CURRICULUM VITAE

NICHOLAS J HANSON, PHD, ACSM-EP, CSCS

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ORCID Profile

EDUCATION

Ph.D. Kinesiology: Health and Exercise Science (2013)
The Ohio State University – Columbus, OH
Advisor: Janet Buckworth, PhD
Dissertation: *The SPEED Study – Self-Paced Exercise and Endpoint Determination*

M.S. Exercise Science (2009)
University of Nebraska at Omaha – Omaha, NE
Advisor: Kris Berg, EdD
Thesis: *An Analysis of the Energy Expenditure of Running Barefoot vs. Running Shod*

B.S. Biology (2006)
University of Nebraska at Omaha – Omaha, NE
Minors in Chemistry & Psychology

A.A. General Studies (2003)
Iowa Western Community College – Council Bluffs, IA

PROFESSIONAL EXPERIENCE

Western Michigan University, Kalamazoo, MI

Professor (2025-present)
Associate Professor (2019 – 2025)
Assistant Professor (2014 – 2019)
Undergraduate Program Director (2015 – 2025)
Internship Coordinator (2014 - 2015)

Early tenure granted Summer 2019, and effective Fall 2019 within the Department of Human Performance & Health Education (HPHE). Promotion to Full Professor granted Summer 2025. Roles include teaching courses in undergraduate Exercise Science and graduate Exercise Physiology programs, supervising student research (undergraduate, masters and doctoral level), conducting independent research studies, grant writing, and placement of students into internships. Served as the program director for the undergraduate Exercise Science program.

The Ohio State University, Columbus, OH

Lecturer (Spring 2014)

Term appointment within the Department of Human Sciences. Instructor of record for two undergraduate lecture courses (Science of Physical Activity for Health Care Professionals and Worksite Health Promotion).

The Ohio State University, Columbus, OH

Graduate Teaching Associate (2010 – 2013)

Instructor for various undergraduate Exercise Science courses. Performed fitness testing and evaluation of faculty and staff members (VO_2max, body composition, strength and flexibility testing). Conducted VO_2max tests on civil servant (Fire/Police) applicants for the City of Columbus.

Creighton University, Omaha, NE

Research Associate (2009 – 2010)

Provided research assistance in Physical Therapy department (Rehabilitation Science Research Laboratory). Research focus involved gait abnormalities and fatigue in Parkinson's disease (PD) as well as neurophysiological research surrounding wrist rigidity in PD.

University of Nebraska at Omaha, Omaha, NE

Graduate Teaching/ Research Assistant (2007 – 2008)

Instructor for various undergraduate Exercise Science courses within the Department of Health, Physical Education & Recreation (HPER). Assisted with multiple research projects within the Biomechanics laboratory including a novel staircase with built-in force plates, a reduced body weight system, robotic surgery, and gait abnormalities in Multiple Sclerosis & Peripheral Arterial Disease.

CERTIFICATIONS

- National Strength and Conditioning Association
  Certified Strength and Conditioning Specialist (CSCS; *Certification #7247867250*)
  2013-present

- American College of Sports Medicine
  Certified Exercise Physiologist (ACSM-EP; *Certification #1052522*)
  2017-present

- American Heart Association
  Basic Life Support (CPR & AED)
  2008-present

PROFESSIONAL AFFILIATIONS

- National Strength and Conditioning Association (2012-present)
- American College of Sports Medicine (2011-present)

PEER-REVIEWED PUBLICATIONS

1. Dickey KS, Maceri RM & **Hanson NJ** (2024) Effect of Properly Describing the Borg Rating of Perceived Exertion (RPE) Scale on Heart Rate Response. *Research Directs in Health and Medicine* – 4(1):9

2. **Hanson NJ**, Koutakis P & Maceri RM (2024) Transcranial Direct Current Stimulation (tDCS) and 3-minute Aerobic Test (3mAT) Performance: placebo and nocebo effects. *Scientific Reports* – 14(1)

3. Guo F, Niu M, Guo J, **Hanson NJ**, Hu K, Hu J, Zhou K & Ren Y (2024) Enhancing Motor Skill Learning Through Multiple Sessions of High-definition Transcranial Direct Current Stimulation in Healthy adults: Insights from EEG Power Spectrum. *Cerebral Cortex* – 34(10)

4. **Hanson NJ** & Lee S (2024) Deception of heart rate is unable to improve functional threshold power in cyclists. *Research Directs in Strength and Performance* – 4(1): Article 6

5. Niu S, Guo J, **Hanson NJ**, Wang K, Chai J & Guo F (2024) The effects of mental fatigue on fine motor performance in humans and its neural network connectivity mechanism: a dart throwing study. *Cerebral Cortex* – 34(3)

6. **Hanson NJ**, Scheadler CM, Katsavelis D & Miller MG (2022) Validity of the Wattbike three-minute aerobic test (3mAT): Measurement and estimation of VO_2peak. *Journal of Strength & Conditioning Research* – 36(2): 400-404

7. Lu P, **Hanson NJ**, Wen L & Guo F (2021) Transcranial direct current stimulation enhances muscle strength of non-dominant knee in healthy young adults. *Frontiers in Physiology* – Vol. 12; Article 788719

8. Dykstra RM, Koutakis P & **Hanson NJ** (2021) Relationship between physical fitness variables and reaction time in eSports gamers. *International Journal of eSports Research* – 1:1

9. **Hanson NJ,** Dykstra RM & DeRosia KD (2021) No effect of transcranial direct current stimulation on anaerobic test performance in resistance-trained individuals. *Research Directs in Strength and Performance* – 1(1): Article 6

10. Dykstra RM, Thompson AJ & **Hanson NJ** (2021) Is a four-week long functional training program able to improve physical fitness components in university faculty & staff? *Research Directs in Health Sciences* – 1(1): Article 7

11. Garner CT, Dykstra RM, **Hanson NJ** & Miller MG (2021) Transcranial direct current stimulation (tDCS) with the Halo Sport does not affect performance on a 3-minute high intensity cycling test. *International Journal of Exercise Science* – 14(3): 962-970.

12. Maceri RM, Cherup NP, Buckworth J & **Hanson NJ** (2021) Exercise addiction in long-distance runners. *International Journal of Mental Health & Addiction* – 19: 62-71.

13. Dykstra RM, Ismaeel A, Koutakis P & **Hanson NJ** (2020) Does healthy aging affect skeletal muscle oxygenation and total hemoglobin responses during self-paced exercise testing? *Journal of Exercise Physiology Online* – 23(5): 14-23.

14. **Hanson NJ** and Lee TL (2020) Time flies when you're at RPE13: How exercise intensity influences time perception. *Journal of Strength & Conditioning Research* – 34(12): 3546-3553.

15. Guo F, Zhang T, **Hanson NJ** & Zhang R (2020) Analysis of brain source based on movement-related cortical potentials induced by fatigue of the human upper extremity muscles. *NeuroReport* – 31(4): 300-304.

16. Dykstra RM, Miller MG & **Hanson NJ** (2019) Brain activity during self-paced vs. fixed protocols in incremental exercise testing. *Experimental Brain Research* – 237(12): 3273-3279.

17. Maceri RM, **Hanson NJ** & Cherup NP (2019) EEG responses to incremental self-paced cycling exercise in young and middle-aged adults. *International Journal of Exercise Science* – 12(3): 800-810.

18. **Hanson NJ**, Martinez SC, Byl EN, Maceri RM & Miller MG (2019) Increased rate of heat storage, and no performance benefits, with caffeine ingestion before a 10-km run in hot, humid conditions. *International Journal of Sports Physiology & Performance* – 14(2): 196-202.

19. Fox R, Michael TJ, Weideman C & **Hanson NJ** (2019) Effect of listening to music during a warmup on anaerobic test performance. *Sport Sciences for Health* – 15: 369-373.

20. Guo F, Wang Q, Liu Y & **Hanson NJ** (2019) Changes in blood lactate and muscle activation in elite rock climbers during a 15-meter speed climb. *European Journal of Applied Physiology* – 119(3): 791-800.

21. Miller MG, Tennyck JD, Plantz KE & **Hanson NJ** (2019) A comparison of high-intensity interval training (HIIT) volumes on cognitive performance. *Journal of Cognitive Enhancement* – 3(2): 168-173.

22. **Hanson NJ,** Lothian D, Miller C, Michael TJ, & Miller MG (2018) Over-the-counter performance enhancing mouthguards are unable to decrease blood lactate and improve power output during a Wingate anaerobic test (WAnT). *Journal of Exercise Science & Fitness* – 16(3): 83-86.

23. Scheadler CM & **Hanson NJ** (2018) VO_2 plateau in treadmill exercise related to aerobic training, not anaerobic capacity. *Sport Sciences for Health* – 14(2): 415-420.

24. **Hanson NJ**, Short LE, Flood LT, Cherup NP & Miller MG (2018) Cortical neural arousal is differentially affected by type of physical exercise performed. *Experimental Brain Research* – 236(6): 1643-1649.

25. **Hanson NJ**, Carriveau DM, Morgan HE, Smith AR, Michael TJ & Miller MG (2018) Deception of ambient temperature alone does not elicit performance benefits during a 5k run in hot, humid conditions. *Journal of Strength & Conditioning Research* – 32(8): 2250-2257.

26. **Hanson NJ**, Scheadler CM, Reid C, Cornwell K & Lee TL (2017) Pacing strategy during final stage of a self-paced VO_2max (SPV) test does not affect maximal oxygen uptake. *European Journal of Applied Physiology* – 117(9): 1807-1815.

27. Scheadler CM, Garver MJ & **Hanson NJ** (2017) The gas sampling interval effect on VO_2max is independent of exercise protocol. *Medicine & Science in Sports & Exercise* – 49(9): 1911-1916.

28. **Hanson NJ**, Scheadler CM, Lee TL, Neuenfeldt NC, Michael TJ, & Miller MG (2016) Modality determines VO_2max achieved in self-paced exercise tests: validation with the Bruce protocol. *European Journal of Applied Physiology* – 116(7): 1313-1319.

29. **Hanson NJ** and Buckworth J (2016) Sex differences in time perception during self-paced running. *International Journal of Exercise Science*. 9(4): article 14.

30. **Hanson NJ** and Buckworth J (2016) Personality characteristics of barefoot runners: openness and conscientiousness as the defining traits. *Sport Sciences for Health* – 13(1): 33-38.

31. Mohney G, Miller MG & **Hanson NJ** (2016) Strengthening the Figure Skater: Considerations for Injury Prevention and Performance. *Strength & Conditioning Journal* – 39(3): 58-65.

32. **Hanson NJ** and Buckworth J (2015) The effect of endpoint knowledge on perceived exertion, affect and attentional focus during self-paced running. *Journal of Strength & Conditioning Research* – 29(4): 934-941.

33. **Hanson NJ**, Madaras L, Dicke J & Buckworth J (2015) Motivational differences between half, full and ultramarathoners. *Journal of Sport Behavior* – 38(2): 180-191.

34. Miller MG, Michael TJ, Nicholson KS, Petro RV, **Hanson, NJ** & Prater D (2015) The effect of RockTape on rating of perceived exertion and cycling efficiency. *Journal of Strength & Conditioning Research* – 29(9): 2608-2612.

35. Saunders NW, **Hanson NJ**, Koutakis P, Chaudhari AM, Devor ST (2014) Landing ground reaction forces in figure skaters and non-skaters. *Journal of Sports Sciences* – 32(11): 1042-1049.

36. Scheadler, CM, Saunders NW, **Hanson NJ &** Devor ST (2013) Palm cooling does not improve running performance. *International Journal of Sports Medicine* – 34(08): 732-735.

37. Saunders NW, **Hanson NJ**, Koutakis P, Chaudhari AM & Devor ST (2013) Figure skater skill level may influence the effectiveness of neuromuscular training. *International Journal of Sports Medicine* – 34(04): 345-349.

38. Powell DP, **Hanson NJ**, Long B & Williams DS (2012) Frontal plane landing mechanics in high-arched compared with low-arched female athletes. *Clinical Journal of Sports Medicine*. 22(5): 430-435.

39. Bice MR, **Hanson NJ,** Eldridge J, Reneau P, Powell DW (2011) Neuromuscular adaptations in elderly adults are task-specific during stepping and obstacle clearance tasks. *International Journal of Exercise Science*. 4(1): article 9.

40. **Hanson NJ,** Berg K, Deka P, Meendering JR, Ryan C (2011) Oxygen cost of running barefoot versus running shod – Treadmill and Overground. *International Journal of Sports Medicine*. 32(06): 401-406.

41. Xia R, Powell D, Rymer Z, **Hanson NJ**, Fang X, Threlkeld A (2011) Differentiation between the contributions of shortening reaction and stretch-induced inhibition to rigidity in Parkinson's disease. *Experimental Brain Research*. 209(4): 609-18.

42. Powell D, **Hanson NJ**, Threlkeld A, Xia R (2011) Enhancement of Parkinsonian rigidity with contralateral hand activation. *Clinical Neurophysiology*, 122: 1595-1601.

OTHER PUBLICATIONS

1. **Hanson NJ** and Berg K (2012) Response to the letter to the editor: Is barefoot running more economical? *International Journal of Sports Medicine*, 33(3): 250-250.

2. Powell DP and **Hanson NJ** (2011) Invited Review: Relationship between arch characteristics and landing mechanics. *Lower Extremity Review* – March 2011.

ABSTRACTS/ POSTER PRESENTATIONS

1. Lan L, Seimetz T & **Hanson NJ**: The effect of caffeine on 15-minute constant speed running in the heat. Annual Meeting of the Midwest American College of Sports Medicine. Grand Rapids, MI. October 21-23, 2026.

2. Seimetz T, Lan L, & **Hanson NJ**: Effects of Environmental Condition and Caffeine Supplementation on Thermoregulatory Responses During Constant-Speed Running. Annual Meeting of the Midwest American College of Sports Medicine. Grand Rapids, MI. October 21-23, 2026.

3. **Hanson NJ,** Lan L, Reynolds K, Czupski S, Hoffman A & Johnson E: Can an Acute Bout of Circuit Training Exercise Improve Cortical Neural Arousal in Esports Athletes? Annual Meeting of the American College of Sports Medicine. Salt Lake City, UT. May 26-29, 2026.

4. Lan L, Reynolds K, Czupski S, Hoffman A, Johnson E & **Hanson NJ**: Twenty minutes of vigorous-intensity circuit training acutely improves tracking performance in Esports players. Annual Meeting of the American College of Sports Medicine. Salt Lake City, UT. May 26-29, 2026.

5. Lan L, Cunningham A, Reynolds K & **Hanson NJ**: The effects of an acute bout of high-intensity interval training on Esports performance. Annual Meeting of the Midwest American College of Sports Medicine. Grand Rapids, MI. October 15-17, 2025.

6. Reynolds K, **Hanson NJ,** Lan L, O'Connor K, Morrison KM: The effect of a hydrogel bicarbonate supplement on running performance, lactate and GI distress symptoms. Annual Meeting of the American College of Sports Medicine. Atlanta, GA. May 27-30, 2025.

7. Lan L, Cunningham A, Reynolds K & **Hanson NJ**: The effect of exercise modality on Esports performance. Annual Meeting of the Midwest American College of Sports Medicine. Grand Rapids, MI. October 16-18, 2024.

8. Reynolds K, Lan L, Morrison K & **Hanson NJ**: The effect of bicarbonate supplementation on running performance, lactate and GI distress symptoms. Annual Meeting of the Midwest American College of Sports Medicine. Grand Rapids, MI. October 16-18, 2024.

9. **Hanson NJ**, Maceri RM & Kishman E: Can Biofeedback Deception of Heart Rate Improve Performance? Annual Meeting of the American College of Sports Medicine. Boston, MA. May 28 – 31, 2024.

10. **Hanson NJ**, Dykstra RM, Garner CT, Nachtegall AR, Courtney K & Jevtovic F: The Placebo Effect Of Transcranial Direct Current Stimulation (tDCS) On 3-minute Aerobic Test Performance. Annual Meeting of the American College of Sports Medicine. Denver, CO. May 30 – June 2, 2023.

11. Garner CT, **Hanson NJ**, Dykstra RM, Dundore T & Michael TJ: The effect of caffeine on vertical jump performance in anaerobically trained individuals. Annual Meeting of the American College of Sports Medicine. June 1-5, 2020.

12. Scheadler CM, Kaiser J & **Hanson NJ**: Relationships of affect and exertion to respiratory exchange ratio during self-paced VO_2max testing. Annual Meeting of the American College of Sports Medicine. June 1-5, 2020.

13. Garner CT, Dykstra RM, Roth B, Dundore T, Miller MG & **Hanson NJ**: Transcranial Direct Current Stimulation (tDCS) as an aid to eSports performance. Annual Meeting of the National Strength & Conditioning Association. Las Vegas, NV. July 4-8, 2020. **conference was cancelled**

14. Dykstra RM Garner CT, Miller MG & **Hanson NJ**: Effects of verbal encouragement and heart rate deception during a functional threshold power cycling test. Annual Meeting of the National Strength & Conditioning Association. Las Vegas, NV. July 4-8, 2020. **conference was cancelled**

15. **Hanson NJ**, Dykstra RM & Miller MG: Can cognitive training during exercise improve performance on a time to exhaustion (TTE) test? Annual Meeting of the American College of Sports Medicine. San Francisco, CA. May 26-30, 2020. **conference was cancelled**

16. Garner CT, **Hanson NJ**, Dykstra RM, Dundore TM & Michael TJ: Does caffeine affect vertical jump performance and frequency domain measures of heart rate variability? Annual Meeting of the Midwest American College of Sports Medicine. Oak Brook, IL. November 7-9, 2019.

17. Dykstra RM, **Hanson NJ,** Garner CT, Dundore TM, Sanchez A, Issacs D & Miller MG: Effects of verbal encouragement and HR deception during a functional threshold power cycling test. Annual Meeting of the Midwest American College of Sports Medicine. Oak Brook, IL. November 7-9, 2019.

18. Dundore TM, **Hanson NJ,** Dykstra RM, Garner CT, Michael TJ & Miller MG: Interval training using the lactate retention method: preliminary results. Annual Meeting of the Midwest American College of Sports Medicine. Oak Brook, IL. November 7-9, 2019.

19. **Hanson NJ**, Dykstra RM, Miller MG & Liu Y: Does the type of VO_2max protocol (open- or closed-loop) affect cortical brain activity? Academic Conference for the Society of Chinese Scholars on Exercise Physiology & Fitness. Xi'an, China. October 11-13, 2019 .

20. Dykstra RM, Koutakis P, Garner C & **Hanson NJ**: Skeletal muscle oxidation during an incremental exercise test in younger and older individuals. Western Michigan University Research & Creative Activities Poster & Performance Day. Kalamazoo, MI. April 11, 2019.

21. Thomson AJ, Dykstra RM & **Hanson NJ**: Does four weeks of Functional 45 (F45) training improve cardiovascular health, muscular function and flexibility? Western Michigan University Research & Creative Activities Poster & Performance Day. Kalamazoo, MI. April 11, 2019.

22. **Hanson NJ**, Dykstra RM, Koerth T, Gruener K & Miller MG: Testing the efficacy of a headphone-based transcranial direct current stimulation (tDCS) system. Annual Meeting of the National Strength & Conditioning Association. Washington D.C. July 10-13, 2019.

23. Dykstra RM, Rincher M, Soriano S, Miller MG & **Hanson NJ**: Brain activity and skeletal muscle oxygenation during a time to exhaustion (TTE) on a cycle ergometer. Annual Meeting of the National Strength & Conditioning Association. Washington D.C. July 10-13, 2019.

24. Garner C, Dykstra RM, Miller MG & **Hanson NJ**: Are heart rate variability (HRV) parameters affected by transcranial direct current stimulation (tDCS)? Annual Meeting of the National Strength & Conditioning Association. Washington D.C. July 10-13, 2019.

25. **Hanson NJ**, Scheadler CM, Dykstra RM, Garner C, Michael TJ & Miller MG. Alpha and beta wave EEG activity during a self-paced VO_2max test in middle-aged adults. Annual Meeting of the American College of Sports Medicine. Orlando, FL. May 28-June 1, 2019.

26. Scheadler CM, **Hanson NJ**, Garver M & Schille A: Ventilatory variability is not associated with differences in VO_2peak between gas sampling intervals. Annual Meeting of the American College of Sports Medicine. Orlando, FL. May 28-June 1, 2019.

27. Dykstra RM, **Hanson NJ**, Koutakis P, Garner C & Diehl CL: Effects of healthy aging on skeletal muscle oxygenation during a self-paced maximal exercise test. Annual Meeting of the American College of Sports Medicine. Orlando, FL. May 28-June 1, 2019.

28. Maceri R, **Hanson NJ**, Koutakis P, Diehl C & Garner C: Effects of healthy aging on skeletal muscle oxygenation during a self-paced maximal exercise test. Annual Meeting of the Midwest American College of Sports Medicine. Grand Rapids, MI. November 9-10, 2018.

29. Garner C, Maceri R, **Hanson NJ**, Koutakis K & Diehl C: Analysis of heart rate variability frequency domain indices in young and middle-aged adults during a self-paced VO_2max test. Annual Meeting of the Midwest American College of Sports Medicine. Grand Rapids, MI. November 9-10, 2018.

30. Kishman E, Michael TJ, **Hanson NJ**, Lee S & Wang X: Effects of instability on core muscle activation in a side bridge. Annual Meeting of the Southeast American College of Sports Medicine. Greenville, SC. February 14-16, 2019.

31. Lee S, **Hanson NJ**, Griffin JL, Irwin BM, Michael TJ & Miller MG: Relationship between lower limb length ratios and joint kinetics during landing. Annual Meeting of the National Strength & Conditioning Association. Indianapolis, IN. July 11-14, 2018.

32. **Hanson NJ**, Kishman E, Martinez S, Diehl C, Katsavelis D, Scheadler CM & Miller MG: Effect of biofeedback deception during cycling exercise on heart rate variability. Annual Meeting of the National Strength & Conditioning Association. Indianapolis, IN. July 11-14, 2018.

33. Maceri RE, Diehl C, Garner C, Koutakis P, Miller MG & **Hanson NJ**: How does healthy aging affect skeletal muscle oxygenation and total hemoglobin during self-paced maximal exercise testing? Annual Meeting of the National Strength & Conditioning Association. Indianapolis, IN. July 11-14, 2018.

34. Diehl C, Maceri RE, Martinez S, Michael TJ, Miller MG & **Hanson NJ**: The effect of caffeine on time perception during exercise in a hot, humid environment. Annual Meeting of the National Strength & Conditioning Association. Indianapolis, IN. July 11-14, 2018.

35. Michael TJ, Berner E, Weideman C, Lee S, Miller MG & **Hanson NJ**: Concurrent Validity of the Children's Omni Scale of Perceived Exertion in a Field Setting. Annual Meeting of the American College of Sports Medicine. Minneapolis, MN. May 29-June 2, 2018.

36. **Hanson NJ**, Kishman E, Martinez S, DeRosia K, Lee S, Scheadler CM & Miller MG: Assessing the ability of the Wattbike cycle ergometer to predict maximal oxygen consumption. Annual Meeting of the American College of Sports Medicine. Minneapolis, MN. May 29-June 2, 2018.

37. Koutakis P, Uno K, Ras M, Pritchett E, Michael TJ, **Hanson NJ**, & Miller MG: Does body-weight circuit training have the ability to induce hypoalgesia? Annual Meeting of the American College of Sports Medicine. Minneapolis, MN. May 29-June 2, 2018.

38. Ohrnberger E, **Hanson NJ**, Berkey D & Lee S: Differences in vertical jump with ballistic and dynamic stretching: a study proposal. Annual Meeting of the Michigan American College of Sports Medicine. Gaylord, MI. Feb 1-2, 2018.

39. Maceri R, Lee TL, Michael TJ, Miller MG, Lee S & **Hanson NJ**: Changes in cortical neural arousal after a self-paced VO_2max (SPV) test. Annual Meeting of the Midwest American College of Sports Medicine. Grand Rapids, MI. November 10-11, 2017.

40. Diehl C, Uno K, Ras M, Pritchett E, Michael TJ, Miller MG & **Hanson NJ**: The effect of bodyweight circuit training on the perception of pain. Annual Meeting of the Midwest American College of Sports Medicine. Grand Rapids, MI. November 10-11, 2017.

41. DeRosia KD, Lamie L, Michael TJ, **Hanson NJ**, Weideman CA & Lee S: Evaluating the contribution of lower extremity kinetics to whole-body power output during the power snatch. Annual Meeting of the Midwest American College of Sports Medicine. Grand Rapids, MI. November 10-11, 2017.

42. **Hanson NJ**, Miller MG, Lothian DD, Miller CL, Michael TJ & Lee S: Does a performance-enhancing mouthguard have the ability to decrease blood lactate and increase power? Annual Meeting of the National Strength & Conditioning Association. Las Vegas, NV. July 12-15, 2017.

43. Fox RP, Lee S, Weideman CA, Michael TJ, Miller MG & **Hanson NJ**: Effect of listening to music during warmup on Wingate anaerobic test performance. Annual Meeting of the National Strength & Conditioning Association. Las Vegas, NV. July 12-15, 2017.

44. Scheadler, CM, Sanders G, Mello H, Couch A & **Hanson NJ**: Ventilatory thresholds differ between Bruce and Self-Paced VO_2max tests. Annual Meeting of the American College of Sports Medicine. Denver, CO. May 30-June 3, 2017.

45. **Hanson NJ**, Lee TL, Cherup N, Michael TJ & Miller MG: Changes in cortical neural arousal as a result of increasing exercise intensity. Annual Meeting of the American College of Sports Medicine. Denver, CO. May 30-June 3, 2017.

46. Lee S, Reid C, Michael TJ, Weideman C, Scheadler CM & **Hanson NJ**: Effect of pacing strategy during the final two-minutes of a self-paced VO_2max test (SPV). Annual Meeting of the American College of Sports Medicine. Denver, CO. May 30-June 3, 2017.

47. Weideman CA, Michael TJ, Binfet K, Haldeman A, Gruden B, **Hanson NJ** & Miller MG: The Effect of Six Weeks of Beta-Alanine Supplementation on Incremental Exercise Performance. Annual Meeting of the American College of Sports Medicine. Denver, CO. May 30-June 3, 2017.

48. Cherup NP, Lee TL, Michael TJ, Miller MG & **Hanson NJ**: Effects of prescribed intensity level on neural arousal in recreational runners. Annual Meeting of the Midwest American College of Sports Medicine. Ft Wayne, IN. November 5-6, 2016.

49. Reid CR, Lee TL, Cornwell KM, Scheadler CM & **Hanson NJ**: Pacing strategy during the final two minutes of a self-paced VO_2max test: aggressive vs. conservative. Annual Meeting of the Midwest American College of Sports Medicine. Ft Wayne, IN. November 5-6, 2016.

50. Miller MG, Boike TS, Mass CJ, Holcomb WR, **Hanson NJ**, Michael TJ: The effect of low-level laser therapy on Delayed Onset Muscle Soreness of the biceps brachii. Annual Meeting of the National Athletic Trainers' Association. Baltimore, MD. June 22-25, 2016.

51. Miller MG, Dahl W, Ledwon R, Sullivan T, Michael TJ, **Hanson NJ**, & Hatzel B: Electromyography and force comparison of the quadriceps after application of specialty tapes for muscle activation over time. Annual Meeting of the National Strength & Conditioning Association. New Orleans, LA. July 6-9, 2016.

52. Miller MG, Boike TS, Mass CJ, Holcomb WR, **Hanson NJ**, Michael TJ: The effect of low-level laser therapy on Delayed Onset Muscle Soreness of the biceps brachii. Annual Meeting of the National Strength & Conditioning Association. New Orleans, LA. July 6-9, 2016

53. **Hanson NJ,** Scheadler CM, Lee TL, Neuenfeldt NC, Michael TJ & Miller MG: Test Preference and its Relationship to Performance during Maximal Aerobic Exercise Testing. Annual Meeting of the American College of Sports Medicine. Boston, MA. May, 2016.

54. Cargo JS, Michael TJ, Weideman CA & **Hanson NJ**: Effect of a Seven-Week Rock Climbing Course on Physical Fitness and Performance. Annual Meeting of the American College of Sports Medicine. Boston, MA. May, 2016.

55. Lee TL, Neuenfeldt NC, Scheadler CM & **Hanson NJ**: Perceptually regulated exercise testing on a treadmill vs. cycle ergometer. Annual Meeting of the Midwest American College of Sports Medicine. Ft Wayne, IN. November 6-7, 2015.

56. Neuenfeldt NC, Lee TL, Scheadler CM & **Hanson NJ**: The role of preference and how it affects performance during maximal exercise testing. Annual Meeting of the Midwest American College of Sports Medicine. Ft Wayne, IN. November 6-7, 2015.

57. **Hanson NJ,** Buckworth J, Miller MG & Michael TJ: Teleoanticipation and Effects of Sex Differences on Pacing Strategy. 38th Annual Meeting of the National Strength & Conditioning Association. Orlando, FL. July 8th–July 11th, 2015.

58. Miller MG, Depuydt T, Holcomb W, Humason M, Prater D, **Hanson NJ,** & Michael TJ: The Effects of Specialty Tape on Balance of the Lower Leg and Ankle. 38th Annual Meeting of the National Strength & Conditioning Association. Orlando, FL. July 8th–July 11th, 2015.

59. **Hanson NJ** & Buckworth J: Sex-related differences in anticipatory fatigue prior to a bout of treadmill running. 62nd Annual Meeting of the American College of Sports Medicine. San Diego, CA. May 26th-May 30th, 2015.

60. **Hanson NJ** & Buckworth J: Sex differences in time perception during self-paced running. 61st Annual Meeting of the American College of Sports Medicine. Orlando, FL. May 27th-May 31st, 2014.

61. **Hanson NJ** & Buckworth J: Exercise dependence in long-distance runners. 60th Annual Meeting of the American College of Sports Medicine. Indianapolis, IN. May 28th-June 1st, 2013.

62. Powell DP, Reneau PD, Reed-Jones R, Ryan MJ, Bastin H, & **Hanson NJ**: Deep Brain Stimulation is Associated with Reduced Ranges of Motion during Gait in Parkinson's Disease. 59th Annual Meeting of the American College of Sports Medicine. San Francisco, CA. May 29th-June 2nd, 2012.

63. Falkenklous, J Morgan A, **Hanson NJ**, Ryan MJ, Reneau PD, & Powell DW: Fatigue-Induced Median Frequency Shifts in Healthy Aging and Parkinson's Disease. 59th Annual Meeting of the American College of Sports Medicine. San Francisco, CA. May 29th-June 2nd, 2012.

64. Bastin H, Renshaw D, **Hanson NJ**, Bice MR, Ryan MJ & Powell DW: Relationship between Lean Mass and Coactivation during Downward Stepping with Advancing Age. 59th Annual Meeting of the American College of Sports Medicine. San Francisco, CA. May 29th-June 2nd, 2012.

65. Scheadler CM, Saunders NW, **Hanson NJ** & Devor ST: Lack of exercise and thermal improvements when wearing a palm-cooling device. Annual Meeting of the American College of Sports Medicine. San Francisco, CA. May 29th-June 2nd, 2012.

66. Saunders NW, Koutakis P, Chaudhari A, **Hanson NJ**, Devor ST: Drop Landing Impact Forces in Figure Skaters vs. Non-skaters. 59th Annual Meeting of the American College of Sports Medicine. San Francisco, CA. May 29th-June 2nd, 2012.

67. Buckworth J, **Hanson NJ**, Preston H: Psychosocial variables influencing barefoot running: Personality and gender. 59th Annual Meeting of the American College of Sports Medicine. San Francisco, CA. May 29th-June 2nd, 2012.

68. **Hanson NJ** & Buckworth J: Motivational Differences among Half-marathoners, Marathoners, and Ultramarathoners. Thematic Poster Session. 59th Annual Meeting of the American College of Sports Medicine. San Francisco, CA. May 29th-June 2nd, 2012.

69. **Hanson, NJ** & Buckworth J: Psychosocial variables influencing long-distance running: Project ULTRA (Understanding Long-distance Training and Runners' Affects. Midwest Sport & Exercise Psychology Symposium February, 2012 (East Lansing, MI).

70. Bastin H, Reed-Jones R, **Hanson NJ**, Reneau PD, Ryan MJ, Powell D: Relationships between clinical measures of fatigue and physical activity in Parkinson's disease. Canadian Society for Biomechanics (CSB) Conference. British Columbia, CA. June 6th-9th, 2012.

71. Powell D, Bastin H, **Hanson NJ**, Falkenklous J, Morgan A, Reneau PD, Ryan MJ, Reed-Jones R: Effects of advancing age and disease on walking bout characteristics. Canadian Society for Biomechanics (CSB) Conference. British Columbia, CA. June 6th-9th, 2012.

72. Powell D, Benes A, Konor M, **Hanson NJ**, Kerschen K, Gustafson A, Xia RP, Threlkeld AJ: Mechanical and Neurophysiological Manifestations of Fatigue in Parkinson's Disease. APTA Combined Sections Meeting 2012 (Chicago, IL).

73. Powell D, Muthumani A, **Hanson NJ**, Threlkeld AJ, Xia RP: Contralateral activation does not enhance the neural component of parkinsonian rigidity. 35th Annual Meeting of the American Society of Biomechanics. Long Beach, CA. August 10th-13th, 2011.

74. Benes A, Konor M, Powell D, Kerschen K, Gustafson A, **Hanson NJ**, Xia RP, Threlkeld AJ: Effect of fatigue on muscle activation and coactivation ratio in people with Parkinson's disease. 35th Annual Meeting of the American Society of Biomechanics. Long Beach, CA. August 10th-13th, 2011.

75. Powell D, Muthumani A, **Hanson NJ**, Threlkeld AJ, Xia RP: Velocity dependency of parkinsonian rigidity assessed at the wrist joint. 35th Annual Meeting of the American Society of Biomechanics. Long Beach, CA. August 10th-13th, 2011.

76. Muthumani A, Powell D, **Hanson NJ**, Kremer L, Wagner L, Threlkeld AJ, Xia RP: Relationship between neural-reflex torque and muscle reflex response in parkinsonian rigidity. 35th Annual Meeting of the American Society of Biomechanics. Long Beach, CA. August 10th-13th, 2011.

77. Muthumani A, Powell D, **Hanson NJ**, Threlkeld AJ, Xia RP: Linear measures of bradykinesia during voluntary wrist flexion and extension movements in people with Parkinson's disease. 35th Annual Meeting of the American Society of Biomechanics. Long Beach, CA. August 10th-13th, 2011.

78. Muthumani A, Powell D, **Hanson NJ**, Kremer L, Wagner L, Threlkeld AJ, Xia RP: Correlation between reflex torque and muscle activation in response to a pseudo-random binary perturbation in healthy adults and people with Parkinson's disease. 35th Annual Meeting of the American Society of Biomechanics. Long Beach, CA. August 10th-13th, 2011.

79. Bice M, Renshaw D, **Hanson NJ**, Eldridge J, Powell D: Effect of advancing age and lean mass on neuromuscular activation patterns and coactivation ratios during a downward stepping task. 35th Annual Meeting of the American Society of Biomechanics. Long Beach, CA. August 10th-13th, 2011.

80. Xia RP, **Hanson NJ**, Powell D, Muthumani A, Bertoni J, Threlkeld AJ: Efficacy of dopaminergic medication on neural and non-neural components of rigidity in Parkinson's disease. The MDS 15th International Congress of Parkinson's Disease and Movement Disorders. Toronto, Ontario, Canada. June 5th-9th, 2011.

81. Benes A, Konor M, Kerschen K, Gustafson A, **Hanson NJ**, Threlkeld AJ, Xia RP, Powell D: Fatigability within the Parkinsonian Population. Midwest Student Biomedical Research Forum. Omaha, NE. February 19th, 2011.

82. Powell D, **Hanson NJ**, Muthumani A, Kremer L, Wagner L, Threlkeld AJ, Xia R: Amplitude-dependent changes in parkinsonian rigidity. Midwest Student Biomedical Research Forum. Omaha, NE. February 19th, 2011.

83. **Hanson, NJ** and Buckworth J: Psychosocial variables influencing long-distance running: Project ULTRA (Understanding Long-distance Training and Runners' Affect. Midwest Sport & Exercise Psychology Symposium February, 2011 (Oxford, OH).

84. Threlkeld A., **Hanson NJ**, Powell D, Kerschen K, Gustafson K, Xia R: Voluntary Activation of the Quadriceps Muscle in Parkinson's Disease. APTA Combined Sections Meeting 2011 (New Orleans, LA).

85. Powell D, **Hanson NJ**, Threlkeld A, Xia R: Effect of Contralateral Hand Activation on Enhancement of Parkinsonian Rigidity. APTA Combined Sections Meeting 2011 (New Orleans, LA).

86. Threlkeld A, Kerschen K, Gustafson A, **Hanson NJ**, Powell D, Xia R: Fatigue of the Quadriceps in Parkinson's Disease is Dependent on Contraction Speed. APTA Combined Sections Meeting 2011 (New Orleans, LA).

87. **Hanson NJ,** Radovic M, Powell D, Threlkeld AJ, Xia RP: Regularity of wrist movement patterns in Parkinson's disease and healthy controls. Society for Neuroscience Conference 2010 (San Diego, CA).

88. Radovic M, Chen SJ, **Hanson NJ,** Deka P**:** Validation of the Instrumented Handrail system Abstract #741, European Society of Biomechanics Conference 2008 (Lucerne, Switzerland).

89. Radovic M, Chen SJ, **Hanson NJ,** Deka P**:** Validation of An Instrumented Handrail system. Journal of Biomechanics (July 2008), 41, Supplement 1, pg. S420.

90. Radovic M, **Hanson NJ,** Deka P, Chen SJ**:** An Instrumented Handrail Stairway Validation. Abstract #459, North American Congress on Biomechanics 2008 (Ann Arbor, MI).

REVIEWER

Invited Manuscript Reviewer –

1. Medicine & Science in Sports & Exercise

2. Journal of Strength & Conditioning Research
3. Sports Medicine
4. International Journal of Sports Physiology & Performance
5. British Journal of Sports Medicine
6. Research Quarterly for Exercise and Sport
7. Strength & Conditioning Journal
8. Journal of Sports Sciences
9. International Journal of Sports Medicine
10. Journal of Applied Sports Psychology
11. Journal of Sport & Health Science
12. Journal of Exercise Science & Fitness
13. Research in Sports Medicine
14. International Journal of Exercise Science
15. Sport Sciences for Health
16. Applied Physiology, Nutrition and Metabolism
17. Journal of Applied Biomechanics
18. European Journal of Sport Science
19. Journal of Neurophysiology
20. International Journal of Hyperthermia
21. PeerJ – The Journal of Life and Environmental Sciences
22. Journal of Athletic Training
23. Medicina
24. Fire
25. International Journal of Sport & Exercise Psychology
26. Psychology of Sport & Exercise
27. International Journal of Environmental Research & Public Health
28. Clinical & Investigative Medicine (Journal of the Canadian Society of Clinical Investigation)
29. Current Sports Medicine Reports
30. Frontiers in Physiology – Exercise Physiology
31. Experimental Brain Research
32. Research Directs in Strength and Performance
33. Journal of Intelligence

GRANT APPLICATIONS (primary investigator unless otherwise noted)

TOTAL FUNDING APPLIED FOR WHILE AT WMU: $1,122,190

Source: Faculty Research and Creative Activities Award (FRACAA)
Award: $10,000 –***Funded*** **Period:** 7/01/2025-7/01/2026
Title: Does caffeine ingestion affect heat storage when exercising in a hot, humid environment?

Source: Publication of Papers and Exhibition of Creative Works (PPP&E)
Award: $550 –***Funded*** **Period:** 7/01/2024-7/01/2025

Source: Faculty Research and Creative Activities Award (FRACAA)
Award: $10,000 – ***Not Funded*** **Period:** 7/01/2024-7/01/2025
Title: Does caffeine ingestion affect heat storage when exercising in a hot, humid environment?

Source: Department of Defense: Air Force Research Laboratory
Award: $370,000 – ***Not Funded*** **Period:** 7/01/2020-7/01/2022
Title: White Paper – Efficacy of high-intensity interval training on USAF remotely piloted aircraft operators: effects on executive function, stress and fatigue countermeasure, improved job performance
Investigators: Miller MG **(PI)**, Michael TM, Hanson NJ, Lee S

Source: National Strength & Conditioning Association (NSCA) Foundation – Young Investigator Grant
Award: $24,000 – ***Not Funded*** **Period:** 7/01/2019-7/01/2020
Title: Neurophysiological and cerebrovascular responses to caffeine use during cycling exercise in the heat

Source: National Institute of Health (NIH) R03 Grant
Award: $99,913 – ***Not funded*** **Period:** 7/01/2019-6/30/2021
Title: Social Media Incentives for Physical Activity – Funding to develop an incentive-based physical activity intervention used the university employee wellness program.
Investigators: DeFulio A **(PI)**, Al-Fuqaha A, & Hanson NJ

Source: College of Education & Human Development (CEHD) Center of Excellence in Research Award
Award: $10,000 – ***Funded*** **Period:** 7/01/2018-7/01/2020
Title: Center for Exercise & Health Research – Funding to develop research to study and improve cognitive abilities, overall physical fitness, and to identify exercise behaviors that lead to the adoption of healthy lifestyles.
Investigators: Miller MG **(PI)**, Michael TM, Hanson NJ, Lee S

Source: Faculty Research and Creative Activities Award (FRACAA)
Award: $7,000 – ***Funded*** **Period:** 7/01/2018-7/01/2019
Title: Can a combination of exercise and cognitive training improve the ability to withstand fatigue?

Source: American College of Sports Medicine (ACSM) Research Endowment Grant
Award: $10,000 – ***Not Funded*** **Period:** 7/01/2018-7/01/2019
Title: The effect of regular exercise and age on time perception during exercise

Source: WMU College of Education & Human Development (CEHD) Tate Center Grant
Award: $2,000 – ***Funded*** **Period:** 3/01/2017-8/01/2017
Title: Using biofeedback deception to improve athletic performance

Source: Office of Naval Research (ONR) Young Investigator Award
Award: $505,000 – ***Not Funded*** **Period:** 6/01/2017-6/01/2019
Title: Exploring novel methods for increasing decision-making performance under stress

Source: WMU Support for Faculty Scholars Award (SFSA)
Award: $2,000 – ***Funded*** **Period:** 11/01/2016-10/31/2017
Title: The effect of caffeine on 10km running performance in the heat

Source: Wilson Sporting Goods
Award: $61,768 – ***Not Funded*** **Period:** 3/01/2016-9/01/2016
Title: Study of New Wilson Fatigue-Resistant Racquet
Investigators: Miller MG **(PI)**, Michael TM, Hanson NJ**,** Lee S

Source: Faculty Research and Creative Activities Award (FRACAA)
Award: $9,959 – ***Funded*** **Period:** 7/01/2015-7/01/2016
Title: Time flies when you're having fun: The effect of exercise on the subjective experience of time

Source: OSU Alumni Grant for Graduate Research and Scholarship (AGGRS)
Award: $2,000 – ***Not Funded*** **Period:** 1/01/2013-5/30/2013
Title: The effects of an unknown endpoint on teleoanticipation and psychophysiological variables before, during, and after self-paced exercise

Source: UNOmaha University Committee on Research and Creative Activity Grant (UCRCA)
Award: $500 – ***Funded*** **Period:** 11/01/2007-6/01/2008
Title: Force validation of a built-in handrail system on a 4-step structured staircase
Investigators: Hanson NJ **(PI)** and Chen SJ

PODIUM PRESENTATIONS

1. **"**Does the type of VO_2max protocol (open- or closed-loop) affect cortical brain activity?" Academic Conference for the Society of Chinese Scholars on Exercise Physiology & Fitness. Xi'an, China. October 12, 2019.
2. "How does healthy aging affect skeletal muscle oxygenation and total hemoglobin during self-paced maximal exercise testing?" Annual Meeting of the National Strength & Conditioning Association. (Indianapolis, IN) - July 14, 2018.
3. "Sex-related differences in anticipatory fatigue prior to a bout of treadmill running". Thematic Poster Session. 62nd Annual National Meeting of the American College of Sports Medicine. (San Diego, CA) - May 29, 2015.
4. "Sex differences in time perception during self-paced running". Slide Presentation. 61st Annual National Meeting of the American College of Sports Medicine. (Orlando, FL) - May 30, 2014.
5. "The Effect of Running to an Undefined Endpoint on Perception of Time- Preliminary Results". Midwest Sport & Exercise Psychology Symposium. (Holland, MI) – Feb 2013.

6. "Motivational Differences Among Half-marathoners, Marathoners, and Ultramarathoners". Thematic Poster Session. 59th Annual National Meeting of the American College of Sports Medicine. (San Francisco, CA) – June 1, 2012.

7. "Psychosocial variables influencing long-distance running: Project ULTRA (Understanding of Long-distance Training and Runners' Affects) – **Results**". Midwest Sport & Exercise Psychology Symposium. (East Lansing, MI) – Feb 2012.

8. "Psychosocial variables influencing long-distance running: Project ULTRA (Understanding of Long-distance Training and Runners' Affects) – **Study Proposal**". Midwest Sport & Exercise Psychology Symposium. (Oxford, OH) – Feb 2011.

TEACHING EXPERIENCE

Western Michigan University

Graduate

HPHE 6360 - Sports Nutrition
HPHE 6710 - Cardiopulmonary & Environmental Exercise Physiology
HPHE 6710 - Exercise Physiology
HPHE 6720 - Lab Techniques in Exercise Science
HPHE 6730 - Biomechanics
HPHE 6760 - Graduate Seminar in Exercise Science
HPHE 6900 - Research Procedures in HPHE
HPHE 6920 - Analytical Techniques in HPHE

Undergraduate

HPHE 1520 - Intro to Exercise Science
HPHE 2950 - Functional Anatomy & Biomechanics
HPHE 2980 - Intro to Exercise Physiology
HPHE 3500 - Modification of Health Behavior
HPHE 3960 - Principles for Strength & Conditioning
HPHE 3970 - Exercise and Sports Nutrition
HPHE 4440 - Professional Development in Exercise Science
HPHE 4450 - Exercise Testing & Prescription
HPHE 4920 - Athlete Testing & Evaluation
HPHE 4940 – Advanced Exercise Physiology
HPHE 4975 – Tactical Training
HPHE 4980 - Exercise Science Internship

The Ohio State University

Undergraduate

KNHES 5500 - Science of Physical Activity for Health Care Professionals (Exercise Physiology)

KNHES 5652 - Worksite Health Promotion
KNHES 2360/ PAES 361 – Kinesiology Lab
PAES 381 - Introduction to Exercise Physiology Lab
PAES 3414 - Applied Exercise Physiology Lab
KNHES 5491 - Body Composition Evaluation

University of Nebraska at Omaha

Undergraduate

HPER 4930 - Measurement and Evaluation in Physical Education
HPER 2880 - Human Anatomy & Physiology Lab
HPER 4010 - Laboratory Methods in Exercise Science

AWARDS

Western Michigan University

Emerging Scholar Award 2022 –

University-level award given to WMU faculty that are "among the rising stars in the U.S. higher education"

Emerging Scholar Award 2019 –

College of Education & Human Development

Research Excellence Award 2018 –

Department of Human Performance & Health Education

Most Valuable Professor –

Nominated by undergraduate student (Rebecca Mazur) and recognized at WMU basketball game (2/6/18)

The Ohio State University

Wesley and Katharine Cushman Memorial Scholarship Fund

$1,300 scholarship awarded for academic merit for the school year 2010-2011

SERVICE

National Strength & Conditioning Association

Council on Accreditation of Strength and Conditioning Education (CASCE) –

Position: Secretary/Treasurer and Educator Representative (2019-2025)

Nonprofit accrediting agency associated with the National Strength & Conditioning Association (NSCA) that is involved with advancing the profession and providing accreditation to collegiate-level education

programs specializing in strength and conditioning. Interviewed for this position and was voted on to the initial board of directors, where the bylaws were first drafted.

Western Michigan University

Reviewer –

Graduate College Research Grant Review Panel (2022-26)
Graduate Student Travel Grant (2021, 2022, 2026)
Patricia L. Thompson Dissertation Award (2019)
Graduate Student Virtual Travel Grant Award (2020)

Poster Judge –

Research and Creative Activities Poster and Performance Day (annually, 2015-19)

Event Supervisor –

Middle school (Division B) and high school (Division C) supervisor for the Anatomy & Physiology section of the Michigan Science Olympiad (February 25th, 2017)

Independent & Group Research Project Supervision –

Lilin Lan (2024)
- *The effect of exercise on eSports performance*

Rachel Maceri, Aubrey Nachtegall, Kylie Courtney and Filip Jevtovic (2021/22)
- *Placebo effect of transcranial direct current stimulation (tDCS) on the 3-minute aerobic cycling test*

Collin Garner, Brooks Roth and Tyler Dundore (2019/20)
- *Transcranial direct current stimulation (tDCS) as an aid to eSports performance*

Adrian Sanchez & Daniel Isaacs (2018/19)
- *Does verbal encouragement mediate the effect of biofeedback deception in cyclists?*

Salvador Robles-Soriano & Mara-Paige Bennet Rincher (2018/19)
- *Can decision-making skills be improved with a combination of exercise and cognitive training?*

Katrina Gruener & Tyler Koerth (2018/19)
- *The effect of transcranial direct current stimulation on aerobic power and lower extremity muscle activity*

Alec (AJ) Thompson (2018/19)
- *Does 4 weeks of F45 Functional Training improve cardiorespiratory health, muscular fitness and flexibility?*

Rachel Maceri (2018)
- *Skeletal muscle oxygenation (SmO_2) during a maximal self-paced exercise test: comparing young vs. middle aged individuals*

Cody Diehl (2018)

- *Can transcranial direct current stimulation (tDCS) be used to improve performance on a Wingate anaerobic power test?*

Khari Dickey (2017)
- *Effect of rating of perceived exertion (RPE) description on heart rate response during a group cycling class*

Sarah Martinez & Erik Byl (2017)
- *Effect of caffeine dosage on 10km running performance in the heat*

Matt Ras, Emily Pritchett & Kelsey Uno (2016/17)
- *Pain perception before and after a bout of bodyweight circuit training*

Erin Kishman, Rachel Maceri and Sarah Martinez (2016/17)
- *Biofeedback deception and its effect on heart rate variability and exercise test performance*

Lauren Flood, Angel Nuñez & Lindsey Short (2016/17)
- *Pacing strategy during the final two minutes of a self-paced VO_2max test (SPV)*

Caitlin Cornwell, Taylor Lee and Carter Reid (2015/16)
- *Effect of exercise intensity on the perception of time* (2015/16)

Taylor Lee (2016)
- *Effect of exercise intensity on the perception of time* (2015/16)

Taylor Lee and Noah Neuenfeldt (2015/16)
- *Effect of preference and how it affects maximal exercise test performance*

Dylan Lothian & Christopher Miller (2015/16)
- *Mouthguard use and blood lactate concentration in college-age males during the Wingate anaerobic power test*

Holly Morgan, Danielle Carriveau & Amanda Smith (2015/16)
- *The effect of deception on running performance in the heat*

Graduate Thesis/Dissertation committee membership –

Rachel Dykstra – Chair (2021)
- *The effect of high-intensity interval training on cardiorespiratory fitness and body composition in women: a review*

Tyler Dundore – Chair (2020)
- *The Effect of Blood Flow Occlusion on Power Output, Lactate Threshold, and Lactate Utilization as Fuel for Exercise Following 4 Weeks of Interval Training*

Corey Klitzke – Committee Member (2019)
- *Relationship between 1 repetition maximum parallel squat and jump squat peak power*

Kyle DeRosia – Committee Member (2019)
- *Post-activation Potentiation effects from maximal isometric contractions performed at different knee joint angles*

Collin Garner – Committee Member (2019)
- *Effect of caffeine supplementation on vertical jump performance, heart rate variability and electromyography*

Erin Kishman – Committee Member (2018)
- *Effects of instability on core muscle activation in a side bridge*

Russell Fox (2016) - Chair
- *The effect of music on Wingate Anaerobic Test (WAnT) performance*

Noah Nueunfeldt (2016) – Chair
- *Perceived barriers of exercise and awareness of resources on a college campus to improve healthy lifestyle*

Justin Cargo (2014) – Committee Member
- *Effect of a seven week rock-climbing class on physical fitness*

Undergraduate honors thesis committee membership –

Natalie Amm (2026) – Chair
- *Anterior Cruciate Ligament (ACL) injuries in female athletes: implications for prevention and rehabilitation*

Keegan Reynolds (2024) – Chair
- *The effect of bicarbonate supplementation on running performance, lactate concentration and gastrointestinal distress symptoms*

Lilianna Giacalone (2024) – Committee Member
- *The prevention of lateral ankle sprains using the kinesiology taping method*

Sara Barr (2023) – Committee Member
- *Blood flow restriction therapy as a treatment in rehabilitation*

Riley Hobson (2023) – Committee Member
- *Phsyiological and psychological benefits of Rock Steady Boxing and their implications for the management of Parkinson's disease*

Matthew Monaco (2018) – Committee Member
- *Effect of HIIT vs resistance-based circuit training on body composition, muscular strength and power*

Elisabeth Ohrnberger (2018) - Chair
- *Effect of different stretching techniques on jump height and vertical ground reaction force in female dancers*

Kylie Dennis (2017) – Committee Member
- *A physician assistant guide: an analysis between aspiring students, graduate students, and practicing physician assistants*

Jenna Jackson (2017) – Committee Member
- *Health benefits of a plant-based diet*

Carter Reid (2016) - Chair
- *Pacing strategy during the last two minutes of a self-paced VO_2max test: aggressive vs. conservative*

University Committee Membership

Department Level:
Department Tenure Committee (DTC) – 2021 - Chair
Assessment Committee – Exercise Science core group representative (2015-present)
Curriculum Committee – Member (2017-present)
Policy Committee – Member (2014-2017)
Personnel Committee – Member (2019-present)
Search Committee – Exercise Science tenure-track position (2015)
Search Committee – Athletic Training tenure-track position (2016)
Search Committee – Athletic Training/ Exercise Science tenure-track position (2016-17)

College Level:
CEHD Strategic Planning Future Trends Committee - member (2015-17)
CEHD Strategic Planning Transition Committee – member (2017)

University Level:
Academic and Information Technology Council – member (2017-2018)
Human Subjects Institutional Review Board – member (2024-present)

The Ohio State University

Supervisor and advisory roles –

Graded Exercise Testing Practicum
- Conducted maximal testing sessions in the GXT lab for the City of Columbus and State of Ohio Fire and Police Academies. Students observed and were taught various components as described in the course objectives (12-lead EKG, VO_2max testing, body composition, flexibility, etc.). Participated in approximately 8-12 hours per week year-round from Sept 2010 through May 2013.

Kinesiology Lab (PAES 361)
- Served as the lead Graduate Teaching Associate (GTA) for the Spring 2012 quarter. Responsibilities included ordering student course materials, course/syllabus development, and organizing and leading weekly meetings.

Intro to Exercise Physiology Laboratory (PAES 381)
- Served as the lead GTA two quarters (Autumn 2011/Spring 2012). Responsibilities included ordering student course materials, course/syllabus development, and organizing/leading weekly meetings.

Exercise Science Practicum Courses
- Graded Exercise Testing, Body Composition and Strength Testing
- Quarter-to-Semester conversion: Assisted faculty members in evaluation and assessment of all syllabi. Courses were restructured to conform to new 16 week semesters from 10 week quarters.

Service –

Planning committee member for the 3rd Annual College of Education and Human Ecology (EHE) Research Forum

- January 18th, 2013; met weekly throughout the Autumn semester to plan forum
- Organized and reviewed abstracts, helped determine new location, and was oral presenter for a forum

Faculty Staff Fitness Program (FSFP) -

FSFP at OSU is an exclusive exercise facility and program that is available to all employees and spouses. To join, they must participate in a comprehensive fitness evaluation. After, they are given an exercise prescription and are allowed to exercise in the FSFP gym which is monitored at all times by a graduate student with appropriate knowledge of strength & conditioning principles.

Faculty and Staff Rally for Wellness! Health Fair (August 2012)

- Provided blood pressure and skinfold measurements; spoke to individuals and groups about health and wellness. Provided information about Faculty and Staff Fitness Program (FSFP)

FSFP quarterly newsletter (2010-2013)

- Regular contributor; provided relevant articles/commentary to print in newsletter for faculty and staff members

Health and Exercise Science department open house (Winter 2012)

- Served as an ambassador for the department's Faculty Staff Fitness Program
- Described the benefits of personalized comprehensive fitness evaluations

Faculty and Staff Fitness Program evaluation committee (Autumn 2012)

- Objective was to create a survey which would evaluate the effectiveness of an eight-part lecture series, "H3: Winter Healthy Happy Hour Series," for university faculty and staff