

# CURRICULUM VITAE

**Matthew J. McAllister, Ph.D.**

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Associate Professor & Associate Chair  
Director, Metabolic & Applied Physiology Lab  
Department of Health & Human Performance  
Texas State University  
San Marcos, TX 78666  
Email: [mjm445@txstate.edu](mailto:mjm445@txstate.edu)

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## EDUCATION

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### **Doctor of Philosophy**

Nutrition

Mississippi State University

Mississippi State, MS

Graduation Date: August, 2015

### **Master of Science**

Health and Sport Sciences; Exercise Science

University of Memphis

Memphis, TN

Graduation Date: May, 2012

### **Bachelor of Science**

Health and Human Performance

Concentration: Exercise Science

University of Memphis

Memphis, TN

Graduation Date: May 07, 2010

### **Associate of Science in Liberal Arts**

Monroe Community College

Rochester, NY

Graduation Date: December 2006

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## PROFESSIONAL EXPERIENCE

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### **Associate Department Chair**

Department of Health & Human Performance

Texas State University

San Marcos, TX

June 2023 - present

### **Associate Professor, with Tenure**

Exercise and Sports Science

Department of Health & Human Performance

Texas State University

San Marcos, TX

September 2022-Present

Areas of Teaching:

*ESS 5312 Applied Exercise Metabolism (G)*  
*ESS 5306 Advanced Exercise Physiology (G)*  
*ESS 3317 Exercise Physiology (UG)*  
*ESS 3319 Introduction to Cardiopulmonary Exercise Physiology (UG)*  
*ESS 5347 Independent Study in Exercise Science (G)*  
*ESS 5399A Thesis (G)*  
*ESS 5399B Thesis (G)*

**Affiliated Faculty Researcher**

ALERRT Center  
Texas State University  
San Marcos, TX  
Fall 2019-Present

**Faculty Research Fellow**

Translational Health Research Center  
Texas State University  
San Marcos, TX  
Summer 2022-Summer 2023

**Assistant Professor of Exercise Physiology**

Department of Health & Human Performance  
Texas State University  
San Marcos, TX  
August 2018-2022  
Granted Tenure & Promotion, Spring 2022

Areas of Teaching:

*ESS 5312 Applied Exercise Metabolism (G)*  
*ESS 5306 Advanced Exercise Physiology (G)*  
*ESS 5307 Advanced Resistance Training (G)*  
*ESS 5110 Research Seminar (G)*  
*ESS 3317 Exercise Physiology (UG)*  
*ESS 4319 Clinical Exercise Physiology (UG)*  
*ESS 3319 Introduction to Cardiopulmonary Exercise Physiology (UG)*  
*ESS 5347 Independent Study in Exercise Science (G)*  
*ESS 5399A Thesis (G)*  
*ESS 5399B Thesis (G)*  
*BIO 4299 Undergraduate Research (UG)*

**Assistant Professor of Exercise Physiology**  
**Director of Exercise Biochemistry Laboratory**

**Coordinator of Laboratory and Activity Teaching**

Mississippi State University

Mississippi State, MS

Department of Kinesiology

August 2015 – August 2018

Areas of Teaching:

*EP 8203 Advanced Exercise Physiology (G)*

*EP 6000 Directed Individual Study (G)*

*EP 3304 Exercise Physiology (UG)*

*EP 4153 Training Techniques in Sport and Exercise (UG)*

*EP 3663 Personal Fitness Training (UG)*

*EP 4183 Exercise and Weight Control (UG)*

*EP 4113 Fitness Programs and Testing (UG)*

*EP 4123 Aging and Physical Activity (UG)*

*EP 4000 Directed Individual Study (UG)*

**Instructor of Kinesiology & Coordinator of Laboratory and Activity Teaching**

Mississippi State University

Mississippi State, MS

Department of Kinesiology

August 2014 – August 2015

Areas of Teaching:

*EP 4183 Exercise and Weight Control (UG)*

*EP 4113 Fitness Programs and Testing (UG)*

**Graduate Teaching Assistant**

Mississippi State University

Mississippi State, MS

Department of Kinesiology

August 2012 - May 2014

Areas of Teaching:

*Fitness Programs and Testing (UG)*

*Motor Development and Movement (UG)*

*Exercise Physiology (lab) (UG)*

*Sport Physiology (lab) (UG)*

*Strength Training (UG)*

*Advanced Strength and Conditioning (UG)*

**Adjunct Instructor**

Mississippi State University

Mississippi State, MS

Department of Kinesiology  
July 2012 - August 2012

**Graduate Teaching Assistant**

The University of Memphis  
Memphis, TN  
August 2011-May 2012

Areas of Teaching:

*PHED 1002- Aerobics*

*PHED 1302- Free Weights & Machines*

**General Nutrition Center, Sales Associate**

Collierville, TN  
May 2007 – August 2011

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**PUBLISHED BOOK CHAPTERS & ENCYCLOPEDIA ENTRIES**

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Bloomer, R. J., Butawan, M., Farney, T.M., **McAllister, M. J.** (2019). Chapter 51: An Overview of the Dietary Ingredient Carnitine. In: Nutrition and Enhanced Sports Performance: Muscle Building, Endurance, and Strength. Edited by Debasis Bagchi, Shreejayan Nair, and Chandan K. Sen. Print ISBN: 978-0-12-813922-6

Huang, C. J., **McAllister, M. J.**, Slusher, A. L. (2017). The Roles of Psychological Stress, Physical Activity, and Dietary Modification on Cardiovascular Health Implications. In: Oxford Research Encyclopedia of Psychology. Edited by Oliver Braddick, New York: Oxford University Press.

Tidwell, D. K., **McAllister, M. J.** (2015). Chapter 34: Inadequate calcium intake and body fat in adults. In: Calcium: Chemistry, Analysis, Function and Effects. Print ISBN: 978-1-84973-887-3.

Bloomer, R. J., Farney, T.M., **McAllister, M. J.** (2013). An Overview of Carnitine. In: Nutrition and Enhanced Sports Performance: Muscle Building, Endurance, and Strength. Edited by Debasis Bagchi, Shreejayan Nair, and Chandan K. Sen.

Abadie, B. R., Wax, B., **McAllister, M. J.** (2013). Health-Fitness. In: Fundamentals of Kinesiology, Brown, SP. Kendall Hunt Publishing

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**PEER-REVIEWED PUBLICATIONS**

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† denotes student mentored project:

Gonzalez, D.E., Coles, M.E., Tanksley, P.T., Martaindale, M.H., Martin, S.E., **McAllister, M.J.** (2025). Relationships between physiological stress biomarkers and cardiovascular disease risk factors among career firefighters. *Journal of Occupational and Environmental Medicine*, in press. DOI: 10.1097/JOM.0000000000003389.

**McAllister, M.J.**, Dodge, C., Tanksley, P.T., Martaindale, M.H., Martin, S.E., Gonzalez, D.E. (2025). Markers of fitness, stress, and cardiometabolic disease risk among law enforcement officers. *Journal of Occupational and Environmental Medicine*, in press. DOI: 10.1097/JOM.0000000000003357.

†Walker, J.K., Dillard, C.C., Gonzalez, D.E., Waldman, H.S., **McAllister, M.J.** (2025). Impact of the menstrual cycle phases and time of day on markers of stress: salivary alpha-amylase and secretory immunoglobulin A. *Stress*, 28(1). DOI:10.1080/10253890.2024.2449098.

**McAllister, M.J.**, Martaindale, M.H., Dillard, C.C., McCullough, R. (2024). Impact of L-theanine and L-tyrosine on markers of stress and cognitive performance in response to a virtual reality based active shooter training drill. *Stress*, 27(1). DOI:10.1080/10253890.2024.2375588.

Gonzalez, D.E., Dillard, C.C., Johnson, S.E., Martin, S.E., **McAllister, M.J.** (2024). Physiological stress responses to a live-fire training evolution in career structural firefighters. *Journal of Occupational and Environmental Medicine*, 66(6). DOI: 10.1097/JOM.0000000000003088.

**McAllister, M.J.**, Martaindale, M.H., Dillard, C.C., Gonzalez, D.E. (2024). Stress response to virtual reality based active shooter training: Impact of caffeine consumption. *Psychoneuroendocrinology*, 161, 106923. DOI: 10.1016/j.psyneuen.2023.106923.

Martaindale, M.H., Sandel, W., Duron, A., **McAllister, M.J.** (2024), Can a virtual reality training scenario elicit similar stress response as a realistic scenario-based training scenario? *Police Quarterly*, 27(1). DOI: 10.1177/10986111231182729.

†Dillard, C.C., Martaindale, M.H., Hunter, S.D., **McAllister, M.J.** (2023). Slow breathing reduces biomarkers of stress in response to a virtual reality active shooter training drill. *Healthcare; special issue: health, safety, and readiness of tactical populations*, 11(2351). DOI: 10.3390/healthcare11162351.

†Barker, G.A., Parten, A.L., Lara, D.A., Hannon, K.E., **McAllister, M.J.**, Waldman, H.S. (2023). Astaxanthin supplementation reduces subjective markers of muscle soreness following eccentric exercise in resistance-trained men. *Muscles*, 2, 228-237. DOI: 10.3390/muscles/2020017.

Waldman, H.S., Witt, C.R., Grozier, C.D., **McAllister, M.J.** (2023). A self-selected 16:8

time restricted eating quasi-experimental intervention improves various markers of cardiovascular health in middle-age male cyclists. *Nutrition*, 113, 112086. DOI: 10.1016/j.nut.2023.112086.

†Gonzalez, D.E., Waldman, H.S., **McAllister, M.J.** (2023). The metabolic and physiological demands of a simulated fire ground test versus a live-fire training evolution in professional firefighters. *International Journal of Exercise Science*, 16(7), 230-241.

Wika, A., Reason, K., Green, J., Killen, L., **McAllister, M.J.**, Waldman, H. (2023). Astaxanthin reduces heart rate and carbohydrate oxidation rates during exercise in overweight individuals. *International Journal of Exercise Science*, 16(2), 252-266.

**McAllister, M.J.**, Gonzalez, D.E., Leonard, M., Martaindale, M.H., Bloomer, R.J., Pence, J., Martin, S.E., (2023). Risk factors for cardiometabolic disease in professional firefighters. *Journal of Occupational and Environmental Medicine*, 65(2), 119-124.

Hunter, S.D., Bernardi, L., **McAllister, M.J.**, John, D., Rahimi, M., Lopez, M.R. (2023). Device-guided slow breathing alters postprandial oxidative stress in young adult males: A randomized sham-controlled crossover trial. *Nutrition, Metabolism, and Cardiovascular Diseases*, 33(1), 203-209. DOI: 10.1016/j.numecd.2022.10.002.

Waldman, H.S., Bryant, A.R., Parten, A.L., Grozier, C.D., **McAllister, M.J.** (2023). Astaxanthin supplementation does not impact markers of muscle damage or inflammation following an exercise induced muscle damage protocol in resistance-trained males. *Journal of Strength and Conditioning Research*, 37(7), e413-e421, DOI: 10.1519/JSC.0000000000004408.

Waldman, H.S., Bryant, A.R., **McAllister, M.J.** (2023). Effects of betaine supplementation on markers of metabolic flexibility, body composition, and anaerobic performance in active college-age females. *Journal of Dietary Supplements*, 20(1), 89-105. DOI: 10.1080/19390211.2021.1973644.

**McAllister, M.J.**, Gonzalez, A.E., Waldman, H.S. (2022). Impact of time restricted feeding on markers of cardiometabolic health and oxidative stress in resistance trained firefighters. *Journal of Strength and Conditioning Research*, 1;36(9), 2515-2522. DOI: 10.1519/JSC.0000000000003860

**McAllister, M.J.**, Steadman, K.S., Renteria, L.I., Case, M.J., Butawan, M.B., Bloomer, R.J., McCurdy, K.W. (2022). Acute resistance exercise reduces postprandial lipemia and oxidative stress in resistance trained men. *Journal of Strength and Conditioning Research*, 36(8), 2139-2146. DOI: 10.1519/JSC.0000000000003831.

**McAllister, M.J.**, Gonzalez, D.E., Leonard, M., Martaindale, M.H., Bloomer, R.J., Pence, J., Martin, S.E., (2022). Firefighters with higher cardiorespiratory fitness demonstrate lower markers of cardiovascular disease risk. *Journal of Occupational and Environmental Medicine*, 64(12), 1036-1040; DOI: 10.1097/JOM.0000000000002632.

†Gonzalez, D.E., **McAllister, M.J.**, Waldman, H.S., Ferrando, A.A., Joyce, J., Barringer, N.D., Dawes, J.J., Kieffer, A.J., Harvey, T., Kerkick, C.M., Stout, J.R., Ziegenfuss, T.N., Zapp, A., Tartar, J.L., Heilesen, J.L., VanDusseldorp, T.A., Kalman, D.S., Campbell, B.I., Antonio, J., & Kreider, R.B. (2022). International society of sports nutrition position stand: Tactical athlete nutrition. *Journal of the International Society of Sports Nutrition*, 19(1), 267-315; DOI: 10.1080/15502783.2022.2086017.

**McAllister, M.J.**, Martaindale, M.H., Gonzalez, A.E., Case, M.J. (2022). Virtual reality based active shooter training drill increases salivary and subjective markers of stress. *Yale Journal of Biology & Medicine; Science of Stress*, 95(1), 105-113.

Waldman, H.S., Bryant, A.R., Shepherd, B.D., Egan, B., **McAllister, M.J.** (2022). No effect of a ketone monoester on markers of stress and performance in a live-burn search and rescue in firefighters. *Journal of Strength and Conditioning Research*, 33(6), 763-771.

**McAllister, M.J.**, Mettler, J.A., Patek, K., Butawan, M., Bloomer, R.B. (2022). Astaxanthin supplementation increases glutathione concentrations but does not impact fat oxidation during exercise in active young men. *International Journal of Sport Nutrition and Exercise Metabolism*, 32(1), 8-15.

Norris, M.S., **McAllister, M.J.**, Gonzalez, A.E., Best, S.A., Pettitt, R., Keeler, J., Abel, M.G. (2021). Predictors of work efficiency in structural firefighters. *Journal of Occupational and Environmental Medicine*, 63(7), 622-628. DOI: 10.1097/JOM.0000000000002197.

**McAllister, M.J.**, Gonzalez, A.E., Waldman, H.S. (2021). Time restricted feeding reduces inflammation and cortisol response to a simulated firegrounds test in professional firefighters. *Journal of Occupational and Environmental Medicine*, 63(5), 441-447. DOI: 10.1097/JOM.0000000000002169.

†Gonzalez, A.E., Waldman, H.S., **McAllister, M.J.** (2021). Nutritional interventions for firefighters-what diet is best? *NSCA TSAC Report*, 62: 18-21.

†Krings, B.M., Waldman, H.S., Shepherd, B.D., **McAllister, M.J.**, Fountain, B.J., Lamberth, J.G., Smith, J.W. (2021). The metabolic and performance effects of carbohydrate timing in resistance trained males undergoing a carbohydrate restricted diet. *Applied Physiology, Nutrition, and Metabolism*, 46(6), 626-636. DOI: 10.1139/apnm-2020-0830.

†Gonzalez, A.E., Waldman, H.S., Abel, M.G., McCurdy, K.W., **McAllister, M.J.** (2021). Impact of time restricted feeding on fitness variables in professional resistance trained firefighters. *Journal of Occupational and Environmental Medicine*, 63(4), 343-349. DOI: 10.1097/JOM.0000000000002144.



**McAllister, M.J.** & Martaindale, M.H. (2021). Women demonstrate lower markers of stress and oxidative stress during active shooter training drill. *Comprehensive Psychoneuroendocrinology*, 6(100046), 1-7. DOI: 10.1016/j.cpnec.2021.100046.

†Krings, B.M., Shepherd, B.D., Swain, J.C., Turner, A.J., Chander, H., Waldman, H.S., **McAllister, M.J.**, Knight, A., Smith, J.W. (2021). Impact of fat grip attachments on muscular strength and neuromuscular activation during resistance exercise. *Journal of Strength and Conditioning Research*, 1;35(Suppl 1): S152-S157. DOI: 10.1519/JSC.0000000000002954.

†Price, F.G., Smith, J.W., Turner, A.J., Krings, B.M., Waldman, H.S., Chander, H., Knight, A.C., **McAllister, M.J.** (2020). High-intensity interval training in middle-distance NCAA division I collegiate athletes. *International Journal of Kinesiology & Sports Science*, 8(3), 28-35.

**McAllister, M. J.**, Basham, S. A., Waldman, H. S., Smith, J. W., Butawan, M. B., & Bloomer, R. J. (2020). Effects of curcumin on the oxidative stress response to a dual stress challenge in trained men. *Journal of Dietary Supplements*, 17(3), 261-272. DOI: <https://doi.org/10.1080/19390211.2018.1515142>.

Waldman, H.S. & **McAllister, M.J.** (2020). Exogenous ketones as therapeutic signaling molecules in high stress occupations: Implications for mitigating oxidative stress and mitochondrial dysfunction in future research. *Nutrition and Metabolic Insights*, 13, 1-7. DOI: 10.1177/1178638820979029.

**McAllister, M.J.**, Martaindale, M.H., Rentería, L.I. (2020). Active shooter training drill increases blood and salivary markers of stress. *International Journal of Environmental Research and Public Health*, Special Issue: Injury Prevention and Safety Promotion: A Physical and Cognitive Ergonomic Approach, 17: 5042; DOI: 10.3390/ijerph17145042.

†Waldman, H.S., Smith, J.W., Lamberth, J., Fountain, B.J., Bloomer, R.B., Butawan, M.B., **McAllister, M.J.** (2020). A 28-day carbohydrate-restricted diet improves markers of cardiovascular disease in professional firefighters. *Journal of Strength and Conditioning Research*, 34(10): 2785-2792.

**McAllister, M.J.**, Pigg, B., Rentería, L., Waldman, H.S. (2020). Time Restricted Feeding Improves Markers of Cardiometabolic Health in Physically Active College-Age Men: A 4-Week Randomized Pre-Post Pilot Study. *Nutrition Research*, 75,32-43, DOI: 10.1016/j.nutres.2019.12.001.

†Waldman, H.S., Shepherd, B.D., Egan, B., **McAllister, M.J.** (2020). Exogenous ketone salts do not improve cognitive performance during a dual stress challenge. *International Journal of Sport Nutrition and Exercise Metabolism*, 30(2), 120-127. DOI: 10.1123/ijsnem.2019-0122.

†Waldman, H.S., Renteria L.I., **McAllister, M.J.** (2020). Time restricted feeding and the prevention of cardiometabolic diseases in high-stress occupations: A mechanistic review. *Nutrition Reviews*, 78(6), 459-464. DOI: 10.1093/nutrit/nuz090.

**McAllister, M.J.**, Waldman, H.S., Renteria, L.I., Gonzalez, A.E., Butawan, M.B., Bloomer, R.J. (2020). Acute coffee ingestion with and without medium chain triglycerides decreases blood oxidative stress markers and increases ketone levels. *Canadian Journal of Physiology and Pharmacology*, 98: 194-200. DOI: 10.1139/cjpp-2019-0458.

Krings, B.M., Shepherd, B.D., Waldman H.S., **McAllister, M. J.**, Smith, J.W. (2020). Effects of carbohydrate mouth rinsing on upper-body resistance exercise performance. *International Journal of Sport Nutrition and Exercise Metabolism*, 30(1): 42-47 DOI: <https://doi.org/10.1123/ijsnem.2019-0073>.

†Basham, S.A., Waldman, H.S., Krings, B.M., Lamberth, J., Smith, J.W., **McAllister, M.J.** (2020). Effect of curcumin supplementation on exercise-induced oxidative stress, inflammation, muscle damage, and muscle soreness. *Journal of Dietary Supplements*, 17(4), 404-414. doi: 10.1080/19390211.2019.1604604.

†Waldman, H.S., Smith, J.W., Fountain, B.J., Lamberth, J., **McAllister, M.J.** (2019). A 28-day carbohydrate restricted diet improves markers of cardiometabolic health and performance in professional firefighters. *Journal of Strength and Conditioning Research*, 33(12): 3284-3294.

**McAllister, M.J.**, Basham, S.A., Smith, J.W., Fountain, B.J., Krings, B.M., Waldman, H.S. (2019). Effect of carbohydrate restriction on oxidative stress response to high intensity resistance exercise. *Translational Sports Medicine*, 2: 334-340.

**McAllister, M. J.**, Holland, A. M., Chander, H., Waldman, H. S., Smith, J. W., Basham, S. A. (2019). Impact of ketone salt containing supplement on cardiorespiratory and oxidative stress response in firefighters exercising in personal protective equipment. *Asian Journal of Sports Medicine*, 10(1), e82404.

Chander, H., **McAllister, M. J.**, Holland, A. M., Waldman, H. S., Krings, B. M., Swain, J. C., Turner, A. J., Basham, S. A., Smith, J. W., Knight, A. K. (2019). Effects of 7-day ketone ingestion and a physiological workload on postural stability, cognitive, and muscular exertion measures in professional firefighters. *Safety*, 5(15), 1-11.

**McAllister, M. J.**, Basham, S. A., Waldman, H. S., Smith, J. W., Mettler, J. A., Butawan, M. B., & Bloomer, R. J. (2019). Effects of psychological stress during exercise on markers of oxidative stress in young healthy, trained men. *Physiology & Behavior*, 198, 90–95.

**McAllister, M. J.**, Basham, S. A., Smith, J. W., Waldman, H. S., Krings, B. M., Mettler, J. A., ... Bloomer, R. J. (2018). Effects of environmental heat and antioxidant ingestion

on blood markers of oxidative stress in professional firefighters performing structural fire exercises. *Journal of Occupational and Environmental Medicine*, 60(11), 595–601.

Krings, B. M., Miller, B. L., Chander, H., Waldman, H. S., Knight, A. C., **McAllister, M. J.**, ... Smith, J. W. (2018). Impact of occupational footwear during simulated workloads on energy expenditure. *Footwear Science*, 1–9.

†Waldman, H. S., Basham, S. A., Price, F. G., Smith, J. W., Chander, H., Knight, A. C., ... **McAllister, M. J.** (2018). Exogenous ketone salts do not improve cognitive responses after a high-intensity exercise protocol in healthy college-aged males. *Applied Physiology, Nutrition, and Metabolism*, 43(7), 711–717.

Smith, J. W., Krings, B. M., Shepherd, B. D., Waldman, H. S., Basham, S. A., & **McAllister, M. J.** (2018). Effects of carbohydrate and branched-chain amino acid beverage ingestion during acute upper body resistance exercise on performance and postexercise hormone response. *Applied Physiology, Nutrition, and Metabolism*, 43(5), 504–509.

†Cummings, P. M., Waldman, H. S., Krings, B. M., Smith, J. W., & **McAllister, M. J.** (2018). Effects of fat grip training on muscular strength and driving performance in division I male golfers. *Journal of Strength and Conditioning Research*, 32(1), 205–210.

†Waldman, H. S., Krings, B. M., Basham, S. A., Smith, J. E. W., Fountain, B. J., & **McAllister, M. J.** (2018). Effects of a 15-day low carbohydrate, high-fat diet in resistance-trained men. *Journal of Strength and Conditioning Research*, 32(11), 3103–3111.

†Waldman, H. S., Krings, B. M., Smith, J. W., & **McAllister, M. J.** (2018). A shift toward a high-fat diet in the current metabolic paradigm: A new perspective. *Nutrition*, 46, 33–35.

Rountree, J., Krings, B., Peterson, T., Thigpen, A., **McAllister, M. J.**, Holmes, M., & Smith, J. (2017). Efficacy of carbohydrate ingestion on crossfit exercise performance. *Sports*, 5(3), 61.

Smith, J., Krings, B., Peterson, T., Rountree, J., Zak, R., & **McAllister, M. J.** (2017). Ingestion of an amino acid electrolyte beverage during resistance exercise does not impact fluid shifts into muscle or performance. *Sports*, 5(2), 36.

Krings, B. M., Peterson, T. J., Shepherd, B. D., **McAllister, M. J.**, & Smith, J. W. (2017). Effects of carbohydrate ingestion and carbohydrate mouth rinse on repeat sprint performance. *International Journal of Sport Nutrition and Exercise Metabolism*, 27(3), 204–212.

Brown, S. P., Smith, J. W., **McAllister, M. J.**, & Joe, L. (2017). Superhero physiology: the case for captain america. *Advances in Physiology Education*, 41(1), 16–24.

Webb, H. E., Rosalky, D. A., **McAllister, M. J.**, Acevedo, E. O., & Kamimori, G. H. (2017). Aerobic fitness impacts sympathoadrenal axis responses to concurrent challenges. *European Journal of Applied Physiology*, 117(2), 301–313.

Krings, B. M., Rountree, J. A., **McAllister, M. J.**, Cummings, P. M., Peterson, T. J., Fountain, B. J., & Smith, J. W. (2016). Effects of acute carbohydrate ingestion on anaerobic exercise performance. *Journal of the International Society of Sports Nutrition*, 13(1), 40.

**McAllister, M. J.**, Webb, H., Tidwell, D., Smith, J., Fountain, B., Schilling, M., & Williams, R. (2016). Exogenous carbohydrate reduces cortisol response from combined mental and physical stress. *International Journal of Sports Medicine*, 37(14), 1159–1165.

Huang, C.-J., **McAllister, M. J.**, Slusher, A. L., Webb, H. E., Mock, J. T., & Acevedo, E. O. (2015). Obesity-related oxidative stress: the impact of physical activity and diet manipulation. *Sports Medicine - Open*, 1(1), 32.

Slusher, A. L., **McAllister, M. J.**, & Huang, C. J. (2015). A therapeutic role for vitamin D on obesity-associated inflammation and weight-loss intervention. *Inflammation Research*, 64(8), 565–575.

Smith, J. W., Holmes, M. E., & **McAllister, M. J.** (2015). Nutritional considerations for performance in young athletes. *Journal of Sports Medicine*, 2015, 1–13.

**McAllister, M. J.**, Hammond, K. G., Schilling, B. K., Ferreria, L. C., Reed, J. P., & Weiss, L. W. (2014). Muscle activation during various hamstring exercises. *Journal of Strength and Conditioning Research*, 28(6), 1573–1580.

**McAllister, M. J.**, Schilling, B. K., Hammond, K. G., Weiss, L. W., & Farney, T. M. (2013). Effect of grip width on electromyographic activity during the upright row. *Journal of Strength and Conditioning Research*, 27(1), 181–187.

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## MANUSCRIPTS IN-REVIEW

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Dillard, C.C., O'Neal, E.O., **McAllister, M.J.**, Barker, G.A., Huber, A.K., Roca, G.M., Price, C.A., Waldman, H.S. (2025). Fat oxidation rates are similar in lean and overweight females when controlling for aerobic fitness status. *Journal of Strength and Conditioning Research*, in review.

Guerra, B.C., Martin, S.E., Colvin, L.C., Dawes, J., **McAllister, M.J.**, Gonzalez, D.E. (2025). Firefighters versus law enforcement officers: a comparison of cardiovascular disease risk. *International Journal of Exercise Science*, in review.

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## PRESENTATIONS/ABSTRACTS

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Mann, B., Hines, K., Leon, S., Conner, M., Brown, L., Dawes, J., Martin, S., **McAllister, M.J.**, Gonzalez, D. (2025). Do cardiovascular disease risk indices differ based on body mass index classification among first responders? National Strength and Conditioning Association annual conference, submitted.

Good, J., Hines, K., Dawes, J., Mann, B., Martin, S., **McAllister, M.J.**, Gonzalez, D. (2025). Establishing cardiovascular disease risk cutoff values among first responders. National Strength and Conditioning Association annual conference, submitted.

†Uriegas, S.N., Sutton, N.M., Martaindale, H.M., **McAllister, M.J.** (2025). *Gender gap in stress: differences amongst sex in biomarkers of stress and anxiety*. Published: International Journal of Exercise Science Conference Proceedings. Vol 2: Iss. 17, Article 47. Texas American College of Sports Medicine.

†Sutton, N.M., Uriegas, S.N., Martaindale, H.M., **McAllister, M.J.** (2025). *Added psychological stress significantly increases anxiety but does not impact biomarkers in response to combined mental and physical stress*. Published: International Journal of Exercise Science Conference Proceedings. Vol 2: Iss. 17, Article 95. Texas American College of Sports Medicine.

Gonzalez, D.E., Hines, K., Sowinski, R.J., Martin, S.E., Colvin, L.C., **McAllister, M.J.**, Gonzalez, D.E. (2025). *No impact of cardiorespiratory fitness on the stress response to firefighting*. Published: International Journal of Exercise Science Conference Proceedings. Vol 2: Iss. 17. Texas American College of Sports Medicine.

Hines, K., Sowinski, R.J., Martin, S.E., Colvin, L.C., **McAllister, M.J.**, Gonzalez, D.E. (2025). *No impact of cardiovascular disease risk classification on the stress response to firefighting*. Published: International Journal of Exercise Science Conference Proceedings. Vol 2: Iss. 17. Texas American College of Sports Medicine.

Coles, M.E., Dodge, C., Colvin, L.C., Martin, S.E., **McAllister, M.J.**, Gonzalez, D.E. (2025). *Impact of the occupational cardiorespiratory fitness standard on firefighter health profiles*. Published: International Journal of Exercise Science Conference Proceedings. Vol 2: Iss. 17. Texas American College of Sports Medicine.

Dodge, C., Coles, M.E., Zapp, A., Sowinski, R.J., Martin, S.E., Colvin, L.C., **McAllister, M.J.**, Gonzalez, D.E. (2025). *Impact of years of experience on the stress response to firefighting*. Published: International Journal of Exercise Science Conference Proceedings. Vol 2: Iss. 17. Texas American College of Sports Medicine.

Broeckel, J., Leonard, M., Patel, A., Dickerson, B., Sowinski, R., **McAllister, M.J.**,

Gonzalez, D.E., Martin, S.E. (2024). *Relationship between body composition, body fat distribution, and blood lipids among law enforcement officers: part 1*. Texas American College of Sports Medicine. Published: International Journal of Exercise Science, Conference Proceedings: Vol 2, Iss 16, Article 152.

Gonzalez, D.E., Broeckel, J., Leonard, M., Patel, A., Dickerson, B.L., Sowinski, R.J., **McAllister, M.J.**, Colivn, L.C., & Martin, S.E. (2024). *Relationship Between Body Composition, Body Fat Distribution, and Blood Lipids Among Law Enforcement Officers: Part 1*. Medicine & Science in Sports & Exercise Conference Proceedings.

Leonard, M., Gil, A., Dickerson, B., Sowinski, R., **McAllister, M.J.**, Gonzalez, D.G., Martin, S.E. (2024). *Relationship between body composition, body fat distribution, and blood lipids among law enforcement officers: part 2*. American College of Sports Medicine, national conference & Texas American College of Sports Medicine. Published: International Journal of Exercise Science, Conference Proceedings: Vol 2, Iss 16, Article 140; & Medicine & Science in Sports & Exercise Conference Proceedings.

†Walker, J., Sutton, N., **McAllister, M.J.** (2024). *The effect of menstrual phases on salivary markers of stress and body composition*. International journal of exercise science: conference proceedings. Texas American College of Sports Medicine. Published: International Journal of Exercise Science, Conference Proceedings: Vol 2, Iss 16, Article 62. Awarded 1<sup>st</sup> place.

†Coles, M.E., Martaindale, M.H., Martin, S.E., Colvin, L.C., Gonzalez, D.E., **McAllister, M.J.** (2024). *Relationship between body fat distribution and cardiovascular disease risk biomarkers among firefighters*. American College of Sports Medicine, national conference & Texas American College of Sports Medicine. Published: International Journal of Exercise Science, Conference Proceedings: Vol 2, Iss 16, Article 21; & Medicine & Science in Sports & Exercise Conference Proceedings.

†Dodge, C.D., Martaindale, M.H., Martin, S.E., Colvin, L.C., Gonzalez, D.E., **McAllister, M.J.** (2024). *Validation of a non-invasive physiological stress assessment: agreement of salivary and blood cortisol among firefighters*. American College of Sports Medicine, national conference, & Texas American College of Sports Medicine. Published: International Journal of Exercise Science, Conference Proceedings: Vol 2, Iss 16, Article 22; & Medicine & Science in Sports & Exercise Conference Proceedings.

†Guerra, B.C., Martaindale, M.H., Martin, S.E., Colvin, L.C., Gonzalez, D.E., **McAllister, M.J.** (2024). *Firefighters versus law enforcement officers: a comparison of cardiovascular disease risk*. American College of Sports Medicine, national conference, & Texas American College of Sports Medicine. Published: International Journal of Exercise Science, Conference Proceedings: Vol 2, Iss 16, Article 23; & Medicine & Science in Sports & Exercise Conference Proceedings.

†Creeden, L.S., Martaindale, M.H., Martin, S.E., Colvin, L.C., Gonzalez, D.E., **McAllister, M.J.** (2024). *Impact of cardiorespiratory fitness on markers of cardiovascular disease among law enforcement officers*. American College of Sports Medicine, national conference, & Texas American College of Sports Medicine. Published: International journal of Exercise Science, Conference Proceedings: Vol 2, Iss 16, Article 11; & Medicine & Science in Sports & Exercise Conference Proceedings.

*Stress among firefighters: implications for cardiometabolic health*. 7-minute Science; Fire Rescue Wellness Webinar; August 2024.

*Stress among tactical operators: friend or foe?* Research seminar presentation. Department of Health and Human Performance; Texas State University; April 2024.

†Dillard, C., Martaindale, M.H., **McAllister, M.J.** (2023). *Slow breathing reduces markers of stress in response to a virtual reality active shooter training drill*. Presented: Texas ACSM, Waco, TX. Published: International Journal of Exercise Science, Conference Proceedings: Vol 2, Iss 15. Awarded 3<sup>rd</sup> place.

†Gonzalez, D.E., Johnson, S.E., Dillard, C.C., Sowinski, R.J., Martin, S.E., Colvin, L.C., **McAllister, M.J.** (2023). *Physiological stress responses to a live-fire training evolution in career firefighters*. Presented: Texas ACSM, Waco, TX. Published: International Journal of Exercise Science, Conference Proceedings: Vol 2, Iss 15.

†Gonzalez, D.E., Johnson, S.E., Dillard, C.C., Sowinski, R.J., Martin, S.E., Colvin, L.C., **McAllister, M.J.** (2023). *Physiological stress responses to a live-fire training evolution in career firefighters*. American College of Sports Medicine, national conference, accepted.

†Gonzalez, D.E., Dillard, C., Leonard, M., Dickenson, B., Yoo, C., Ko, J., Sowinski, R., Rasmussen, C., **McAllister, M.**, Kreider, R.B. (2023). *Effects of astaxanthin on cardiorespiratory fitness and markers of cardiometabolic health in career firefighters*. National Strength and Conditioning Association, Annual Conference, Las Vegas, NV, submitted.

Van Ree, G. H., Goldenstein, S., Jiwan, N., Ramirez, K., Mendoza, L., Kipp, L.E., **McAllister, M.**, Mettler J. A., (2023). *Effects of neuromuscular electrical stimulation training on skeletal muscle anabolic signaling in older adults*. Presented: Texas ACSM, Waco, TX. Published: International Journal of Exercise Science: Vol 2, Iss 15.

Van Ree, G. H., Goldenstein, S., Jiwan, N., Ramirez, K., Mendoza, L., Kipp, L.E., **McAllister, M.**, Mettler J. A., (2023). *Skeletal muscle anabolic signaling response to a 4-week neuromuscular electrical stimulation treatment in older adults*. American College of Sports Medicine national conference, submitted.

Witt C., Grozier C., **McAllister M.**, & Waldman H. (2023). *A self-selected 16:8 time-restricted eating intervention improves various markers of cardiovascular health in middle-age male cyclists*. Southeastern American College of Sports Medicine Annual

Conference, Greenville, SC. February 23 – 24, (2023). \*Finalist for SEACSM Masters Student Research Award.

Bagdonas C., Barker G., Parten A., Lara D., Hannon K., **McAllister M.**, & Waldman H. *Astaxanthin supplementation reduces subjective soreness following eccentric exercise in resistance-trained men.* Southeastern American College of Sports Medicine Annual Conference, Greenville, SC. February 23 – 24, 2023.

Glasheen-Dentino, K., **McAllister, M.J.** (2023). *Polyvagal theory and the alba method: enhancing mental wellness through acting technique.* PAMA International Symposium.

*Improving firefighter health & performance*; webinar. Translational Health Research Center; Health & Resilience Research Network, Texas State University, March (2023).

Guest lecturer: *Literature and Research in HHP*; Exercise & Sports Science; Department of Health and Human Performance; Texas State University. (2023)

*A holistic approach to health, immunity, and post COVID-19 rehabilitation.* Translational Health Research Center; Health & Resilience Research Network, Texas State University. November (2022).

*Critical incident decision making including stress management.* Mass Casualty Commission Conference, June (2022).

†Gonzalez D., Leonard M., Martaindale M.H., Bloomer R.J., Pence J., Martin S.E., **McAllister M.J.** (2022). *Predictors of cardiometabolic disease risk factors in professional firefighters.* Presented: Texas ACSM, Waco, TX. Published: International Journal of Exercise Science: Vol 2, Iss 14.

†Leonard M., Gonzalez D., Martaindale M.H., Bloomer R.J., Pence J., Martin S.E., **McAllister M.J.** (2022). *Impact of cardiorespiratory fitness on markers of cardiovascular disease in professional firefighters.* Presented: Texas ACSM, Waco, TX. Published: International Journal of Exercise Science: Vol 2, Iss 14.

†Weishaar B., Waldman H., Patek K., **McAllister M.J.** (2022). *Impact of menstrual phases on stress markers: a pilot study.* Presented: Texas ACSM, Waco, TX. Published: International Journal of Exercise Science: Vol 2, Iss 14.

Wika A., Reason K., Green J., Killen L., **McAllister M.J.**, & Waldman H. (2022). *Astaxanthin reduces exercising heart rate by 7% in overweight individuals.* Southeast American College of Sports Medicine Annual Conference, Greenville, SC. February 15 – 17.

Bryant A., **McAllister M.J.**, & Waldman H. (2022). *The metabolic and physiological demands of a fire grounds task vs. a live-burn in professional firefighters.* Southeast American College of Sports Medicine Annual Conference, Greenville, SC. February 15



Martaindale, M.H., McAllister, M.J., Blair, P. (2021). *Can virtual reality training elicit the same stress response as realistic scenario-based training?* American Society of Criminology Annual Meeting.

†Gonzalez, A., Abel, M.G., **McAllister, M.J.** (2020). *Impact of time restricted feeding on cardiometabolic health and performance among firefighters.* Presented: American College of Sports Medicine; Virtual Conference. Published: *Medicine and Science in Sport and Exercise*: Vol 52, Iss. 7S, p 846.

†Rentería, L.I., **McAllister, M.J.** (2020). *Impact of astaxanthin supplementation on postprandial oxidative stress.* Texas ACSM. *International Journal of Exercise Science: Conference Proceedings*: Vol 2: Iss. 12, Article 100.

†Gonzalez, A.E., **McAllister, M.J.** (2020). *Call for advanced training and diet programs due to high metabolic demands of firefighting.* *International Journal of Exercise Science: Conference Proceedings*: Vol 2: Iss. 12, Article 39.

†Rentería, L.I., Villalobos, E., Waldman, H.S., **McAllister, M.J.** (2019). *Impact of time restricted feeding on markers of cardiometabolic health.* Texas ACAM. *International Journal of Exercise Science: Conference Proceedings*: Vol. 2: Iss. 11, Article 81. Awarded 2<sup>nd</sup> place.

†Gonzalez, A.E., Waldman, H.S., **McAllister, M.J.** (2019). *Effects of a 28-day carbohydrate-restricted diet on metabolic and performance markers in professional firefighters.* Texas ACSM. *International Journal of Exercise Science: Conference Proceedings*: Vol. 2: Iss. 11, Article 113, February, 2019.

†Popelsky, M.E., Watson, D.J., **McAllister, M.J.**, Waldman, H.S. (2019). *Exogenous ketones do not improve cognitive performance measures during a dual stress challenge in healthy college aged males.* Texas ACSM. *International Journal of Exercise Science: Conference Proceedings*: Vol. 2: Iss. 11, Article 114, February, 2019.

Smith, J.W., Pascoe, D.D., Krings, B.M., **McAllister, M. J.**, Ma, J. *Inertial load influences power measures during the Wingate Test.* *Medicine & Science in Sports & Exercise*, 50(5S) Supplement, 409, May 2018.

Shepherd, B.D., Krings, B.M., Williamson, P.L., Swain, J.C., Turner, A.J., Waldman, H.S., Chander, H., **McAllister, M.J.**, Knight, A.C., Smith, J.W. *Effects of grip diameter on muscle activity and performance during deadlift and bent-over row exercises.* Southeastern American College of Sports Medicine, February 2018.

†Price, F.G., Turner, A.J., Krings, B.M., Waldman, H.S., Chander, H., Knight, A.C., **McAllister, M.J.**, Smith, J.W. *Impact of high-intensity interval training on Division 1*

college 800m/1500m runner's performance. Southeastern American College of Sports Medicine, February 2018.

†Westbrook, M., Henderson, T., Waldman, H., Smith, J.W., **McAllister, M.J.** *Effect of exogenous ketone salts on oxidative stress and cardiovascular responses in firefighters exercising in personal protective equipment.* College of Education Research Symposium & Shackhous Honors College Undergraduate Research Symposium. Mississippi State University, May 2018. Awarded 2<sup>nd</sup> Place in College of Education Research Symposium.

†McCarthy, G., Jones, B., Waldman, H., Smith, J.W., **McAllister, M.J.** *Impact of environmental heat and antioxidant supplementation on markers of oxidative stress in professional firefighters.* College of Education Research Symposium & Shackhous Honors College Undergraduate Research Symposium. Mississippi State University, 2018.

†Basham, S.A., Waldman, H.S., Krings, B.M., Smith, J.W., **McAllister, M.J.** *Effect of curcumin supplementation on exercise induced oxidative stress, inflammation, muscle damage, and muscle soreness.* College of Education Research Symposium. Mississippi State University, 2018.

†Waldman, H.S., Cummings, P.M., Krings, B.M., Smith, J.W., **McAllister, M.J.** *Effects of fat grip training on muscular strength and driving performance in division 1 male golfers.* College of Education Research Symposium. Mississippi State University, 2017. Awarded 2<sup>nd</sup> Place in College of Education Research Symposium.

†Basham, S.A., **McAllister, M.J.**, Smith, J.W., Webb, H.E., *Effects of carbohydrate ingestion on blood catecholamine levels from combined mental and physical stress.* Southeastern American College of Sports Medicine, February 2017.

Williamson, P.L., Swain, J.C., Turner, A.J., Shepherd, B.S., Waldman, H.S., Krings, B.M., Chander, H., **McAllister, M.J.**, Smith, J.W. *Impact of grip diameter and resistance exercise on muscular performance.* Shackhous Honors College; Undergraduate Research Symposium. Mississippi State University, 2017.

†Basham, S.A., Smith, J.W., Krings, B.M., Shepherd, B.D., Waldman, H.S., **McAllister, M.J.** *Effect of carbohydrate and amino acid ingestion during upper body resistance exercise on markers of catabolic activity.* College of Education Research Symposium. Mississippi State University, 2017.

Shepherd, B.D., Smith, J.W., Garrison, T., **McAllister, M.J.** *Validation of a fitlight shooting protocol to identify officer response to fatigue.* Undergraduate Research Symposium. Mississippi State University, 2016.

Krings, B.M., Rountree, J.R., **McAllister, M.J.**, Cummings, P.C., Peterson, T.J.,

Fountain, B.J., Smith, J.W. *Effects of acute carbohydrate ingestion on strength and conditioning performance*. Graduate Research Symposium. Mississippi State University, 2016.

Krings, B.M., Pope, S.D., Rountree, J.A., **McAllister, M.J.**, Smith, J.W., Pascoe, D.D. *Reliability of a commercial power and speed analyzer to common field and laboratory assessment of lower body peak power*. National Strength and Conditioning Association Conference Proceedings, July 2016.

Rountree, J.R., Krings, B.M., Peterson, T.J., Thigpen, A., **McAllister, M.J.**, Holmes, M.E., Smith, J.W. *Efficacy of carbohydrate ingestion during short duration high intensity strength and conditioning training sessions*. College of Education Graduate Research Symposium. Mississippi State University, 2016.

†Basham, S.A., **McAllister, M.J.**, Smith, J.W., Webb, H.E. *Effect of carbohydrate ingestion on catecholamine production from combined mental and physical stress*. Shackouls Honors College; Undergraduate Research Symposium. Mississippi State University. Awarded 1<sup>st</sup> place in Research Symposium, 2016.

Pope, S.D., Smith, J.W., **McAllister, M.J.**, Jordan, D.J., Wax, B., Xiques, S.M., Pascoe, D.D. *Wingate peak power is solely based on resistance and cadence*. Southeastern American College of Sports Medicine, February 2015.

Smith, J.W., **McAllister, M.J.**, Zak, R.B., Chander, H. *Worker physiology and biomechanics*. Toyota Motor Manufacturing Tupelo, Mississippi, 2014.

Pope, S.D., **McAllister, M.J.**, Jordan, D.J., Smith, J.W. *Cadence and resistance predict peak power in the Wingate*. Shackouls Honors College; Undergraduate Research Symposium. Mississippi State University, 2014.

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## LABORATORY EXPERIENCE

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### **Metabolic & Applied Physiology Laboratory Director**

Texas State University  
September 2018-Present

### **Director of Exercise Biochemistry Laboratory**

Mississippi State University  
September 2017- August 2018

### **Applied Physiology & Biochemistry Laboratory**

Mississippi State University  
July 2012- August 2018

### **Cardiorespiratory/Metabolic Laboratory**

University of Memphis; Memphis, TN  
January-May 2012

### **Exercise Neuromechanics Laboratory**

University of Memphis; Memphis, TN  
May 2010-May 2012

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## **EXTRAMURAL RESEARCH FUNDING**

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Impact of shift schedule change on markers of stress and quality of life in career firefighters. Principal Investigator: **M. McAllister**; Co-Investigator: M.H. Martaindale. (2025). City of Kyle Fire Department. *Funded* - \$4,412.

Impact of stress on cardiovascular disease risk among career firefighters. Principal Investigator: **M. McAllister**; Co-Investigators: M.H. Martaindale, RJ Bloomer. (2024). NIH: National Institute for Occupational Safety and Health, R01. *Submitted* - \$1,613,853.

Preparing for Active Shooter Situation. Blair, J.P., Martaindale, M.H., **McAllister, M.** (2023-2024). U.S. DOJ- Office of Community Oriented Policing Services (COPS Office). *Funded* - \$98,902.

Impact of a virtual reality training intervention in professional and volunteer firefighters. Principal Investigator: **M. McAllister**; Co-Investigators: S. Martin, H. Waldman. (2023). FEMA. *Submitted*, (not funded) \$1,050,571.00.

Preparing for Active Shooter Situation. Blair, J.P., Martaindale, M.H., **McAllister, M.** (2022-2023). U.S. DOJ- Office of Community Oriented Policing Services (COPS Office). *Funded* - \$82,022.45.

Preparing for Active Shooter Situation (PASS). Blair, J. P., Curnutt, J., Martaindale, M. H., **McAllister, M.** (2021-2022). U.S. DOJ- Office of Community Oriented Policing Services (COPS Office) 15JCOPS-21-GK-02120-SPAS. *Funded* - \$100,869.72.

Impact of a Virtual Reality Training Intervention on Markers of Stress, Physical and Mental Performance in Professional Firefighters. Principal Investigator: **M. McAllister**. Co-Principal Investigators: H. Waldman; H. Chander. (2021) – Department of Homeland Security; FEMA; Fire Safety & Prevention Grants. *Submitted*, (not funded)- \$443,538.10

Evaluating the acute response of brain-derived neurotrophic factor and cognitive function to high-intensity interval training in persons with multiple sclerosis. Principal Investigator: J. Farrell. Consultants: **M. McAllister**, L. Pilutti, L. Walker. (2021). Department of Defense. *Submitted*, not funded - \$150,000.00.

Impact of a Virtual Reality Training Intervention on Markers of Stress, Physical and Mental Performance in Professional Firefighters. Principal Investigator: **M. McAllister**. Co-Principal Investigators: H. Waldman; H. Chander. (2021) – Department of Homeland Security; FEMA; Fire Safety & Prevention Grants. *Submitted*, not funded - \$443,538.10

Comparison of Muscle Glycogen, Body Composition, and Performance Between Resistance Trained Adults on a Low and High-Carbohydrate Diet. Principal Investigator: K. McCurdy. Co-Investigators: **M. McAllister**, J. Mettler, C. Fry, J. Farrell. (2021) - NSCA Senior Investigator Grant. *Submitted*, not funded - \$30,000

Preparing for Active Shooter Situation (PASS). Blair, J. P., Curnutt, J., Martaindale, M. H., **McAllister, M.** (2020). COPS Office 2020ASWXK001. *Funded* - \$22,295.52.

Resiliency & Recovery of Law Enforcement Agencies from Singular, Extreme Traumatic Events: Virtual Reality-Based Habituation Training for Active Threat Events. C.P. Haberman, M.H. Martaindale, **M. McAllister**, S.M. Manchak, J.C. Barnes. (2020) – NIJ - 2020-17296. *Submitted*, not funded - \$1,074,563.

Reducing Erroneous Police Shooting by Training the Visual System. Principal Investigator: H. Martaindale, Co-Primary Investigator: **M. McAllister**. (2020) – National Collaborative on Gun Violence Research. *Submitted*, not funded - \$347,000.

Frequency-Specific Neuromuscular Electrical Stimulation and Physical Function in Older Adults, Principal Investigator: J. Mettler, Co-Investigators: **M. McAllister**, L. Kipp, Fry, C. (2019) – National Institute of Health. *Submitted*, not funded - \$458,255.

Impact of a 4-6 week training intervention on biomechanical and physiological markers in Olympic rowing athletes, T. Liu, Y. Li, **M. McAllister**, R. Rolfe, K. Patek (2019) – Chinese Rowing Association. *Funded* - \$2098.

The Effects of Fucoxanthin Supplementation on Metabolic Adaptations and Recovery from Exercise. Principal Investigator: **M. McAllister**, (2019) -Algatechnologies. *Funded* - \$44,388. Note: Work was halted due to COVID19; Final funded amount: \$14,796

Efficacy of Liposomal Salts on Rehydration. Principal Investigator: J.W. Smith. Co-Principal Investigators: **M. McAllister**, B. Fountain, (2018)-Einsof Biohealth. *Submitted*, not funded – \$ 47,096.22.

Effects of Curcumin Ingestion on Oxidative Stress Response from Live Burn Drills in Professional Firefighters. Principal Investigator: **M. McAllister**, (2018)-NOW foods. *Funded* – \$6,203.

Effects of Exogenous Ketone Supplementation in Firefighters. Principal Investigator: **M. McAllister**. Co-Principal Investigator: AM Holland, (2017). Pruvit, Incorporated;

Subcontracted Grant: Augusta University. *Funded* - \$6,053.

Effects of Exogenous Ketone Supplementation in Firefighters. Principal Investigator: **M. McAllister**. Co-Principal Investigator: AM Holland, (2017). Pruvit donated 160 servings of BHB supplement. Approximate value - \$1,000.

Effect of Human Curcumin Ingestion on Blood Antioxidant Status and Exercise Induced Muscle Damage and Inflammation: Principal Investigator: **M. McAllister**, Co-Principal Investigator: J. Smith, (2016-2017). NOW Foods. *Funded* - \$15,652.92.

Effect of Acute Beta Hydroxybutyrate Ingestion on Anaerobic Exercise Performance. Principal Investigator: **M. McAllister**, (2017). Perfect Keto donated 8 bottles of BHB supplement for research trials. Approximate value - \$500.

Effect of Carbohydrate Supplementation on Resistance Training Performance and Blood Markers: Principal Investigator: J. Smith. Co-Principal Investigator: **M. McAllister**, (2016). Dymatize, LLC. *Funded* - \$26,761.46.

Design and Human Testing of Hyper-Antioxidative Curcumin Loaded Nano-Vesicles: Principal Investigator: Z. Zee Haque, Co-Principal Investigator: **M. McAllister**, (2016). MS Center for Food Safety and Post-Harvest and Technology Initiative. *Submitted*, not funded - \$50,000.

Validation of a FitLight Shooting Protocol to Identify Officer Response to Fatigue: Principal Investigator: J. Smith; Co-Investigators: T. Garrison, **M. McAllister**, (2016). Simunitions donated rounds and conversion kits to the Starkville Police Department for research trials, approximate value - \$1500.

Effect Of AminoPro Supplement with Varying Levels of Carbohydrate (1 Part Dextrose: 2 Part Sucrose on Strength and Conditioning Training Performance: Principal Investigator: J. Smith, Co-Principal Investigators: **M. McAllister**, B. Fountain, (2015). Dymatize, LLC. *Funded* - \$8,497.86.

Effect of Protandim Supplementation on Indicators of Inflammation, Oxidative Stress, and Recovery from Exercise: Principal Investigator: **M. McAllister**; Co-Investigator: J. Smith, (2015). Life Vantage. *Submitted*, not funded - \$14,000.

Impact of Ingesting AminoPro Pre- and Post-Resistance Training on Hydration Status, Muscle Damage, and Muscle Pump: Principal investigator: - J. Smith; Co-Investigators: **M. McAllister**, R. Zak, (2015). Dymatize, LLC. *Funded* - \$31,068.55.

Effect of Carbohydrate Supplement on Cardiovascular and Inflammatory Responses

to a Dual-Stress Challenge. Principal Investigator: **M. McAllister**, (2013). GSSI Student Research Grant. *Submitted*, not funded - \$3500.

Electromyographic Activity During Various Depths of the Bench Press. Amount, (2011). NSCA Master's Graduate Research Award. *Submitted*, not funded - \$5,000.

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## INTRAMURAL RESEARCH FUNDING

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The mechanical component of the arterial baroreflex in type 2 diabetes: the role of oxidative stress. Principal Investigator: M. Samora; Co-Principal Investigator: **M. McAllister**, (2024-2025). Research Enhancement Program, Texas State University. *Funded*- \$16,000.

Improving health resiliency among firefighters and law enforcement personnel in Texas. Principal Investigator: **M. McAllister**, (2023). Faculty Fellow, Community Health and Economic Resiliency Research Center (Faculty Fellow, THRC). *Funded* -\$11,839.

Improving health resiliency among firefighters in Texas. Principal Investigator: **M. McAllister**, (2022). Faculty Fellow, Community Health and Economic Resiliency Research Center. *Funded* -\$16,392.

Improving use of force decision making through training the visual system. Principal Investigator: M. Hunter Martaindale; Co-Investigators: **M. McAllister**, W. Sandel, (2022). Multidisciplinary Internal Research Grant, Texas State University. *Submitted*, not funded \$22,808.

Polyvagal Theory and The Alba Method: Enhancing Mental Wellness through Emotional Effector Patterns, Principal Investigator: K. Glasheen; Co-PI: **M. McAllister** (2020). Research Enhancement Program, Texas State University. *Funded* - \$13,446.

Impact of Moderate and High Intensity Resistance Exercise on Postprandial Oxidative Stress. Primary Investigator: **M. McAllister**, Co-Investigator: K McCurdy, (2019). Research Enhancement Program, Texas State University. *Funded* - \$14,080

Effect of a 28-day Carbohydrate Restricted Diet on Performance and Health Markers in Professional Firefighters. College of Education, Mississippi State University. *Funded* - \$2900

Effect of Curcumin Ingestion on Oxidative Stress Response from Combined Mental and Physical Stress. Primary Investigator: **M. McAllister**, (2018). Office of Research and Economic Development. *Funded* - \$2000.

Effect of Curcumin Ingestion on Markers of Oxidative Stress in Firefighters Following Simulated Firefighter Activities. Primary Investigator: **M. McAllister**, (2018). College of Education, Mississippi State University. *Funded* - \$2000.

Effect of Exogenous Ketone Ingestion on Oxidative Stress and Metabolic Response to Dual Stress Challenge in Firefighters. Primary Investigator: **M. McAllister**, (2017-2018). Office of Research and Economic Development, Mississippi State University. *Funded* - \$2000.

Effects of Beta Hydroxybutyrate Ingestion on Metabolic Responses to Anaerobic Exercise. Primary Investigator: **M. McAllister**, (2017). College of Education, Mississippi State University. *Funded* - \$2200.

Influence of Carbohydrate Timing During a 4-week High Intensity Exercise Training Regimen on Physiological Responses to Exercise, Markers of Health, and Performance. Primary Investigator: J. Smith, Co-Primary Investigator: **M. McAllister**, (2017). Office of Research and Economic Development, Mississippi State University. *Funded* - \$2175.

Effects of Short Term High Fat Diet Intervention and Acute High Intensity Resistance Training on Blood Markers of Health and Inflammation. Primary Investigator: **M. McAllister**, Co-Primary Investigator: J. Smith, H. Waldman, B. Krings, (2016). Office of Research and Economic Development, Mississippi State University. *Funded* - \$2130.

Impact of Occupational Footwear During Simulated Workloads on Energy Expenditure and Ankle Stability. Primary Investigator: A. Knight; Co-Investigators: H. Chander, J. Smith, **M. McAllister**, B. Fountain, (2016). Office of Research and Economic Development, Mississippi State University. *Submitted*, not funded - \$2000.

Validation of a Fitlight Shooting Protocol to Identify Officer Response to Fatigue: Primary Investigator: J. Smith; Co-Investigators: T. Garrison, **M. McAllister**, (2016). CAVS Mississippi State University. *Funded* - \$10,000.

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## CURRICULUM DEVELOPMENT

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*Bachelor of Science in Exercise and Sports Science, no concentration track (2025)* – The B.S. in Exercise and Sport Science will now be offering a no concentration degree track option for students that are unsure of what career path they might want to pursue but are interested in pursuing the general health profession field. This degree track



offers a large pool of electives to select courses aligned with student interest that can also be used as prerequisites for graduate programs.

*HHP 5388 Graduate Teaching Assistant Development (2025)* - This course serves as an introduction to the history of teaching, ethics and best practices as a graduate teaching assistant. The class prepares teaching assistants for their role as a graduate teaching assistant and for potential careers involving instruction at other institutions. This course includes pedagogical information that can be useful for a beginning teacher in any field.

*ESS 7301 Applied Exercise Physiology (2024)* - This course will provide students with an advanced understanding of the acute and chronic responses to exercise and the physiological adaptations that occur in response to exercise training. Additional topics to be covered include environmental influences, aging, and sex differences in terms of physiological responses.

*ESS 7304 Current Issues in Exercise Science (2024)* - This course examines the contemporary issues facing those practicing in a variety of fields within exercise science. Students will examine pertinent issues related to the practice and advancement of exercise physiology, biomechanics, strength and conditioning, motor development, sports psychology, exercise metabolism, and human performance through the analysis of current scientific literature.

*ESS 7307 Advanced Principles of Strength and Conditioning (2024)* - This course discusses the development, instruction, and evaluation of aerobic and anaerobic training principles and programs for diverse populations and settings. Emphasis is placed on the physiological and mechanical principles related to resistance training with application to human performance, injury prevention, and rehabilitation.

*ESS 7308 Biomechanics of Musculoskeletal Injury (2024)* - This course discusses the biomechanical principles of injury and how injuries are related to physiological and anatomical function. The field of injury biomechanics is focused on examining the role of human behavior, bones, and other tissues as pertaining to functional failure and injury risk. This course provides students with an advanced assessment of fundamental concepts and techniques that are presently used in the field of injury biomechanics.

*Development of TXST BS in Exercise and Sports Science program extension – Collin College, 2023-2024*

*Proposal for new PhD program in Kinesiology with concentrations in Sport Management and Exercise Science; Department of Health and Human Performance, Texas State University. 2023-present*

*Proposal for PhD program in Sport Management; Department of Health and Human Performance, Texas State University. 2023. Note, revised submission was modified to PhD program in Kinesiology.*

*Revision to Existing Degree Program:* Bachelor of Exercise and Sports Science, developed and submitted **9/2023**. Summary: This proposal included a change to the degree designation such that the Bachelor of Exercise and Sports Science degree will be changed to a Bachelor of Science. This change will be applied to five existing majors: 1) Major in Exercise and Sports Science, Clinical Exercise Science Concentration, 2) Major in Exercise and Sports Science, Pre-Rehabilitation Sciences Concentration, 3) Major in Exercise and Sports Science, Teacher Certification in Physical Education, Early Childhood Through Grade Twelve, 4) Major in Exercise and Sports Science/Master of Science Major in Athletic Training, and 5) Major in Health and Fitness Management.

*ESS 5312 Applied Exercise Metabolism* - This course will provide students a thorough understanding of exercise metabolism. Students will develop advanced knowledge of the influence of various environmental and physiological factors on metabolism during exercise, and the impact on physical performance and recovery. Students will also examine the relationship between metabolic factors and chronic diseases.

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## AWARDS/HONORS

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### **College Achievement Award in Scholarly/Creative Activities**

College of Education,  
Texas State University, (2025)

### **THRC Faculty Fellow Medal of Achievement**

Translational Health Research Center  
Texas State University, (2024)

### **Award/Honor Recipient: Presidential Distinction Award in Teaching**

College of Education,  
Texas State University, (2024)  
Award amount: \$2000

### **College Achievement Award in Teaching**

College of Education  
Award amount: \$1000  
Texas State University, (2023)

### **College Achievement Award in Scholarly/Creative Activities**

College of Education  
Award amount: \$1000  
Texas State University, (2022)

### **Translational Health Scholar Showcase, 2021 Award Recipient**

Award amount: \$5000  
Texas State University, 2021

**College Achievement Award in Scholarly/Creative Activities**

College of Education  
Award amount: \$1000  
Texas State University, (2021)

**Mentor of the Year Award Nominee**

Office of the Graduate School  
Alumni Association  
Mississippi State University, (2018)

**Faculty Researcher of the Year Award Nominee**

College of Education  
Mississippi State University, (2016)

**Werner and Alice Essig Graduate Student Scholarship Award**

College of Agriculture and Life Sciences  
Award amount: \$1,535  
Mississippi State University (2014-2015)

**Melvin A. Humphreys Prize for Student Research**

Award amount: \$800  
The University of Memphis (2012)

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**GRADUATE STUDENT COMMITTEES**

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Sutton, N, MS Culminating Project, May 2025 (Chair)

Uriegas, S, MS Culminating Project, May 2025 (Chair)

Walker, J., MS Culminating Project, May 2024 (Chair)

McCullough, R., MS Culminating Project, May 2023 (Chair)

Dillard, C., MS Thesis, May 2023 (Chair); Note Student Awards:

Graduate College's Outstanding Master's Thesis Award in Life Sciences, 2023

Conference of Southern Graduate Schools Outstanding Master's Thesis in the  
Social Sciences Nominee, 2024

College of Education Outstanding Graduate Student of the Year, 2023

American Kinesiology Association Master Student Scholar of the Year, 2023

Awarded 3<sup>rd</sup> place for master's division poster presentation at the Texas Chapter of  
American College of Sports Medicine, 2023

Gonzalez, D., PhD Committee, 2022-2023 (Member)

Taylor, A., MS Culminating Project, May 2022 (Chair)

Weishaar, B., MS Thesis, August 2022 (Chair)  
Renteria, L., MS Thesis, May 2020 (Chair)  
Argall, B., MS Culminating Project, May 2020 (Co-Chair)  
Gonzalez, D., MS Thesis, May 2020 (Chair)  
Goldenstein, S., MS Thesis, May 2019 (Member)  
Waldman, H., PhD Committee, May 2019 (Chair)  
Realzola, R., MS Thesis, August 2018 (Member)  
Krings, B., PhD Committee, May 2018, (Member)  
Shepherd, B., MS Thesis, May 2018 (Member)  
Basham, B., MS Thesis, May 2018 (Chair)  
Simsiriwong, K., MS Culminating Project, May 2018 (Member)  
Phillips, S., MS Committee, May 2018 (Member)  
Price, F., MS Thesis, August 2017 (Chair)  
Watts, S., MS Committee, December 2017 (Chair)  
Abdul Manaf F., PhD Committee, December 2017 (External Reviewer)  
Cummings, P., MS Thesis, May 2016 (Chair)  
Ratliff, J., MS Committee, May 2016, (Chair)

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## SERVICE

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### **College of Education Research Office Advisory Committee**

College of Education  
Texas State University  
September 2024-present

### **Search Committee Chair: Assistant Professor of Instruction in Exercise and Sports Science (Collin College)**

Department of Health & Human Performance  
Texas State University  
August 2024- December 2024

### **Faculty Promotion & Tenure External Reviewer: J. Pence**

University of Memphis  
College of Health Sciences  
August 2024

**Grant Reviewer: US Special Operations Command on the Biomedical and Human Performance Research and Development, Department of Defense**  
Spring 2024

**Manuscript Reviewer**  
BMJ Public Health  
Spring 2024

**Manuscript Award Reviewer**  
Texas ACSM  
Spring 2024

**Manuscript Reviewer**  
BMC Psychology  
Summer 2024

**Chair, Faculty Evaluation Committee**  
Department of Health & Human Performance  
Texas State University  
September 2024-present

**Faculty Evaluation Committee**  
Department of Health & Human Performance  
Texas State University  
September 2023-2024

**Faculty Mentorship Committee: Erin Lally**  
Department of Health & Human Performance  
Texas State University  
January 2025-present

**Faculty Mentorship Committee: John Farrell**  
Department of Health & Human Performance  
Texas State University  
September 2023-present

**Faculty Mentorship Committee: Matthew Bishop**  
Department of Health & Human Performance  
Texas State University  
September 2023-present

**Faculty Mentorship Committee: Allie Thomas**  
Department of Health & Human Performance  
Texas State University  
September 2023-present

**Associate Chair**

Department of Health & Human Performance  
Texas State University  
June 2023- present

**Search Committee Chair: Assistant or Associate Professor of Exercise and Sports Science**

Department of Health & Human Performance  
Texas State University  
September 2023- March 2024.

**Contributing Committee Member: 9/11 Memorial Stair Climb**

Kyle Field, College Station, TX  
September 2023

**Media Mention**, Journal Article: *Medical tests may help save firefighter lives*. Texas Community Health News. July, 2023

**Big Ideas Podcast**: Intermittent Fasting, Texas State University. April 2021

**Search Committee Member: Open Rank Assistant Professor, Associate Professor, or Professor of Public Health, Health Education, or Health Promotion**

Department of Health & Human Performance  
Texas State University  
June 2023- December 2023.

**Student Research Development Award Presentation Judge**

Texas ACSM  
Feb. 2023

**Texas State University****Undergraduate Admission Standards Committee**

Texas State University  
Fall 2021-present

**Personnel Committee**

Department of Health & Human Performance  
September 2022-present

**College of Education Research Enhancement Program Committee**

Alternate Reviewer  
Texas State University  
Fall 2022-Spring 2023

**Search Committee: Department Chair, Health & Human Performance**  
Texas State University  
2021-2022

**Institutional Biosafety Committee**  
Texas State University  
September 2021-present

**Environmental Health, Safety, & Risk Management Committee**  
Texas State University  
July 2021-present

**Student Research Development Award Presentation Judge**  
Texas ACSM  
Feb. 2023

**Student Research Development Award Reviewer**  
*Texas ACSM*  
Jan. 2022

**Student Research Development Award Reviewer**  
*Texas ACSM*  
Jan. 2021

**Faculty Advisory Council**  
College of Education  
Texas State University  
September 2020-August 2023.

**Outstanding Graduate Student Committee**  
College of Education  
Texas State University  
September 2020-present

**Chair, Graduate Admissions Committee, Exercise Science**  
Department of Health & Human Performance  
Texas State University  
September 2021-December 2022

**Member, Graduate Admissions Committee, Exercise Science**  
Department of Health & Human Performance  
Texas State University  
January 2019-August 2021

**Graduate Student Organization Lead Faculty Advisor**  
Department of Health & Human Performance

Texas State University  
August 2019-2022

**Exercise Science Curriculum Committee**

Texas State University  
September 2021-Present

**Director of Exercise Biochemistry Laboratory**

Department of Kinesiology  
Mississippi State University  
September 2017-August 2018

**Graduate Committee**

Department of Kinesiology  
Mississippi State University  
October 2016-August 2018

**Graduate Teaching Assistant Coordinator**

Department of Kinesiology  
Mississippi State University  
August 2015-August 2018

**Academic Culture Committee**

Department of Kinesiology  
Mississippi State University  
August 2015-August 2018

**College of Education Research Forum**

Research Poster Judge  
Mississippi State University  
Spring 2018

**Applied Physiology Research Laboratory Committee**

Department of Kinesiology  
Mississippi State University  
August 2014-August 2018

**Shackouls Honors College Undergraduate Research Symposium**

Session Chair  
Mississippi State University  
Summer 2014

**Max Muscle Strength and Fitness**

Powerlifting Judge  
Joe Frank Sanderson Center



Mississippi State University, November 2013-November 2017

*Journal of Exercise Science & Fitness*  
Reviewer, 2025

*BMC Psychology*  
Reviewer, 2024

*Healthcare, MDPI*  
Reviewer, 2023

*Journal of Science and Medicine in Sport*  
Reviewer, 2023

*Occupational and Environmental Medicine*  
Reviewer, 2023

*Healthcare, MDPI*  
Reviewer, 2022

*Journal of the International Society of Sports Nutrition*  
Reviewer, 2022

*Translational Research*  
Reviewer, 2022

*International Journal of Environmental Research and Public Health*  
Reviewer, 2021

*Nutrition Research*  
Reviewer, 2021

*Preventive Medicine Reports*  
Reviewer, 2021

*BMJ Open*  
Reviewer, 2020

*Comprehensive Psychoneuroendocrinology*  
Reviewer, 2020

*Nutrients*  
Reviewer, 2020

*Antioxidants*  
Reviewer, 2019-present

*Journal of Occupational and Environmental Medicine*  
Reviewer, 2018-present

*Applied Physiology, Nutrition, and Metabolism*  
Reviewer, 2018

*Journal of Sport Science and Medicine*  
Reviewer, 2015

*Occupational Medicine*  
Reviewer, 2013-present

*Journal of Human Nutrition and Dietetics*  
Reviewer, 2018

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## PROFESSIONAL AFFILIATIONS

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**National Strength and Conditioning Association,**  
2018- present

**Texas American College of Sports Medicine,**  
2018-present

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## SCHOLARLY/CREATIVE PROFESSIONAL DEVELOPMENT ACTIVITIES

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**Promotion to Professor: Advice for Associate Professors**  
Texas State University  
Spring 2025

**NIH Grant Writing Boot Camp**  
Columbia University  
Summer 2023

**Lessons Learned: Applying to Grants from Scholarly and Professional Organizations and Beyond**  
Texas State University  
College of Education  
September 2021

**The NIH Grant Writing Experience: Tips, Tricks, and the Importance of Tenacity**  
Texas State University  
College of Education

April 2021

**Attracting Funding from the National Science Foundation (NSF): The Good, the Bad, and the Ugly**

Texas State University  
College of Education  
March 2021

**Do This, Not That! Grant Writing Strategies for the Institute of Education Sciences (IES)**

Texas State University  
College of Education  
February 2021

**Setting Your Intentions: Inclusive Syllabus Design**

Texas State University  
Department of Health & Human Performance  
June 2021

**Grant Development Scholars Program**

Texas State University  
College of Education  
December 2019-2020

**PALIR III**

HHP Active Learning in Large Enrollment Hybrid Courses  
Center for Distance and Extended Learning  
Texas State University  
Fall 2019

**Scholarship & Teaching Excellence Program (STEP)**

Texas State University  
September 2018-April 2019