcopenia

Agency: National Institutes of Health/NIA

Amount: \$1,750,000

Date submitted: October 2012

Starting and ending date: 2013 - 2018 Principal Investigator: Todd Trappe

Co-principal Investigator: Matthew Harber, Scott Trappe

Title: A Novel High Intensity Exercise Training Protocol for Heart Failure Patients

Agency: American Heart Association

Amount: \$150,000

Date submitted: July 2011

Starting and ending data: 1/1/2012 – 12/31/2013

Principal Investigator: Matthew Harber

Co-Investigator: Leonard Kaminsky, Scott Trappe, Todd Trappe

Title: Cox-inhibitors and Exercise Adaptations in Older Individuals

Agency: National Institutes of Health (NIA)

Amount: \$2,045,838

Date submitted: March 2011

Starting and ending data: 1/1/2012 – 12/31/2016

Principal Investigator: Todd Trappe

Co-Investigator: Matthew Harber, Scott Trappe, Leonard Kaminsky

Title: Skeletal Muscle Heath with Aging and Life-Long Exercise

Agency: National Institutes of Health (NIA)

Amount: \$1,806,250 total costs. Date submitted February 2010

Starting and ending data: 1/1/2011 – 12/31/2015

Principal Investigator: Scott Trappe

Co-Investigator: Matthew Harber, Todd Trappe, Leonard Kaminsky

Title: Enabling Techniques to Study Isolated Human Muscle Cells in Health and

Disease

Agency: National Institutes of Health

Amount: \$992,307 total costs Date submitted: April 2009

Starting and ending date: 10/1/09 - 9/3/11

Principal Investigators: Scott Trappe, Todd Trappe

Co-Investigator: Matthew Harber

Title: Human Skeletal Muscle Adaptations to Chronic Training with Protein

Supplementation

Agency: National Dairy Council

Amount: \$1,196,705 (\$1,081,948 direct costs)

Date submitted July 2007

Starting and ending date: 9/01/07 - 8/31/10

Principal Investigators: Scott Trappe, Leonard Kaminsky Co-Investigator: Matthew Harber, Trent Hargens, Todd Trappe

Title: Impact of Milk Consumption on Training Induced Improvements in Whole Muscle and

Single Muscle Fiber Size and Function in Older Individuals

Agency: National Dairy Council Amount: \$50,000 direct costs Date submitted March 2007

Starting and ending date: 9/01/07 – 8/31/08 Principal Investigator: Matthew Harber

Title: Muscle and Single Muscle Fiber Size and Function in Older Individuals

Agency: National Dairy Council Amount: \$50,000 direct costs Date submitted March 2007

Starting and ending date: 9/01/07 – 8/31/08 Principal Investigator: Matthew Harber

Title: Aging, Metabolism, and Resistance Exercise

Agency: National Institutes of Health (NIA)

Amount: \$150,000 direct costs

Submitted July 2006

Starting and ending date: 4/01/07 – 3/30/10 Principal Investigator: Matthew Harber

Co-Investigator: Leonard Kaminsky, Scott Trappe, Todd Trappe

Project Title: Evaluation of ISS Flight Exercise Countermeasures During a Flight

Analog Study (ECP Pilot Study)

Study Title: Influence of Exercise on Human Single Muscle Fiber Function With Long-Term Bed

Rest

Agency: National Aeronautical And Space Administration (NASA)

Amount: \$1,517,328 (\$1,061,069 direct costs)

Status: Submitted March 2006

Starting and ending date: 10/01/06 - 9/30/10

Principal Investigator: Scott Trappe Co-Investigator: Matthew Harber

Title: Whole Muscle and Myocellular Function: Impact of Obesity

Agency: American College of Sports Medicine

Amount: \$10,000 direct costs

Status: Submitted January 2006, Not Funded Starting and ending date: 7/01/06 – 6/30/07 Principal Investigator: Matthew Harber

Title: Fat Metabolism, Insulin Sensitivity, and Obesity: Role of Resistance

Exercise

Agency: National Institutes of Health (NIDDK)

Amount: \$150,000 direct costs Status: Submitted September 2005

Starting and ending date: 9/01/06 – 8/31/09 Principal Investigator: Matthew Harber

Co-Investigator: Leonard Kaminsky, Scott Trappe, Todd Trappe

#### **Invited Presentations**

Exercise Prescription: The basics and beyond. Indiana Society of Cardiovascular and Pulmonary Rehabilitation Annual Conference, Indianapolis, IN. April 2024.

Lost in Translation: Promoting physical activity or fitness in clinical practice. American College of Sports Medicine Annual Meeting, Orlando, FL. May 2019.

Exercise as Medicine: Therapeutic role in the prevention and treatment of diabetes. Indiana Central Association of Diabetes Educators, Fishers, IN. November 11, 2016.

Aerobic exercise induced muscle growth: practical applications and therapeutic potential. American College of Sports Medicine – Mid-Atlantic Regional Chapter, Harrisburg, PA; November 6, 2015.

Novel exercise protocols for promoting health. Supported Hearts Lecture Series. IU Health – Ball Memorial Hospital, Muncie, IN; October 10, 2013.

Exercise for healthy aging. Lotus Alternative Pain Center, Muncie, IN; January 9, 2013.

Is aerobic exercise the fountain of youth? Taylor University, Upland, IN; October 29, 2012.

Aerobic exercise as a countermeasure for sarcopenia. University at Buffalo, NY; October 19, 2012.

The anabolic power of aerobic exercise. American College of Sports Medicine – Mid-Atlantic Regional Chapter, Harrisburg, PA; November 2010.

Influence of nutrition on post-exercise gene expression and skeletal muscle protein synthesis. PepsiCo Long-Term Research Laboratory, The Science Park at Yale, New Haven, CT; February 2010.

Influence of amino acids on the anabolic response to resistance exercise. XIV International Symposium on Exercise and Sports Sciences, Buenos Aires, Argentina; June 2008.

Protein metabolism in the endurance athlete. XIV International Symposium on Exercise and Sports Sciences, Buenos Aires, Argentina; June 2008

Influence of carbohydrate availability on the adaptation to exercise. XIV International Symposium on Exercise and Sports Sciences, Buenos Aires, Argentina; June 2008

Dietary protein and the maintenance of muscle function with aging: muscle quantity vs. muscle quality. American College of Sports Medicine Annual Meeting, Indianapolis, IN; May 2008.

Impact of exercise on lipid-induced insulin resistance. Midwest American College of Sports Medicine, Muncie, IN; September, 2005.

Energy and macronutrient balance in the regulation of substrate metabolism. Anderson University, Anderson, IN; February 2005.

# Presentations (posters/papers presented professionally)

\*denotes student

\*Betscakos, M., \*Carlini, N., Fleenor, B., Harber, M. P., Mitoq acutely enhances myocardial perfusion in non-exercising middle-aged and older adults with lower cardiorespiratory fitness, National ACSM, American College of Sports Medicine, Boston, MA. June 2024.

\*Killam, M., \*Hughes, R., \*Carlini, N., Fleenor, B., Harber, M. P., Mitochondrial-Targeted Antioxidant (Mitoq) Ingestion Acutely Blunts VO2max in Physically Inactive Females, National ACSM, American College of Sports Medicine, Boston, MA. June 2024.

- \*Bennett, N., \*Carlini, N., Fleenor, B., Harber, M. P., Acute mitoq enhancing effects on vascular endothelial function are inversely associated with cardiorespiratory fitness, Midwest ACSM, American College of Sports Medicine, Indianapolis, IN. October 2023.
- \*Killam, M., \*Hughes, R., \*Carlini, N., Fleenor, B., Harber, M. P., Mitochondrial-Targeted Antioxidant (Mitoq) Ingestion Acutely Blunts VO2max in Physically Inactive Females, Midwest ACSM, American College of Sports Medicine, Indianapolis, IN. October 2023.
- \*Morris, C., \*Hughes, R., \*Carlini, N., Fleenor, B., Harber, M. P., Mitochondrial-Targeted Antioxidant (MitoQ) Ingestion Acutely Lowers Maximal Oxygen Pulse and Impairs Heart Rate Recovery, Midwest ACSM, American College of Sports Medicine, Indianapolis, IN. October 2023.
- \*<u>Van Eck, V.</u>, \*Hughes, R., \*Carlini, N., Fleenor, B., Harber, M. P., Mitochondrial-Targeted Antioxidant (MitoQ) Ingestion Does Not Influence Substrate Oxidation During Exercise, Midwest ACSM, American College of Sports Medicine, Indianapolis, IN. October 2023.
- \*Brown, M., \*Carlini, N., Harber, M. P., Fleenor, B., Mitochondrial-targeted antioxidant acutely increases vascular endothelial function in non-exercising middle-aged and older adults, Midwest ACSM, American College of Sports Medicine, Indianapolis, IN. October 2023.
- \*Betscakos, M., \*Carlini, N., Fleenor, B., Harber, M. P., Mitoq acutely enhances myocardial perfusion in non-exercising middle-aged and older adults with lower cardiorespiratory fitness, Midwest ACSM, American College of Sports Medicine, Indianapolis, IN. October 2023.
- \*<u>Dieter H</u>, \*Spencer E, Imboden M, Peterman J, Whaley M, Kaminsky L, Fleenor B, Harber M. Antihypertensive medications and peak exercise blood pressure response. Annual Meeting, American College of Sports Medicine, Denver, CO. May 2023.
- \*Brown M, \*Lynch K, Peterman J, Whaley M, Kaminsky L, Fleenor B, Harber M. Cardiorespiratory fitness and incident hypertension in apparently men and women from the BALL ST cohort. Annual Meeting, American College of Sports Medicine, Denver, CO. May 2023.
- <u>Fleenor B</u>, \*Sundelius G, \*Lynch K, Peterman J, Whaley M, Kaminsky L, Harber M. Cardiorespiratory fitness and change in pulse pressure in healthy adults from the BALL ST cohort. Annual Meeting, American College of Sports Medicine, Denver, CO. May 2023.
- \*Carllini NA, \*Hughes RP, \*Souzis A, Peterman J, Whaley M, Kaminsky L, Fleenor B, Harber M. Influence of cardiorespiratory fitness on ventilatory threshold. Annual Meeting, American College of Sports Medicine, Denver, CO. May 2023.
- \*Dieter H, \*Spencer E, Imboden M, Peterman J, Whaley M, Kaminsky L, Fleenor B, Harber M. Antihypertensive medications and peak exercise blood pressure response. Annual Meeting, Midwest Chapter, American College of Sports Medicine, Indianapolis, IN. October 2022.
- \*Brown M, \*Lynch K, Peterman J, Whaley M, Kaminsky L, Fleenor B, Harber M. Cardiorespiratory fitness and incident hypertension in apparently men and women from the BALL ST cohort. Annual Meeting, Midwest Chapter, American College of Sports Medicine, Indianapolis, IN. October 2022.
- \*Sundelius G, \*Lynch K, Peterman J, Whaley M, Kaminsky L, Fleenor B, Harber M. Cardiorespiratory fitness and change in pulse pressure in healthy adults from the BALL ST cohort.

- Annual Meeting, Midwest Chapter, American College of Sports Medicine, Indianapolis, IN. October 2022.
- \*Hughes RP, \*Souzis A, Peterman J, Whaley M, Kaminsky L, Fleenor B, Harber M. Influence of cardiorespiratory fitness on ventilatory threshold. Annual Meeting, Midwest Chapter, American College of Sports Medicine, Indianapolis, IN. October 2022.
- \*Hughes RP, \*Johnson L, \*Carlini NA, Fleenor BS, Harber MP. Effects of acute aerobic exercise on mental stress-induced arterial stiffness in black young adults. Integrative Physiology of Exercise, Baltimore, MD. September 2022.
- \*Carlini NA, MP Harber, BS Fleenor. Aortic perivascular adipose tissue density is associated with aging, vascular hemodynamics and myocardial perfusion. Integrative Physiology of Exercise, Baltimore, MD. September 2022.
- \*Johnson, L., \*Remington, H., Peterman, J. E., Kaminsky, L. A., Fleenor, B. S., Harber, M. P., Cardiopulmonary Exercise Test Responses are Related to Aortic Stiffness, Annual Meeting, American College of Sports Medicine, Virtual. May 2021.
- \*Carlini, N., \*Stump, O., \*Lumadue, E., Harber, M. P., Fleenor, B. S., Carotid-Femoral Pulse Wave Velocity is Associated with Nighttime Ambulatory Blood Pressure, Annual Meeting, American College of Sports Medicine, Virtual. May 2021.
- \*Novelli, D., Peterman, J. E., Fleenor, B. S., Whaley, M. H., Kaminsky, L. A., Harber, M. P., Oxygen Uptake Efficiency Slope (OUES) is Related to Mortality in Apparently Healthy Adults, Annual Meeting, American College of Sports Medicine, Virtual. May 2021.
- \*Quesada, D., Peterman, J. E., Kaminsky, L. A., Fleenor, B. S., Harber, M. P., Peak Exercise Ventilation and Mortality in Apparently Healthy Men and Women, Annual Meeting, American College of Sports Medicine, Virtual. May 2021.
- \*Lynch, K., \*Riccardi, M., Peterman, J. E., Fleenor, B. S., Whaley, M. H., Kaminsky, L. A., Harber, M. P., Ventilatory Threshold and All-cause Mortality in Apparently Healthy Adults, Annual Meeting, American College of Sports Medicine, Virtual, International. May 2021.
- \*Harman, T., Carlini, N., Harber, M. P., Kaminsky, L., Whaley, M., Fleenor, B., Cardiorespiratory fitness and vascular hemodynamics in middle-aged and older adults, Annual Meeting, American College of Sports Medicine, San Francisco, International. May 2020.
- \*James, D., Peterman, J., Fleenor, B., Kaminsky, L., Whaley, M., Harber, M. P., Influence of fasting blood glucose on cardiopulmonary responses to maximal exercise, Annual Meeting, American College of Sports Medicine, San Francisco, International. May 2020.
- Imboden, M., Kaminsky, L., Peterman, J., \*Hutzler, H., Whaley, M., Fleenor, B., Harber, M. P., Normalizing Cardiorespiratory Fitness To Fat-free Mass Improves Mortality Risk Prediction In Overweight Adults From The Ball St Cohort, Annual Meeting, American College of Sports Medicine, San Francisco, International. May 2020.
- \*Carlini, N., Harber, M. P., Fleenor, B., Age-Related Increase in Extra-Media Thickness is Associated with Arterial Stiffening and Carotid Blood Pressure, Experimental Biology, American

- Physiological Society, San Diego, CA, International. April 2020.
- <u>Peterman, J.,</u> Harber, M. P., Fleenor, B., Whaley, M., Kaminsky, L., Non-exercise Cardiorespiratory Fitness Prediction Equations: Accuracy Over Time in Apparently Healthy Adults, EPI | Lifestyle 2020 Scientific Sessions, American Heart Association, Phoenix, AZ, International. March 2020.
- Imboden, M. T., Kaminsky, L. A., Peterman, J. E., \*Hutzler, H. L., Whaley, M. H., Fleenor, B., Harber, M. P., Cardiorespiratory fitness normalized to fat-free mass and mortality risk, Scientific Sessions, American Heart Association, Philadelphia, PA. November 2019.
- <u>Fleenor, B.</u>, \*Carlini, N. A., Harber, M. P., Cardiorespiratory fitness & healthy vascular aging, National American College of Sports Medicine, American College of Sports Medicine, Orlando, FL, International. June 2019.
- \*Williams, M., \*Ivey, E., Kistler, B. M., Fleenor, B., Harber, M. P., Ambulatory central blood pressure over 24 hours following intermittent vs. continuous exercise, National American College of Sports Medicine, American College of Sports Medicine, Orlando, FL, International. June 2019.
- \*Shoukri, M., \*Burke, T. J., Kistler, B. M., Fleenor, B., Harber, M. P., Influence of acute aerobic exercise on 24-hour ambulatory central blood pressure, National American College of Sports Medicine, American College of Sports Medicine, Orlando, FL, International. June 2019.
- <u>Peterman, J. E.,</u> \*Grim, A. J., Kaminsky, L. A., Whaley, M. H., Fleenor, B., Harber, M. P., Methodological considerations for calculating ventilatory efficiency from a maximal exercise test in apparently healthy adults, National American College of Sports Medicine, American College of Sports Medicine, Orlando, FL, International. June 2019.
- \*Remington, H. E., \*Elston, D. R., Fleenor, B., Harber, M. P., Relationship between cardiorespiratory fitness and arterial stiffness in healthy adults, National American College of Sports Medicine, American College of Sports Medicine, Orlando, FL, International. June 2019.
- \*<u>Jones, O. E.,</u> \*Elston, D. R., Fleenor, B., Harber, M. P., Relationships among muscle function, skeletal muscle mass and arterial stiffness, National American College of Sports Medicine, American College of Sports Medicine, Orlando, FL, International. June 2019.
- \*Riccardi, M., \*Smith, B., \*Imboden, M., Kaminsky, L. A., Fleenor, B., Harber, M. P., Whaley, M. H., Change in cardiorespiratory fitness and prevalence of metabolic syndrome after an exercise program, Annual Meeting, American College of Sports Medicine, Orlando, FL, International. May 2019.
- \*Romanowski, S. M., \*Whetstone, D. R., Fleenor, B., Harber, M. P., Influence of an exercise program on cardiopulmonary exercise testing derived variables, Annual Meeting, American College of Sports Medicine, Orlando, FL, International. May 2019.
- <u>M Williams</u>\*, E Ivey\*, B Kistler, B Fleenor, and MP Harber. Ambulatory central blood pressure over 24 hours following intermittent vs. continuous exercise. Midwest American College of Sports Medicine, American College of Sports Medicine, Grand Rapids, MI. November 2018.
- NA Carlini\*, MP Harber, and B Fleenor. Cardiorespiratory fitness & healthy vascular aging. Midwest American College of Sports Medicine, American College of Sports Medicine, Grand

Rapids, MI. November 2018.

M Shoukri\*, TJ Burke\*, BM Kistler, B Fleenor, and MP Harber. Influence of acute aerobic exercise on 24-hour ambulatory central blood pressure. Midwest American College of Sports Medicine, American College of Sports Medicine, Grand Rapids, MI. November 2018.

M Riccardi\*, B Smith\*, M Imboden\*, LA Kaminsky, B Fleenor, MP Harber, and MH Whaley. Influence of an exercise program on cardiopulmonary exercise testing derived variables. Midwest American College of Sports Medicine, American College of Sports Medicine, Grand Rapids, MI. November 2018.

<u>SM Romanowski</u>\*, DR Whetstone\*, B Fleenor, and MP Harber. Influence of an exercise program on cardiopulmonary exercise testing derived variables. Midwest American College of Sports Medicine, American College of Sports Medicine, Grand Rapids, MI. November 2018.

<u>HE Remington</u>\*, DR Elston\*, B Fleenor, and MP Harber. Relationship between cardiorespiratory fitness and arterial stiffness in healthy adults", Midwest American College of Sports Medicine, American College of Sports Medicine, Grand Rapids, MI. November 2018.

<u>OE Jones</u>\*, DR Elston\*, B Fleenor, and MP Harber. Relationships among muscle function, skeletal muscle mass and arterial stiffness. Midwest American College of Sports Medicine, American College of Sports Medicine, Grand Rapids, MI. November 2018.

M Imboden\*, MP Harber, MH Whaley, WH Finch, DL Bishop, and LA Kaminsky. The Association Between Long- Term Changes in Cardiorespiratory Fitness and Mortality Risk. Scientific Sessions, American Heart Association, Chicago, IL, National. November 2018.

<u>M Imboden</u>\*, MP Harber, MH Whaley, WH Finch, DL Bishop, and LA Kaminsky. The Influence of Short-Term Changes in Cardiorespiratory Fitness Post- Exercise Training on Mortality Risk. Scientific Sessions, American Heart Association, Chicago, IL, National. November 2018.

MT Imboden\*, MP Harber, WH Finch, D Bishop, MW Whaley, and LA Kaminsky. Cardiorespiratory fitness measured from cardiopulmonary exercise testing for mortality risk prediction in apparently healthy men and women. American College of Sports Medicine, Minneapolis, MN. June 2018.

<u>N Koontz</u>, MT Imboden\*, EP Kelley\*, MP Harber, WH Finch, LA Kaminsky, and MH Whaley. Cardiorespiratory fitness is inversely associated with metabolic syndrome and clustering of metabolic risk factors: the Ball State University adult physical fitness study. American College of Sports Medicine, Minneapolis, MN. June 2018.

<u>NA Carlini</u>\*, AH Steinbeck\*, B Smith\*, B Fleenor, and MP Harber. Acute influence of caffeine on arterial stiffness and central blood pressures following aerobic exercise. American College of Sports Medicine, Minneapolis, MN. June 2018.

<u>D Young</u>\*, A Sutter\*, E Hayes, and MP Harber. The impact of treadmill workstation use during the workday on risk factors of cardiovascular disease. Midwest American College of Sports Medicine Annual Meeting, American College of Sports Medicine, Grand Rapids, MI. November 11, 2017.

C Alther\*, R Aschenbrenner\*, A Freeman\*, AT Del Pozzi, DC Dickin, PR Nagelkirk, and MP

Harber. The influence of combined whole body vibration and dynamic exercise training on peripheral and central blood pressure in healthy older men and women. Midwest American College of Sports Medicine Annual Meeting, American College of Sports Medicine, Grand Rapids, MI. November 11, 2017.

<u>NA Carlini</u>\*, AH Steinbeck\*, B Smith\*, B Fleenor, and MP Harber. Acute influence of caffeine on arterial stiffness and central blood pressures following aerobic exercise. Midwest American College of Sports Medicine, Midwest American College of Sports Medicine, Grand Rapids, MI. November 10, 2017.

<u>K Soave</u>\*, A Freeman\*, R Aschenbrenner\*, AT Del Pozzi, DC Dickin, MP Harber, and PR Nagelkirk. Whole-body vibration exercise does not affect fibrinolytic potential in older adults. Midwest American College of Sports Medicine Annual Meeting, American College of Sports Medicine, Grand Rapids, MI. November 10, 2017.

MT Imboden\*, EP Kelley\*, MP Harber, WH Finch, LA Kaminsky, and MH Whaley. Cardiorespiratory fitness is inversely associated with metabolic syndrome and clustering of metabolic risk factors: the Ball State University adult physical fitness study. Midwest Chapter, American College of Sports Medicine, Grand Rapids, MI. November 4, 2017.

<u>NL Koontz</u>, ZG Johnson\*, MH Whaley, LA Kaminsky, and MP Harber. Fasting plasma glucose is associated with the heart rate response to maximal exercise. American College of Sports Medicine Annual Meeting, Denver, CO. May 31, 2017.

MT Imboden\*, A Swartz, MP Harber, and LA Kaminsky. Reference standards for lean mass measures using ge dual energy x-ray absorptiometry. American College of Sports Medicine Annual Meeting, Denver, CO. May 31, 2017.

<u>TJ Burke</u>\*, K Ostojic\*, NL Koontz, LA Kaminsky, and MP Harber. The influence of exercise volume on cardiorespiratory fitness and cardiovascular disease risk factor. American College of Sports Medicine Annual Meeting, Denver, CO. May 31, 2017.

<u>EM Ivey</u>\*, JR Davis\*, and MP Harber. Arterial stiffness: relationship with lean mass and cardiorespiratory fitness. Midwest American College of Sports Medicine Annual Meeting, American College of Sports Medicine, Fort Wayne, IN. November 4, 2016.

<u>EP Kelley</u>\*, JM Bock\*, LA Kaminsky, and MP Harber. Establishing the reliability of several consumer-based physical activity monitors", Midwest American College of Sports Medicine Annual Meeting, American College of Sports Medicine, Fort Wayne, IN. November 4, 2016.

MT Imboden\*, A Swartz, MP Harber, and LA Kaminsky. Reference standards for lean mass measures using GE dual energy x-ray absorptiometry. Midwest American College of Sports Medicine Annual Meeting, American College of Sports Medicine, Fort Wayne, IN. November 4, 2016.

<u>JM Adkins</u>\*, SB Wiese\*, AL Sutter\*, MP Harber, and ES Hayes. The effect of treadmill workstations on CVD risk factors, work productivity and quality of life. Midwest American College of Sports Medicine Annual Meeting, American College of Sports Medicine. November 4, 2016.

SB Wiese\*, JM Adkins\*, AL Sutter\*, MP Harber, and ES Hayes. The effect of treadmill

workstations on workday and after work physical activity. Midwest American College of Sports Medicine Annual Meeting, American College of Sports Medicine, Fort Wayne, IN. November 4, 2016.

<u>TJ Burke</u>\*, K Ostojic\*, NL Koontz, LA Kaminsky, and MP Harber. The influence of exercise volume on cardiorespiratory fitness and cardiovascular disease risk factor. Midwest American College of Sports Medicine Annual Meeting, American College of Sports Medicine, Fort Wayne, IN. November 4, 2016.

MP Harber, E Ivey\*, E Snyder\*, K Arvin\*, J Furrow\*, and E Hayes. High intensity interval exercise acutely reduces central blood pressure and peripheral arterial stiffness. American College of Sports Medicine Annual Meeting, American College of Sports Medicine, Boston, MA. June 1, 2016.

M Tuttle\*, WA Welch, AM Swartz, AHK Montoye, M Harber, and LA Kaminsky. Reference values for body fat percentage obtained from dual energy x-ray absorptiometry in adults. American College of Sports Medicine Annual Meeting, American College of Sports Medicine, Boston, MA. June 1, 2016.

<u>MP Harber</u>, AH Montoye, MW Whaley, and LA Kaminsky. Cardiorespiratory fitness has lowered over the past 40 years in self-referred exercise program participants. Epi/Lifestyle Scientific Sessions, American Heart Association, Phoenix. March 3, 2016.

<u>E Ivey</u>\*, E Snyder\*, K Arvin\*, J Furrow\*, E Hayes and MP Harber. High intensity interval exercise acutely reduces central blood pressure and peripheral arterial stiffness. Mid-West American College of Sports Medicine, American College of Sports Medicine, Fort Wayne, IN. November 6, 2015.

<u>M Harber</u>, M Suer\*, C Wolff\*, and A Konopka\*. Influence of age and gender on factors regulating skeletal muscle size with aerobic exercise training. American College of Sports Medicine; Orlando, FL, May-June 2014.

<u>CA Wolff</u>\*, MK Undem\*, AR Konopka\*, TA Trappe, and MP Harber. Enhanced whole body maximal aerobic capacity following 12-weeks of alternating single-leg knee extension exercise training. Experimental Biology; San Diego, CA. April 2014.

<u>AR Konopka</u>, MK Undem\*, CA Wolff\*, and MP Harber. Effect of age and aerobic exercise training on markers of skeletal muscle mitochondrial regulation. American College of Sports Medicine; Indianapolis, IN, May-June 2013.

MK Undem\*, AR Konopka\*, B Jemiolo, SW Trappe, and MP Harber. Myofiber composition and fiber-type specific expression of oxidative capacity related genes following acute aerobic exercise. American College of Sports Medicine; Indianapolis, IN, May-June 2013.

MK Undem\*, AR Konopka\*, U Raue, B Jemiolo, S Trappe and MP Harber. Skeletal muscle fiber type-specific transcriptional response to aerobic exercise. Integrative Biology of Exercise; Westminster, CO, October 2012.

M Harber, A Konopka\*, M Undem\*, J Hinkley\*, K Minchev, L Kaminsky, T Trappe, and S Trappe.

Age-specific adaptations in myofiber contractile function in response to aerobic exercise training in young and older men. Integrative Biology of Exercise; Westminster, CO, October 2012.

<u>C Wolff</u>\*, J Hinkley\*, A Konopka\*, B Jemiolo, T Trappe, S Trappe, and M Harber. Short-term intense exercise training reduces markers of cellular stress in human skeletal muscle. Integrative Biology of Exercise; Westminster, CO, October 2012.

<u>AR Konopka</u>\*, MP Harber, MK Undem\*, LA Kaminsky, TA Trappe, and SW Trappe. Aerobic exercise training induces muscle hypertrophy in both young and old men. American College of Sports Medicine; San Francisco, CA, May-June 2012.

<u>JM Hinkley</u>\*, AR Konopka\*, MK Undem\*, B Jemiolo, TA Trappe, SW Trappe, and MP Harber. Alterations in the exercise-induced transcriptional response following short-term aerobic exercise training. American College of Sports Medicine; San Francisco, CA, May-June 2012.

<u>TA Trappe</u>, AR Konopka\*, CC Carroll, JM Dickinson, SW Trappe, and MP Harber. Aerobic vs resistance exercise for combating sarcopenia in older individuals: A case study. American College of Sports Medicine; Denver, CO, May-June 2011.

<u>RA Standley</u>\*, MP Harber, JD Lee\*, AR Konopka\*, SW Trappe, and TA Trappe. Influence of aerobic exercise training on MRI determined patellar tendon properties in older women. American College of Sports Medicine; Denver, CO, May-June 2011.

<u>AR Konopka</u>\*, B Jemiolo, SW Trappe, and MP Harber. Myosin heavy chain plasticity in aging skeletal muscle with aerobic exercise training. American College of Sports Medicine; Denver, CO, May-June 2011.

<u>JM Hinkley</u>\*, PT Reidy\*, AR Konopka\*, MK Undem\*, and MP Harber. Relationship between alpha-actini-3 protein content and single myofiber contractile properties of distance runners. American College of Sports Medicine; Denver, CO, May-June 2011.

<u>AJ Galpin</u>\*, U Raue, B Jemiolo, MP Harber, TA Trappe, and SW Trappe. Novel application of western blotting for human skeletal muscle fiber type specific protein content assessment. American College of Sports Medicine; Denver, CO, May-June 2011.

<u>P Reidy</u>\*, JM Hinkley\*, S Trappe, and M Harber. Skeletal muscle myosin light chain composition of highly-trained endurance runners Experimental Biology; Washington, D.C., April 2011.

<u>PT Reidy</u>\*, JM Hinkley\*, AR Konopka\*, SW Trappe, TA Trappe, and MP Harber. Muscle protein composition in aerobically trained skeletal muscle. American College of Sports Medicine; Denver, CO, May-June 2011.

MK Undem\*, PT Reidy\*, AR Konopka\*, JM Hinkley\*, and MP Harber. American College of Sports Medicine; Denver, CO, May-June 2011.

<u>JM Dickinson</u>\*, JD Lee\*, BE Sullivan\*, MP Harber, SW Trappe, and TA Trappe. A method to study in vivo protein synthesis in slow- and fast-twitch human muscle fibers. American College of Sports Medicine; Baltimore, MD, June 2010.

<u>SA Newsom</u>\*, S Schenk, MP Harber, CF Burant, and JF Horowitz. Insulin sensitivity is lowest in obese women with high rates of fatty acid uptake. ACSM Conference on Integrative Physiology of Exercise. Miami Beach, FL, September 2010.

M Harber, A Konopka\*, B Jemiolo, T Trappe, S Trappe, and P Reidy\*. Post-exercise feeding attenuates proteolytic gene expression in human skeletal muscle. Experimental Biology; Anaheim, CA, April 2010.

<u>A Konopka</u>\* and M Harber. HSP70 response to aerobic training in aging human skeletal muscle. Experimental Biology; Anaheim, CA, April 2010.

<u>A Konopka</u>\*, P Reidy\*, B Jemiolo, L Kaminsky, T Trappe, S Trappe, and M Harber. Training induced improvements in aerobic capacity can occur independent of PGC-1 $\alpha$  in aging human skeletal muscle. Experimental Biology; Anaheim, CA, April 2010.

<u>P Reidy</u>\*, A Konopka\*, T Trappe, and M Harber. Skeletal muscle protein synthesis is elevated after moderate-intensity aerobic exercise. Experimental Biology; Anaheim, CA, April 2010.

<u>M Harber</u>, A Konopka\*, M Douglass\*, K Minchev, L Kaminsky, T Trappe, and S Trappe. Aerobic exercise training improves whole muscle and single myofiber size and contractile function in older women. 14th International Biochemistry of Exercise Conference – Muscles as Molecular and Metabolic Machines. Guelph, ON Canada, June 2009.

<u>J Crane</u>\*, J Dickinson\*, S Trappe, T Trappe and M Harber. Tracer selection does not influence the assessment of protein synthesis rates at rest and post-exercise in multiple human skeletal muscles. 14th International Biochemistry of Exercise Conference – Muscles as Molecular and Metabolic Machines. Guelph, ON Canada, June 2009.

<u>A Konopka</u>\*, M Douglass\*, B Jemiolo, L Kaminsky, T Trappe, S Trappe, and M Harber. Myogenic and proteolytic gene expression is downregulated in skeletal muscle of older women after aerobic training. 14th International Biochemistry of Exercise Conference – Muscles as Molecular and Metabolic Machines. Guelph, ON Canada, June 2009.

<u>SA Newsom</u>\*, S Schenk\*, KM Thomas\*, MP Harber, ND Knuth\*, N Golderg, and JF Horowitz. Energy deficit after exercise may not contribute to the exercise-induced increase in insulin sensitivity. 14th International Biochemistry of Exercise Conference – Muscles as Molecular and Metabolic Machines. Guelph, ON Canada, June 2009.

M Harber, J Crane\*, B Jemiolo, T Trappe and S Trappe. Running alters the expression of growth related genes in the vastus lateralis and soleus muscles. American Physiological Society Intersociety Meeting: The Integrative Biology of Exercise – V, 4.28, Hilton Head, SC; September 2008.

<u>J Crane</u>\*, T Trappe, J Dickinson\*, S Trappe and M Harber. Protein synthesis response to running in human vastus lateralis and soleus muscles. American Physiological Society Intersociety Meeting: The Integrative Biology of Exercise – V, 4.29, Hilton Head, SC; September 2008.

<u>A Konopka</u>\*, J Crane\*, B Jemiolo, T Trappe, S Trappe and M Harber. Amino acid infusion alters growth related gene expression in human skeletal muscle. American Physiological Society Intersociety Meeting: The Integrative Biology of Exercise – V, 21.15, Hilton Head, SC; September 2008.

<u>T Conley</u>\*, M Harber, J Dickinson\*, J Crane\*, U Raue, N Luden\*, E Loius\*, E Hayes\*, B Jemiolo, T Trappe and S Trappe. Effect of amino acid supplementation on myogenic and proteolytic gene

- expression following resistance exercise. American Physiological Society Intersociety Meeting: The Integrative Biology of Exercise V, 35.18, Hilton Head, SC; September 2008.
- <u>T Conley</u>\*, M Harber, Y Yang, U Raue, E Loius\*, B Jemiolo, T Trappe and S Trappe. Effect of amino acid supplementation on myogenic and proteolytic gene expression following resistance exercise. American Physiological Society Intersociety Meeting: The Integrative Biology of Exercise V, 35.19, Hilton Head, SC; September 2008.
- <u>S Newsom</u>\*, K Thomas, S Schenk\*, M Harber, N Knuth\*, N Goldenburg and J Horowitz. Reducing dietary fat from meals after exercise enhances muscle glycogen resynthesis in unfit adults. American Physiological Society Intersociety Meeting: The Integrative Biology of Exercise V, 22.21, Hilton Head, SC; September 2008.
- <u>A Cornford</u>\*, M Li, S Schenk\*, M Harber and J Horowitz. Alterations in lipid metabolism after one day of overeating are reversed by a single session of exercise. American Physiological Society Intersociety Meeting: The Integrative Biology of Exercise V, 22.25, Hilton Head, SC; September 2008.
- M Harber and S Trappe. Peak power is elevated in slow and fast-twitch muscle fibers from competitive distance runners. Experimental Biology; San Diego; April 2008.
- <u>P Nagelkirk</u>, R Pfeiffer\*, M Harber, and L Kaminsky. Fibrinolytic responses to resistance training in women. American College of Sports Medicine; New Orleans, June 2007.
- <u>M Harber</u>, K Weindel\*, J Crane\*, M Douglass\*, T Trappe, S Trappe, and W Fink. Resistance exercise reduces intramuscular substrate stores through activation of ERK1/2 in obese women. Experimental Biology; Washington, D.C.; April 2007.
- <u>S Surya</u>, N Goldenberg, A Sakharova, MP Harber, K Symons, JF Horowitz, and A Barkan. Differential responses of IGF-1 and substrate metabolism to continuous or pulsatile administration of growth hormone in obesity. The Endocrine Society; Toronto, June 2007.
- <u>M Harber</u>, K Weindel\*, J Crane\*, M Douglass\*, T Trappe, S Trappe, and W Fink. Resistance exercise reduces intramuscular substrate stores through activation of ERK1/2 in obese women. Adult Skeletal Muscle Symposium: Growth, Function, and Mobility; Indianapolis, June 2007.
- <u>J Crane</u>\*, M Douglass\*, T Trappe, S Trappe, and M Harber. Acute resistance exercise activates MAP kinase signaling in skeletal muscle of overweight women. Adult Skeletal Muscle Symposium: Growth, Function, and Mobility; Indianapolis, June 2007.
- <u>E Weinheimer</u>\*, B Jemiolo\*, C Carroll, M Harber, J Haus\*, N Burd\*, J LeMoine\*, S Trappe, and T Trappe. Resistance exercise and cyclooxygenase (COX) expression in human skeletal muscle: Implications for COX-inhibiting drugs and protein synthesis. Experimental Biology; Washington, D.C.; April 2007.
- <u>J Crane</u>\*, M Douglass\*, T Trappe, S Trappe, and M Harber. Acute resistance exercise activates MAP kinase signaling in skeletal muscle of overweight women. Experimental Biology; Washington, D.C.; April 2007.
- <u>A Sakharova</u>, S Surya, N Goldenberg, M Harber, K Symons, J Horowitz, and A Barkan. Endogenous growth hormone regulates fuel metabolism during fasting. The Endocrine Society;

Toronto, June 2007.

- <u>JF Horowitz</u>, MP Harber, CR Chrivastava, CF Burant, and S Schenk\*. Improved insulin sensitivity after weight loss is mediated by a reduction in plasma fatty acid availability and uptake. American Diabetes Association; Washington, D.C.; June, 2006.
- <u>S Schenk</u>\*, MP Harber, CR Shrivastava, CF Burant, and JF Horowitz. Increased skeletal muscle oxidative capacity after endurance exercise training does not protect against fatty acid-induced insulin resistance. American Diabetes Association; Washington, D.C.; June, 2006.
- <u>S Schenk</u>\*, CE McCurdy\*, MP Harber and JF Horowitz. FAT/CD36 immunoprecipitates with carnitine palmitoyl transferase-I in human skeletal muscle and this physical association increases with endurance exercise training. American Diabetes Association; San Diego; June, 2005.
- <u>MP Harber</u>, LM Larkin, JA Ashton-Miller, and JF Horowitz. Metabolic adaptations to resistance training in skeletal muscle from young and older women. American College of Sports Medicine; Denver; June, 2006.
- <u>CA Moore</u>\*, AC Fry, DB Thomason, AR Gosmanov, and MP Harber. ERK 1/2 phosphorylation in human skeletal muscle of elite and recreationally weight trained men. American College of Sports Medicine; Denver; June, 2006.
- <u>MP Harber</u>, S Schenk\*, AL Barkan, and JF Horowitz. Dietary carbohydrate restriction stimulates whole-body proteolysis and skeletal muscle protein synthesis. American College of Sports Medicine; Nashville; June, 2005.
- <u>MP Harber</u>, S Schenk\*, AL Barkan, and JF Horowitz. Adaptations in glucose and protein metabolism after short-term dietary carbohydrate restriction. Integrative Biology of Exercise; Austin; October, 2004.
- <u>MP Harber</u>, AK Fox\*, AE Kaufman\*, and JF Horowitz. Energy deficit alters carbohydrate oxidation and PDK4 mRNA independent of carbohydrate availability. American College of Sports Medicine; Indianapolis; May, 2004.
- <u>A Lyon</u>\*, D Costill, S Trappe, and M Harber\*. Physiological changes during 35-years of competitive distance running: A longitudinal study. American College of Sports Medicine; Indianapolis; May, 2004.
- <u>P Gallagher</u>, M Harber\*, K Minchev, D Whitsett, and S Trappe. Comparison of gastrocnemius muscle single fiber function between college elite runners and moderately active athletes. American College of Sports Medicine; Indianapolis; May, 2004.
- <u>S Trappe</u>, M Harber\*, P Gallagher, K Minchev, and D Whitsett. Effect of marathon run training on single muscle fiber function. American College of Sports Medicine; Indianapolis; May, 2004.
- <u>A Creer</u>\*, Y Yang\*, P Gallagher, M Harber\*, D Whitsett, and S Trappe. Marathon run training alters single muscle fiber MHC distribution. American College of Sports Medicine; Indianapolis; May, 2004.
- <u>S Mazzetti</u>\*, P Gallagher, M Harber\*, B Jemiolo, and S Trappe. Mitogenic signaling responses in human skeletal muscle with intense contractions. Experimental Biology; Baltimore; April, 2004.

- <u>MP Harber</u>\*, PM Gallagher, AR Creer\*, KM Minchev, and SW Trappe. Single muscle fiber contractile properties during a competitive season in male runners. American College of Sports Medicine; San Francisco; May, 2003.
- <u>M Harber</u>\*, P Gallagher, A Creer\*, S Mazzetti, T Trappe\*, B Alkner, P Tesch, and S Trappe. Human single muscle fiber morphology with 84-d bedrest and resistance exercise. Experimental Biology; San Diego; April, 2003.
- <u>DL Williamson</u>\*, PM Gallagher, MP Harber\*, C Hollon, and SW Trappe. Human skeletal muscle mitogen-activated protein kinase pathway activation: Effects of age and exercise. Experimental Biology; San Diego; April, 2003.
- <u>P Gallagher</u>, M Harber\*, S Trappe. Human single muscle fiber contractile function from multiple biopsies and consecutive fiber segments. Experimental Biology; San Diego; April, 2003.
- <u>S Trappe</u>, P Gallagher, M Harber\*, T Trappe, B Alkner, and P Tesch. Human single muscle fiber function with 84-d bedrest and resistance exercise. Experimental Biology; San Diego; April, 2003.
- M Harber\*, PM Gallagher, J Carrithers\*, T Trappe, and S Trappe. Single muscle fiber shortening velocity is not altered with age. Experimental Biology; New Orleans; April, 2002.
- <u>S Trappe</u>, P Gallagher, M Harber\*, J Carrithers\*, and T Trappe. Single muscle power with aging. Experimental Biology; New Orleans; April, 2002.
- <u>P Gallagher</u>, M Harber\*, J Carrithers\*, T Trappe, and S Trappe. Single muscle fiber quality is maintained with age. Experimental Biology; New Orleans; April, 2002.
- <u>DL Williamson</u>\*, MP Harber\*, U Raue\*, PM Gallagher, and SW Trappe. Comparison of three methodologies for fiber type determination in human vastus lateralis muscle. Experimental Biology; New Orleans; April, 2002.
- <u>MP Harber</u>\*, PM Gallagher, J Trautmann, and SW Trappe. Myosin heavy chain composition of single muscle fibers in male runners. American College of Sports Medicine; St. Louis; May, 2002.
- <u>S Trappe</u>, P Gallagher, M Harber\*, J Carrithers\*, W Evans, and T Trappe. Muscle power with aging: Whole muscle and myocellular determinants of quality. American College of Sports Medicine; St. Louis; May, 2002.
- <u>J Carrithers</u>\*, S Trappe, P Gallagher, M Harber\*, D Sullivan, T Trappe. Muscle strength with aging: whole muscle and myocellular determinants of quality. American College of Sports Medicine; St. Louis; May, 2002.
- <u>S Witkowski</u>, T Karlsen, G Resaland, M Sivieri, R Yates, M Harber, RL Ge, J Stray-Gundersen, and BD Levine. Optimal altitude for living high-training low. American College of Sports Medicine; Baltimore; May, 2001.
- <u>JR Hinojosa</u>, MV Sivieri, MP Harber, T Karlsen, RL Ge, W Fong, J Stray-Gundersen, BK Levine, FACSM. Dose-response relationship between altitude and erythropoietin release. American College of Sports Medicine National Conference, Indianapolis, IN; May, 2000.

MP Harber\*, JC Smith\*, MR Rubin\*, LW Weiss, and AC Fry. Effects of circuit weight training on myosin heavy chain content. National Strength and Conditioning Association National Convention; Kansas City, MO; June, 1999.

MR Rubin\*, MP Harber\*, AC Fry, LW Weiss, MH Ferkin. Endocrine responses to 10 weeks of circuit weight training. National Strength and Conditioning Association National Convention; Kansas City, MO; June, 1999.

<u>Z Mursilatis</u>\*, MR Rubin\*, AC Fry, MP Harber\*, JC Smith\*. Hormonal responses to off-season training for american football. National Strength and Conditioning Association National Convention; Kansas City, MO; June, 1999

<u>MP Harber</u>\*, JS Webber\*, and AC Fry. Myosin heavy chain characteristics of elite competitive powerlifters, Southeast American College of Sports Medicine Regional Conference, Destin, FL; December, 1998.

MP Harber\*, AC Fry, and M Fry. Competitive stress characteristics of elite collegiate weightlifters, National Strength and Conditioning National Convention, Nashville, TN; June, 1998.

AC Fry, MP Harber\*, M Vaczi\*, LW Weiss, and NA Pattison. Muscle fiber characteristics of elite powerlifters, National Strength and Conditioning National Convention, Nashville, TN; June, 1998.

### **Book Chapters**

Harber M. P. (in press). Health Related Physical Fitness Testing and Interpretation. *ACSM's Guidelines for Exercise Testing and Prescription* (12th ed.). Wolters Kluwer. Submitted 2023

Harber, M. P., Fleenor, B., Brubaker, P. (in press). Cardiovascular Diseases. *ACSM's Clinical Exercise Physiology* (2nd ed.). Wolters Kluwer. Submitted 2023

# **Courses Taught at Ball State University**

EXSC 293 – Foundations of Exercise Physiology

EXSC 493 – Advanced Exercise Physiology

EXSC 603 – Exercise Physiology

EXSC 611 – Research Methods

EXSC 622 – Exercise Prescription

EXSC 623 – Exercise Testing and Interpretation

EXSC 633 - Seminar in Exercise Science

EXSC 638 – Electrocardiography

EXSC 639 – Seminar in Cardiopulmonary Rehabilitation

EXSC 640 – Exercise for Chronic Diseases

EXSC 698 – Internship in Exercise Program

KINE 699 - Independent Study CEP

RES 697 - Research Paper CEP

THES 698 - Thesis CEP

# **Student Mentorship**

#### **Master's Thesis Committees**

Mikaela Brown, Clinical Exercise Physiology, May 2024

Hunter Dieter, Clinical Exercise Physiology, May 2024

Gabi Sundelius, Clinical Exercise Physiology, May 2024

Morgan Mydloski, Exercise Physiology, May 2024

Gerard Boyd, Exercise Physiology, May 2024

Ethan Robbins, Exercise Physiology, May 2024

Grace Durand, Clinical Exercise Physiology, May 2023

Ryan Hughes, Clinical Exercise Physiology, May 2023

Ian Holder, Exercise Physiology, May 2023

Lakeisha Johnson, Clinical Exercise Physiology, May 2022

Kerry Lynch, Clinical Exercise Physiology, May 2022

Dominic Novelli, Clinical Exercise Physiology, May 2022

Shaleen Shafer, Clinical Exercise Physiology, May 2022

Emily Spencer, Clinical Exercise Physiology, May 2022

Daniela Quesada, Clinical Exercise Physiology, May 2022

Jana Swanson, Clinical Exercise Physiology, May 2021

Sydney DeJonge, Exercise Physiology, May 2021

Danielle James, Clinical Exercise Physiology, May 2021

Julio Rodriguez, Clinical Exercise Physiology, May 2021

Anna Souzis, Clinical Exercise Physiology, May 2021

Anya Kalenta, Exercise Physiology, May 2021

Dillon Kuszmaul, Exercise Physiology, July 2020

Masotoshi Naruse, Exercise Physiology, July 2020

Colleen Lynch, Exercise Physiology, July 2020

Yasin Ali Parh, Mathematics, May 2020

Hannah Remington, Clinical Exercise Physiology, May 2020

Matthew Riccardi, Clinical Exercise Physiology, May 2020

McKenzie Williams, Clinical Exercise Physiology, May 2020

Olivia Jones, Clinical Exercise Physiology, May 2020

Spencer Romanowski, Clinical Exercise Physiology, May 2020

Malvina Shoukri, Clinical Exercise Physiology, May 2020

Adam Grim, Clinical Exercise Physiology, May 2019

Elizabeth Martin, Clinical Exercise Physiology, May 2019

Derek Young, Clinical Exercise Physiology, May 2019

Nicholas Carlini, Clinical Exercise Physiology, May 2019

William Fountain, Exercise Physiology, May 2019

Courtney Mudd, Clinical Exercise Physiology, May 2019

Emily Rabalais, Clinical Exercise Physiology, May 2019

Cody Altherr, Clinical Exercise Physiology, May 2019

Ashton Freeman, Exercise Physiology, June 2018

Thomas Burke, Clinical Exercise Physiology, May 2018

Dan Elston, Clinical Exercise Physiology, May 2018

Erika Silva, Clinical Exercise Physiology, May 2018

Dylan Whetstone, Clinical Exercise Physiology, May 2018

Clifford Heidorn, Exercise Physiology, May 2018

Brittany Smith, Clinical Exercise Physiology, May 2018

Rachel Aschenbrenner, Clinical Exercise Physiology, May 2017

Allison Steinbeck, Clinical Exercise Physiology, May 2017

Alexis Sutter, Clinical Exercise Physiology, May 2017

Chadwick Balilo, Clinical Exercise Physiology, May 2017

Elizabeth Kelley, Clinical Exercise Physiology, May 2017

Mary Nagle, Clinical Exercise Physiology, May 2017

Zoe Johnson, Clinical Exercise Physiology, May 2016

Kelsie Ostojic, Clinical Exercise Physiology, May 2016

Josh Bock, Clinical Exercise Physiology, May 2016

Mary Hidde, Clinical Exercise Physiology, May 2016

Jordan Davis, Clinical Exercise Physiology, May 2016

Christopher Wolff, Exercise Physiology, July 2013

Matthew Overstreet, Exercise Physiology, May 2013

Hannah Claeys, Clinical Exercise Physiology, May 2013

Justin Guilkey, Exercise Physiology, May 2012

James Hinkley, Exercise Physiology, July 2011

Jessi VanReenen, Clinical Exercise Physiology, May 2010

Paul Reidy, Exercise Physiology, May 2010

Adam Konopka, Exercise Physiology, May 2008

Lisa Guth, Exercise Physiology, July 2008

Dianne Campbell, Clinical Exercise Physiology, July 2008

Justin Crane, Exercise Physiology, May 2008

Lauren Hanna, Exercise Physiology, May 2008

Nicolas Burd, Exercise Physiology, May 2007

Jonah Lee, Exercise Physiology, May 2007 Rebecca Pfeiffer, Clinical Exercise Physiology, May 2007

#### **Doctoral Committees**

Nicolas Carlini, Human Bioenergetics, July 2023

Mary Tuttle, Human Bioenergetics, July 2018

Cemal Ozemek, Human Bioenergetics, July 2013

Miranda Undem, Human Bioenergetics, July 2013

Timothy Burnett, Human Bioenergetics, July 2013

Adam Konopka, Human Bioenergetics, July 2012

Bridget Sullivan, Human Bioenergetics, July 2010

Nicholas Luden, Human Bioenergetics, July 2009

Jenny LeMoine, Human Bioenergetics, May 2008

### **Professional Honors & Awards**

Outstanding Faculty Member, School of Kinesiology (Ball State). 2024

Outstanding Faculty Member, College of Health (Ball State). 2024

American Heart Association Research Leaders Academy. 2019

Fellow, American College of Sports Medicine. 2012

National Institutes of Health Early Career Reviewer Program. 2012

Outstanding Junior Faculty Member, Ball State University. 2009 – 2010

Outstanding Tenure Track Teacher in the School of Physical Education, Sport, and Exercise

Science, Ball State University. 2006-2007

National Research Service Award (Individual), National Institutes of Health. 2005

# **Professional Memberships**

2020 – Clinical Exercise Physiology Association

2014 – American Heart Association

2001 – American College of Sports Medicine

2001 – 2015 American Physiological Society

2004 – 1008 North American Association for the Study of Obesity

1997 – 1999 National Strength and Conditioning Association

# **Professional Service (selected)**

Midwest ACSM Leadership & Mentorship Program

Editorial Board Member – Journal of Applied Physiology

Editorial Board Member – Journal of Cardiopulmonary Rehabilitation and Prevention

Topical Representative – Clinical Exercise Physiology – American College of Sports Medicine

Program Planning Committee (National Conference) - American College of Sports Medicine

Running with the Giants Taskforce – American College of Sports Medicine

#### **Journal Reviewer**

American Journal of Physiology; Endocrinology and Metabolism

American Journal of Physiology; Regulatory, Integrative, and Comparative Physiology

Annals of Medicine

Applied Physiology, Nutrition, and Metabolism

BMJ Open Sport & Exercise Medicine

Canadian Journal of Applied Physiology

Endocrinology, Diabetes, and Metabolism

**Endocrine Research** 

**Exercise and Sport Science Reviews** 

**Experimental Physiology** 

International Journal of Sports Medicine

International Journal of Sport Nutrition and Exercise Metabolism

Journal of Applied Physiology

Journal of Cardiopulmonary Rehabilitation and Prevention

Journal of Gerontology: Biological Sciences

Journal of Gerontology: Medical Sciences

Journal of Physiology

Journal of Sports Sciences

Journal of the American Aging Association

Journal of the International Society of Sports Nutrition

Medicine & Sciences in Sports & Exercise

Nutrition & Metabolism

Open Access Journal of Sports Medicine

Physiological Reports

PLoS One

Scandinavian Journal of Medicine and Science in Sports

Sports Medicine

Strength and Conditioning Journal

The Physician and Sportsmedicine

# **University Service (selected)**

Clinical Exercise Physiology Non-Tenure Line Faculty Search Committee, 2023-2024

The Korsgaard Committee (School), 2023

Exercise Physiology Tenure-Line Faculty Search Committee, 2022

Promotion and Tenure Committee - Nutrition and Health Sciences, 2022

School of Kinesiology Chair Election Committee, 2022

Chair, Promotion and Tenure Committee (School), 2021 – 2022

Promotion and Tenure Committee (College), 2021 – 2022

Promotion and Tenure Committee (School), 2017 – 2018; 2020 – 2021 (Chair); 2023 – Present (Secretary)

Clinical Advisory Group (College), 2019 – 2021

Interprofessional Education and Practice Curriculum Advisory Group (College), 2019 – 2021

HIPPA Task Force (College), 2019 - 2021

PhD Program Task Force (College), 2018 – 2019

Search Committee: HPL Research Nurse, 2019

Fisher Institute of Health and Well-being Research Associate Search Committee, 2018

Teaching Evaluation Committee (University), 2018 – 2020

Faculty Mentor (School), 2017 - 2021

Human Performance Laboratory Research Associate Search Committee, 2017

Exercise Physiology Tenure-Line Faculty Search Committee, 2016 – 2017

Research Committee (University), 2016 – 2017

Fisher Institute of Health and Well-being Faculty Search Committee, 2016

Clinical Exercise Physiology Contract Faculty Search Committee, 2016

Institutional Review Board (University), 2009 – 2013

Advisory Council – Associate Provost for Research (University), 2008 – 2013

Laboratory Safety and Security Advisory Committee (University), 2011 – 2012

Clinical Exercise Physiology Faculty Search Committee, 2011 – 2012

Faculty Council (University), 2009 – 2010

Senate (University), 2009 – 2010

Library Acquisitions Coordinator, 2010

Biomechanics Faculty Search Committee, 2009

Physical Education Teacher Education (PETE) Faculty Search Committee, 2007 – 2008

Salary Committee, 2007 – 2008

Biomechanics Faculty Search Committee, 2007

University Research Committee, 2007 – 2008

# **Community and Church Service (selected)**

Board of Trustees, Muncie First Church of the Nazarene

Sunday School Board, Muncie First Church of the Nazarene

Head Steward, Muncie First Church of the Nazarene Board Member, Christian Ministries of Delaware County Volunteer Coach, Yorktown High School Track and Cross-Country Volunteer, Yorktown Roadrunners (Youth running program)