

Haley C. Bergstrom

Department of Kinesiology and Health Promotion
University of Kentucky
221 Seaton Building
Lexington, KY 40506-0219
Office: 859-257-0068
hbergstrom@uky.edu

PROFESSIONAL PREPARATION

- 2011-2014 Doctor of Philosophy in Human Sciences (Specialization in Nutrition and Health Sciences; Emphasis in Exercise Physiology), University of Nebraska-Lincoln, Lincoln, Nebraska.
- 2009-2011 Master of Science in Nutrition and Health Sciences (Specialization in Nutrition and Exercise), University of Nebraska-Lincoln, Lincoln, Nebraska.
- 2005-2009 Bachelor of Science (Major: Exercise Science), Doane University, Crete, Nebraska

PROFESSIONAL EXPERIENCES

- 2014 – Present Assistant Professor in Kinesiology and Health Promotion at the University of Kentucky, Lexington, KY
- 2010 – 2014 Graduate Assistant in the Exercise Physiology Laboratory at the University of Nebraska-Lincoln
- 2008 – 2009 Sports Performance Trainer at Madonna ProActive, Lincoln, NE
- 2006 – 2007 Physical Therapy Aide at Tri-County Hospital, Lexington, NE

INSTRUCTIONAL SUMMARY

University of Kentucky

Laboratory Methods in Exercise Science (KHP 640)

Physiology of Exercise (KHP 420G)

Introduction to Exercise Testing and Prescription (KHP 450)

University of Nebraska-Lincoln

Physiology of Exercise (NUTR 484/884)

Exercise Testing and Exercise Programming in Adult Fitness and Cardiac Rehabilitation (NUTR 486/886)

PRIMARY RESEARCH INTERESTS

- Integration of nutrition and exercise interventions on health and performance measures
- Fatigue thresholds as they relate to exercise performance parameters
- Examination of changes in physiological and perceptual responses to fatiguing exercise including; $\dot{V}O_2$, heart rate, muscle activation, and ratings of perceived exertion

PUBLICATIONS

*For all manuscripts and abstracts the first author is designated as the principal investigator and the last author is designated as the senior author.

1. Byrd, M.T., Dinyer, T.K., and **Bergstrom, H.C.** Sex comparisons for very short-term dynamic constant external resistance training. *Functional Morphology and Kinesiology*, In Press, October 2018.
2. Beyer, K.S., Stout, J.R., Redd, M.J., Baker, K.M., **Bergstrom, H.C.**, Hoffman, J.R., Fukuda, D.H. Maturity-related differences in systemic and localized fatigue thresholds among adolescent male athletes. *Pediatric Exercise Science*, Published ahead of Print, September 2018.
3. Byrd, M.T., and **Bergstrom, H.C.** Effects of very short-term dynamic constant external resistance exercise on strength and barbell velocity in untrained individuals. *International Journal of Exercise Science*, 11(1):867-874, 2018.
4. Keller, J.L., Housh, T.J., Herda, T.J., Zuniga, J.M., Camic, C.L., **Bergstrom, H.C.**, Smith, D.B., Weir, J.P., Smith, C.M., Hill, E.C., Schmidt, R.J., and Johnson, G.O. The effects of epoch length on time and frequency domain parameters of electromyographic and mechanomyographic signals. *Journal of Electromyography and Kinesiology*, 40:88-94, 2018.
5. Byrd, M.T., Wallace, B.J., Clasey, J.L., and **Bergstrom, H.C.** Contributions of lower body strength parameters to critical power and anaerobic work capacity. *Journal of Strength and Conditioning Research*, Published Ahead of Print, February, 2018.
6. Schulte, M., Clasey, J.L., Flenor, B., and **Bergstrom, H.C.** Examination of resistance settings based on body weight for the 3-min all-out critical power test. *International Journal of Exercise Science* 11(4): 585–597, 2018.
7. Wallace, B.J., **Bergstrom, H.C.**, and Butterfield, T.A. Brief Review: Muscular basis of variable resistance efficacy. *International Journal of Sports Science and Coaching*. In Press, 2018.
8. **Bergstrom, H.C.**, Byrd, M.T., Wallace, B.J., and Clasey, J.L. Examination of a multi-ingredient pre-workout supplement on total volume of resistance exercise and subsequent strength and power performance. *Journal of Strength and Conditioning Research*, 32(6):1479-1490, 2018.
9. Byrd, M.T., Switalla, J.R., Clasey, J.L., Wallace, B.J., and **Bergstrom, H.C.** Contributions of body composition characteristics to critical power and anaerobic work capacity. *International Journal of Sports Physiology and Performance*, 13(2):189-193. 2018.
10. **Bergstrom, H.C.**, Housh, T.J., Cochrane, K.C., Jenkins, N.D.M., Byrd, M.T., Schmidt, R.J., and Johnson, G.O. A model for identifying intensity zones above critical velocity. *Journal of Strength and Conditioning Research*, 31(12): 3260-3265, 2017.
11. Switalla, J.R., Byrd, M.T., Abel, M.G., Fleenor, B., and **Bergstrom, H.C.** Can experienced runners accurately estimate performance capabilities to derive the parameters of the critical velocity model? *International Journal of Physical Education, Health and Sports*, 4(2): 204-209, 2017.
12. Brim III, H.H., Abel, M.G., Wallace, B.J., Byrd, M.T., Eastman, J.E., and **Bergstrom, H.C.** Can critical velocity and anaerobic swimming capacity be determined from estimated performance times in collegiate swimmers? *Journal of Exercise Physiology online*, 20(1): 23-32, 2017.
13. Smith, C.M., Housh, T.J., Zuniga, J.M., Camic, C.L., **Bergstrom, H.C.**, Smith, D.B., Herda, T.J., Weir, J.P., Hill, E.C., Cochrane, K.C., Jenkins, N.D.M., Schmidt, R.J., and Johnson, G.O. Influences of interelectrode

- distance and the innervation zone on electromyographic signals. *International Journal of Sports Medicine*. 38(2): 111-117, 2017.
14. Smith, C.M., Housh, T.J., Herda, T.J., Zuniga, J.M., Camic, C.L., **Bergstrom, H.C.**, Smith, D.B., Weir, J.P., Cramer, J.T., Hill, E.C., Cochrane, K.C., Jenkins, N.D.M, Schmidt, R.J, and Johnson, G.O. Time course of changes in neuromuscular parameters during sustained isometric muscle actions. *Journal of Strength and Conditioning Research*. 30(10): 2697-2702, 2016.
 15. Jenkins, N.D.M., Housh, T.J., Buckner, S.L., **Bergstrom, H.C.**, Smith, C.M., Cochrane, K.C., Hill, E.C., Miramonti, A. Schmidt, R.J., Johnson, G.O., and Cramer, J.T. Four weeks of high- versus low-load resistance training to failure on the rate of torque development, electromechanical delay, and contractile twitch properties. *Journal of Musculoskeletal and Neuronal Interactions*. 16(2): 135-144, 2016.
 16. Jenkins, N.D.M., Housh, T.J., Buckner, S.L., **Bergstrom, H.C.**, Cochrane, K.C., Hill, E.C., Smith, C.M., and Cramer, J.T. Neuromuscular adaptations after 2- and 4-weeks of 80% versus 30% 1RM resistance training to failure. *Journal of Strength and Conditioning Research*. 30(8): 2174-2185, 2016.
 17. Smith, C.M., Housh, T.J., Herda, T.J., Zuniga, J.M., Ryan, E.D., Camic, C.L., **Bergstrom, H.C.**, Smith, D.B., Weir, J.P., Cramer, J.T., Hill, E.C., Cochrane, K.C., Jenkins, N.D.M, Schmidt, R.J, and Johnson, G.O. Electromyographic Responses from the Vastus Medialis during Isometric Muscle Actions. *International Journal of Sports Medicine*. 37(8): 647-652, 2016.
 18. Jenkins, N.D.M., Housh, T.J., Buckner, S.L., **Bergstrom, H.C.**, Cochrane, K.C., Hill, E.C., Smith, C.M., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. Individual responses for muscle activation, repetitions, and volume during 3 sets to failure of high- (80% 1RM) versus low-load (30% 1RM) forearm flexion resistance exercise. *Sports*. 3(4): 269-280, 2015.
 19. **Bergstrom, H.C.**, Housh, T.J., Cochrane, K.C., Jenkins, N.D.M., Buckner, S.L., Goldsmith, J.A., Zuniga, J.M., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. Factors underlying the perception of effort during treadmill running above and below the critical heart rate. *European Journal of Applied Physiology*. 115(10): 2231-2241, 2015. DOI: 10.1007/s00421-015-32014-y.
 20. Cochrane, K.C., Housh, T.J., Jenkins, N.D.M., **Bergstrom, H.C.**, Smith, C.M., Hill, E.C., Johnson, G.O., Schmidt, R.J., and Cramer, J.T. Electromyographic, mechanomyographic, and metabolic responses during cycle ergometry at a constant rating of perceived exertion. *Applied Physiology, Nutrition, and Metabolism*. 40(11):1178-1185, 2015.
 21. Jenkins, N.D.M., Housh, T.J., **Bergstrom, H.C.**, Cochrane, K.C., Hill, E.C., Smith, C.M., Johnson, G.O., and Schmidt, R.J. Muscle activation during three sets to failure at 80% vs. 30% 1RM resistance exercise. *European Journal of Exercise Physiology*. 115(11):2335-2347, 2015.
 22. **Bergstrom, H.C.**, Housh, T.J., Cochrane, K.C., Jenkins, N.D.M., Buckner, S.L., Goldsmith, J.A., Zuniga, J.M., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. Application of the critical heart rate model to treadmill running. *Journal of Strength and Conditioning Research*. 29(8):2237-2248, 2015.
 23. Smith, C.M., Housh, T.J., Herda, T.J., Zuniga, J.M., Ryan, E.D., Camic, C.L., **Bergstrom, H.C.**, Smith, D.B., Weir, J.P., Cramer, J.T., Hill, E.C., Cochrane, K.C., Jenkins, N.D.M, Schmidt, R.J, and Johnson, G.O. Effects of the innervation zone on the time and frequency domain parameters of the surface electromyographic signal. *Journal of Electromyography and Kinesiology*. 25(4): 565-570, 2015.
 24. Herda, T.J, Zuniga, J.M., Ryan, E.D., Camic, C.L., **Bergstrom, H.C.**, Smith, D.S., Weir, J.P., Cramer, J.T., and Housh, T.J. The influence of electromyographic recording methods and the innervation zone on the mean power frequency-torque relationships. *Journal of Electromyography and Kinesiology*. 25(3): 423-430, 2015.

25. Jenkins, N.D.M., Miller, J.M., Cochrane, K.C., **Bergstrom, H.C.**, Hill, E.C., Smith, C.M. Housh T.J., and Cramer, J.T. Test-retest reliability of single transverse versus panoramic ultrasound imaging for muscle size and echo intensity of the biceps brachii. *Ultrasound in Medicine and Biology*. 41(6): 1584-1591, 2015.
26. Cochrane, K.C., Housh, T.J., **Bergstrom, H.C.**, Jenkins, N.D.M., Johnson, G.O., Schmidt, R.J., and Cramer, J.T. Physiological responses during cycle ergometry at a constant perception of effort. *International Journal of Sports Medicine*. 36: 466-473, 2015.
27. Cochrane, K.C., Housh, T.J., **Bergstrom, H.C.**, Jenkins, N.D.M., Johnson, G.O., Housh, D.J., Traylor, D.A., Lewis, Jr., R.W., Schmidt, R.J., and Cramer, J.T. Dissociations among direct and indirect indicators of adiposity in young wrestlers. *Journal of Strength and Conditioning Research*, 29(2): 408-415, 2015.
28. Jenkins, N.D.M., Housh, T.J., Palmer, T.B., Cochrane, K.C., **Bergstrom, H.C.**, Johnson, G.O., Schmidt, R.J., and Cramer, J.T. Relative differences in strength and power from slow to fast velocities may reflect dynapenia. *Muscle and Nerve*. 52(1): 120-130, 2015. DOI: 10.1002/mus.24505
29. **Bergstrom, H.C.**, Housh, T.J., Traylor, D.A., Lewis, Jr., R.W., Cochrane, K.C., Jenkins, N.D.M, Schmidt, R.J., Johnson, G.O., Housh, D.J., and Cramer, J.T. Metabolic, cardiovascular, and perceptual responses to a thermogenic nutritional supplement at rest, during exercise, and recovery in men. *Journal of Strength and Conditioning Research*. 28(8): 2154-2163, 2014.
30. **Bergstrom, H.C.**, Housh, T.J., Zuniga, J.M., Traylor, D.A., Lewis Jr., R.W., Camic, C.L., Schmidt, R.J., and Johnson, G.O. Differences among estimates of critical power and anaerobic work capacity derived from five mathematical models and the 3-min all-out test. *Journal of Strength and Conditioning Research*, 28(3): 592-600, 2014. doi:10.1519/JSC.0b013e31829b576d.
31. Cochrane, K.C., Housh, T.J., **Bergstrom, H.C.**, Jenkins, N.D.M., Johnson, G.O., Schmidt, R.J., and Cramer, J.T. Perceptual and physiological fatigue thresholds during cycle ergometry. *Journal of Exercise Physiologyonline*, 17(5): 95-107, 2014.
32. Jenkins, N.D.M., Buckner, S.L., Goldsmith, J.A., **Bergstrom, H.C.**, Cochrane, K.C., Housh, T.J., Johnson, G.O., Schmidt, R.J., and Cramer, J.T. Reliability and relationships among handgrip strength, leg extensor strength, and balance in older men. *Experimental Gerontology*, 58C: 47-50, 2014.
33. Jenkins, N.D.M., Buckner, S.L., Cochrane, K.C., **Bergstrom, H.C.**, Goldsmith, J.A., Weir, J.P., Housh, T.J., and Cramer, J.T. CLA supplementation and aerobic exercise lower blood triacylglycerol, but have no effect on peak oxygen uptake or cardiorespiratory fatigue threshold. *Lipids*, 49(9): 871-880, 2014.
34. Jenkins, N.D.M., Housh, T.J., Traylor, D.A., Cochrane, K.C., **Bergstrom, H.C.**, Lewis, Jr., R.W., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. The rate of torque development: A unique, non-invasive indicator of eccentric-induced muscle damage? *International Journal of Sports Medicine*. 35(14):1190-1195, 2014.
35. Zuniga, J.M., Housh, T.J., Camic, C.L., **Bergstrom, H.C.**, Schmidt, R.J., and Johnson, G.O. The effect of different exercise protocols and regression-based algorithms on the assessment of the anaerobic threshold. *Journal of Strength and Conditioning Research*, 28(9): 2507-2512, 2014.
36. Jenkins, N.D.M., Buckner, S.L., Cochrane, K.C., **Bergstrom, H.C.**, Johnson, G.O., Schmidt, R.J., Housh, T.J., and Cramer, J.C. Age-related differences in rates of torque development and rise in EMG are eliminated by normalization. *Experimental Gerontology*, 5(57C): 18-28, 2014.
37. Jenkins, N.D.M., Buckner, S.L., Baker, R.B., **Bergstrom, H.C.**, Cochrane, K.C., Weir, J.P., Housh, T.J., and Cramer, J.T. Effects of six weeks of aerobic exercise combined with conjugated linoleic acid on the physical working capacity at fatigue threshold. *Journal of Strength and Conditioning Research*, 28(8):2127-2135, 2014.

38. Camic, C.L., Housh, T.J., Zuniga, J.M., **Bergstrom, H.C.**, Schmidt, R.J., and Johnson, G.O. Mechanomyographic and electromyographic responses during fatiguing eccentric muscle actions of the leg extensors. *Journal of Applied Biomechanics*, 30(2):255-261, 2014.
39. Traylor, D.A., Housh, T.J., Lewis, Jr., R.W., **Bergstrom, H.C.**, Cochrane, N.D.M Jenkins, R.J. Schmidt, G.O. Johnson, J.T. Cramer. The effects of gender and very short-term resistance training on peak torque, average power, and neuromuscular responses of the forearm flexors. *Isokinetics and Exercise Science*, 22: 123-130, 2014.
40. Jenkins, N.D.M., Housh, T.J., Cochrane, K.C., **Bergstrom, H.C.**, Traylor, D.A, Lewis, Jr., R.W., Buckner, S.L., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. Effects of anatabine and unilateral maximal eccentric isokinetic muscle actions on serum markers of muscle damage and inflammation. *European Journal of Pharmacology*, 728: 161-166, 2014.
41. Camic, C.L., Housh, T.J., Zuniga, J.M., Traylor, D.A., **Bergstrom, H.C.**, Schmidt, R.J., Johnson, G.O., and Housh, D.J. The effects of polyethylene glycosylated creatine supplementation on anaerobic performance measures and body composition. *Journal of Strength and Conditioning Research*, 28(3): 825-833, 2014.
42. **Bergstrom, H.C.**, Housh, T.J., Cochrane, K.C., Jenkins, N.D.M., Lewis Jr., R.W., Traylor, D.A., Zuniga, J.M., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. An examination of neuromuscular and metabolic fatigue thresholds. *Physiological Measurements*, 34:1253-1267, 2013.
43. **Bergstrom, H.C.**, Housh, T.J., Traylor, D.A., Lewis Jr., R.W., Jenkins, N.D.M., Cochrane, K.C., Schmidt, R.J., Johnson, G.O. and Housh, D.J. Physiological responses to a thermogenic nutritional supplement during rest, exercise, and recovery from exercise in college-aged women. *Applied Physiology, Nutrition, and Metabolism*, 38:988-995, 2013.
44. **Bergstrom, H.C.**, Housh, T.J., Zuniga, J.M., Traylor, D.A., Camic, C.L., Lewis Jr., R.W., Schmidt, R.J., and Johnson, G.O. The relationships among critical power determined by a 3-min all-out test, respiratory compensation point, gas exchange threshold, and ventilatory threshold. *Research Quarterly for Exercise and Sport*, 84:232-238, 2013.
45. **Bergstrom, H.C.**, Housh, T.J., Zuniga, J.M., Traylor, D.A., Lewis Jr., R.W., Camic, C.L., Schmidt, R.J., and Johnson, G.O. Mechanomyographic and metabolic responses during continuous cycle ergometry at critical power from the 3-min all-out test. *Journal of Electromyography and Kinesiology*, 23(2): 349-355, 2013. doi:10.1016/j.jelekin.2012.11.001.
46. **Bergstrom, H.C.**, T.J. Housh, J.M. Zuniga, D.A. Traylor, R.W. Lewis Jr., C.L. Camic, R.J. Schmidt, and G.O. Johnson. Responses during exhaustive exercise at critical power determined from the 3-min all-out test. *Journal of Sports Sciences*, 31(5): 537-545, 2013. doi:10.1080/02640414.2012.738925.
47. **Bergstrom, H.C.**, Housh, T.J., Zuniga, J.M., Traylor, D.A., Camic, C.L., Lewis Jr., R.W., Schmidt, R.J., and Johnson, G.O. Metabolic and neuromuscular responses at critical power from the 3-min all-out test. *Applied Physiology, Nutrition, and Metabolism*, 38(1): 7-13, 2013. doi: 10.1139/apnm-2012-0216.
48. Cochrane, K.C., Housh, T.J., **Bergstrom, H.C.**, Jenkins, N.D.M., Johnson, G.O., Housh, D.J., Schmidt, R.J., and Cramer, J.T. Body build and anthropometric growth patterns of 7 to 18-year old wrestlers. *Journal of Exercise Physiology Online*. 16(6): 89-101, 2013.
49. Jenkins, N.D.M., Housh, T.J., Johnson, G.O., Traylor, D.A., **Bergstrom, H.C.**, Cochrane, K.C., Lewis Jr., R.W., Schmidt, R.J., and Cramer, J.T. The effects of anatabine on non-invasive indicators of muscle damage: A randomized, double-blind, placebo-controlled, crossover study. *Journal of the International Society of Sports Nutrition*, 10:33, 2013, <http://www.jissn.com/content/10/1/33>.

50. Herda, T.J., Zuniga, J.M., Ryan, E.D., Camic, C.L., **Bergstrom, H.C.**, Smith, D.B., Weir, J.P., Cramer, J.T., and Housh, T.J. Quantifying the effects of electrode distance from the innervation zone on the electromyographic amplitude versus torque relationships. *Physiological Measurement*, 34(3): 315-324, 2013. doi:10.1088/0967-3334/34/3/315.
51. Lewis Jr., R.W., Housh, T.J., Traylor, D.A., **Bergstrom, H.B.**, Johnson, G.O., Schmidt, R.J., Cramer, J.T., Jenkins, N.D.M., and Cochrane, K.C. The effects of concentric fatigue on concentric, eccentric, and isometric torque. *Journal of Exercise Physiology online*, 16(1): 10-18, 2013.
52. Zuniga, J.M., Housh, T.J., Camic, C.L., **Bergstrom, H.C.**, Traylor, D.A., Johnson, G.O., and Schmidt, R.J. Neuromuscular and metabolic comparisons between ramp and step incremental cycle ergometer tests. *Muscle and Nerve*, 47(4): 555-560, 2013 doi: 10.1002/mus.23606.
53. Traylor, D.A., Housh, T.J., Camic, C.L., Zuniga, J.M., **Bergstrom, H.C.**, Schmidt, R.J., Johnson, G.O. and Lewis Jr., R.W. The effects of three days of concentric isokinetic training on isometric and concentric torque production of the forearm flexors in males. *Journal of Isokinetics and Exercise Science*, 21(1): 63-68, 2013. doi: 10.3233/IES-2012-0472.
54. Lewis Jr., R.W., Housh, T.J., Traylor, D.A., **Bergstrom, H.C.**, Schmidt, R.J., Johnson, G.O. and Housh, D.J. Age and isokinetic peak torque at the elbow in young girl swimmers. *Journal of Isokinetics and Exercise Science*, 21: 57-61, 2013.
55. Camic, C.L., Housh, T.J., Zuniga, J.M., Hendrix, C.R., **Bergstrom, H.C.**, Traylor, D.A., Schmidt, R.J., and Johnson, G.O. Electromyographic and mechanomyographic responses across repeated maximal isometric and concentric muscle actions of the leg extensors. *Journal of Electromyography and Kinesiology*, 23(2): 342-348, 2013. doi:10.1016/j.jelekin.2012.09.010.
56. **Bergstrom, H.C.**, Housh, T.J., Zuniga, J.M., Camic, C.L., Traylor, D.A., Schmidt, R.J., and Johnson, G.O. Estimated times to exhaustion and power outputs at the gas exchange threshold, physical working capacity at the rating of perceived exertion threshold, and respiratory compensation point. *Applied Physiology, Nutrition, and Metabolism*, 37: 872-879, 2012. doi:10.1139/h2012-057.
57. **Bergstrom H.C.**, Housh, T.J., Zuniga, J.M., Traylor, D.A., Lewis Jr., R.W., Camic, C.L., Schmidt, R.J., and Johnson, G.O. Estimates of critical power and anaerobic work capacity from a test of less than 3-min. *Journal of Sports Medicine and Doping Studies*, 2:107, 2012. doi:10.4172/2161-0673.1000107
58. **Bergstrom, H.C.**, Housh, Zuniga, J.M., Camic, C.L., Traylor, D.A., Schmidt, R.J., and Johnson, G.O. A new single workout test to estimate critical power and anaerobic work capacity. *Journal of Strength and Conditioning Research*, 26(3): 656-663, 2012.
59. Zuniga, J.M., Housh, T.J., Camic, C.L., **Bergstrom, H.C.**, Traylor, D.A., Johnson, G.O., and Schmidt, R.J. Metabolic parameters for ramp versus step incremental cycle ergometer tests. *Applied Physiology, Nutrition, and Metabolism*, 37(6): 1110-1117, 2012. doi: 10.1139/h2012-098.
60. Traylor, D.A., Housh, T.J., Camic, C.L., Zuniga, J.M., **Bergstrom, H.C.**, Schmidt, R.J., Johnson, G.O., and Lewis Jr., R.W. The effects of short-term isokinetic resistance training on isometric and concentric torques of the forearm flexors in females. *Journal of Exercise Physiology-online*, 15(1): 110-116, 2012.
61. Zuniga, J.M., Housh, Camic, C.L., Hendrix, C.R., **Bergstrom, H.C.**, Johnson, G.O., and Schmidt, R.J. The effects of skinfold thicknesses and innervations zone on the mechanomyographic signal during cycle ergometry. *Journal of Electromyography and Kinesiology*, 21(5):789-94, 2011.

62. Camic, C.L., Housh, T.J., Hendrix, C.R., Zuniga, J.M., **Bergstrom, H.C.**, Schmidt, R.J., and Johnson, G.O. The influence of the muscle fiber pennation angle and innervation zone on the physical working capacity at the fatigue threshold. *Journal of Electromyography and Kinesiology*, 21:33-40, 2011.

MANUSCRIPTS IN REVIEW

1. Dinyer, T.K., Byrd, M.T., Garver, M.J., Rickard, A.J., Miller, W., Burns, S., and **Bergstrom, H.C.** Low-intensity versus high-intensity resistance training to failure on one-repetition maximum strength and body composition in untrained females. *Journal of Strength and Conditioning Research*, In Review, October 2018.
2. Herbe, C.T., Byrd, M.T., Dinyer, T.K., Wallace, B.J., and **Bergstrom, H.C.** The effects of pre-workout supplementation on anaerobic power and maintenance of power in college students. *International Journal of Exercise Science*, In Review, September 2018.
3. Dinyer, T.K., Byrd, M.T., Cochrane-Snyman, K.C., Jenkins, N.D.M., Housh, T.J., Schmidt, R.J., Johnson, G.O., and **Bergstrom, H.C.** Time course of changes in neuromuscular responses during rides to exhaustion above and below critical power. *European Journal of Applied Physiology*, In Review, August 2018.

ABSTRACTS AND PRESENTATIONS AT PROFESSIONAL MEETINGS

1. Byrd, M.T., Dinyer, T.K., and **Bergstrom, H.C.** Effects of very short-term DCER training on strength and power production in untrained females. (Presented at the National Strength and Conditioning Annual Convention, 2018, Indianapolis, IN).
2. Dinyer, T.K., Byrd, M.T., Garver, M.J., Rickard, A.J., Miller, W., Burns, S., and **Bergstrom, H.C.** Low-intensity versus high-intensity RT to failure on 1RM strength in untrained females. (Presented at the National Strength and Conditioning Annual Convention, 2018, Indianapolis, IN).
3. Dinyer, T.K., Byrd, M.T., Cochrane-Snyman, K.C., Jenkins, N.D.M., Housh, T.J., Schmidt, R.J., Johnson, G.O., and **Bergstrom, H.C.** Time course of changes in neuromuscular responses during rides to exhaustion above critical power. (Presented at the National Strength and Conditioning Annual Convention, 2018, Indianapolis, IN).
4. Byer, K.S., Stout, J.R., Redd, M.J., Baker, K.M., Church, D.D., **Bergstrom, H.C.**, Hoffman, J.R., and Fukuda, D.H. Maturity-related differences in the adaptation to anaerobic capacity following sprint interval training in youth male athletes. (Presented at the National Strength and Conditioning Annual Convention, 2018, Indianapolis, IN).
5. Magee, M.K., Beyer, K.S., Stout, J.R., Redd, M.J., Baker, K.M., Elliott, A., Church, D.D., **Bergstrom, H.C.**, Hoffman, J.R., and Fukuda, D.H. Maturity-related differences in muscle hypertrophy following spring interval training in youth male athletes. (In review for presentation at the National Strength and Conditioning Annual Convention, 2018, Indianapolis, IN).
6. **Bergstrom, H.C.**, Housh, T.J., Cochrane-Snyman, K.C., Jenkins, N.D.M., Byrd, M.T., Dinyer, T.K., Schmidt, R.J., and Johnson, G.O. Inter-individual variability in metabolic and neuromuscular responses during continuous exercise above and below critical power. (Presented at the American College of Sports Medicine National Convention, 2018, Minneapolis, MN).
7. Lesniak, A., **Bergstrom, H.C.**, Clasey, J.L., Stromber, M., and Abel, A.G. The effect of personal protective equipment on firefighter occupational performance. (In review for presentation at the American College of Sports Medicine National Convention, 2018, Minneapolis, MN).

8. Byrd, M.T., and **Bergstrom, H.C.** Gender comparisons for very short-term dynamic constant external resistance training. (Presented at the Southeast American College of Sports Medicine Regional Chapter Convention, 2018, Chattanooga, TN).
9. Dinyer, T.K., Garver, M.J., Rickard, A.J., Miller, W., Burns, S., and **Bergstrom, H.C.** Low intensity resistance training to failure on 1RM strength in untrained females. (Presented at the Southeast American College of Sports Medicine Regional Chapter Convention, 2018, Chattanooga, TN).
10. Lesniak, A., **Bergstrom, H.C.**, Clasey, J.L., Stromber, M., and Abel, A.G. The effect of personal protective equipment on firefighter occupational performance. (Accepted for presentation at the Southeast American College of Sports Medicine Regional Chapter Convention, 2018, Chattanooga, TN).
11. Byrd, MT, Wallace, B.J., Clasey, J.L., Switalla, J.R., Eastman, J.E., and **Bergstrom, H.C.** Contribution of strength measures to the critical power and anaerobic work capacity. (Presented at the National Strength and Conditioning Association National Convention, 2017, Las Vegas, NV).
12. Byrd, M.T., Eastman, J.E., and **Bergstrom, H.C.** The very short-term training model: A reliable model for tracking acute performance adaptations to exercise and nutritional interventions. 14(Suppl 2): 31, 2017 (Presented at the International Society for Sports Nutrition National Convention, 2017, Phoenix, AZ).
13. **Bergstrom, H.C.**, Housh, T.J., Eastman, J.E., Byrd, M.T., Jenkins, N.D.M., Cochrane-Snyman, K.C., Schmidt, R.J., and Johnson, G.O. Is there an oxygen pulse threshold during treadmill running? 49(5S):143, 2017. (Presented at the American College of Sports Medicine National Convention, 2017, Denver, CO).
14. Byrd, M.T., Eastman, J.E., and **Bergstrom, H.C.** Application of the very short-term training model to dynamic constant external resistance exercise. (Presented at the Kentucky state National Strength and Conditioning Clinic, 2017, Georgetown, KY).
15. Schulte, M.J., Clasey, J.L., Fleenor, B.S., and **Bergstrom, H.C.** Examination of resistance settings based on body weight for the 3-min all-out critical power test. (Presented at the Southeast American College of Sports Medicine Regional Convention, 2017, Greenville, SC).
16. Byrd, T.M., Wallace, B.J., Clasey, J.L., and **Bergstrom, H.C.** Acute effects of a pre-workout supplement on resistance training volume and the subsequent strength and power performance. (Presented at the Southeast American College of Sports Medicine Regional Convention, 2017, Greenville, SC).
17. Byrd, M.T., Wallace, B.J., Clasey, J.L., Switalla, J.R., Quinn, J., Baker, P., Joshi, P., and **Bergstrom, H.C.** Contributions of body composition characteristics to aerobic and anaerobic cycling performance. *Journal of Strength and Conditioning Research*. 30:S1-S210, 2016.(Presented at the National Strength and Conditioning Association Annual Convention, 2016, New Orleans, LA).
18. Wallace, B., **Bergstrom, H.C.**, and Wallace, K. Effects of MusclePharm Assault Black™ on lower extremity spinal excitability and postactivation potentiation: a pilot study. *Journal of the International Society of Sports Nutrition*. 13:S1, P35. (Presented at the International Society of Sports Nutrition National Annual Convention, 2016, Clearwater, FL).
19. **Bergstrom, H.C.**, Housh, T.J., Jenkins, N.D.M., Cochrane, K.C., Byrd, M.T., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. Neuromuscular and perceptual responses, but not metabolic, consistently driven to peak during severe intensity running. *Medicine and Science in Sports and Exercise*. 48(5S):592, 2016. (Presented at the American College of Sports Medicine National Annual Convention, 2016, Boston, MA).
20. Byrd, M.T., Lane, M.T., and **Bergstrom, H.C.** Examination of relationships among body composition and in-season offensive performance in collegiate softball players. *Medicine and Science in Sports and Exercise*.

48(5S):998, 2016. (Presented at the American College of Sports Medicine National Annual Convention, 2016, Boston, MA).

21. Byrd, M.T., Lane, M.T., **Bergstrom, H.C.** A pre-workout supplement and high intensity cycle ergometry performance in recreationally trained men. (Presented at the Southeast American College of Sports Medicine Regional Convention, 2016, Greenville, SC).
22. Switalla, J.R., Housh, T.J., Cochrane, K.C., Jenkins, N.D.M., Buckner, S.L., Goldsmith, J.A., Schmidt, R.J., Johnson, G.O., Cramer, J.T, **Bergstrom, H.C.** Metabolic, cardiovascular, and perceptual responses during treadmill running severe intensity treadmill running: Limiting factors of exercise performance? (Presented at the National Strength and Conditioning Association Annual Convention, 2015, Orlando, FL).
23. Smith, C.M., Housh, T.J. Herda, T.J., Zuniga, J.M., Ryan, E.D., Camic, C.L., **Bergstrom, H.C.**, Smith, D.B., Weir, J.P., Cramer, J.T., Cochrane, K.C., Hill, E.C., Jenkins, N.D.M., Schmidt, R.J., and Johnson, G.O. Effects of the innervation zone on electromyographic time and frequency domain parameters during a fatiguing isometric muscle action of the vastus medialis. (Presented at the National Strength and Conditioning Association Annual Convention, 2015, Orlando, FL).
24. Jenkins, N.D.M., Housh, T.J., **Bergstrom, H.C.**, Cochrane, K.C., Hill, E.C., Smith, C.M., Yeo, N., Miller, J.M., Cramer, J.T. Muscle activation, muscle swelling, and exercise volume during three sets to failure during 30% versus 80% 1RM resistance exercise. (Presented at the National Strength and Conditioning Association Annual Convention, 2015, Orlando, FL).
25. Jenkins, N.D.M., Housh, T.J., **Bergstrom, H.C.**, Buckner, S.L., Cochrane, K.C., Hill, E.C., Smith, C.M., and Cramer, J.T. Muscle size, muscle strength, electromyography, mechanomyography, and voluntary activation during four weeks of high- vs. low-load resistance training. (Presented at the National Strength and Conditioning Association Annual Convention, 2015, Orlando, FL).
26. Keeler, J., Pohl, M., Shapiro, R., **Bergstrom, H.C.**, Thomas, J.M., and Abel, M.G. The effect of tactical tasks and gear on muscle activation of SWAT officers. (Presented at the National Strength and Conditioning Association Annual Convention, 2015, Orlando, FL).
27. **Bergstrom, H.C.**, Housh, T.J., Cochrane, K.C., Jenkins, N.D.M., Buckner, S.L., Goldsmith, J.A., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. Factors Underlying the Perception of Effort during Constant Heart Rate Running. *Medicine and Science in Sports and Exercise*. 47(5S):785-788, 2015. (Presented at the American College of Sports Medicine National Annual Convention, San Diego, CA).
28. Cochrane, K.C., Housh, T.J., Jenkins, N.D.M., **Bergstrom, H.C.**, Smith, C.M., Hill, E.C., Johnson, G.O., Schmidt, R.J., and Cramer, J.T. Neuromuscular and metabolic responses during cycle ergometry at a constant rating of perceived exertion. 47(5S):785-788, 2015. (Presented at the American College of Sports Medicine National Annual Convention, San Diego, CA).
29. Smith, C.M., Herda, T.J., Zuniga, J.M., Ryan, E.D., Camic, C.L., **Bergstrom, H.C.**, Smith, D.B., Weir, J.P., Cramer, J.T., Cochrane, K.C., Hill, E.C., Jenkins, N.D.M., Housh, T.J., Schmidt, R.J., and Johnson, G.O. Effects of the Innervation Zone on Electromyographic Responses during Fatiguing Isometric Muscle Actions. 47(5S):320-330, 2015. (Presented at the American College of Sports Medicine National Annual Convention, San Diego, CA).
30. Jenkins, N.D.M., Yeo, N., Miller, J.M., Smith, C.M., Hill, E.C., Cochrane, K.C., **Bergstrom, H.C.**, Housh, T.J., and Cramer, J.T. Electromyographic and mechanomyographic responses during three sets to failure of low-versus high-load resistance training. 47(5S):926-941, 2015. (Presented at the American College of Sports Medicine National Annual Convention, San Diego, CA).

31. **Bergstrom, H.C.**, Housh, T.J., Cochrane, K.C., Jenkins, N.D.M., Buckner, S.L., Goldsmith, J.A., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. Sustainability, physiological, and perceptual responses at the critical heart rate during treadmill running. (Presented at the National Strength and Conditioning Association National Annual Convention, 2014, Las Vegas, NV).
32. Cochrane, K.C., Housh, T.J., **Bergstrom, H.C.**, Jenkins, N.D.M., Buckner, S.L., Cramer, J.T., Johnson, G.O., and Schmidt, R.J.. Comparison of perceptual and physiological fatigue thresholds during cycle ergometry. (Presented at the National Strength and Conditioning Association National Annual Convention, 2014, Las Vegas, NV).
33. Jenkins, N.D.M., Buckner, S.L., Goldsmith, J.A., **Bergstrom, H.C.**, Cochrane, K.C., Housh, T.J., and Cramer, J.T. The effects of six weeks of moderate aerobic exercise combined with conjugated linoleic acid supplementation on peak oxygen uptake, gas exchange threshold, and respiratory compensation point. (Presented at the National Strength and Conditioning Association National Annual Convention, 2014, Las Vegas, NV).
34. Jenkins, N.D.M., Buckner, S.L., Goldsmith, J.A., **Bergstrom, H.C.**, Cochrane, K.C., Schmidt, R.J., Johnson, G.O., Housh, T.J., and Cramer, J.T. Reliability and comparisons of handgrip strength, leg extension muscle function, and balance. (Presented at the National Strength and Conditioning Association National Annual Convention, 2014, Las Vegas, NV).
35. **Bergstrom, H.C.**, Housh, T.J., Cochrane, K.C., Jenkins, N.D.M., Buckner, S.L., Baker, B., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. Neuromuscular responses during continuous exercise at, above, and below critical power. 46(5S):668-677, 2014. (Presented at the American College of Sport Medicine Annual Convention, Orlando, FL).
36. Jenkins, N.D.M., Buckner, S.L., **Bergstrom, H.C.**, Cochrane, K.C., Palmer, T.B., Schmidt, R.J., Johnson, G.O., Housh, T.J., and Cramer, J.T. Age related differences in rates of torque development and rates of rise in electromyographic amplitude. 46(5S):456-461, 2014. (Presented at the American College of Sport Medicine Annual Convention, Orlando, FL).
37. Zuniga, J.M., Housh, T.J., **Bergstrom, H.C.**, and Camic, C.L. The influence of cycling protocols and regression-based algorithms on the assessment of the anaerobic threshold. 46(5S):933-939, 2014. (Presented at the American College of Sport Medicine Annual Convention, Orlando, FL).
38. Cochrane, K.C., Housh, T.J., **Bergstrom, H.C.**, Jenkins, N.D.M., Cramer, J.T., Johnson, G.O., and Schmidt, R.J.. Comparison of perceptual and physiological fatigue thresholds during cycle ergometry. October 2013. (Presented at the Southwest American College of Sports Medicine Annual Convention in Newport Beach, California).
39. **Bergstrom, H.C.**, Housh, T.J., Traylor, D.A., Lewis Jr., R.W., Johnson, G.O., Schmidt, R.J., Housh, D.J., Jenkins, N.D.M., Cochrane, K.C., and Cramer, J.T. Metabolic, cardiovascular, and perceptual responses to a thermogenic nutritional supplement at rest, during exercise, and recovery in men. (Presented at the National Strength and Conditioning Association National Annual Convention, 2013, Las Vegas, NV).
40. Cochrane K.C., Housh, T.J., **Bergstrom, H.C.**, Traylor, D.A., Jenkins, N.D.M., Lewis Jr., R.W., Johnson, G.O., Schmidt, R.J., Housh, D.J., and Cramer, J.T. Age related difference in body weight, height, body mass index, and upper body skinfolds between young wrestlers and non-athletes. (Presented at the National Strength and Conditioning Association National Annual Convention, 2013, Las Vegas, NV).
41. Jenkins, N.D.M., Traylor, D.A., Housh, T.J., **Bergstrom, H.C.**, Cochrane, K.C., Lewis Jr., R.W., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. Effects of eccentric-induced muscle damage on the time courses of recovery for peak torque and rates of torque development. (Presented at the National Strength and Conditioning Association National Annual Convention, 2013, Las Vegas, NV).

42. Jenkins, N.D.M., Traylor, D.A., Housh, T.J., **Bergstrom, H.C.**, Cochrane, K.C., Lewis Jr., R.W., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. Effects of anatabine on markers of eccentric-induced muscle damage and delayed-onset muscle soreness. (Presented at the National Strength and Conditioning Association National Annual Convention, 2013, Las Vegas, NV).
43. **Bergstrom, H.C.**, Housh, T.J., Traylor, D.A., Lewis Jr., R.W., Johnson, G.O., Schmidt, R.J., Housh, D.J., Jenkins, N.D.M., and Cochrane, K.C. Physiological responses to a thermogenic nutritional supplement during rest, exercise, and recovery in women. 45(5S):243-246, 2013. (Presented at the American College of Sports Medicine Annual Convention, Indianapolis, IN).
44. Traylor, D.A., Housh, T.J., Lewis Jr., R.W., **Bergstrom, H.C.**, Johnson, G.O., Schmidt, R.J., Jenkins, N.D.M., and Cochrane, K.C. Effects of very short-term training on peak torque, power, and neuromuscular responses of the forearm flexors. 45(5S):501-513, 2013. (Presented at the American College of Sports Medicine Annual Convention, Indianapolis, IN).
45. Camic, C.L., Housh, T.J., Zuniga, J.M., Traylor, D.A., **Bergstrom, H.C.**, Schmidt, R.J., and Johnson, G.O. Mechanomyographic and Electromyographic responses during fatiguing eccentric muscle actions of the leg extensors. 45(5S):94-96, 2013. (Presented at the American College of Sports Medicine Annual Convention, Indianapolis, IN).
46. Jenkins, N.D.M., Cramer, J.T., Housh, T.J., **Bergstrom, H.C.**, Cochrane, K.C., Traylor, D.A., Lewis Jr., R.W., Schmidt, R.J., and Johnson, G.O. Rate of torque development versus rate of velocity development during voluntary and evoked muscle actions. 45(5S):175-187, 2013. (Presented at the American College of Sports Medicine Annual Convention in Indianapolis, IN).
47. **Bergstrom, H.C.**, Housh, T.J., Traylor, D.A., Lewis Jr., R.W., Johnson, G.O., Schmidt, R.J., and Housh, D.J. Physiological responses to a thermogenic nutritional supplement during rest, low-intensity exercise, and recovery. October 2012. (Presented at the Southwest American College of Sports Medicine Annual Convention in Newport Beach, California)
48. **Bergstrom, H.C.**, Housh, T.J., Zuniga, J.M., Camic, C.L., Traylor, D.A., Lewis Jr., R.W., Schmidt, R.J., and Johnson, G.O. The relationships among critical power from a 3-min all-out test, respiratory compensation point, gas exchange threshold and ventilatory threshold. <https://journals.lww.com/nsca-jscr>. (Presented at the National Strength and Conditioning Association Annual Convention, 2012, Providence, RI).
49. Traylor, D.A., Camic, C.L., Housh, T.J., Zuniga, J.M., Lewis Jr., R.W., **Bergstrom, H.C.**, Housh, D.J., Schmidt, R.J., and Johnson, G.O. The effects of polyethylene glycosylated creatine on NFL combine and performance measures. <https://journals.lww.com/nsca-jscr>. (Presented at the National Strength and Conditioning Association Annual Convention, 2012, Providence, RI).
50. Lewis Jr., R.W., Housh, T.J., Traylor, D.A., **Bergstrom, H.C.**, Johnson, G.O., Schmidt, R.J., Housh, D.J. The Relationships Between Age and Peak Torque in Young Female Swimmers. <https://journals.lww.com/nsca-jscr>. (Presented at the National Strength and Conditioning Association Annual Convention, 2012, Providence, RI).
51. **Bergstrom, H.C.**, Zuniga, J.M., Housh, T.J., Camic, C.L., Traylor, D.A., Lewis Jr., R.W., Johnson, G.O., and Schmidt, R.J. Estimated times to exhaustion and power outputs at four fatigue thresholds. *Medicine Science in Sports and Exercise* 44: S281, 2012. (Presented at the American College of Sports Medicine Annual Convention, 2012, San Francisco, CA).
52. Traylor, D.A., Housh, T.J., Johnson, G.O., Schmidt, R.J., Camic, C.L., Zuniga, J.M., **Bergstrom, H.C.**, and Lewis Jr., R.W. The effects of short-term training on isometric and concentric torque production of the forearm flexors in males. *Medicine Science in Sports and Exercise* 44: S271, 2012. (Presented at the American College of Sports Medicine Annual Convention, 2012, San Francisco, CA).

53. Lewis, R.W., Traylor, D.A., **Bergstrom, H.C.**, Housh, T.J., Johnson, G.O., Schmidt, R.J., and Housh, D.J. Yearly changes in the body composition and body build of young female swimmers. *Medicine Science in Sports and Exercise* 44: S595, 2012(Presented at the American College of Sports Medicine Annual Convention, 2012, San Francisco, CA).
54. Camic, C.L., Taddy, M.L., Zuniga, J.M., Housh, T.J., Traylor, D.A., **Bergstrom, H.C.**, Schmidt, R.J., and Johnson, G.O. Electromyographic responses across repeated maximal isometric and concentric muscle actions. *Medicine and Science in Sports and Exercise* 44: S376-S377, 2012. (Presented at the American College of Sports Medicine Annual Convention, 2012, San Francisco, CA).
55. **Bergstrom, H.C.**, Housh, T.J., Zuniga, J.M., Camic, C.L., Traylor, D.A., Schmidt, R.J., and Johnson, G.O. A new single workout test to estimate critical power and anaerobic work capacity. <https://journals.lww.com/nsca-jscr>. (Presented at the National Strength and Conditioning Association Annual Convention, 2011, Las Vegas, NV).
56. Traylor, D.A., Housh, T.J., Johnson, G.O., Schmidt, R.J., Housh, D.J., Camic, C.L., Zuniga, J.M., and **Bergstrom, H.C.** Age-related changes in percent body fat, BMI, and skinfolds in young wrestlers. <https://journals.lww.com/nsca-jscr>. (Presented at the National Strength and Conditioning Association Annual Convention, 2011, Las Vegas, NV).
57. **Bergstrom, H.C.**, Zuniga, J.M., Housh, T.J., Camic, C.L., Traylor, D.A., Johnson, G.O., and Schmidt, R.J. Application of the Dmax method to identify the gas exchange, ventilatory, and neuromuscular fatigue thresholds. *Medicine Science in Sports and Exercise* 43: S388, 2011. (Presented at the Annual American College of Sports Medicine Annual Convention, 2011, Denver, CO).
58. Zuniga, J.M., Housh, T.J., Camic, C.L., Hendrix, C.R., **Bergstrom, H.C.**, Traylor, D.A., Johnson, G.O., and Schmidt, R.J. A new mechanomyographic amplitude-based fatigue threshold test for cycling. *Medicine Science in Sports and Exercise* 43: S534-535, 2011. (Presented at the American College of Sports Medicine Annual Convention, 2011, Denver, CO).
59. Camic, C.L., Housh, T.J., Zuniga, J.M., Traylor, D.A., **Bergstrom, H.C.**, Johnson, G.O., Schmidt, R.J., and Housh, D.J. Predicting percent body fat from body mass index and triceps skinfold in young athletes. *Medicine Science in Sports and Exercise* 43: S606, 2011. (Presented at the American College of Sports Medicine Cnnual Convention, 2011, Denver, CO).
60. **Bergstrom, H.C.**, Zuniga, J.M., Housh, T.J., Camic, C.L., Hendrix, C.R., Johnson, G.O., and Schmidt, R.J. The relationship between skinfold thickness and the amplitude and frequency domains of the surface electromyographic signal during cycle ergometry. <https://journals.lww.com/nsca-jscr>. (Presented at the National Strength and Conditioning Association Annual Convention, 2010, Orlando, FL).
61. Zuniga, J.M., Housh, T.J., Camic, C.L., Hendrix, C.R., **Bergstrom, H.C.**, Johnson, G.O., and Schmidt, R.J. The relationship between skinfold thickness and mechanomyography at different locations on the vastus lateralis during incremental cycle ergometry. <https://journals.lww.com/nsca-jscr>. (Presented at the National Strength and Conditioning Association Annual Convention, 2010, Orlando, FL)
62. Camic, C.L., Housh, T.J., Zuniga, J.M., Hendrix, C.R., **Bergstrom, H.C.**, Johnson, G.O., Schmidt, R.J., and Housh, D.J. The influence of electrode placement on the physical working capacity at the fatigue threshold. <https://journals.lww.com/nsca-jscr>. (Presented at the National Strength and Conditioning Association Annual Convention, 2010, Orlando, FL)

INVITED PRESENTATIONS

“Historical basis and evolution of the critical power concept.” Critical power: Unlocking the limits of human performance, Symposium, 2018, Provo, NV.

“Nutritional considerations before and after high intensity interval training in men and women” National Strength and Conditioning Association National Convention, 2017, Las Vegas, NV.

“The examination of the methodologies and mechanisms underlying fatigue thresholds” Exercise Science Seminar Series. University of Kentucky, Department of Kinesiology and Health Promotion. September, 2014, Lexington, KY.

“The effects of protein supplementation on strength and protein synthesis” National Strength and Conditioning Association National Convention, 2013, Las Vegas, NV.

BOOK CHAPTERS

Bergstrom, H.C. Resting and Exercise Electrocardiogram. In: Housh, T. J., Cramer, J.T., Weir, J.P., Beck, T.W., and Johnson, G.O. *Laboratory Manual for Exercise Physiology, Exercise Testing, and Physical Fitness*. Scottsdale, AZ: Holcomb Hathaway Publishers, 2016. p. 21-32.

Bergstrom, H.C. Gas Exchange Threshold, Ventilatory Threshold, and Respiratory Compensation Point. In: Housh, T. J., Cramer, J.T., Weir, J.P., Beck, T.W., and Johnson, G.O. *Laboratory Manual for Exercise Physiology, Exercise Testing, and Physical Fitness*. Scottsdale, AZ: Holcomb Hathaway Publishers, 2016. p. 102-110.

Bergstrom, H.C. Critical Power 3-Min All-Out Test. In: Housh, T. J., Cramer, J.T., Weir, J.P., Beck, T.W., and Johnson, G.O. *Laboratory Manual for Exercise Physiology, Exercise Testing, and Physical Fitness*. Scottsdale, AZ: Holcomb Hathaway Publishers, 2016. p. 125-134.

DOCTORAL STUDENT COMMITTEES

Ashley Lesniak (Fall 2017) – Dissertation: “The Effect of External Stressors on Firefighter Performance” (Committee Member)

Kyle S. Beyer (Spring 2017) – Dissertation: “The effects of interval training and maturity status on metabolic and neuromuscular fatigue thresholds in adolescents” (Committee Member)

DOCTORAL STUDENT COMMITTEES IN PROGRESS

Travis Byrd (Anticipated Graduation Spring 2019) – Area of Study: Motor unit control strategies underlying acute changes in strength and performance parameters from very short-term resistance training. (Co-Chair)

MASTER’S STUDENT THESESES COMMITTEES

Fall 2017 Tyler Lindon, *Examination of volume and intensities of weekday practices and competitive games in collegiate football players*, Graduation: May 2017. (Chair)

Fall 2016 Howard Brim III, *A non-exercise based estimation of the critical swimming velocity and anaerobic work capacity in collegiate swimmers*, Graduation: May, 2016 (Chair)

Fall 2016 Jonathan Robert Switalla, *A non-exercise based estimation of the critical running velocity and anaerobic running capacity in competitive runners*, August, 2016 (Chair)

- Summer 2016 Marlene (Nall) Schulte, *Examination of resistance settings based on body weight for the 3-min all-out critical power test*, May, 2016 (Chair)
- Fall 2014 Jason M. Keeler, *The effect of tactile task and gear on muscle activation of swat officers*. (Committee Member)

MASTER'S STUDENT THESES COMMITTEES IN PROGRESS

- May 2019 Lauren Herrick, *Effects of curcumin supplementation on the physical working capacity at the fatigue threshold*, Anticipated Graduation: May 2018. (Chair)
- May 2019 Jesen Goh, *Effects of curcumin supplementation on metabolic fatigue thresholds*, Anticipated Graduation: May 2018. (Chair)
- May 2019 Alexander Moss, *Methodological considerations for the determination of the critical resisitnce*, Anticipated Graduation: May 2018. (Chair)
- May 2020 Pasquale Succi, *A comparison of metabolic, neuromuscular, and perceptual responses to contant heart versus constatn power output exercise*, Anticipated Graduation: May 2019. (Chair)

EXTERNAL FUNDING

- 2015 (Fall) Co-Principal Investigator (effort 50%) – \$35,000. *Acute effects of a pre-workout supplement on total upper and lower body resistance training volume and subsequent strength, power, and anaerobic endurance performance*. MusclePharm Corporation, Denver, Colorado. Co-Principal Investigator: Brian Wallace, PhD).
- 2015 (Spring) Co-Investigator (effort 50%) - \$2,500. *Effects of MusclePharm Assault™ on spinal excitability and postactivation potentiation of the triceps surae*. ISSN-MusclePharm. (Principle Investigator: Brian Wallace, PhD).
- 2013 (Fall) Principal Investigator (effort 50%) – \$10,000. *Physiological responses at the critical heart rate during treadmill running*. National Strength and Conditioning Association Doctoral Student Research Grant.
- 2013 (Fall) Co-Investigator (effort 20%) – \$339,566. *Effects of conjugated linoleic acid on performance*. Stepan Lipid Nutrition. (Principal Investigator, Joel T. Cramer, PhD and Co-Principal Investigator: Terry J. Housh, PhD).
- 2013 (Fall) Co-Investigator (effort 20%) - \$99,600. *The effects of two forms of leucine and two forms of creatine on leucine and creatine bioavalability*. General Nutrition Corporation, Pittsburgh, Pennsylvania. (Principal Investigator: Terry J. Housh, PhD and Co-Principal Investigator: Joel T. Cramer, PhD).
- 2012 (Fall) Co-Investigator (effort 20%) – \$377,456 *The effects of the dietary supplement anatabine on delayed onset muscle soreness in the forearm flexors*. Rock Creek Pharmaceuticals. (awarded RCP-011; Principal Investigator: Joel T. Cramer, PhD and Co-Principal Investigator: Terry J. Housh, PhD).
- 2012 (Spring) Co-Investigator and Study Coordinator (effort 50%) – \$99,600. *The effects of a dietary supplement on energy expenditure before, during, and following low intensity exercise*. General Nutrition Corporation, Pittsburgh, Pennsylvania, (awarded, GNC-2012-004; Principal Investigator: Terry J. Housh, PhD).
- 2011 (Fall) Co-Investigator (effort 20%) – \$99,840, *The effects of creatine supplementation on exercise performance and lean body mass while consuming an enteric coated tablet*. General Nutrition Corporation, Pittsburgh, Pennsylvania, (awarded, GNC-2011-002; Principal Investigator: Terry J. Housh, PhD).

EXTERNAL FUNDING REQUESTS (not funded)

- 2018 (Spring) Principal Investigator - \$21,204. *Motor control strategies above and below the critical resistance threshold.* National Strength and Conditioning Association Foundation. Young Investigator Grant.
- 2017 (Spring) Principal Investigator - \$20,000. *Salivary hormone and immune responses to a HIIT microcycle.* National Strength and Conditioning Association Foundation. Young Investigator Grant.
- 2016 (Fall) Principal Investigator (effort 50%) – \$20,000. Not funded. *Physiological and perceptual responses to five running paces used for endurance training.* National Strength and Conditioning Association, Young Investigators Grant.
- 2014 (Fall) Co-Principal Investigator (effort 50%) – \$23,400. Not funded. *The effects of the TITIN Force Shirt System on Anaerobic and Aerobic Performance Parameters.* Titintech. (Co-Principle Investigator: Brian Wallace).

INTERNAL FUNDING

- Summer 2018 Principal Investigator - \$4,480. “Neuromuscular responses above and below the critical resistance threshold.” College of Education: Summer Support Grant, Type I.

INTERNAL FUNDING REQUESTS (not funded)

- Fall 2017 Principal Investigator - \$20,000. *Salivary hormone and immune responses to a HIIT microcycle.* National Strength and Conditioning Association Foundation. Young Investigator Grant.
- Spring 2017 Principal Investigator - \$7,500. *Physiological and perceptual responses to five running paces used for endurance training.* College of Education: Summer Support Grant, Type I.
- Spring 2017 Principal Investigator - \$10,000. Proposed study, *Examination of the bilateral deficit and cross-education effect after very-short term resistance training.* Research Professorship.
- 2015 (Summer) Principle Investigator – \$7,500. *Reliability and validity of heart rate and neuromuscular based fatigue thresholds.* Summer Faculty Research Fellowship.

EQUIPMENT FUNDING REQUESTS (not funded)

- Fall 2017 Principal Investigator - \$49,575. Biodex System Pro 4 Isokinetic Dynamometer. *VPR Minor Equipment Competition*
- Spring 2017 Principal Investigator - \$49,575. Biodex System Pro 4 Isokinetic Dynamometer. *VPR Equipment Competition*

SERVICE TO THE UNIVERSITY

- 2015 (Spring-Fall) First Scholars Program, Academy for undergraduate excellence. Mentor

SERVICE TO THE COLLEGE

- 2015 (Fall - current) College Research Advisory Committee
- 2014 (Fall) College Work Groups - Group Forum – Student Achievement Subcommittee – Graduate Student Retention

SERVICE TO THE DEPARTMENT

- 2017 (Spring – current) Undergraduate Certificate in Nutrition for Human Performance, Advisory board member.
- 2016 (Summer) Search committee for a full-time lecturer. Committee member
- 2014 Fall - current Annual Student Learning Outcomes Report for the Bachelor's Exercise Science Program. University of Kentucky, Department of Kinesiology and Health Promotion. Helps the Department and UK adhere to the Kentucky Common Core.
- 2014 (Fall) Exercise Science curriculum committee – Fall 2014 University of Kentucky, Department of Kinesiology and Health Promotion

SERVICE TO THE PROFESSION

Editorial Appointments:

- Senior Associate Editor, Journal of Strength and Conditioning Research (January 2017 – current)
- Associate Editor, Journal of Strength and Conditioning Research (September 2015 – January 2017)

Journal Manuscript Reviewer:

- Journal of Strength and Conditioning Research
- Journal of Sports Sciences
- Clinical Physiology and Functional Imaging
- European Journal of Applied Physiology
- International Journal of Sports Physiology and Performance
- International Journal of Sports Medicine
- Journal of Sports Science and Medicine
- Research Quarterly for Exercise and Sport Journal
- Journal of Visualized Experiments
- Applied Physiology Nutrition and Metabolism
- Journal of Musculoskeletal and Neuronal Interactions
- Scandinavian Journal of Medicine and Science in Sports
- Journal of Nature and Science
- Muscle and Nerve
- Respiratory, Physiology, and Neurobiology
- Journal of Applied Physiology

Service to Professional Organizations

- Reviewer, SEACSM 1st time student presenter support applications (January 2018)
- Abstract Reviewer, National Strength and Conditioning Association (Journal of Strength and Conditioning Research), 2014-2018
- Abstract Reviewer, American College of Sports Medicine (Medicine Science in Sports and Exercise)

- Abstract Reviewer, Southeast Chapter of the American College of Sports Medicine, 2015-2018
- Abstract Reviewer, Student Research Award Judge, National Strength and Conditioning National Conference, 2015, 2016
- Moderator, Research Track Presentation, *Strength and Conditioning for Combat Athletes*, National Strength and Conditioning Conference, 2015

HONORS AND AWARDS

- Recipient of the National Strength and Conditioning Associations Doctoral Student Research Award for an outstanding poster abstract presentation at the National Conference (2012, 2013, 2014)
- Golden Key International Honor Society (2012-present)
- Othmer Fellowship (2011-2014)
- Challenge Scholarship from the National Strength and Conditioning Association Foundation (2013)
- Women's Scholarship from the National Strength and Conditioning Association Foundation (2012)

CERTIFICATIONS

- NSCA – Certified Strength and Conditioning Specialist with distinction (CSCS*D)
- American Red Cross – CPR/AED and First Aid

PROFESSIONAL MEMBERSHIPS

- Member of the International Society of Sports Nutrition (ISSN), January, 2015 – current
- Member of the National Strength and Conditioning Association (NSCA), February, 2010 – current
- Member of the American College of Sports Medicine (ACSM), November, 2009 – current