

CURRICULUM VITAE

Matthew J. McAllister, Ph.D.

Assistant Professor of Exercise Physiology
Director of Exercise Biochemistry Laboratory
Coordinator of Graduate Teaching Assistants
Rm 124 McCarthy Gymnasium
Box 6186
Mississippi State, MS 39759
Email: mjm639@msstate.edu

Education

Doctor of Philosophy Degree

Nutrition

Mississippi State University

Mississippi State, MS

Graduation Date: August, 2015

Master of Science Degree

Health and Sport Sciences; Exercise Science

University of Memphis

Memphis, TN

Graduation Date: May, 2012

Bachelor of Science Degree

Health and Human Performance

Concentration: Exercise Science

University of Memphis

Memphis, TN

Graduation Date: May 07, 2010

Associate of Science in Liberal Arts Degree

Monroe Community College

Rochester, NY

Graduation Date: December 2006

Professional Experience

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 – Present

Areas of Teaching:

- EP 8203 Advanced Exercise Physiology (G)
- EP 8253 Doping and Supplement use in Sports (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)

Other duties:

- Serving as Director of Exercise Biochemistry Laboratory
 - * Overseeing overall execution of proper sampling, handling, and storage of biological samples
 - * Ensuring proper processing and analysis of biological samples (i.e., ELISA, EIA analysis)
- Mentoring/advising undergraduate and graduate Kinesiology students (total ~85 student advisees)
- Coordinating teaching assignments and duties of Master's and PhD GTA's
- Coordinator of Exercise and Sport Physiology teaching laboratories

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)

Other duties:

- Mentoring/advising undergraduate Kinesiology students
- Overseeing teaching assignments of GTA's
- Coordinator of Exercise and Sport Physiology teaching laboratories

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
Collierville, TN
May 2007 – August 2011

Peer-Reviewed Manuscripts

† denotes student mentored project:

McAllister MJ; Waldman HS; Krings BM; Basham SA; Smith JW. (2017). Effect of High Fat Low Carbohydrate Diet on Oxidative Stress Responses to High Intensity Resistance Exercise. *International Journal of Sports Nutrition and Exercise Metabolism*, in review.

†Waldman HS; Basham SA; Krings BM; Smith JW; Chander H; Knight A; **McAllister, MJ**. (2017). Exogenous Ketone Salts Improve Cognitive Responses Without Decrements to High Intensity Exercise Performance in Healthy College-Aged Males. *Applied Physiology Nutrition and Metabolism*, in review.

Krings BM; Miller BL; Chander H; Waldman HS; Knight AC; **McAllister MJ**, Fountain BJ; Smith JW. (2017). Impact of Occupational Footwear During Simulated Workloads on Energy Expenditure. *Footwear Science*, in review.

Smith JW; Krings BM; Shepherd BD; Waldman HS; Basham SA; **McAllister**

MJ. (2017). Effects of Carbohydrate Branched Chain Amino Acid Ingestion during Acute Upper-Body Resistance on Performance and Post Exercise Hormone Response. *Applied Physiology Nutrition and Metabolism*, in press.

†Waldman HS; Krings BM; Basham SA; Smith JW; Fountain BJ; **McAllister MJ.** (2017). Effects of a 15-day Low Carbohydrate High Fat Diet in Resistance Trained Males. *Journal of Strength and Conditioning Research*, doi: 10.1519/JSC.0000000000002282.

†Waldman HS; Krings BM; Smith JW; **McAllister MJ.** (2017). A Shift Towards a High-Fat Diet in the Current Metabolic Paradigm: A New Prospective. *Nutrition*, doi.org/10.1016/j.nut.2017.08.014.

Rountree JA; Krings BM; Peterson TJ; Thigpen AG; **McAllister MJ;** Holmes ME; Smith JW. (2017). Efficacy of Carbohydrate Ingestion During Training on CrossFit Performance. *Sports*, 5, 61, DOI: 10.3390/sports5030061

Smith JW; Krings BM; Peterson TJ; Rountree J; Zak R.;**McAllister MJ.** (2017). Ingestion of an Amino Acid Electrolyte Beverage during Resistance Exercise does not Impact Acute Muscle Hypertrophy or Performance. *Sports*, 5, 36; DOI:10.3390/sports5020036.

Krings BM; Peterson TJ; Shepherd BD; **McAllister MJ;** Smith JW. (2017). Effects of carbohydrate ingestion and carbohydrate mouth rinse on repeat sprint performance. *International Journal of Sport Nutrition and Exercise Metabolism*, 27; 104-112.

Brown SP; Smith JW; **McAllister MJ;** Joe L. Superhero Physiology: The Case of Captain America. (2017). *Advances in Physiology Education*, 41(1), 16-24. DOI: 10.1152/advan.00106.2016

†Cummings PM; Waldman HS; Krings BM; Smith JW; **McAllister MJ.** (2017). Effects of Fat Grip Training on Muscular Strength and Driving Performance in Division 1 Male Golfers. *Journal of Strength and Conditioning Research*, DOI: 10.1519/JSC.0000000000001844.

Webb HE; Rosalky DA; **McAllister MJ;** Acevedo EO; Kamimori GH. (2017). Aerobic Fitness Impacts Sympathoadrenal Axis Responses to Concurrent Challenges. *European Journal of Applied Physiology*, DOI: 10.1007/s00421-016-3519-3.

Krings BM; Rountree JA; **McAllister MJ**; Cummings PM; Peterson TJ; Fountain BJ; Smith JW. (2016). Effects of Acute Carbohydrate Ingestion on Strength and Conditioning Performance. *Journal of the International Society of Sports Nutrition*, DOI: 10.1186/s12970-016-0152-9.

McAllister MJ; Webb HE; Tidwell DK; Smith JW; Fountain BJ; Schilling, MW; Williams R. (2016). Exogenous Carbohydrate Ingestion Reduces Cortisol Response from Combined Mental and Physical Stress. *International Journal of Sports Medicine*, 37(14), 1159-1165. DOI: 10.1055/s-0042-113467.

Huang CJ; **McAllister MJ**; Slusher AL; Webb H; Mock T; Acevedo E. (2015). Obesity-Related Oxidative Stress: The Impact of Physical Activity and Diet Manipulation. *Sports Medicine-Open*: 1-32, DOI: 10.1186/s40798-015-0031-y.

Slusher AL; **McAllister MJ**; Huang CJ. (2015). The Therapeutic Role of Vitamin D on Obesity-Associated Inflammation and Weight-Loss Intervention; *Inflammation Research*: 64(8) p. 565-75, DOI: 10.1007/s00011-015-0847-4.

Smith JW; Holmes ME; **McAllister MJ**. (2015). Nutritional Considerations for Performance in Young Athletes. *Journal of Sports Medicine*, Article ID: 734649, <http://dx.doi.org/10.1155/2015/734649>.

McAllister MJ; Hammond KG; Schilling BK; Ferreria LC; Reed JP; and Weiss LW. (2014). Muscle Activation During Various Hamstring Exercises. *Journal of Strength and Conditioning Research*, Jun;28(6):1573-80.

McAllister MJ; Schilling BK; Hammond KG; Weiss L; and Farney TM. (2013). Effect of Grip Width on Electromyographic Activity During the Upright Row. *Journal of Strength and Conditioning Research*, Jan; 27(1).

Published Book Chapters and Encyclopedia Entries

Huang CJ; **McAllister MJ**; Slusher AL. (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 DK; **McAllister MJ**. (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 RJ; Farney TM; **McAllister MJ**. (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 BR; Wax B; **McAllister MJ**. (2013). Health-Fitness. In: Fundamentals of Kinesiology, Brown, SP. Kendall Hunt Publishing

Manuscripts in Preparation

†Basham SA; Smith JW; Waldman HS; Krings BM; **McAllister MJ**. (2017). Effect of Curcumin Ingestion on Exercise Induced Markers of Oxidative Stress and Inflammation.

†Price FG; Knight A; Chander H; Smith JW; Turner A; **McAllister MJ**. (2017). Effect of High Intensity Interval Training on Performance and Biomechanics in Middle Distance D1 Track Athletes.

Smith JW; Shepherd BS; Waldman HS; Garrison T; **McAllister MJ**. (2017). Validation of FitLight Shooting Protocol for Measuring Performance in Police Officers.

Presentations/Abstracts

†Waldman HS; Cummings PM; Krings BM; Smith JE; **McAllister MJ**. Effects of Fat Grip Training on Muscular Strength and Driving Performance in Division 1 Male Golfers. (2017). College of Education Research Symposium. Mississippi State University.
Awarded Second Place in MSU Research Symposium

Williamson PL; Swain JC; Turner AJ; Shepherd BS; Waldman HS; Krings BM; Chander H; **McAllister MJ**; Smith JW. (2017). Impact of Grip Diameter and Resistance Exercise on Muscular Performance. Shackouls Honors College; Undergraduate Research Symposium. Mississippi State University.

†Basham SA; Smith JW; Krings BM; Shepherd BD; Waldman HS; **McAllister MJ**. Effect of Carbohydrate and Amino Acid Ingestion During

Upper Body Resistance Exercise on Markers of Catabolic Activity. (2017).
College of Education Research Symposium. Mississippi State University.

Shepherd BD; Smith JW; Garrison T; **McAllister MJ**. Validation of a Fitlight Shooting Protocol to Identify Officer Response to Fatigue. (2016).
Undergraduate Research Symposium. Mississippi State University.

Krings BM; Rountree JR; **McAllister MJ**; Cummings PC; Peterson TJ;
Fountain BJ; Smith JW. (2016). Effects of Acute Carbohydrate Ingestion on
Strength and Conditioning Performance. Graduate Research Symposium.
Mississippi State University.

Krings BM; Pope SD; Rountree JA; **McAllister MJ**; Smith JW; Pascoe DD.
(2016). Reliability of a Commercial Power and Speed Analyzer to Common
Field and Laboratory Assessment of Lower Body Peak Power. National
Strength and Conditional Association.

Rountree JR; Krings BM; Peterson TJ; Thigpen A; **McAllister MJ**; Holmes
ME; Smith JW. (2016). Efficacy of Carbohydrate Ingestion During Short
Duration High Intensity Strength and Conditioning Training Sessions. College
of Education Graduate Research Symposium. Mississippi State University

†Basham SA; **McAllister MJ**; Smith JW; Webb HE. (2016). Effect of
Carbohydrate Ingestion on Catecholamine Production from Combined Mental
and Physical Stress. Shackouls Honors College; Undergraduate Research
Symposium. Mississippi State University
Awarded first place in MSU Research Symposium

Smith JW; **McAllister MJ**; Zak RB; Chander H. (2014). Worker Physiology
and Biomechanics. Toyota Motor Manufacturing Mississippi, Fall

Pope SD; **McAllister MJ**; Jordan DJ; Smith JW. (2014). Cadence and
Resistance Predict Peak Power in the Wingate. Shackouls Honors College;
Undergraduate Research Symposium. Mississippi State University.

Laboratory Experience

Director of Exercise Biochemistry Laboratory
Mississippi State University
September 2017- Present

Applied Physiology & Biochemistry Laboratory
Mississippi State University
July 2012- Present

Cardiorespiratory/Metabolic Laboratory
University of Memphis; Memphis, TN
January-May 2012

Exercise Neuromechanics Lab
University of Memphis; Memphis, TN
May 2010-May 2012

Extramural Research Funding

Effects of Exogenous Ketone Supplementation in Firefighters. Primary Investigator: **M. McAllister**. Co-Primary Investigator: AM Holland, (2017). Pruvit; Subcontracted Grant: Augusta University. *Funded* - \$6,053.

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

Effect of Acute Beta Hydroxybutyrate Ingestion on Anaerobic Exercise Performance. Primary 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: Primary Investigator: J. Smith. Co-Primary Investigator: **M. McAllister**, (2016). Dymatize, LLC. *Funded* - \$26,761.46.

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

Validation of a FitLight Shooting Protocol to Identify Officer Response to Fatigue: Primary 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: Primary Investigator: J. Smith, Co-Primary 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: Primary Investigator: **M. McAllister**; Co-Investigator: J. Smith, (2015). Life Vantage. *Applied* (not funded) - \$14,000.

Impact of Ingesting AminoPro Pre- and Post-Resistance Training on Hydration Status, Muscle Damage, and Muscle Pump: Primary 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. Principle Investigator: **M. McAllister**, (2013). GSSI Student Research Grant. *Applied* (not funded) - \$3500.

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

Intramural Research Funding

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. *Applied* - \$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.

Awards/Honors

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)

Graduate Student Committees

Hunter Waldman; May 2019, PhD (Chair)

Rogelio Realzola, August 2018, MS

Sam Watts; December 2017, MS (Chair)

Ben Krings; May 2018, PhD

Ffion Price; August 2017, MS (Chair)

Steven Basham; May 2018, MS (Chair)

Korakot Simsiriwong; May 2018, MS

Faizal Abdul Manaf; December 2017, PhD (External Reviewer)

Patrick Cummings; May 2016, MS (Chair)

Jae Ratliff; May 2016, MS

Service

Director of Exercise Biochemistry Laboratory
Department of Kinesiology
Mississippi State University
September 2017-present

Graduate Committee
Department of Kinesiology
Mississippi State University
October 2016-present

Graduate Teaching Assistant Coordinator
Department of Kinesiology
Mississippi State University
August 2015-present

Academic Culture Committee
Department of Kinesiology
Mississippi State University
August 2015-present

Applied Physiology Research Laboratory Committee
Department of Kinesiology
Mississippi State University
August 2014-present

Shackouls Honors College Undergraduate Research
Symposium Session Chair

Mississippi State University
Summer 2014

Max Muscle Strength and Fitness
Powerlifting Judge
Sanderson Center;
Mississippi State University (annual)

Journal of Sport Science and Medicine
Reviewer, 2015

Occupational Medicine
Reviewer, 2013-present

Professional Associations

American College of Sports Medicine
September 2014-Present