Samuel Louis Buckner, PhD
Department of Educational and Psychological Studies
Assistant Professor of Exercise Science
University of South Florida
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Education:

University of Mississippi, Oxford, Mississippi
Doctorate of Philosophy in Health and Kinesiology January 2015 – May 2018

University of Nebraska- Lincoln, Nebraska August 2013 – May 2014
Doctorate of Philosophy in Nutrition and Health Sciences

Florida Atlantic University, Boca Raton, Florida January 2012 – August 2013
Master of Science in Exercise Science & Health Promotion

Temple University, Philadelphia, Pennsylvania August 2007-May 2011
Bachelor of Science in Kinesiology

Pompano Beach High School, Pompano Beach, Florida May 2007

Work Experience:

Assistant Professor of Exercise Science
University of South Florida, Tampa, Florida August 2018- Present
- Department of Educational and Psychological Studies
-Director of USF Muscle Laboratory

Graduate Research Assistant
University of Mississippi, University, Mississippi January 2015- May 2018
- Health, Exercise Science and Recreation Management
-Research in Skeletal Muscle Physiology Lab
-Teach lecture course: Behavioral Aspects of Weight Management

Adjunct Instructor
Florida Atlantic University, Boca Raton, Florida August 2014- December 2014
- Department of Exercise Science and Health Promotion
-Activity Courses

UN-L Doctoral Research Assistant August 2013 – May 2014
-Department of Nutrition and Health Science
-Teach Ex. Phys and Ex. Testing Labs
- Research

FAU Exercise Science Graduate Assistant January 2012- August 2013
-Teach *Health and Fitness for Life* courses
-Schedule and oversee fitness and body composition tests
-Assist in research
-Conduct Body composition analysis for FAU sports teams

Fitness Assistant
Bocaire Country Club, Boca Raton, Florida — September 2011- Present
-Group fitness and personal training

Intern Strength Coach
Florida Atlantic University, Boca Raton, Florida — January 2011- May 2011
-Assistant strength coach for Men's Basketball
-Strength coach for Men's Golf

Tumbling/Gymnastics Coach
Star Gym Gymnastics, Boca Raton, Florida — January 2004-May 2007
-Teach gymnastics levels 4-6

Honors/ Awards:

Robert Blackburn Graduate Award in Exercise Science
University of Mississippi, Oxford MS — 2018

Elected "Student Representative" — 2016- 2018
Southeastern ACSM, 2016 Regional Meeting

Received NSCA "Challenge Scholarship — 2015
-$1500

Florida Atlantic University, College of Education
"Outstanding Exercise Science and Health Promotion Graduate Student" — 2012-2013

Temple University
-Dean's list — 2007-2011

Professional Preparation:

Attended:

Trainology Annual Meeting, 2020
Online Meeting

American College of Sports Medicine Annual Meeting, 2020
Online Meeting

American College of Sports Medicine Annual Meeting, 2019
Orlando, Florida

South Eastern American College of Sports Medicine Annual Meeting, 2019
Greenville, South Carolina

American College of Sports Medicine Annual Meeting, 2018
Minneapolis, Minnesota

South Eastern American College of Sports Medicine Annual Meeting, 2018
Chattanooga, Tennessee

American College of Sports Medicine Annual Meeting, 2017
Denver, Colorado

South Eastern American College of Sports Medicine Annual Meeting, 2017
Greenville, South Carolina

American College of Sports Medicine Annual Meeting, 2016
Boston, Massachusetts

South Eastern American College of Sports Medicine Annual Meeting, 2016
Greenville, South Carolina

American College of Sports Medicine Annual Meeting, 2015
San Diego, California

American College of Sports Medicine Annual Meeting, 2014
Orlando, Florida

South Eastern American College of Sports Medicine Annual Meeting, 2013
Greenville, South Carolina

National Strength and Conditioning Annual Meeting, 2013
Las Vegas, Nevada

National Strength and Conditioning Annual Meeting, 2012
Providence, Rhode Island

Publications in Peer Reviewed Journals:

*Denotes Graduate Student Author at the time of publication

1. Vasenina, E*., Kataoka R*., Hammert, WB*., **Buckner, S. L**. The Acute Muscular Response Following A Novel Form of Pulsed Direct Current Stimulation (Neubie) or Traditional Resistance Exercise. *Journal of Musculoskeletal and Neuronal Interactions. In Press.*

2. Exner, R. J*., Patel, M. H., Whitener, D. V., **Buckner, S. L**., Jessee, M. B., & Dankel, S. J. (2022). Does performing resistance exercise to failure homogenize the training stimulus by accounting for differences in local muscular endurance?. *European Journal of Sport Science*, 1-10.

3. Lewis, M. H*., Siedler, M. R*., Lamadrid, P*., Ford, S*., Smith, T*., SanFilippo, G*., **Buckner, S.L**.... & Campbell, B. I. (2022). Sex Differences May Exist for Performance Fatigue but Not

Recovery After Single-Joint Upper-Body and Lower-Body Resistance Exercise. *The Journal of Strength & Conditioning Research*, 10-1519.

4. Chatlaong, M. A., Bentley, J. P., **Buckner, S. L**., Mattocks, K. T., Dankel, S. J., Loenneke, J. P., & Jessee, M. B. (2022). Mechanisms mediating increased endurance following high-and low-load training with and without blood flow restriction. *Journal of Trainology*, *11*(1), 7-11.

5. Kataoka, R*., Vasenina, E*., Hammert, W. B*., Ibrahim, A. H*., Dankel, S. J., & **Buckner, S. L**. (2022). Muscle growth adaptations to high-load training and low-load training with blood flow restriction in calf muscles. *European journal of applied physiology*, 1-12.

6. Vasenina, E*., Kataoka, R*., Hammert, W. B*., Ibrahim, A. H*., Dankel, S. J., & **Buckner, S. L**. (2022). Examination of Changes in Echo Intensity Following Resistance Exercise among Various Regions of Interest. *Clinical Physiology and Functional Imaging*, *42*(1), 23-28.

7. Martinez, N., O'Halloran, J., Kilpatrick, M. W., Campbell, B. I., & **Buckner, S. L.** (2021). An integrated application of practical blood flow restriction in resistance trained individuals. *Journal of Trainology*, *11*(1), 1-6.

8. Kataoka, R*., Vasenina, E*., Hammert, W. B*., Ibrahim, A. H*., Dankel, S. J., & **Buckner, S. L.** (2021). Is there Evidence for the Suggestion that Fatigue Accumulates Following Resistance Exercise?. *Sports Medicine*, 1-12.

9. Hammert, W. B*., Kataoka, R*., Vasenina, E*., Ibrahim, A. H*., & **Buckner, S. L**. (2021). Is "periodization programming" periodization or programming?. *Journal of Trainology*, *10*(2), 20-24.
10. Vasenina, E*., Kataoka, R*., Loenneke, J. P., & **Buckner, S. L**. (2021). Exercise science perspective. Comment on" Dynamic and thermodynamic models of adaptation" by Alexander N. Gorban et al. *Physics of Life Reviews*, *38*, 129-131.

11. **Buckner, S. L**., Yitzchaki, N*., Kataoka, R*., Vasenina, E*., Zhu, W. G*., Kuehne, T. E*., & Loenneke, J. P. (2021). Do exercise-induced increases in muscle size contribute to strength in resistance-trained individuals?. *Clinical Physiology and Functional Imaging*, *41*(4), 326-333.

12. Exner, R.J., Patel, M.H., Whitener, D.V., **Buckner, S.L**., Dankel, S.J. Does Performing Resistance Exercise to Failure Homogenize the Training Stimulus by Accounting for Differences in Local Muscular Endurance (2022) *European Journal of Sports Science.* In Press.

13. Kataoka, R*., Vasenina, E*., Loenneke, J., & **Buckner, S. L**. (2021). Periodization: Variation in the Definition and Discrepancies in Study Design. *Sports Medicine*, 1-27.

14. Vasenina, E*., Kataoka, R*., & **Buckner, S. L**. (2020). Adaptation energy: Experimental evidence and applications in exercise science. *Journal of Trainology*, *9*(2), 66-70.

15. Kuehne, T. E*., Kataoka, R*., Yitzchaki, N*., Zhu, W. G*., Vasenina, E*., & **Buckner, S. L**. (2020). An examination of changes in muscle thickness, isometric strength and body water throughout the menstrual cycle. *Clinical Physiology and Functional Imaging*.

16. Spitz, R. W*., Bell, Z*. W., Wong, V*., Yamada, Y*., Song, J. S*., **Buckner, S. L**., ... & Loenneke, J. P. (2020). Strength testing or strength training: considerations for future research. *Physiological Measurement*, *41*(9), 09TR01.

17. Park, J*., Stanford, D. M*., **Buckner, S. L**., & Jessee, M. B. (2020). The acute muscular response to passive movement and blood flow restriction. *Clinical Physiology and Functional Imaging*, *40*(5), 351-359.

18. Abe, T., Dankel, S., Spitz, R. W*., **Buckner, S. L**., Wong, V*., Viana, R. B*., ... & Loenneke, J. P. (2020). Does resistance training increase aponeurosis width? The current results and future tasks. *European Journal of Applied Physiology*, *120*, 1489-1494.

19. Yitzchaki, N*., Zhu, W. G*., Kuehne, T. E*., Vasenina, E*., Dankel, S. J., & **Buckner, S. L**. (2020). An examination of changes in skeletal muscle thickness, echo intensity, strength and soreness following resistance exercise. *Clinical physiology and functional imaging*, *40*(4), 238-244.

20. Zhu, W. G*., Yitzchaki, N*., Kuehne, T. E*., Kataoka, R*., Mattocks, K. T., & **Buckner, S. L**. (2020). Cardiovascular and Muscular Response to NO LOAD Exercise with Blood Flow Restriction. *International Journal of Exercise Science*, *13*(2), 1807.

21. Kuehne, T. E*., Yitzchaki, N*., Jessee, M. B., Graves, B. S., & **Buckner, S. L.** (2019). A comparison of acute changes in muscle thickness between A-mode and B-mode ultrasound. *Physiological measurement*, *40*(11), 115004.

22. **Buckner, S. L**., Jessee, M. B., Mouser, J. G., Dankel, S. J., Mattocks, K. T., Bell, Z. W., ... & Loenneke, J. P. (2019). The Basics of Training for Muscle Size and Strength: A Brief Review on the Theory. *Medicine and science in sports and exercise* (In Press).

23. **Buckner, S. L**., Jessee, M. B., Dankel, S. J., Mattocks, K. T., Mouser, J. G., Bell, Z. W., ... & Loenneke, J. P. (2019). Blood flow restriction does not augment low force contractions taken to or near task failure. *European journal of sport science*, 1-10.

24. **Buckner, S. L**., Kuehne, T. E*., Yitzchaki, N*., Zhu, W. G*., Humphries, M. N*., & Loenneke, J. P. (2019). The generality of strength adaptation. *Journal of Trainology*, *8*(1), 5-8.

25. Dankel, S. J., Bell, Z. W*., Spitz, R. W*., Wong, V*., Viana, R. B*., Chatakondi, R. N*., **Buckner, S.L**., ... & Abe, T. (2019). Assessing differential responders and mean changes in muscle size, strength, and the cross-over effect to two distinct resistance training protocols. *Applied Physiology, Nutrition, and Metabolism*, (In Press).

26. Jessee, M. B., **Buckner, S. L**., Mattocks, K. T., Dankel, S. J., Mouser, J. G., Bell, Z. W., ... & Loenneke, J. P. (2019). Blood flow restriction augments the skeletal muscle response during very low-load resistance exercise to volitional failure. *Physiology international*, *106*(2), 180-193.

27. Mattocks, K. T., Mouser, J. G., Jessee, M. B., **Buckner, S. L**., Dankel, S. J., Bell, Z. W., ... & Loenneke, J. P. (2019). Perceptual changes to progressive resistance training with and without blood flow restriction. *Journal of sports sciences*, *37*(16), 1857-1864.

28. Loenneke, J. P., **Buckner, S. L**., Dankel, S. J., & Abe, T. (2019). Exercise-induced changes in muscle size do not contribute to exercise-induced changes in muscle strength. *Sports Medicine*, *49*(7), 987-991.

29. Yitzchaki, N*, Kuehne T.E*., Mouser, J.G., **Buckner, S.L.** Can Changes in Echo-Intensity be used to Detect the Presence of Muscle Swelling? *Physiologic Measurement. (In Press)*

30. Mouser, J. G., Mattocks, K. T., **Buckner, S. L**., Dankel, S. J., Jessee, M. B., Bell, Z. W., ... & Loenneke, J. P. (2019). High-pressure blood flow restriction with very low load resistance training results in peripheral vascular adaptations similar to heavy resistance training. *Physiological measurement*, *40*(3), 035003.

31. Abe, T., Dankel, S. J., **Buckner, S. L**., Jessee, M. B., Mattocks, K. T., Mouser, J. G., ... & Loenneke, J. P. (2019). Magnetic resonance imaging-measured skeletal muscle mass to fat-free mass ratio increases with increasing levels of fat-free mass. *The Journal of sports medicine and physical fitness*, *59*(4), 619-623.

32. Mattocks, K. T., Mouser, J. G., Jessee, M. B., Dankel, S. J., **Buckner, S. L**., Bell, Z. W., ... & Loenneke, J. P. (2019). Perceptual changes to progressive resistance training with and without blood flow restriction. *Journal of Sports Sciences. Accepted*

33. Abe, T., Mouser, J. G., Dankel, S. J., Bell, Z. W., **Buckner, S. L**., Mattocks, K. T., ... & Loenneke, J. P. (2019). A method to standardize the blood flow restriction pressure by an elastic cuff. *Scandinavian journal of medicine & science in sports*, *29*(3), 329-335.

34. Mouser, J. G., Mattocks, K. T., Dankel, S. J., Buckner, S. L., Jessee, M. B., Bell, Z. W., ... & Loenneke, J. P. (2019). Very-low-load resistance exercise in the upper body with and without

blood flow restriction: cardiovascular outcomes. *Applied Physiology, Nutrition, and Metabolism*, *44*(3), 288-292.

35. Dankel, S. J., Jessee, M. B., Mattocks, K. T., Buckner, S. L., Mouser, J. G., Bell, Z. W., ... & Loenneke, J. P. (2019). Perceptual and arterial occlusion responses to very low load blood flow restricted exercise performed to volitional failure. *Clinical physiology and functional imaging*, *39*(1), 29-34.

36. Mattocks, K. T., Mouser, J. G., Jessee, M. B., Dankel, S. J., **Buckner, S. L**., Bell, Z. W., ... & Loenneke, J. P. (2018). Acute hemodynamic changes following high load and very low load lower body resistance exercise with and without the restriction of blood flow. *Physiological measurement*, *39*(12), 125007.

37. Jessee, M. B., **Buckner, S. L**., Dankel, S. J., Mattocks, K. T., Bell, Z. W., Abe, T., & Loenneke, J. P. (2018). Arterial occlusion pressure as a method to quantify cardiovascular responses to exercise. *Biomedical Physics & Engineering Express*, *4*(6), 065034.

38. Hornsby, W. G., Gentles, J. A., Haff, G. G., Stone, M. H., **Buckner, S. L**., Dankel, S. J., ... & Loenneke, J. P. (2018). What is the Impact of Muscle Hypertrophy on Strength and Sport Performance?. *Strength & Conditioning Journal*, *40*(6), 99-111.

39. **Buckner, S. L**., Jessee, M. B., Dankel, S. J., Mattocks, K. T., Mouser, J. G., Bell, Z. W., ... & Loenneke, J. P. (2018). Acute skeletal muscle responses to very low-load resistance exercise with and without the application of blood flow restriction in the upper body. *Clinical physiology and functional imaging*.

40. **Buckner, S.L.,** Dankel, S.J., Bell, Z.W., Abe, T., Loenneke, J. P. The association of hand grip strength and mortality: What does it tell us and what can we do with it? *Rejuvenation Research.* 2018 (In Press) .

41. Bell, Z. W., Dankel, S. J., Mattocks, K. T., **Buckner, S.** L., Jessee, M. B., Mouser, J. G., ... & Loenneke, J. P. (2018). An investigation into setting the blood flow restriction pressure based on perception of tightness. *Physiological measurement*, *39*(10), 105006.

42. Mouser, J. G., Mattocks, K. T., Dankel, S. J., **Buckner, S. L**., Jessee, M. B., Bell, Z. W., ... & Loenneke, J. P. (2018). Very Low Load Resistance Exercise in the Upper Body with and without Blood Flow Restriction: Cardiovascular Outcomes. *Applied Physiology, Nutrition, and Metabolism*, (ja).

43. Jessee MB, **Buckner SL**, Mouser JG, Mattocks KT, Dankel SJ, Abe T, Bell ZW, Bentley JP, Loenneke JP. "Muscle adaptations to high-load training and very low-load training with and without blood flow restriction." Frontiers in Physiology. 2018.

44. **Buckner, S.L**., Dankel[1], S.J., Mattocks, K.T., Jessee, M.B., Mouser, J.G., Loenneke, J.P.

The cardiovascular adaptations to repeated "Strength Snacks". Trainology. 7,2:21-XX

45. **Buckner, S.L**., Dankel[1], S.J., Mattocks, K.T., Jessee, M.B., Mouser, J.G., Loenneke, J.P. The Affective and Behavioral Responses To Repeated “Strength Snacks”. Physiology International. In Press.

46. Bell, Z. W., **Buckner, S. L**., Jessee, M. B., Mouser, J. G., Mattocks, K. T., Dankel, S. J., ... & Loenneke, J. P. (2018). Moderately heavy exercise produces lower cardiovascular, RPE, and discomfort compared to lower load exercise with and without blood flow restriction. *European journal of applied physiology*, 1-8.

47. **Buckner, S. L**., Dankel, S. J., Mouser, J. G., Mattocks, K. T., Jessee, M. B., & Loenneke, J. P. (2017). Chasing the Top Quartile of Cross-Sectional Data: Is it Possible with Resistance Training?. Medical Hypotheses. Medical Hypotheses, 108, 63-68.

48. Dankel, S. J., Mouser, J. G., Mattocks, K. T., Jessee, M. B., **Buckner, S. L**., Bell, Z. W., ... & Loenneke, J. P. (2018). Changes in muscle size via MRI and ultrasound: Are they equivalent?. *Scandinavian journal of medicine & science in sports*, *28*(4), 1467-1468.

49. **Buckner, S.L**., Jessee, M.B., Dankel, S. J., Mouser, J. G., Mattocks, K. T., Loenneke, J. P. Comment on: "The General Adaptation Syndrome: A Foundation for the Concept of Periodization. *Sports Medicine, 48(7)* 1751-1753.

50. Abe, T., **Buckner, S. L**., Mattocks, K. T., Jessee, M. B., Dankel, S. J., & Grant, J. (2018). Skeletal Muscle Mass and Architecture of the World’s Strongest Raw Powerlifter: A Case Study. *Asian Journal of Sports Medicine*, *9*(2).

51. Laurentino, G. C., Loenneke, J. P., Mouser, J. G., **Buckner, S. L**., Counts, B. R., Dankel, S. J., ... & Teixeira, E. L. (2018). Validity of the Handheld Doppler to Determine Lower-Limb Blood Flow Restriction Pressure for Exercise Protocols. *Journal of strength and conditioning research*. In Press

52. Dankel, S. J., Mattocks, K. T., Jessee, M. B., **Buckner, S. L**., Mouser, J. G., & Loenneke, J. P. (2017). Do metabolites that are produced during resistance exercise enhance muscle hypertrophy?. European Journal of Applied Physiology, 1-11.

53. **Buckner S.L**., Jessee M.B., Dankel S.J., Mouser J.G., Mattocks K.T., Loenneke J.P. Comment on: "The General Adaptation Syndrome: A Foundation for the Concept of Periodization". Sports Medicine, 10.1007/s40279-018-0887-3.

54. Dankel, S. J., **Buckner, S. L**., Jessee, M. B., Mouser, J. G., Mattocks, K. T., Abe, T., & Loenneke, J. P. (2017). Correlations Do Not Show Cause and Effect: Not Even for Changes in Muscle Size and Strength. Sports Medicine, 1-6.

55. Mouser, J. G., Jessee, M. B., Mattocks, K. T., Bell, Z. W., **Buckner, S. L**., Dankel, S. J., ... & Loenneke, J. P. (2018). Blood flow restriction: Methods matter. *Experimental gerontology*, *104*, 7-8.

56. Jessee, M. B., Mouser, J. G., **Buckner, S.** L., Dankel, S. J., Mattocks, K. T., Abe, T., & Loenneke, J. P. (2018). Effects of load on the acute response of muscles proximal and distal to blood flow restriction. *The Journal of Physiological Sciences*, 1-11.

57. Mouser, J. G., Dankel, S. J., Mattocks, K. T., Jessee, M. B., **Buckner, S. L**., Abe, T., & Loenneke, J. P. (2018). Blood flow restriction and cuff width: effect on blood flow in the legs. *Clinical physiology and functional imaging*.

58. Mattocks, K. T., Jessee, M. B., Mouser, J. G., Dankel, S. J., **Buckner, S. L**., Bell, Z. W., ... & Loenneke, J. P. (2018). The Application of Blood Flow Restriction: Lessons From the Laboratory. *Current sports medicine reports*, *17*(4), 129-134.

59. Jessee MB, Mattocks KT, **Buckner SL**, Dankel SJ, Mouser JG, Abe T, and JP Loenneke. "Mechanisms of Blood Flow Restriction: The New Testament." Techniques in Orthopedics. (In Press).

60. Dankel SJ, Jessee MB, **Buckner SL**, Mouser JG, Mattocks KT, and JP Loenneke. "Are higher blood flow restriction pressures more beneficial when lower loads are used?" Physiology International. (In Press).

61. Mattocks, K. T., **Buckner, S. L**., Jessee, M. B., Dankel, S. J., Mouser, J. G., & Loenneke, J. P. (2017). Practicing the Test Produces Strength Equivalent To Higher Volume Training. Medicine and Science in Sports and Exercise. (In Press)

62. **Buckner, S. L**., Loenneke, J. P., & Loprinzi, P. D. (2017). Protein timing during the day and its relevance for muscle strength and lean mass. Clinical Physiology and Functional Imaging. (In Press)

63. Abe, T., **Buckner, S. L**., Dankel, S. J., Jessee, M. B., Mattocks, K. T., Mouser, J. G., & Loenneke, J. P. (2018). Skeletal muscle mass in human athletes: What is the upper limit?. *American Journal of Human Biology*, e23102.

64. Abe, T., Dankel, S. J., **Buckner, S. L**., Jessee, M. B., Mattocks, K. T., Mouser, J. G., ... & Loenneke, J. P. (2018). Differences in 100-m sprint performance and skeletal muscle mass between elite male and female sprinters. The Journal of sports medicine and physical fitness. (In Press)

65. Mouser, J. G., Laurentino, G. C., Dankel, S. J., **Buckner, S. L**., Jessee, M. B., Counts, B. R., ... & Loenneke, J. P. (2017). Blood flow in humans following low-load exercise with and without blood flow restriction. *Applied Physiology, Nutrition, and Metabolism*, *42*(11), 1165-1171.

66. **Buckner, S. L**., Mouser, J. G., Dankel, S. J., Jessee, M. B., Mattocks, K. T., & Loenneke, J. P. (2017). The General Adaptation Syndrome: Potential misapplications to resistance exercise. Journal of Science and Medicine in Sport. (In Press)

67. Dankel, S. J., Mouser, J. G., Mattocks, K. T., Jessee, M. **B., Buckner, S. L**., Bell, Z. W., ... & Loenneke, J. P. (2017). Changes in muscle size via MRI and ultrasound: Are they equivalent? Scandinavian journal of medicine & science in sports. (In Press)

68. Dankel, S. J., Mattocks, K. T., Mouser, J. G., **Buckner, S. L**., Jessee, M. B., & Loenneke, J. P. (2017). A critical review of the current evidence examining whether resistance training improves time trial performance. *Journal of sports sciences*, 1-7.

69. Dankel SJ, Mouser JG, Jessee MB, Mattocks KT, **Buckner SL**, and JP Loenneke. "Post-exercise blood flow restriction attenuates hyperemia similarly in males and females." European Journal of Applied Physiology (In Press).

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71. Mattocks, K. T., Jessee, M. B., Counts, B. R., **Buckner, S. L**., Mouser, J. G., Dankel, S. J., ... & Loenneke, J. P. (2017). The effects of upper body exercise across different levels of blood flow restriction on arterial occlusion pressure and perceptual responses. Physiology & behavior, 171, 181-186.

72. **Buckner, S. L**., Dankel, S. J., Mattocks, K. T., Jessee, M. B., Mouser, J. G., Counts, B. R., ... & Loenneke, J. P. (2017). Differentiating swelling and hypertrophy through indirect assessment of muscle damage in untrained men following repeated bouts of resistance exercise. European Journal of Applied Physiology, 117(1), 213-224.

73. Counts, B. R., **Buckner, S. L**., Mouser, J. G., Dankel, S. J., Jessee, M. B., Mattocks, K. T., & Loenneke, J. P. (2017). Muscle growth: To infinity and beyond? Muscle & Nerve. (In Press)

74. Jessee, M. B., Mattocks, K. T., **Buckner, S. L**., Mouser, J. G., Counts, B. R., Dankel, S. J., ... & Loenneke, J. P. (2017). The acute muscular response to blood flow-restricted exercise with very low relative pressure. Clinical Physiology and Functional Imaging. (In Press)

75. **Buckner, S. L**., Dankel, S. J., Counts, B. R., Jessee, M. B., Mouser, J. G., Mattocks, K. T., ... & Loenneke, J. P. (2017). Influence of cuff material on blood flow restriction stimulus in the upper body. The Journal of Physiological Sciences, 67(1), 207-215.

76. Dankel, S. J., Jessee, M. B., Mattocks, K. T., Mouser, J. G., Counts, B. R., **Buckner, S. L**., & Loenneke, J. P. (2017). Training to fatigue: the answer for standardization when assessing muscle hypertrophy?. Sports Medicine (Auckland, NZ), 47(6), 1021-1027.

77. **Buckner, S. L**., Dankel, S. J., Mattocks, K. T., Jessee, M. B., Grant, M. J., & Loenneke, J. P. (2017). Muscle size and strength: another study not designed to answer the question. European Journal of Applied Physiology, 117(6), 1273.

78. **Buckner, S. L.,** Mouser, J. G., Jessee, M. B., Dankel, S. J., Mattocks, K. T., & Loenneke, J. P. (2017). What does individual strength say about resistance training status?. Muscle & nerve, 55(4), 455-457.

79. Mouser, J. G., Dankel, S. J., Jessee, M. B., Mattocks, K. T., **Buckner, S. L**., Counts, B. R., & Loenneke, J. P. (2017). A tale of three cuffs: the hemodynamics of blood flow restriction. European Journal of Applied Physiology. (In Press)

80. Edwards, M. K., **Buckner, S. L**., Loenneke, J. P., & Loprinzi, P. D. (2017). Association between sedentary behavior and normal-range lactate dehydrogenase activity. Postgraduate Medicine, 129(4), 484-487.

81. Dankel, S. J., Counts, B. R., Barnett, B. E., **Buckner, S. L**., Abe, T., & Loenneke, J. P. (2016). Muscle adaptations following 21 consecutive days of strength test familiarization compared with traditional training. Muscle & Nerve. (In Press)

82. Dankel, S. J., **Buckner, S. L**., Jessee, M. B., Mattocks, K. T., Mouser, J. G., Counts, B. R., ... & Loenneke, J. P. (2017). Can blood flow restriction augment muscle activation during high-load training?. Clinical Physiology and Functional Imaging. (In Press)

83. Mattocks, K. T., Jessee, M. B., Counts, B. R., **Buckner, S. L**., Mouser, J. G., Dankel, S. J., ... & Loenneke, J. P. (2017). The effects of upper body exercise across different levels of blood flow restriction on arterial occlusion pressure and perceptual responses. Physiology & Behavior, 171, 181-186.

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***Google Scholar Profile*: https://scholar.google.com/citations?user=zzqR0jgAAAAJ&hl=en&oi=ao**

Articles Under Review in Peer-Reviewed Journals:

*Denotes Graduate Student Author at the time of publication

1. Vasenina, E*., Kataoka R*., Dankel, SJ., **Buckner SL**. (Under Review). Injuries and Strength and Conditioning Practices in Collegiate Tennis. *Scandinavian Journal of Medicine and Science in Sports*

2. Vasenina, E*., Kataoka R*., Hammert, WB*., **Buckner, S. L**. (Under Review). Normative Changes in Skeletal Muscle Size Following Resistance Exercise. *Sports Medicine.*

3. Hammert, WB*, Vasenina, E*.,**Buckner, S. L**. Muscle Size and Strength Adaptations Following A Novel Form of Pulsed Direct Current Stimulation (Neubie) or Traditional Resistance Exercise. *Journal of Musculoskeletal and Neuronal Interactions*.

Presentations/Abstracts:

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1. Vasenina, E*., Kataoka, R*., Hammert, W., & **Buckner, S. L.** (2021). An Examination Of Changes In Echo Intensity Following Resistance Exercise Using Various Regions Of Interest: 350. *Medicine & Science in Sports & Exercise*, *53*(8S), 109.

2. Chatlaong, M. A., Mouser, J. G., **Buckner, S. L.,** Mattocks, K. T., Dankel, S. J., Loenneke, J. P., & Jessee, M. B. (2021). Mechanisms Mediating Increased Endurance Following High-And Low-load Training With And Without Blood Flow Restriction: 344. *Medicine & Science in Sports & Exercise*, *53*(8S), 108.

3. Wong, V., Jessee, M. B., Bell, Z. W., Yamada, Y., Song, J. S., Spitz, R. W., **Buckner, S.L**., ... & Loenneke, J. P. (2021). The Influence Of Limb Blood Flow On Muscle Growth With Different Resistance Training Protocols: 323. *Medicine & Science in Sports & Exercise*, *53*(8S), 101.

4. Vasenina, E*., **Buckner, SL**. The relationship between strength and conditioning practices and injuries in collegiate Tennis. Annual Trainology Conference, 2021 Oxford, MS

5. Hammert, WB*., **Buckner, SL**. An examination of changes in muscle thickness, strength, and soreness following resistance training with direct pulsed current. Annual Trainology Conference, 2021 Oxford, MS

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7. Yitzchaki, N*., Zhu, W. G*., Kuehne, T. E*., Vasenina, E*., & **Buckner, S. L**. (2020). A Time Course Of Changes In Echo Intensity Following Resistance Exercise In Untrained Individuals: 348 Board# 164 May 27 10: 30 AM-12: 00 PM. *Medicine & Science in Sports & Exercise*, *52*(7S), 83.

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14. Jessee MB, Mouser JG, **Buckner SL**. "Blood Flow Restriction: Important Updates and Applications." Presented at Southeast American College of Sports Medicine Annual Regional Conference. (2019)

15. Yitzchaki N*, Kuehne T*, Zhu W*, Humphries M*, **SL Buckner**. "A time course of changes in echo intensity following resistance exercise in untrained individuals." Presented at Trainology 2019 (2019)

16. Zhu W*, Yitzchaki N*, Kuehne T*, Humphries M*, **SL Buckner**. "Acute cardiovascular and muscular response to NO-LOAD exercise with and without the application of blood flow restriction." Presented at Trainology 2019.

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21. **Buckner SL**, Jessee MB, Dankel SJ, Mattocks KT, Mouser JG, Bell ZW, Abe T, Bentley JP, Loenneke JP. "Blood Flow Restriction Does Not Augment Low Force Contractions Taken to or Near Task Failure." Submitted 09/03/2018 to American College of Sports Medicine Annual National Conference. (2019)

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23. Jessee MB, **Buckner SL**, Mouser JG, Mattocks KT, Dankel SJ, Abe T, Bell ZW, Bentley JP, Loenneke JP. "Endurance is augmented by Greater Blood Flow Restriction Pressures: Muscle Size and Strength are Not." Submitted 09/02/2018 to American College of Sports Medicine Annual National Conference. (Accepted)

24. Mouser JG, Laurentino GC, Scott J. Dankel, **Buckner SL**, Jessee MB, Counts BR, Mattocks KT, and JP Loenneke. “Blood Flow in Humans During Low-Load Exercise with and without Blood Flow Restriction.” ACSM National Conference, June 2017, Denver, Colorado.

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30. **Buckner SL.** Differentiating Swelling and Hypertrophy Through Indirect Assessment of Muscle Damage in Untrained Men Following Repeated Bouts of Resistance Exercise. SEACSM Invited Presentation, February 2017, Greenville, South Carolina.

31. Counts BR, **Buckner SL**, Dankel SJ, Jessee MB, Mattocks KT, Mouser JG, Laurentino GC, and Loenneke JP. The Acute Response to No Load Exercise: Is it Sufficient? ACSM National Conference, May 2016, Boston, Massachusetts.

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39. **Buckner S.L**, Dankel SJ, Counts BR, Barnett BE, Jessee MB, Mouser JG, Halliday TM, and Loenneke JP. The Influence of Circadian Rhythms on Upper Body Isometric Strength, Muscle Thickness and Body Temperature. ACSM National Conference, May 2016, Boston, Massachusetts.

40. Dankel SJ, Counts BR, Barnett BE, **Buckner S.L**, Abe T, Zourdos MC, and Loenneke JP. Muscle adaptation to 21 Straight Days of Elbow Flexor Exercise in Trained Individuals. ACSM National Conference, May 2016, Boston, Massachusetts.

41. **Buckner, S.L**., et al. "Comparing passive angle–torque curves recorded simultaneously with a load cell versus an isokinetic dynamometer during dorsiflexion stretch tolerance assessments." Medical engineering & physics 37.5 (2015): 494-498. Presented at the American College of Sports Medicine National Annual Convention, Orlando, FL).

42. Switalla, J.R., Housh, T.J., Cochrane, K.C., Jenkins, N.D.M, **Buckner, S.L**., Goldsmith, J.A., Schmidt, R.J., Johnson, G.O., Cramer, J.T, Bergstrom, H.C. Metabolic, cardiovascular, and

perceptual responses during treadmill running severe intensity treadmill running: Limiting factors of exercise performance? (Presented at the National Strength and Conditioning Association Annual Convention, 2015, Orlando, FL).

43. Jenkins, N.D.M., Housh, T.J., Bergstrom, H.C**., Buckner, S.L**., Cochrane, K.C., Hill, E.C., Smith, C.M., and Cramer, J.T. Muscle size, muscle strength, electromyography, mechanomyography, and voluntary activation during four weeks of high- vs. low-load resistance training. (Presented at the National Strength and Conditioning Association Annual Convention, 2015, Orlando, FL).

44. 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. 47(5S):785-788, 2015. (Presented at the American College of Sports Medicine National Annual Convention, San Diego, CA).

45. Bergstrom, H.C., Housh, T.J., Cochrane, K.C., Jenkins, N.D.M., **Buckner, S.L**., Goldsmith, J.A., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. Sustainability, physiological, and perceptual responses at the critical heart rate during treadmill running. (Presented at the National Strength and Conditioning Association National Annual Convention, 2014, Las Vegas, NV).

46. Cochrane, K.C., Housh, T.J., Bergstrom, H.C., Jenkins, N.D.M., **Buckner, S.L**., Cramer, J.T., Johnson, G.O., and Schmidt, R.J.. Comparison of perceptual and physiological fatigue thresholds during cycle ergometry. (Presented at the National Strength and Conditioning Association National Annual Convention, 2014, Las Vegas, NV).

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48. Jenkins, N.D.M., **Buckner, S.L.**, Goldsmith, J.A., Bergstrom, H.C., Cochrane, K.C., Schmidt, R.J., Johnson, G.O., Housh, T.J., and Cramer, J.T. Reliability and comparisons of handgrip strength, leg extension muscle function, and balance. (Presented at the National Strength and Conditioning Association National Annual Convention, 2014, Las Vegas, NV).

49. Bergstrom, H.C., Housh, T.J., Cochrane, K.C., Jenkins, N.D.M., **Buckner, S.L**., Baker, B., Schmidt, R.J., Johnson, G.O., and Cramer, J.T. Neuromuscular responses during continuous exercise at, above, and below critical power. 46(5S):668-677, 2014. (Presented at the American College of Sport Medicine Annual Convention, Orlando, FL).

50. Jenkins, N.D.M., **Buckner, S.L**., Bergstrom, H.C., Cochrane, K.C., Palmer, T.B., Schmidt, R.J., Johnson, G.O., Housh, T.J., and Cramer, J.T. Age related differences in rates of torque development and rates of rise in electromyographic amplitude. 46(5S):456-461, 2014. (Presented at the American College of Sport Medicine Annual Convention, Orlando, FL).

51. **Buckner, SL**., Graves, BS. "A Comparison of body fat percentages among Exercise Science and Health Promotion students vs. Non-Exercise Science and Health Promotion students ages 20-29 at Florida Atlantic University" (Presented at the Florida Atlantic University College of Education Research Symposium, November 2012)

Grants

Kilpatrick, M., **Buckner SL**., CO-PI. Endurance Athletes Performance Study Using RelieveIt, Formulated With Resin From The Caribbean Pine Tree - $2000 Summer B Session (Funded)

Buckner SL. Principal Investigator (2020) Neurological Fitness Equipment and Ed LL. "*Two studies testing the effect of the Neubie system on muscles and performance"* Funds Requested: $6,503. (Funded)

Buckner SL. Principal Investigator (2020) American College of Sports Medicine Foundation Grant. "*Does Skeletal Muscle Hypertrophy Increase Strength Potential Following Resistance Exercise?*" Funds Requested: $9,895.00 (Not Funded)

Buckner SL. Principal Investigator (2019) College of Education New Researcher Grant. "*Does Skeletal Muscle Growth Contribute to Strength Adaptation?*" Funds Requested: $4,850.00 (Funded)

Buckner SL. Principal Investigator (2019) American College of Sports Medicine Foundation Grant. "*Does Skeletal Muscle Hypertrophy Increase Strength Potential Following Resistance Exercise?*" Funds Requested: $9,940.00 (Not Funded)

Loenneke JP. Principal Investigator (2017). "Have improper analyses cost us millions: reassessing inter-individual responses to exercise." National Institutes of Aging. $300,000 (In Review).

Loenneke JP. Principal Investigator (2017). The muscular and vascular effects of very low loads with and without different levels blood flow restriction. American College of Sports Medicine $10,000 (Not Funded).

Loenneke JP. Principal Investigator (2016). Does low load exercise in combination with blood flow restriction attenuate muscle damage and/or confer a protective effect to a subsequent bout of high load exercise in statin users? National Institutes of Aging. $100,000 (Not Funded).

Loenneke JP. Principal Investigator (2015) Application Title: An Investigation into the Circadian rhythms of muscle function and balance in young and older adults? National Institutes of Aging. $100,000 (Not Funded).

Buckner SL. Principal Investigator. Application Title: "*Does Skeletal Muscle Hypertrophy Increase Strength Potential Following Resistance Exercise?*" Funds Requested: $9,940.00. American College of Sports Medicine Foundation Grant. (Not Funded)

Students Mentored

Noam Yitzchaki – Masters Student
Lead author/co-author on 5 manuscripts
Abstract submitted to national conference
Presentation at National conference

Tayla Kuehne – Masters Student
Lead author/co-author on 5 manuscripts
Abstract presented at national conference

Wenyuan Zhu– Masters Student
Co-author on manuscript
Presentation submitted to conference

Ryo Kataoka– Masters Student
Lead/Co-author on 10 manuscripts
Presentation submitted to conference

Ecaterina Vasenina– Masters Student
Lead/Co-author on 10 manuscripts
Presentation submitted to conference

William Hammert – Masters Student
Lead/Co-author on 4 manuscripts

Mentorship

Jeremy Loenneke, PhD
The University of Mississippi (2014 – Present)

Barbara Sue Graves, PhD
Florida Atlantic University (2012-2016)

Service:

Southeastern American College of Sports Medicine 2019-2021
Committee Member: Mentorship Breakfast
Southeastern American College of Sports Medicine 2016-2018
Executive Board: Student Representative
University Of Mississippi, Exercise Science Department

Chair Search Committee 2016-2017
American College of Sports Medicine
Student Affairs Committee 2017- Present

External Peer Reviewer

Journal reviewer: International Journal of Sports Medicine (IJSM) – 4 articles
Journal reviewer: Journal of Strength and Conditioning Research – 20 articles
Journal reviewer: Sports – 5 articles
Journal Reviewer: Sports Medicine – 4 Article

Other:

Schedule and oversee all outside testing in the Florida Atlantic University Department of Exercise Science and Health Promotion "Human Performance Lab" January 2012 – August 2013

Body Composition Testing for Teams and Individuals
Hydrostatic weighing, Ultrasound, Bod Pod

Blood Lactate Testing For Athletes and Individuals
Vo_{2Max}/Submaximal testing

Equitest for Older Individuals
Assessment of Ocular, Vestibular and Somatosensory balance as well as gait analysis

Teach and Assist in "Practicum" at Florida Atlantic University
An Applied class that allows older individuals to come to Florida Atlantic University and receive exercise prescriptions from undergraduate students.

Activities & Interest:

Member of Temple University Gymnastics club team 2009-2011
Philadelphia, Pennsylvania

Volunteer tumbling coach for Northeast Rebels 2006- 2008
Oakland Park, Florida

World Record Holder of "Most Consecutive 90 Degree Pushups"
Record Submitted to Guinness World Records November 2012

Skills:

Computer: MS Words, Excel, PowerPoint, Mac and PC literate
Efficient with equipment utilized in applied physiology labs and different methods of body composition.