

## ***Haley C. Bergstrom***

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### **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**

- 2020 – Present            Associate Professor in Kinesiology and Health Promotion at the University of Kentucky, Lexington, KY
- 2014 – 2020            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, Lincoln, NE
- 2008 – 2009            Sports Performance Assistant 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)  
Strength and Conditioning for Sports (KHP 350)  
Practicum in Kinesiology and Health Promotion (KHP 577)

#### *University of Nebraska-Lincoln – Graduate Teaching Assistant*

Physiology of Exercise (NUTR 484/884)  
Exercise Testing and Exercise Programming in Adult Fitness and Cardiac Rehabilitation (NUTR 486/886)

### **PRIMARY RESEARCH INTERESTS**

- The mathematical modeling of human performance
- Fatigue thresholds as they relate to exercise performance parameters
- The non-invasive assessment of muscle function and fatigue
- Examination of changes in physiological and perceptual responses to fatiguing exercise including  $\dot{V}O_2$ , heart rate, muscle excitation, and ratings of perceived exertion
- Integration of nutrition and exercise interventions on health and performance measures

## **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. Kwak, M., Succi, P.J., Benitez, B., Abel, M.G., Samaan, M.A., and **Bergstrom, H.C.** Time course of changes in force and neuromuscular responses during handgrip holds to failure anchored to a moderate perceptual intensity in males. *Journal of Musculoskeletal and Neuronal Interactions*, Accepted January 2024.
2. Gustave, D., Mitchinson, C.J., Succi, P.J., Benitez, B., Kwak, M., Lanphere, K.R., Clasey, J.L., and **Bergstrom, H.C.** Metabolic and perceptual responses to constant heart rate exercise at vigorous intensities in women. *Medicine & Science in Sports & Exercise*, Accepted December 2023. Published ahead of print January 19, 2024. DOI: 10.1249/MSS.0000000000003381
3. Olmos, A., Montgomery, T.R., Sears, K.N., Dinyer, T.K., Hammer, S.M., **Bergstrom, H.C.**, Hill, E.C., Succi, P.J., Lawson, J., and Trevino, M.A. Blood flow restriction increases necessary muscle excitation of the forearm flexors during a single high-intensity contraction. *European Journal of Applied Physiology*, Published online January 18, 2024. <https://doi.org/10.1007/s00421-023-05405-y>
4. Montgomery, T., Olmos, A., Sears, K.N., Succi, P.J., Hammer, S.M., **Bergstrom, H.C.**, Hill, E.C., Trevino, M.A., and Dinyer-McNeely, T.K. Influence of blood flow restriction on neuromuscular function and fatigue during forearm flexion in men. *Journal of Strength and Conditioning Research*, Accepted, December 2023.
5. Succi, P.J., Benitez, B., Kwak, M., and **Bergstrom, H.C.** Examination of individual responses to determine VO<sub>2</sub>max during cycle ergometry in women. *Journal of Functional Kinesiology and Morphology*. 8, 124, 2023.
6. Benitez, B., Kwak, M., Succi, P.J., Weir, J.P., and **Bergstrom, H.C.** Unilaterally induced quadriceps fatigue during isometric exercise does not alter contralateral leg extensor performance. *Journal of Functional Morphology and Kinesiology*. 8, 85, 2023.
7. Kwak, M., Succi, P.J., Benitez, B., **Bergstrom, H.C.** Sustainability and perceptual responses during handgrip holds to failure at two fatigue thresholds. *European Journal of Applied Physiology*. 123(11): 2563-2573, 2023.
8. Langford, E.L., **Bergstrom, H.C.**, Lanham, S., Eastman, A.Q., Best, S., Ma, X., Abel, M.G. Evaluation of work efficiency in structural firefighters. *Journal of Strength and Conditioning Research*, 37(12): 2457-2466, 2023.
9. Succi, P.J., Dinyer-McNeely, T.K., Voskuil, C.C., Abel, M.G., Clasey, J.L., and **Bergstrom, H.C.** Responses to exercise at critical heart rate versus the power output associated with critical heart rate. *Journal of Strength and Conditioning Research*, 37(12): 2362-2372, 2023.
10. Benitez, B., Dinyer-McNeely, T.K., McCallum, L., Kwak, M., Succi, P.J., and **Bergstrom, H.C.** Electromyographic and mechanomyographic responses of the biceps brachii during concentric and eccentric muscle actions to failure at high and low relative loads. *European Journal of Applied Physiology*, 123(10): 2145-2156, 2023.
11. Benitez, B., Dinyer-McNeely, T.K., McCallum, L., Kwak, M., Succi, P.J., and **Bergstrom, H.C.** Load-specific performance fatigability, coactivation, and neuromuscular responses to fatiguing forearm flexion muscle actions in women. *Journal of Strength and Conditioning Research*, 37(4): 769-779, 2023.
12. Anderson, O.K., Voskuil, C.C., Byrd, M.T., Garver, M.J., Rickard, A.J., Miller, W.M., **Bergstrom, H.C.**, and Dinyer-McNeely, T.K. Affective and perceptual responses during an 8-week resistance training to failure intervention at low vs. high loads in untrained women. *Journal of Strength and Conditioning Research*, 37(3): 546-554, 2023.

13. Succi, P.J., Benitez, B., Kwak, M., and **Bergstrom, H.C.** The minimal difference as an individual threshold to examine the utility of a verification bout in determining  $\dot{V}O_{2max}$ . *Medicine & Science in Sports & Exercise*, *Medicine & Science in Sports & Exercise*, 55(6): 1063-1068, 2023.
14. Mason, M.R., Heebner, N., Abt, J., Shapiro, R., **Bergstrom, H.C.**, Langford, E.L., and Abel, M.G. The acute effect high-intensity resistance training on subsequent firefighter performance. *Journal of Strength and Conditioning Research*, 37(7): 1507-1514, 2023.
15. Succi, P.J., Benitez, B., Kwak, M., and **Bergstrom, H.C.** Methodological considerations for the determination of  $\dot{V}O_{2max}$  in healthy men. *European Journal of Applied Physiology*, 123(1): 191-199, 2023.
16. Succi, P.J., Dinyer, T.K., Byrd, M.T., Voskuil, C.C., and **Bergstrom, H.C.** Application of  $\dot{V}O_2$  to the critical power model to derive the critical  $\dot{V}O_2$ . *Journal of Strength and Conditioning Research*, 36(12): 3374-3380, 2022.
17. Succi, P.J., Benitez, B., Kwak, M., and **Bergstrom, H.C.**  $\dot{V}O_{2max}$  is reliably measured from a stand-alone graded exercise test in healthy women. *Journal of Exercise Physiology online*, 25(4):14-25, 2022.
18. Voskuil, C.C., Dinyer, T.K., Succi, P.J., Campbell, M.S., Abel, M.G., and **Bergstrom, H.C.** Unilateral handgrip holds to failure result in sex-dependent contralateral facilitation. *International Journal of Exercise Science*, 15(4): 782-796, 2022.
19. Dinyer, T.K., Byrd, M.T., Succi, P.J., and **Bergstrom, H.C.** The time course of changes in neuromuscular responses during the performance of leg extension repetitions to failure below and above critical resistance in women. *Journal of Strength and Conditioning Research*. 36(3): 608-614, 2022.
20. Keeler, J.M., Pohl, M.B., **Bergstrom, H.C.**, Thomas, J.M., and Abel, M.G. The effects of tactical tasks and gear on muscle activation in swat officers. *Journal of Strength and Conditioning Research*, 36(1): 238-244, 2022.
21. Dinyer-McNeely, T.K., Succi, P.J., Voskuil, C.C., Byrd, M.T., and **Bergstrom, H.C.** Comparison of inter- and intra-individual neuromuscular patterns of responses during moderate-load bilateral leg extension exercise. *Research Directs in Strength and Performance*, 1(1), article 7, 2021.
22. Succi, P.J., Dinyer, T.K., Byrd, M.T., Souci, E.P., Voskuil, C.C., and **Bergstrom, H.C.** Test-retest reliability of critical power, critical heart rate, time to exhaustion, and average heart rate during cycle ergometry. *Journal of Exercise Physiology online*, 24(2): 33-51, 2021.
23. Moss, A.C., Dinyer, T.K., Abel, M.G., **Bergstrom, H.C.** Methodological considerations for the determination of the critical load for the deadlift. *Journal of Strength and Conditioning Research*, 35(2S): S31-S37, 2021.
24. 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*, 35(1): 97-101, 2021.
25. **Bergstrom, H.C.**, Dinyer, T.K., Succi, P.J., Voskuil, C.C., and Housh, T.J. Applications of the critical power model to dynamic constant external resistance exercise: A brief review of the critical load test. *Sports*, 9(2): 15, 2021.
26. Dinyer, T.K., Succi, P.J., Byrd, M.T., Voskuil, C.C., Soucie, E.P., and **Bergstrom, H.C.** Interlimb neuromuscular responses during fatiguing, bilateral, leg extension exercise at a moderate versus high load. *Motor Control*. 25(1): 59-74, 2021.
27. Dinyer, T.K., Succi, P.J., Souci, E.P., Voskuil, C.C., Byrd, M.T., and **Bergstrom, H.C.** Muscular performance and neuromuscular fatigue are not sex-dependent during low-load fatiguing bilateral leg extension exercise. *NeuroSports*. 1(1), Article 7, 2021.

28. Dinyer, T.K., Byrd, M.T., Vesotsky, A.N., Succi, P.J., and **Bergstrom, H.C.** Linear and nonlinear modeling of critical load. *Journal of Exercise Physiology online*. 23(5): 1-13, 2020.
29. Herrick, L.P., Goh, J., Menke, W., Campbell, M.S., Fleener, B.S., Abel, M.G., **Bergstrom, H.C.** The effects of curcumin and fenugreek soluble fiber on the physical working capacity at the fatigue threshold, peak oxygen consumption, and time to exhaustion. *Journal of Strength and Conditioning Research*, 34(12): 3346-3355, 2020.
30. Goh, J., Menke, W., Herrick, L.P., Campbell, M.S., Fleener, B.S., Abel, M.G., **Bergstrom, H.C.** Examination of curcumin and fenugreek soluble fiber supplementation on submaximal and maximal aerobic indices. *Journal of Functional Morphology and Kinesiology*. 5(2): 34, 2020.
31. Dinyer, T.K., Byrd, M.T., Succi, P.J., Clasey, J.L., **Bergstrom, H.C.** Contributions of maximal strength and body composition characteristics to resistance exercise performance at the critical load. *Journal of Exercise Physiology online*. 23(3), 25-37, 2020.
32. Beyer, K.S., Stout, J.R., Redd, M.J., Baker, K.M., Church, D.D., **Bergstrom, H.C.**, Hoffman, J.R., Fukuda, D.H. Effect of somatic maturity on aerobic and anaerobic adaptation to sprint interval training. *Physiological Reports*, Published online, 8(9): e14426, May 6, 2020.
33. Succi, P.J., Dinyer, T.K., Byrd, M.T., and **Bergstrom, H.C.** Comparisons of the metabolic intensities at heart rate, gas exchange, and ventilatory thresholds. *International Journal of Exercise Science*, 13(2): 455-469, 2020.
34. **Bergstrom, H.C.**, Housh, T.J., Dinyer, T.K., Byrd, M.T., Jenkins, N.D.M., Cochrane-Snyman, K.C., Succi, P.J., Zuniga, J.M., Schmidt, R.J., and Johnson, G.O. Neuromuscular responses of the superficial quadriceps femoris muscles: Muscle specific fatigue and inter-individual variability during severe intensity treadmill running. *Journal of Musculoskeletal and Neuronal Interactions*. 3(1): 77-87, 2020.
35. Lesniak, A., **Bergstrom, H.C.**, Clasey, J.L., Stromberg, A.J., and Abel, M.G. The effects of personal protective equipment on firefighter occupational performance. *Journal of Strength and Conditioning Research*, 34(8): 2165-2172, 2020.
36. Dinyer, T.K., Byrd, M.T., Vesotsky, A.N., Succi, P.J., Clasey, J.L., and **Bergstrom, H.C.** The sensitivity of the critical resistance model to detect sex-related differences in fatigue during submaximal muscular contractions. *Journal of Science in Sport and Exercise*. 1: 151-158, 2019.
37. 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*, 33(7): 1737-1744, 2019.
38. 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. *Journal of Musculoskeletal and Neuronal Interactions*, 19(3): 266-275, 2019.
39. Dinyer, T.K., Byrd, M.T., Vesotsky, A.N., Succi, P.J., and **Bergstrom, H.C.** Applying the critical power model to a full body resistance training movement. *International Journal of Sport Physiology and Performance*. 14(10): 1364-1370, 2019.
40. 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*, 12(2): 355-365, 2019.
41. 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 youth male athletes. *Pediatric Exercise Science*, 31(1): 99-106, 2019.

42. Byrd, M.T., Dinyer, T.K., and **Bergstrom, H.C.** Sex comparisons for very short-term dynamic constant external resistance training. *Journal of Functional Morphology and Kinesiology*, 3(4): 50, 2018.
43. 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.
44. 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.
45. Schulte, M., Clasey, J.L., Fleenor, 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.
46. 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*. 13(6): 1177-1188, 2018.
47. **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.
48. 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.
49. **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.
50. 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, Sports and Health*, 4(2): 204-209, 2017.
51. 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.
52. 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.
53. 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.
54. 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.

55. 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.
56. 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.
57. 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.
58. **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.
59. 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.
60. 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 Applied Physiology*. 115(11):2335-2347, 2015.
61. **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.
62. 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.
63. 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.
64. 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.
65. 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.
66. 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.
67. 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.

68. **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.
69. 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.
70. 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.
71. 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.
72. 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.
73. 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.
74. 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.
75. 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.
76. **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.
77. 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.
78. 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.
79. 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.
80. 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.

81. **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.
82. **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.
83. **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.
84. **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.
85. **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.
86. **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.
87. 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.
88. 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>.
89. 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.
90. 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.
91. 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.
92. 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:



93. 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.
94. 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.
95. **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.
96. **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
97. **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.
98. 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.
99. 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.
100. 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.
101. 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.

#### **ABSTRACTS AND PRESENTATIONS AT NATIONAL PROFESSIONAL MEETINGS**

1. Succi, P.J., Mitchinson, C.J., Pfeifer, H.J., Benitez, B., Kwak, M., Butterfield, T.A., **Bergstrom, H.C.** Metabolic responses to endurance exercise anchored to vigorous ratings of perceived exertion. (Accepted for presentation at the American College of Sports Medicine National Meeting, June 2024).
2. Benitez, B., Kwak, M., Mitchinson, C.J., Succi, P.J., **Bergstrom, H.C.** Examination of sex-differences in fatigability and sEMG spectral shifts during sustained, isometric leg extension. (Accepted for presentation at the American College of Sports Medicine National Meeting, June 2024).
3. Kwak, M., Succi, P.J., Benitez, B., Mitchinson, C., Samaan, M.A., Abel, M.G., **Bergstrom, H.C.** Comparison of force responses during continuous handgrip holds anchored to low and high perceptual intensities. (Accepted for presentation at the American College of Sports Medicine National Meeting, June 2024).

4. Mitchinson, C.J., Gustave, D., Succi, P.J., Benitez, B., Kwak, M., **Bergstrom, H.C.** Metabolic responses during endurance exercise anchored to vigorous heart rates. (Accepted for presentation at the American College of Sports Medicine National Meeting, June 2024).
5. Richardson, L.D., Olmos, A.A., Dinyer-McNeely, T.K., Montgomery, T.R., Hammer, S.M., Sears, K.N., **Bergstrom, H.C.**, Succi, P.J., Hill, E.C., Roth, B.L., Trevino, M.A. Effects of blood flow restriction on motor unit behavior during a single high-load contraction. (Accepted for presentation at the American College of Sports Medicine National Meeting, June 2024).
6. Roth, B.L., Olmos, A.A., Montgomery, T.R., Sears, K.N., Dinyer-McNeely, T.K., Hammer, S.M., **Bergstrom, H.C.**, Hill, E.C., Succi, P.J., Richardson, L., Trevino, M.A. Sex-related differences in mechanomyographic amplitude of the biceps brachii during motor unit activation and deactivation. (Accepted for presentation at the American College of Sports Medicine National Meeting, June 2024).
7. Succi, P.J., Benitez, B., Kwak, M., Butterfield, T.A., Pfeifer, H.J., **Bergstrom, H.C.** Performance fatigability, muscle excitation, and neuromuscular efficiency after cycling anchored to vigorous ratings of perceived exertion. (Presented at the National Strength and Conditioning Association Annual Meeting, July 2023). \*Doctoral Student Research Award for an Outstanding Poster Abstract Presentation at the National Conference.
8. Kwak, M., Succi, P.J., Benitez, B., **Bergstrom, H.C.** Examination of neuromuscular responses during isometric fatiguing handgrip holds at critical force. (Presented at the National Strength and Conditioning Association Annual Meeting, July 2023).
9. Gustave, D., Succi, P.J., Benitez, B., Kwak, M., Clasey, J.L., Lanphere, K.R., **Bergstrom, H.C.** Responses to cardiorespiratory endurance exercise anchored to a vigorous heart rate intensity. (Presented at the National Strength and Conditioning Association Annual Meeting, July 2023).
10. Benitez, B., Succi, P.J., Kwak, M., Gustave, D., **Bergstrom, H.C.** Sex-specific differences in fatigability during bilateral vs unilateral maximal isometric exercise to task failure. (Presented at the National Strength and Conditioning Association Annual Meeting, July 2023).
11. Lawson, J., Proppe, C., Rivera, P., Gonzalez-Rojas, D., Hammer, S., Trevino, M., **Bergstrom, H.C.**, Succi, P.J., Montgomery, T., Olmos, A., Bursleson, K., Keller, J., Hill, E. Acute effects and reliability of blood flow restricted maximal strength testing. (Presented at the National Strength and Conditioning Association Annual Meeting, July 2023).
12. Montgomery, T., Olmos, A., Sears, K.N., Succi, P.J., Hammer, S.M., Bergstrom, H.C., Hill, E.C., Trevino, M.A., Dinyer-McNeely, T.K. Sex-dependent development of peripheral fatigue with and without blood flow restriction. (Presented at the National Strength and Conditioning Association Annual Meeting, July 2023). Doctoral Student Podium Awards Session.
13. Hudgins, J., Pastina, J., Gillis, I., Abel, M.G., **Bergstrom, H.C.**, Black, W.S., Best, S. The influence of running shoe type on the relationship between running power and metabolic workload. (Presented at the National Strength and Conditioning Association Annual Meeting, July 2023). Doctoral Student Podium Awards Session.
14. Langford, E.L., Lanham, S.N., Eastman, A.Q., **Bergstrom, H.C.**, Best, S., Ma, X. Higginbotham, L.T., Abel, M.G. Ventilatory dynamics in firefighters during simulated fireground tasks performed at a standardized pace. (Presented at the National Strength and Conditioning Association Annual Meeting, July 2023).
15. Gillis, I.L., Abel, M.G., **Bergstrom, H.C.**, Ma, X., Best, S. Characteristics of player development that are associated with future success in the national hockey league. (Presented at the National Strength and Conditioning Association Annual Meeting, July 2023).

16. Gillis, I.L., Abel, M.G., **Bergstrom, H.C.**, Ma, X., Best, S. Classifying national hockey league players drafted from 2000 – 2011 based on key performance metrics. (Presented at the National Strength and Conditioning Association Annual Meeting, July 2023).
17. Anderson, O.K., Succi, P.J., Voskuil, C.C., Clasey, J.L., Abel, M.G., Butterfield, T.A., **Bergstrom, H.C.**, Dinyer-McNeely, T.K. Muscle-specific responses during repetitions to failure at loads above vs. below the critical load. (Presented at the American College of Sports Medicine Annual Meeting, May 2023).
18. Sears, K.N., Montgomery Jr., T.R., Olmos, A.A., Succi, P.J., Hill, E.C., **Bergstrom, H.C.**, Trevino, M.A., Dinyer-McNeely, T.K., Hammer, S.M. Sex differences in contraction-induced blood flow limitations during small muscle mass exercise in humans. (Presented at the American College of Sports Medicine Annual Meeting, May 2023).
19. Montgomery Jr., T.R., Olmos, A.A., Sears, K.N., Succi, P.J., Hammer, S.M., **Bergstrom, H.C.**, Hill, E.C., Trevino, M.A., Dinyer-McNeely, T.K. Influence of blood flow restriction on neuromuscular function and fatigue during forearm flexion in men. (Presented at the American College of Sports Medicine Annual Meeting, May 2023).
20. Olmos, A.A., Montgomery Jr., T.R., Sears, K.N., Dinyer-McNeely, T.K., Hammer, S.M., **Bergstrom, H.C.**, Hill, E.C., Succi, P.J., Trevino, M.A. Blood flow restriction influences electromyographic behavior of the biceps brachii during a high-intensity contraction. (Presented at the American College of Sports Medicine Annual Meeting, May 2023).
21. Benitez, B., Succi, P.J., Kwak, M., **Bergstrom, H.C.** Unilateral vs bilateral maximal isometric leg extensions on time to task failure and electromyographic amplitude. (Presented at the American College of Sports Medicine Annual Meeting, May 2023).
22. Succi, P.J., Dinyer-McNeely, T.K., Voskuil, C.C., Benitez, B., Kwak, M., Abel, M.G., Clasey, J.L., **Bergstrom, H.C.** Physiological, perceptual, and neuromuscular responses to  $\dot{V}O_2$ -clamp cycle ergometry exercise. (Presented at the American College of Sports Medicine Annual Meeting, May 2023).
23. Kwak, M., Succi, P.J., Benitez, B., **Bergstrom, H.C.** Handgrip holds to failure at performance and perceptual based thresholds in men and women. (Presented at the American College of Sports Medicine Annual Meeting, May 2023).
24. Gustave, D. Succi, P.J., Benitez, B., Kwak, M., Clasey, J.L., Lanphere, K.R., **Bergstrom, H.C.** Responses to exercise anchored to vigorous intensity heart rates. (Presented at the American College of Sports Medicine Annual Meeting, May 2023).
25. Succi, P.J., Benitez, B., Kwak, M., and **Bergstrom, H.C.** Is a verification bout required for the determination of  $\dot{V}O_{2max}$ ? Presented at: National Strength and Conditioning Association National Conference, July 2022, New Orleans, LA (podium presentation). *Journal of Strength and Conditioning Research* 37(3):e25-e272, 2023.
26. Kwak, M., Succi, P.J., Benitez, B., Gustave, D., and **Bergstrom, H.C.** Examination of intra- and inter-rater reliability of the ventilatory threshold and respiratory compensation point. Presented at: National Strength and Conditioning Association National Conference, July 2022, New Orleans, LA (poster presentation). *Journal of Strength and Conditioning Research* 37(3):e25-e272, 2023.
27. Benitez, B., Dinyer-McNeely, T.K., McCallum, L., Succi, P.J., Kwak, M., and **Bergstrom, H.C.** The effects of co-activation on performance fatigability from repetitions to failure at low- versus high- loads in women. Presented at: National Strength and Conditioning Association National Conference, July 2022, New Orleans, LA (poster presentation). *Journal of Strength and Conditioning Research* 37(3):e25-e272, 2023.
28. Dinyer-McNeely, T.K., Anderson, O.K., Succi, P.J., Voskuil, C.C., Clasey, J.L., Abel, M.G., Butterfield, T.A., **Bergstrom, H.C.** Muscle activation following repetitions to failure at loads above and below the critical load.

Presented at: National Strength and Conditioning Association National Conference, July 2022, New Orleans, LA (podium presentation). *Journal of Strength and Conditioning Research* 37(3):e25-e272, 2023.

29. Anderson, O.K., Succi, P.J., Voskuil, C.C., Clasey, J.L., Abel, M.G., Butterfield, T.A., **Bergstrom, H.C.**, Dinyer-McNeely, T.K. Load-dependent responses in performance fatigability during leg extension in trained men. Presented at: National Strength and Conditioning Association National Conference, July 2022, New Orleans, LA (poster presentation). *Journal of Strength and Conditioning Research* 37(3):e25-e272, 2023.
30. Langford, E.L., Lanham, S., Eastman, A., **Bergstrom, H.C.**, Best, S., Ma, X., Mason, M.R., and Abel, M.G. Ventilatory efficiency in structural firefighters. Presented at: National Strength and Conditioning Association National Conference, July 2022, New Orleans, LA (poster presentation). *Journal of Strength and Conditioning Research* 37(3):e25-e272, 2023.
31. Hudgins, J., Gillis, I., Pastina, J., Abel, M.G., **Bergstrom, H.C.**, Black, W.S., and Best, S. Concurrent validity and the inter-device reliability of a commercial running power meter in recreational runners. Presented at: National Strength and Conditioning Association National Conference, July 2022, New Orleans, LA (podium presentation). *Journal of Strength and Conditioning Research* 37(3):e25-e272, 2023.
32. Dinyer, T.K., Succi, P.J., Voskuil, C.C., Soucie, E.P., Clasey, J.L., Abel, M.G., Butterfield, T.A., and **Bergstrom, H.C.** Load-dependent responses in leg extension fatigability are sex-independent around the critical load. Presented at: National Strength and Conditioning Association National Conference, July 2021, Orlando, FL (poster presentation). *Journal of Strength and Conditioning Research* 35(12):291-446, 2021.
33. Succi, P.J., Dinyer, T.K., Voskuil, C.C., Byrd, M.T., and **Bergstrom, H.C.** Time course of changes in physiological and perceptual responses during incremental versus constant power exercise. Presented at: National Strength and Conditioning Association National Conference, July 2021, Orlando, FL (poster presentation). *Journal of Strength and Conditioning Research* 35(12):291-446, 2021.
34. Voskuil, C.C., Dinyer, T.K., Succi, P.J., Abel, M.G., Campbell, M. and **Bergstrom, H.C.** Unilateral muscular fatigue from handgrip holds on ipsilateral and contralateral performance fatigability. Presented at: National Strength and Conditioning Association National Conference, July 2021, Orlando, FL (poster presentation). *Journal of Strength and Conditioning Research* 35(12):291-446, 2021.
35. Mason, M.R., Abt, J., Shapiro, R., Heebner, N., **Bergstrom, H.C.**, and Abel, M.G. The effect of exercise-induced fatigue on occupational performance in structural firefighters. Presented at: National Strength and Conditioning Association National Conference, July 2021, Orlando, FL (poster presentation). *Journal of Strength and Conditioning Research* 35(12):291-446, 2021.
36. Dinyer, T.K., Soucie, E.P., Succi, P.J., Voskuil, C.C., Byrd, M.T., and **Bergstrom, H.C.** Inter- and intra-individual differences in neuromuscular responses during leg extension exercise performed at 70% 1RM. Presented at: American College of Sports Medicine, Virtual Meeting, June 2021 (poster presentation).
37. Succi, P.J., Dinyer, T.K., Voskuil, C.C., Byrd, M.T., and **Bergstrom, H.C.** Inter- and intra-individual  $\dot{V}O_2$  responses above critical power. Presented at: American College of Sports Medicine, Virtual Meeting, June 2021 (poster presentation).
38. Voskuil, C.C., Dinyer, T.K., Succi, P.J., Byrd, M.T., Garver, M.J., Rickard, A.J., Miller, W.M., Burns, S., **Bergstrom, H.C.** Affective and perceptual responses during a 4-week low- vs. high-load resistance training intervention. Presented at: American College of Sports Medicine, Virtual Meeting, June 2021 (poster presentation).
39. Soucie, E.P., Dinyer, T.K., Succi, P.J., Voskuil, C.C., **Bergstrom, H.C.** Individual and composite muscle oxygen saturation responses of the quadriceps to fatiguing DCER exercise. Presented at: American College of Sports Medicine, Virtual Meeting 2020 (poster presentation). Virtual Meeting, June 2021 (poster presentation).

40. Succi, P.J., Dinyer, T.K., Byrd, M.T., Souci, E.P., Voskuil, C.C., and **Bergstrom, H.C.** Comparison of the critical VO<sub>2</sub> to ventilatory thresholds and critical power. Presented at: National Strength and Conditioning Association Annual Conference, Virtual Meeting-Pandemic, 2020 (poster presentation). *Journal of Strength and Conditioning Research* 35(4):e3-e288, April 2021.
41. Dinyer, T.K., Succi, P.J., Byrd, M.T., Voskuil, C.C., Souci, E.P., and **Bergstrom, H.C.** Acute neuromuscular responses do not differ between 50% and 80% one-repetition maximum fatiguing leg extension exercise. Presented at: National Strength and Conditioning Association National Conference, Virtual Meeting-Pandemic, 2020 (poster presentation). *Journal of Strength and Conditioning Research* 35(4): e3-e288, April 2021.
42. Voskuil, C.C., Dinyer, T.K., Succi, P.J., Byrd, M.T., Garver, M.J., Rickard, A.J., Burns, S., Souci, E.P., and **Bergstrom, H.C.** Acute and early-phase perceptual responses to 30% one repetition maximum training to failure in untrained women. Presented at: National meeting of the National Strength and Conditioning Association, Virtual Meeting-Pandemic, 2020 (poster presentation). *Journal of Strength and Conditioning Research* 35(4): e3-e288, April 2021.
43. Soucie, E.P., Dinyer, T.K., Byrd, M.T., Succi, P.J., Clasey, J.L., and **Bergstrom, H.C.** Contributions of maximal strength and body composition characteristics to resistance exercise performance at critical resistance. Presented at: National meeting of the National Strength and Conditioning Association, Virtual Meeting-Pandemic, 2020 (poster presentation). *Journal of Strength and Conditioning Research* 35(4): e3-e288, April 2021.
44. Gillis, I., **Bergstrom, H.**, Morris, C., and Abel, M.G. Influence of summer baseball league participation on collegiate pitching performance. Presented at: National meeting of the National Strength and Conditioning Association, Virtual Meeting-Pandemic, 2020 (poster presentation). *Journal of Strength and Conditioning Research* 35(4): e3-e288, April 2021.
45. Byrd, M.T., Dinyer, T.K., Succi, P.J., and **Bergstrom, H.C.** Neuromuscular responses in unilateral strength discrepancies within the lower limb bilateral deficit. Presented at: the National Strength and Conditioning Association Annual Meeting, 2019, Washington D.C. (poster presentation). *Journal of Strength and Conditioning Research* 34(1):e1-e245, 2020.
46. Dinyer, T.K., Byrd, M.T., Vesotsky, A.N., Succi, P.J., and **Bergstrom, H.C.** Sex related differences in percent of one-repetition maximum and repetitions completed at critical resistance. Presented at: National Strength and Conditioning Association Annual Meeting, 2019, Washington D.C. (poster presentation). *Journal of Strength and Conditioning Research* 34(1):e1-e245, 2020.
47. Succi, P.J., Dinyer, T.K., Byrd, M.T., and **Bergstrom, H.C.** Comparisons of the metabolic intensity at heart rate, ventilatory, and gas exchange thresholds. Presented at: National Strength and Conditioning Association National Meeting, 2019, Washington D.C. (poster presentation). *Journal of Strength and Conditioning Research* 34(1):e1-e245, 2020.
48. Reese, S.M., Beyer, K.S., Redd, M.J., Baker, K.M., Arroyo, E., Church, D.D., **Bergstrom, H.C.**, Hoffman, J.R., Fukuda, D.H., and Stout, J.R. Relative fatigue, but not muscle swelling is affected by maturity status in youth male athletes. Presented at: National Strength and Conditioning Association National Meeting, 2019, Washington D.C. (poster presentation). *Journal of Strength and Conditioning Research* 34(1):e1-e245, 2020.
49. Dinyer, T.K., Byrd, M.T., Succi, P.J., Wallace, B.J., and **Bergstrom, H.C.** The effect of a multi-ingredient pre-workout supplement on cycle ergometry performance during a 3-minute all-out test. Presented at: International Society of Sports Nutrition National Meeting, 2019, Las Vegas, NV.
50. **Bergstrom, H.C.**, Housh, T.J., Dinyer, T.K. Byrd, M.T., Succi, P.J., Jenkins, N.D.M., Cochrane-Snyman, K.C., Schmidt, R.J., and Johnson, G.O. Time courses of changes in perceptual, respiratory, and neuromuscular responses in the severe intensity domain. Presented at: American College of Sports Medicine Annual Meeting, 2019, Orlando, FL. *Medicine & Science in Sports & Exercise*, 51(6): 387-388, 2019.

51. Byrd, M.T., Dinyer, T.K., Succi, P.J., and **Bergstrom, H.C.** Neuromuscular responses in lower limb bilateral deficit: A pilot study. Presented at the American College of Sports Medicine Annual Meeting, 2019, Orlando, FL. *Medicine & Science in Sports & Exercise*, 51(6): 338-339, 2019.
52. 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 Meeting, 2018, Indianapolis, IN (poster presentation). *Journal of Strength and Conditioning Research* 33(2):e3-e217, 2019.
53. 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 Association Annual Meeting, 2018, Indianapolis, IN (podium presentation). *Journal of Strength and Conditioning Research* 33(2):e3-e217, 2019.
54. 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 Association Annual Meeting, 2018, Indianapolis, IN. *Journal of Strength and Conditioning Research* 33(2):e3-e217, 2019.
55. Beyer, 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 Association Annual Meeting, 2018, Indianapolis, IN). *Journal of Strength and Conditioning Research* 33(2):e3-e217, 2019.
56. 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 sprint interval training in youth male athletes. (Presented at the National Strength and Conditioning Association Annual Meeting, 2018, Indianapolis, IN). *Journal of Strength and Conditioning Research* 33(2):e3-e217, 2019.
57. **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 Meeting, 2018, Minneapolis, MN). *Medicine & Science in Sports & Exercise*, 50(5S): 667, 2018.
58. Lesniak, A., **Bergstrom, H.C.**, Clasey, J.L., Stromber, M., and Abel, A.G. The effect of personal protective equipment on firefighter occupational performance. (Presented at the American College of Sports Medicine National Meeting, 2018, Minneapolis, MN). *Medicine & Science in Sports & Exercise*, 50(5S): 739, 2018.
59. 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 Meeting, 2017, Las Vegas, NV). *Journal of Strength and Conditioning Research* 31:S1-S240, 2017.
60. 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. (Presented at the International Society for Sports Nutrition National Meeting, 2017, Phoenix, AZ). *Journal of the International Society of Sports Nutrition* 14(Suppl 2): 31, 2017.
61. **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? (Presented at the American College of Sports Medicine National Meeting, 2017, Denver, CO). *Medicine & Science in Sports & Exercise* 49(5S):143, 2017.
62. 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. (Presented at

the National Strength and Conditioning Association Annual Meeting, 2016, New Orleans, LA). *Journal of Strength and Conditioning Research* 30:S1-S210, 2016.

63. Wallace, B., **Bergstrom, H.C.**, and Wallace, K. Effects of MusclePharm Assault Black™ on lower extremity spinal excitability and postactivation potentiation: a pilot study. (Presented at the International Society of Sports Nutrition National Annual Meeting, 2016, Clearwater, FL). *Journal of the International Society of Sports Nutrition* 13:S1, P35.
64. **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. (Presented at the American College of Sports Medicine National Annual Meeting, 2016, Boston, MA). *Medicine & Science in Sports & Exercise*. 48(5S):592, 2016.
65. 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. (Presented at the American College of Sports Medicine National Annual Meeting, 2016, Boston, MA). *Medicine & Science in Sports & Exercise*. 48(5S):998, 2016.
66. 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 Meeting, 2015, Orlando, FL). *Journal of Strength and Conditioning Research* 30:S1-S171, 2016.
67. 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 Meeting, 2015, Orlando, FL). *Journal of Strength and Conditioning Research* 30:S1-S171, 2016.
68. 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 Meeting, 2015, Orlando, FL). *Journal of Strength and Conditioning Research* 30:S1-S171, 2016.
69. 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 Meeting, 2015, Orlando, FL). *Journal of Strength and Conditioning Research* 30:S1-S171, 2016.
70. 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 Meeting, 2015, Orlando, FL). *Journal of Strength and Conditioning Research* 30:S1-S171, 2016.
71. **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. (Presented at the American College of Sports Medicine National Annual Meeting, San Diego, CA). *Medicine and Science in Sports and Exercise*. 47(5S):785-788, 2015.
72. 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. (Presented at the American College of Sports Medicine National Annual Meeting, San Diego, CA). *Medicine & Science in Sports & Exercise* 47(5S):785-788, 2015.

73. 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. (Presented at the American College of Sports Medicine National Annual Meeting, San Diego, CA). *Medicine & Science in Sports & Exercise* 47(5S): 320-330, 2015.
74. 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. (Presented at the American College of Sports Medicine National Annual Meeting, San Diego, CA). *Medicine & Science in Sports & Exercise* 47(5S):926-941, 2015.
75. **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 Meeting, 2014, Las Vegas, NV). *Journal of Strength and Conditioning Research* 28:S1-S130, 2014.
76. 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 Meeting, 2014, Las Vegas, NV). *Journal of Strength and Conditioning Research* 28:S1-S130, 2014.
77. 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 Meeting, 2014, Las Vegas, NV). *Journal of Strength and Conditioning Research* 28:S1-S130, 2014.
78. 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 Meeting, 2014, Las Vegas, NV). *Journal of Strength and Conditioning Research* 28:S1-S130, 2014.
79. **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. (Presented at the American College of Sport Medicine Annual Meeting, Orlando, FL). *Medicine & Science in Sports & Exercise* 46(5S): 668-677, 2014.
80. 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. (Presented at the American College of Sport Medicine Annual Meeting, Orlando, FL). *Medicine & Science in Sports & Exercise* 46(5S): 456-461, 2014.
81. 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. (Presented at the American College of Sport Medicine Annual Meeting, Orlando, FL). *Medicine & Science in Sports & Exercise* 46(5S):933-939, 2014.
82. **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 Meeting, 2013, Las Vegas, NV). *Journal of Strength and Conditioning Research* 27:S1-S144, 2013.
83. 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 Meeting, 2013, Las Vegas, NV). *Journal of Strength and Conditioning Research* 27:S1-S144, 2013.

84. 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 Meeting, 2013, Las Vegas, NV). *Journal of Strength and Conditioning Research* 27:S1-S144, 2013.
85. 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 Meeting, 2013, Las Vegas, NV). *Journal of Strength and Conditioning Research* 27:S1-S144, 2013.
86. **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. (Presented at the American College of Sports Medicine Annual Meeting, Indianapolis, IN). *Medicine & Science in Sports & Exercise*, 45(5S):243-246, 2013.
87. 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. (Presented at the American College of Sports Medicine Annual Meeting, Indianapolis, IN). *Medicine & Science in Sports & Exercise*, 45(5S):501-513, 2013.
88. 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. (Presented at the American College of Sports Medicine Annual Meeting, Indianapolis, IN). *Medicine & Science in Sports & Exercise*, 45(5S):94-96, 2013.
89. 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. (Presented at the American College of Sports Medicine Annual Meeting in Indianapolis, IN). *Medicine & Science in Sports & Exercise*, 45(5S):175-187, 2013.
90. **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. (Presented at the National Strength and Conditioning Association Annual Meeting, 2012, Providence, RI). *Journal of Strength and Conditioning Research* 27:1-129, 2013.
91. 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. (Presented at the National Strength and Conditioning Association Annual Meeting, 2012, Providence, RI). *Journal of Strength and Conditioning Research* 27:1-129, 2013.
92. 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. (Presented at the National Strength and Conditioning Association Annual Meeting, 2012, Providence, RI). *Journal of Strength and Conditioning Research* 27:1-129, 2013.
93. **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. (Presented at the American College of Sports Medicine Annual Meeting, 2012, San Francisco, CA). *Medicine & Science in Sports & Exercise*, 44: S281, 2012.

94. 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 fo short-term training on isometric and concentric torque production of the forearm flexors in males. (Presented at the American College of Sports Medicine Annual Meeting, 2012, San Francisco, CA). *Medicine & Science in Sports & Exercise*, 44: S271, 2012.
95. 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. (Presented at the American College of Sports Medicine Annual Meeting, 2012, San Francisco, CA). *Medicine & Science in Sports & Exercise* 44: S595, 2012
96. 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. (Presented at the American College of Sports Medicine Annual Meeting, 2012, San Francisco, CA). *Medicine & Science in Sports & Exercise* 44: S376-S377, 2012.
97. **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. (Presented at the National Strength and Conditioning Association Annual Meeting, 2011, Las Vegas, NV). <https://journals.lww.com/nsca-jscr>.
98. 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. (Presented at the National Strength and Conditioning Association Annual Meeting, 2011, Las Vegas, NV). <https://journals.lww.com/nsca-jscr>.
99. **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. (Presented at the Annual American College of Sports Medicine Annual Meeting, 2011, Denver, CO). *Medicine & Science in Sports & Exercise* 43: S388, 2011.
100. 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. (Presented at the American College of Sports Medicine Annual Meeting, 2011, Denver, CO). *Medicine & Science in Sports & Exercise* 43: S534-535, 2011.
101. 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. (Presented at the American College of Sports Medicine Cnnual Meeting, 2011, Denver, CO). *Medicine & Science in Sports & Exercise* 43: S606, 2011.
102. **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. (Presented at the National Strength and Conditioning Association Annual Meeting, 2010, Orlando, FL). <https://journals.lww.com/nsca-jscr>.
103. 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. (Presented at the National Strength and Conditioning Association Annual Meeting, 2010, Orlando, FL). <https://journals.lww.com/nsca-jscr>.
104. 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. (Presented at the National Strength and Conditioning Association Annual Meeting, 2010, Orlando, FL). <https://journals.lww.com/nsca-jscr>.

## **ABSTRACTS AND PRESENTATIONS AT REGIONAL PROFESSIONAL MEETINGS**

105. Succi, P.J., Mitchinson, C.J., Pfeifer, H.J., Benitez, B., Kwak, M., Butterfield, T.A., **Bergstrom, H.C.** Metabolic responses to endurance exercise anchored to vigorous ratings of perceived exertion. (Accepted for presentation at the Southeast American College of Sports Medicine Regional Chapter Meeting, February 2024).
106. Benitez, B., Succi, P.J., Kwak, M., **Bergstrom, H.C.** Examination of sex differences in fatigability and electromyographic responses during sustained, maximal, isometric leg extension. (Accepted for presentation at the Southeast American College of Sports Medicine Regional Chapter Meeting, February 2024).
107. Kwak, M., Succi, P.J., Benitez, B., Mitchinson, C., Samaan, M.A., Abel, M.G., **Bergstrom, H.C.** Force and neuromuscular responses during continuous handgrip holds anchored to a rating of perceived exertion. (Accepted for presentation at the Southeast American College of Sports Medicine Regional Chapter Meeting, February 2024). \*Doctoral student research award finalist.
108. Mitchinson, C.J., Gustave, D., Succi, P.J., Benitez, B., Kwak, M., **Bergstrom, H.C.** Metabolic responses during endurance exercise anchored to vigorous heart rates. (Accepted for presentation at the Southeast American College of Sports Medicine Regional Chapter Meeting, February 2024).
109. Roth, B.L., Olmos, A.A., Montgomery, T.R., Sears, K.N., Dinyer-McNeely, T.K., Hammer, S.M., **Bergstrom, H.C.**, Hill, E.C., Succi, P.J., Richardson, L., Trevino, M.A. Sex-related differences in mechanomyographic amplitude of the biceps brachii during motor unit activation and deactivation. (Submitted for presentation at the Central States American College of Sports Medicine Regional Meeting, March 2024).
110. Richardson, L.D., Olmos, A.A., Dinyer-McNeely, T.K., Montgomery, T.R., Hammer, S.M., Sears, K.N., **Bergstrom, H.C.**, Succi, P.J., Hill, E.C., Roth, B.L., Trevino, M.A. Effects of blood flow restriction on motor unit behavior during a single high-load contraction. (Submitted for presentation at the Central States American College of Sports Medicine Regional Meeting, March 2024).
111. Anderson, O.K., Succi, P.J., Voskuil, C.C., Clasey, J.L., Abel, M.G., Butterfield, T.A., **Bergstrom, H.C.**, Dinyer-McNeely, T.K. Muscle-specific responses during repetitions to failure at loads above vs. below the critical load. (Presented at the Central States American College of Sports Medicine Regional Chapter Meeting, March 2023).
112. Sears, K.N., Montgomery Jr., T.R., Olmos, A.A., Succi, P.J., Hill, E.C., **Bergstrom, H.C.**, Trevino, M.A., Dinyer-McNeely, T.K., Hammer, S.M. Sex differences in contraction-induced blood flow limitations during small muscle mass exercise in humans. (Presented at the Central States American College of Sports Medicine Regional Chapter Meeting, March 2023).
113. Montgomery Jr., T.R., Olmost, A.A., Sears, K.N., Succi, P.J., Hammer, S.M., **Bergstrom, H.C.**, Hill, E.C., Trevino, M.A., Dinyer-McNeely, T.K. Influence of blood flow restriction on neuromuscular function and fatigue during forearm flexion in men. (Presented at the Central States American College of Sports Medicine Regional Chapter Meeting, March 2023).
114. Olmos, A.A., Montgomery Jr., T.R., Sears, K.N., Dinyer-McNeely, T.K., Hammer, S.M., **Bergstrom, H.C.**, Hill, E.C., Succi, P.J., Trevino, M.A. Blood flow restriction influences electromyographic behavior of the biceps brachii during a high-intensity contraction. (Presented at the Central States American College of Sports Medicine Regional Chapter Meeting, March 2023).
115. Succi, P.J., Dinyer-McNeely, T.K., Voskuil, C.C., Benitez, B., Kwak, M., Abel, M.G., Clasey, J.L., **H.C. Bergstrom.** (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2023, Greenville, SC). *International Journal of Exercise Science: Conference Proceedings* 16(2): Article 339.

116. Benitez, B., Dinyer-McNeely, T.K., McCallum, L. Succi, P.J., Kwak, M., **Bergstrom, H.C.** Individual and composite electromyographic responses during fatiguing forearm flexion exercise. (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2023, Greenville, SC).
117. Kwak, M., Succi, P.J., Benitez, B., Clasey, JL, and **Bergstrom, H.C.** Responses to handgrip holds to failure at two unique fatigue thresholds in men and women. (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2023, Greenville, SC). *International Journal of Exercise Science: Conference Proceedings* 16(2), Article 25. \*Doctoral student research award finalist.
118. Gustave, D., Succi, P.J., Benitez, B., Kwak, M., Clasey, J.L., Lanphere, K.R., **Bergstrom, H.C.** A preliminary analysis of responses to exercise anchored to vigorous intensity heart rates. (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2023, Greenville, SC). *International Journal of Exercise Science: Conference Proceedings* 16(2), Article 344.
119. Anderson, O.K., Succi, P.J., Voskuil, C.C., Byrd, M.T., **Bergstrom, H.C.**, and Dinyer-McNeely, T.K. Mathematical considerations for deriving the critical load for resistance exercise. (Presented at the Central States American College of Sports Medicine Regional Chapter Meeting, 2022, Fayetteville, AR).
120. Succi, P.J., Dinyer-McNeely, T.K., Voskuil, C.C., Benitez, B., Kwak, M., Abel, M.G., Clasey, J.L., and **Bergstrom, H.C.** Comparison of responses to exercise at constant heart rate vs constant power. (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2022, Greenville, SC).
121. Benitez, B, Succi, P.J., Dinyer-McNeely, T.K., Voskuil, C.C., Kwak, M., and **Bergstrom, H.C.** Neuromuscular responses differ during cycle ergometry to exhaustion at two severe intensity domain power outputs. (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2022, Greenville, SC).
122. Kwak, M., Succi, P.J., Dinyer-McNeely, T.K., Voskuil, C.C., Benitez, B., and **Bergstrom, H.C.** Comparison of the power outputs at perceptual and physiological thresholds. (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2022, Greenville, SC).
123. Langford, E.L., **Bergstrom, H.C.**, Best, S., Ma, X., Eastman, A., Abel, M.G. Validation of an air consumption drill in structural firefighters. Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2022, Greenville, SC. *International Journal of Exercise Science: Conference Proceedings*: Vol. 16: Iss. 1, Article 331
124. Dinyer, T.K., Soucie, E.P., Succi, P.J., Voskuil, C.C., Byrd, M.T., and **Bergstrom, H.C.** Inter- and intra-individual differences in neuromuscular responses during leg extension exercise performed at 70% 1RM. (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2021, Virtual).
125. Succi, P.J., Dinyer, T.K., Voskuil, C.C., Byrd, M.T., and **Bergstrom, H.C.** Inter- and intra-individual VO<sub>2</sub> responses above critical power. (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2021, Virtual).
126. Voskuil, C.C., Dinyer, T.K., Succi, P.J., Byrd, M.T., Garver, M.J., Rickard, A.J., Miller, W.M., Burns, S., **Bergstrom, H.C.** Affective responses to performing repetitions to failure at 30% versus 80% one-repetition maximum in untrained women. (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2021, Virtual).
127. Soucie, E.P., Dinyer, T.K., Succi, P.J., Voskuil, C.C., **Bergstrom, H.C.** Individual and composite muscle oxygen saturation responses of the quadriceps to fatiguing DCER exercise. (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2021, Virtual).
128. Ditka, C.M., Dinyer, T.K., Succi, P.J., Voskuil, C.C., **Bergstrom, H.C.** Test-retest reliability of a maximal voluntary contraction for the bilateral leg extension exercise. (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2021, Virtual).

129. Elder, C.J., Dinyer, T.K., Byrd, M.T., **Bergstrom, H.C.**, Clasey, J.L. Reliability of quadricep and hamstring soft tissue measures using dual energy x-ray absorptiometry (DXA) scans. (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2021, Virtual).
130. Dinyer, T.K., Byrd, M.T., Succi, P.J., Voskuil, C.C., and **Bergstrom, H.C.** Sex-related differences in neuromuscular responses during exercise performed below and above critical resistance. (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2020, Jacksonville, FL).
131. Succi, P.J., Dinyer, T.K., Byrd, M.T., Voskuil, C.C., and **Bergstrom, H.C.** Reliability of the determination of critical heart rate. (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2020, Jacksonville, FL).
132. Voskuil, C.C., Dinyer, T.K., Byrd, M.T., Vesotsky, A.N., Succi, P.J., and **Bergstrom, H.C.** Linear and nonlinear modeling of critical resistance. (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2020, Jacksonville, FL).
133. Goh, J., Herrick, L.P., Menke, W., Campbell, M.S., Fleenor, B.S., Abel, M.G., and **Bergstrom, H.C.** Effects of curcumin and fenugreek soluble fiber on the ventilatory threshold in untrained college students. (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2020, Jacksonville, FL).
134. Herrick, L.P., Goh, J., Menke, W., Campbell, M.S., Fleenor, B.S., Abel, M.G., and **Bergstrom, H.C.** Effects of curcumin and fenugreek soluble fiber on the physical working capacity at the fatigue threshold. (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2020, Jacksonville, FL).
135. Byrd, M.T., Dinyer, T.K., Succi, P.J., and **Bergstrom, H.C.** Neuromuscular responses in lower limb bilateral deficit. (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2019, Greenville, SC).
136. Dinyer, T.K., Byrd, M.T., Succi, P.J., and **Bergstrom, H.C.** Identifying the critical resistance for the deadlift. (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2019, Greenville, SC).
137. Succi, P.J., Dinyer, T.K., Byrd, M.T., and **Bergstrom, H.C.** Comparison of the critical heart rate to heart rates at critical velocity and ventilatory threshold (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2019, Greenville, SC).
138. 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 Meeting, 2018, Chattanooga, TN).
139. 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 Meeting, 2018, Chattanooga, TN).
140. Lesniak, A., **Bergstrom, H.C.**, Clasey, J.L., Stromber, M., and Abel, A.G. The effect of personal protective equipment on firefighter occupational performance. (Presented at the Southeast American College of Sports Medicine Regional Chapter Meeting, 2018, Chattanooga, TN).
141. 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 Meeting, 2017, Greenville, SC).

142. 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 Meeting, 2017, Greenville, SC).
143. 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 Meeting, 2016, Greenville, SC).
144. 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 Meeting in Newport Beach, California).
145. **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 Meeting in Newport Beach, California)

### **ABSTRACTS AND PRESENTATIONS AT STATE AND LOCAL PROFESSIONAL MEETINGS**

146. Voskuil, C.C., Dinyer-McNeely, T.K., Succi, P.J., Campbell, M.S., Abel, M.G., and **Bergstrom, H.C.** Unilateral handgrip holds to failure result in sex-dependent contralateral facilitation. (Presented at the Texas American College of Sports Medicine State Conference, February 25, 2022, Waco, Tx). *International Journal of Exercise Science: Conference Proceedings*: Vol. 2: Iss. 14, Article 124. Available at: <https://digitalcommons.wku.edu/ijesab/vol2/iss14/124>
147. Byrd, M.T., Dinyer, T.K., Succi, P.J., and **Bergstrom, H.C.** An examination of the effects of bilateral and unilateral very short-term DCER training on neuromuscular responses within the lower limb bilateral deficit. Spring Research Conference, 2019, Lexington, KY.
148. Succi, P.J., Dinyer, T.K., Byrd, M.T., and **Bergstrom, H.C.** Comparison of the times to exhaustion and physiological responses at constant heart rate vs constant power output exercise. Spring Research Conference, 2019, Lexington, KY
149. Dinyer, T.K., Byrd, M.T., Succi, P.J., and **Bergstrom, H.C.** Theoretical model for using critical resistance to prescribe low-load training. Spring Research Conference, 2019, Lexington, KY.
150. Byrd, M.T., Eastman, J.E., and **Bergstrom, H.C.** Application of the very short-term training model to dynamic constant external resistance exercise. Kentucky State National Strength and Conditioning Clinic, 2017, Georgetown, KY.

### **INVITED PRESENTATIONS**

“Examination of Intensity-, Mode-, and Sex-Specific Fatigue During Resistance Exercise.” Carlos Wear Lectureship, February 2020, University of Nebraska-Lincoln, Lincoln, NE.

“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 Meeting, General Nutrition Corporation Sponsored Symposium, 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 Meeting, General Nutrition Corporation Sponsored Symposium, 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**

Summer 2023 Jake Hudgins – Dissertation: “The reliability and validity of a running power meter to indicate metabolic demand during endurance running” (Committee Member)

Summer 2022 Emily Langford – Dissertation: “Evaluation of air consumption and work efficiency in structural firefighters” (Committee Member)

Spring 2021 Taylor K. Dinyer – Dissertation: “Examination of Sex- and Intensity-Specific Fatigue during Bilateral Leg Extension Exercise” (Chair)

Fall 2019 M. Travis Byrd – Dissertation: “An Examination of the Effects of Bilateral and Unilateral Very Short-Term DCER Training on Strength and Neuromuscular Responses within the Lower Limb Bilateral Deficit” (Co-Chair)

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

Spring 2017 Kyle S. Beyer – Dissertation: “The Effects of Interval Training and Maturity Status on Metabolic and Neuromuscular Fatigue Thresholds in Adolescents” (Committee Member)

### **DOCTORAL STUDENT COMMITTEES IN PROGRESS**

Pasquale J. Succi – (Chair)

Brian Benitez – (Chair)

Minyoung Kwak – (Chair)

Clara Mitchinson – (Chair)

Isabelle Gillis – (Committee Member)

Duncan Peter Sutcliffe – North-West University, Potchefstroom, South Africa (Co-Presenter)

Jeremy Ross – (Co-Chair)

Sarah Lanham – (Committee Member)

## **MASTER'S STUDENT THESIS COMMITTEES**

- Spring 2023     Minyoung Kwak – Thesis: “Examination of Physiological and Perceptual Responses during Sustained, Isometric, Fatiguing, Handgrip Exercise” (Chair)
- Spring 2023     Djadmam Gustave – Thesis: “Responses to Exercise Anchored to Vigorous Intensity Heart Rates” (Chair)
- Spring 2021     Pasquale J. Succi – Thesis: “Comparisons of the Time to Exhaustion, Physiological, Perceptual, and Neuromuscular Responses during Cycle Ergometry anchored by Heart rate,  $\dot{V}O_2$ , and Power Output” (Chair)
- Spring 2021     Caleb C. Voskuil – Thesis: “Examination of Sex- and Limb-Specific Fatigue During Unilateral, Isometric Forearm Exercise” (Chair)
- Spring 2020     Alexander Moss – Thesis: “Methodological Considerations for the Determination of the Critical Resistance” (Chair)
- Fall 2019        Jensen Goh – Thesis: “Effects of Curcumin and Fenugreek Soluble Fiber Supplementation on Submaximal and Maximal Aerobic Performance Indices in Untrained College-aged Subjects” (Chair)
- Summer 2019    Lauren Herrick – Thesis: “Effects of Curcumin supplementation on the Physical Working Capacity at the Fatigue Threshold, Peak Oxygen Consumption, and Time to Exhaustion” (Chair)
- Fall 2019        Isabelle Gillis – Thesis: “Longitudinal Descriptive Profile of Collegiate Pitchers Participation in a Summer Baseball League” (Committee Member)
- Fall 2017        Tyler Lindon – Thesis: “Examination of Volume and Intensities of Weekday Practices and Competitive Games in Collegiate Football Players” (Chair)
- Fall 2016        Howard Brim III – Thesis: “A Non-Exercise Based Estimation of the Critical Swimming Velocity and Anaerobic Work Capacity in Collegiate Swimmers” (Chair)
- Fall 2016        Jonathan Robert Switalla – Thesis: “A Non-Exercise Based Estimation of the Critical Running Velocity and Anaerobic Running Capacity in Competitive Runners” (Chair)
- Summer 2016    Marlene (Nall) Schulte – Thesis: “Examination of Resistance Settings Based on Body Weight for the 3-Min All-Out Critical Power Test” (Chair)
- Fall 2014        Jason M. Keeler – Thesis: “The Effect of Tactile Task and Gear on Muscle Activation of Swat Officers” (Committee Member)

## **MASTER'S STUDENT COMMITTEES: NON-THESIS**

- Spring 2024     Shania Hocker-Rayford (Committee Member)
- Spring 2023     Lindsay McCallum – (Chair)
- Spring 2023     Abigail Reinhardt – (Chair)
- Fall 2022        Emily Guimond (Committee Member)
- Summer 2020    Justin Gibson (Committee Member)
- Spring 2020     Zoe Schrader (Committee Member)
- Fall 2018        Dillon Haughton (Committee Member)
- Spring 2018     Christine Herbe (Chair)



Spring 2018	Kathleen Schlouch (Chair)
Spring 2018	Dominique Martin (Committee Member)
Spring 2017	Aaron Gillette (Chair)
Spring 2017	Joe Arata (Committee Member)
Spring 2017	Annie Allen (Committee Member)
Fall 2016	Carlos Sierra (Committee Member)
Fall 2016	Stephanie Simpson (Committee Member)
Fall 2016	Matthew Stockwell (Committee Member)
Fall 2016	Alyssa Rohrbaugh (Committee Member)
Spring 2016	Nicole McCullough (Chair)
Spring 2016	Jeremy Paprocki (Committee Member)
Spring 2016	Tyler Donald (Committee Member)
Spring 2016	Katie White (Committee Member)

## **EXTERNAL FUNDING**

2023-2024	<u>Principal Investigator</u> - \$41,000. <i>Effects of ReDaxin on Delayed Onset Muscle Soreness of the Forearm Flexors</i> . RedLeaf Biologics.
2022-2023	<u>Co-Investigator (Faculty Mentor)</u> - \$14,901.03. <i>Sex-and intensity-specific responses during cycle ergometry anchored to ratings of perceived exertion</i> . National Strength and Conditioning Association Foundation, Graduate Student Research Grant- Doctoral. (Principal Investigator: PJ Succi).
2015-2016	<u>Principal Investigator</u> – \$35,000. <i>Acute effects of a pre-workout supplement on total upper and lower body resistance training volume and subsequent strength, power, and anaerobic endurance performance</i> . MusclePharm Corporation, Denver, Colorado. Co-Principal Investigator: Brian Wallace, PhD).
2015 (Spring)	<u>Co-Investigator</u> - \$2,500. <i>Effects of MusclePharm Assault™ on spinal excitability and postactivation potentiation of the triceps surae</i> . ISSN-MusclePharm. (Principle Investigator: Brian Wallace, PhD).
2013 (Fall)	<u>Principal Investigator</u> – \$10,000. <i>Physiological responses at the critical heart rate during treadmill running</i> . National Strength and Conditioning Association Foundation Doctoral Student Research Grant.
2013 (Fall)	<u>Co-Investigator</u> – \$339,566. <i>Effects of conjugated linoleic acid on performance</i> . Stepan Lipid Nutrition. (Principal Investigator, Joel T. Cramer, PhD and Co-Principal Investigator: Terry J. Housh, PhD).
2013 (Fall)	<u>Co-Investigator</u> - \$99,600. <i>The effects of two forms of leucine and two forms of creatine on leucine and creatine bioavailability</i> . General Nutrition Corporation, Pittsburgh, Pennsylvania. (Principal Investigator: Terry J. Housh, PhD and Co-Principal Investigator: Joel T. Cramer, PhD).
2012 (Fall)	<u>Co-Investigator</u> – \$377,456 <i>The effects of the dietary supplement anatabine on delayed onset muscle soreness in the forearm flexors</i> . Rock Creek Pharmaceuticals. (awarded RCP-011; Principal Investigator: Joel T. Cramer, PhD and Co-Principal Investigator: Terry J. Housh, PhD).
2012 (Spring)	<u>Co-Investigator and Study Coordinator</u> – \$99,600. <i>The effects of a dietary supplement on energy expenditure before, during, and following low intensity exercise</i> . General Nutrition Corporation,

Pittsburgh, Pennsylvania, (awarded, GNC-2012-004; Principal Investigator: Terry J. Housh, PhD).

2011 (Fall) Co-Investigator – \$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)**

2021 (Spring) Co-Investigator – *Enhanced Safety through Augmented Ventilatory Efficiency (SAVE): Redefining Firefighter Readiness*. Federal Emergency Management Agency.

2021 (Spring) Co-Investigator - \$5,551 *Is a Verification Bout Required for the Determination of VO<sub>2</sub>max?* National Strength and Conditioning Association Master's Student Research Grant. PI, PJ Succi.

2020 (Spring) Co-Investigator – \$14,898 *Examination of the Mechanisms Underlying Performance of Repetitions to Failure at Low- and High-Loads*. National Strength and Conditioning Association Doctoral Student Research Grant. PI, Taylor Dinyer.

2019 (Spring) Co-Investigator – \$14,839 *“A theoretical model for using critical resistance to prescribe low-load training.”* National Strength and Conditioning Association Foundation. Doctoral Student Research Grant. PI, Taylor Dinyer.

2019 (Spring) Principal Investigator - \$19,560. *Time course of changes in physiological and perceptual responses during constant heart rate versus constant power output exercise*. National Strength and Conditioning Association Foundation. Young Investigator Grant.

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.

2018 (Spring) Co-Investigator - \$15,000. *Effects of unilateral versus bilateral short-term DCER training on the bilateral deficit*. Strength and Conditioning Association Foundation. Doctoral Student Research Grant. PI, Travis Byrd.

2018 (Summer) Co-Investigator - \$10,000. *Effect of DCER training on the bilateral deficit and cross-education of the lower limbs*. De Luca Foundation. PI, Travis Byrd.

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-Principal Investigator: Brian Wallace).

## **INTERNAL FUNDING**

- 2023-2024      Co-Applicant - College of Education Program Innovation and Improvement Grant. *CASCE Accreditation of Bachelor of Science in Exercise Science*. \$45,500. Project Director: Rosie Lanphere.
- 2023 (Summer)      Co-Investigator - \$6,840. *Investigation of the relationship between hip extensor muscle endurance, biomarkers of muscle health and hip-related patient report outcomes*. CURATE Fund. Principal Investigator: Michael Samaan.
- 2019 (Summer)      Principal Investigator - \$7,500. *Defining exercise intensity domains for resistance training modalities*. College of Education: Summer Support Grant, Type I.
- 2018 (Summer)      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)**

- 2022 (Spring)      Co-Principal Investigator - \$75,000. Phosphodiesterase inhibition to improve postprandial amino acid metabolism and skeletal muscle perfusion in older adults. CTSA Inter-Institutional Pilot Project Award. (Co-PI's, Nathaniel DM Jenkins, David Church)
- 2017 (Fall)      Principal Investigator - \$20,000. *Salivary hormone and immune responses to a HIIT microcycle*. University of Kentucky, Center for Clinical and Translational Science. Pilot Grant.
- 2017 (Summer)      Principal Investigator - \$7,500. *Physiological and perceptual responses to five running paces used for endurance training*. College of Education: Summer Support Grant, Type I.
- 2017 (Spring)      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)      Principal Investigator – \$7,500. *Reliability and validity of heart rate and neuromuscular based fatigue thresholds*. VPR Summer Faculty Research Fellowship.

## **FUNDED EQUIPMENT REQUESTS**

- Spring 2023      Co-Applicant - \$95,004.27. Biodex System Pro 4 Isokinetic Dynamometer and GE Ultrasound. *Office of the Vice President for Research: 2023 Equipment Grant Competition*.

## **EQUIPMENT REQUESTS (not funded)**

- Fall 2019      Principal Applicant - \$52,925. Biodex System Pro 4 Isokinetic Dynamometer. *Office of the Vice President for Research: Minor Equipment Grant Competition*.
- Fall 2017      Principal Applicant - \$49,575. Biodex System Pro 4 Isokinetic Dynamometer. *Office of the Vice President for Research: Minor Equipment Grant Competition*.
- Spring 2017      Principal Applicant - \$49,575. Biodex System Pro 4 Isokinetic Dynamometer. *Office of the Vice President for Research: Minor Equipment Grant Competition*.

### **SERVICE TO THE UNIVERSITY**

2022 – 2025	Graduate School Committee on Fellowships and Traineeships, University of Kentucky, 3-year term
2020 – 2023	University of Kentucky Faculty Senator, 3-year term.
2019 (Fall)	Center for Clinical and Translational Sciences (CCTS) – Pilot Funding Program. Reviewed full application for one applicant.
2019 (Fall)	Center for Clinical and Translational Sciences (CCTS) – Pilot Funding Program. Reviewed Letter of Intent for two applicants.
2019 (Summer)	University of Kentucky STEM Experiences - Human Performance Session.
2015 (Spring-Fall)	First Scholars Program, Academy for undergraduate excellence. Mentor

### **SERVICE TO THE COLLEGE**

2023 – 2026	Graduate Recruitment Retention and Student Success Committee
2020 – 2023	Faculty Council – Ex Officio Member
2015 – 2021	College Research Advisory Committee
2014 (Fall)	College Work Groups - Group Forum – Student Achievement Subcommittee – Graduate Student Retention

### **SERVICE TO THE DEPARTMENT**

2023-current	Director of Graduate Studies
2021-current	Exercise Physiology Laboratory Director
2021-current	Kinesiology and Health Promotion Faculty Performance Review Committee
2021-2023	Kinesiology and Health Promotion Graduate Affairs Committee
2019-current	Undergraduate Certificate in Nutrition for Human Performance, Co-Director
2019 (Spring)	Needs Report on Laboratory Space and Preparation of Exercise Science Students, Data collection, data compilation, collaborative writing effort.
2017 – 2019	Undergraduate Certificate in Nutrition for Human Performance, Advisory board member
2016 (Summer)	Search committee for a full-time lecturer. Committee member
2016- current	National Strength and Conditioning Association Education Recognition Program. Director at the University of Kentucky
2014 - current	Annual Student Learning Outcomes Report for Baccalaureate Exercise Science Program. University of Kentucky, Department of Kinesiology and Health Promotion. Helps the Department and UK adhere to the Kentucky Common Core.

**SERVICE TO THE PROFESSION****Editorial Appointments:**

- European Journal of Applied Physiology, Advisory Editor (October 2021 – current)
- Associate Editor, Research Directs in Strength and Performance (April 2021 – current)
- Senior Associate Editor, Journal of Strength and Conditioning Research (January 2017 – current)
- Associate Editor, Journal of Strength and Conditioning Research (September 2015 – January 2017)

**Grant Reviewer**

- National Strength and Conditioning Association Foundation, Grant Review Panel, April 2022-April 2024
- NASA Musculoskeletal and Exercise Panel, Reviewer, February 2021.
- National Strength and Conditioning Association Foundation, Grant Reviewer (2016, 2019-2022)

**Manuscript Reviewer (~ number per year):**

- Journal of Strength and Conditioning Research (4-6)
- European Journal of Applied Physiology (6-8)
- Medicine & Science in Sports & Exercise (1-2)
- Journal of Musculoskeletal and Neuronal Interactions (2)
- Sports Sciences for Health (1)
- Physiological Measurement (1)
- Journal of Human Kinetics (1-2)
- International Journal of Exercise Science (1)
- Journal of Exercise Science and Fitness (1)
- Journal of Science in Sport and Exercise (1-2)
- Sports Medicine (1)
- High Altitude Medicine and Biology (1)
- Journal of Electromyography and Kinesiology (1)
- Experimental Physiology (1)
- Applied Physiology Nutrition and Metabolism (1-2)
- Research Quarterly for Exercise and Sport Journal (1-2)
- International Journal of Sports Medicine (1-2)
- Muscle and Nerve (1-2)
- Journal of Sports Sciences (1)
- Clinical Physiology and Functional Imaging (1)
- International Journal of Sports Physiology and Performance (1)
- Journal of Sports Science and Medicine (1)
- Journal of Visualized Experiments (1)
- Scandinavian Journal of Medicine and Science in Sports (1)
- Journal of Nature and Science
- Respiratory, Physiology, and Neurobiology (1)
- Journal of Applied Physiology (1)

### **Service to Professional Organizations**

- Judge, What's Up Doc: Preconference session at the Southeast American College of Sports Medicine (February 2024)
- National Strength and Conditioning Association Research Committee Member, three-year term, July 2021-2024
- Judge, Rapid Research Run: Preconference session at the Southeast American College of Sports Medicine (February 2019)
- Reviewer, SEACSM 1<sup>st</sup> time student presenter support applications (January 2018)
- Abstract Reviewer, National Strength and Conditioning Association (2014-2022)
- Abstract Reviewer, Southeast Chapter of the American College of Sports Medicine (2015-2018, 2023)
- Student Research Award Judge, Poster and Podium Presentations, National Strength and Conditioning National Conference (2015-2017, 2021)
- Moderator, Research Track Presentation, National Strength and Conditioning Conference (2015 and 2019)

### **HONORS AND AWARDS**

- Recipient: National Strength and Conditioning Association Fellow (2023)
- Recipient: Journal of Strength and Conditioning Research Editorial Excellence Award, National Strength and Conditioning Association (2021)
- Nominee: Albert D. and Elizabeth H. Kirwan Memorial Prize to recognize a full-time faculty member at UK who is deemed to have made outstanding contributions to original research or (creative) scholarship within the last four academic years (2020)
- Recipient: Teacher Who Made a Difference (2019) *Recognized at the Teachers Who Made a Difference breakfast, sponsored by the University of Kentucky College of Education*
- Nominee: William B. Sturgill Award to recognize a graduate faculty member who has made outstanding contributions to graduate mentoring and graduate education at UK (2019)
- Recipient: National Strength and Conditioning Associations Doctoral Student Research Award for an Outstanding Poster Abstract Presentation at the National Conference (2014)
- Recipient: National Strength and Conditioning Associations Doctoral Student Research Award for an Outstanding Poster Abstract Presentation at the National Conference (2013)
- Recipient: National Strength and Conditioning Associations Doctoral Student Research Award for an Outstanding Poster Abstract Presentation at the National Conference (2012)
- Recipient: Othmer Fellowship (2011-2014)
- Recipient: Challenge Scholarship from the National Strength and Conditioning Association Foundation (2013)
- Recipient: Women's Scholarship from the National Strength and Conditioning Association Foundation (2012)

### **CERTIFICATIONS**

- National Strength and Conditioning Association – Certified Strength and Conditioning Specialist with distinction (CSCS\*D) (August 2013 – current)
- 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