

JohnEric W. Smith, PhD

Mississippi State University
Department of Kinesiology
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Professional Experience

2014-Present **Laboratory Director**

*Joseph A. Chromiak Applied Physiology Laboratory,
Mississippi State University, Starkville, MS*

- Oversees the maintenance and functional capabilities of the Applied Physiology Laboratory for the Department of Kinesiology

2013-Present **Assistant Professor**

Mississippi State University, Starkville, MS

- Conducts related to exercise performance and physiological responses to nutritional interventions
- Teaches courses in exercise physiology and fitness testing
- Advises undergraduate students on their academic programs

2011-2013 **Associate Principal Scientist**

Gatorade Sports Science Institute, Bradenton, FL

- Director of a research facility and team with a primary responsibility of investigating the relationship between physiological and metabolic factors and sports performance in children and adolescents

2010-2011 **Adjunct Instructor**

Benedictine University, Lisle, IL

- Part-time instructor in the Biology Department

2008-2011 **Senior Scientist**

Gatorade Sports Science Institute, Barrington, IL

- Project leader primarily focused on research investigating impact of nutritional interventions on exercise performance with a special emphasis on the role of carbohydrate
- Oversaw a student grant program providing funding to graduate students in exercise physiology

- 2004-2008 **Scientist**
Gatorade Sports Science Institute, Barrington, IL
- Research trial leader investigating the impact of nutritional interventions on exercise performance
 - Oversaw a student grant program providing funding to graduate students in exercise physiology
- 2001-2004 **Graduate Research Assistant**
Auburn University Thermal Lab, Auburn, AL
- Served as both project leader and team member for research projects and athlete testing in the Thermal Laboratory under the guidance of an academic advisor
- 2001-2004 **Graduate Teaching Assistant/Instructor**
Auburn University Health and Human Performance Department, Auburn, AL
- Instructor for undergraduate courses in the Exercise Science and Physical Education in Health and Human Performance Department
- 2000-2001 **Graduate Assistant**
Auburn University/Health Plus, Auburn, AL
- Developed and lead group exercise sessions for disabled and elderly adults in care and assisted living facilities

Education

2008	Ph.D.	Exercise Science (Specialization in Exercise Physiology)	Auburn University	Auburn, AL
2003	M.S.	Exercise Science	Auburn University	Auburn, AL
2000	B.S.	Exercise Science	Auburn University	Auburn, AL
1999	EMT-B	Emergency Medical Technician - Basic	Southern Union Community College	Opelika, AL

Research Interests

Carbohydrate Metabolism

- The effect of ingestion rate and dose on the body's ability to oxidize exogenous carbohydrate and utilize macronutrients
- The impact of various ingredients on the body's ability to oxidize exogenous carbohydrate and utilize macronutrients

Performance

- Physiological and metabolic assessment of athletes
- The effect of macronutrients and other ingredients on exercise/sports performance

Environmental Physiology

- The effect of environmental stress on exercise/sports performance
- Physiological adaptations related to physical activity performed under environmental stress

Teaching Experience

Mississippi State University – Graduate Courses

EP 6153	Training Techniques for Exercise and Sport Lecture: 3 hours
EP 8263	Exercise Metabolism Lecture: 3 hours
EP 8283	Environmental Physiology Lecture: 3 hours
KI 8990	Special Topics: Advance Exercise Physiology Lecture/Lab: 3 hours

Mississippi State University – Undergraduate Courses

EP 3304	Exercise Physiology Lecture: 4 hours
EP 3313	Anatomical Kinesiology Lecture: 3 hours
EP 3663	Personal Fitness Training Lecture/Lab: 3 hours
EP 4113	Fitness Testing and Prescription Lecture/Lab: 3 hours
EP 4153	Training Techniques for Exercise and Sport Lecture: 3 hours
PE 3313	Sports Physiology Lecture: 3 hours

Benedictine University – Undergraduate Courses

BIOL 358	Exercise Physiology Lecture: 3 hours
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Auburn University – Undergraduate Courses

HLHP 1100	Wellness Lecture: 3 hours
HLHP 3020	Scientific Foundations of Health and Human Performance Lecture: 4 hours (Team Taught: 1/3 semester)
PHED 1230	Jogging Physical Education Course: 1 hour
PHED 1340	Weight Training Physical Education Course: 1 hour
PHED 1440	Softball Physical Education Course: 1 hour
PHED 1540	Racquetball Physical Education Course: 1 hour
PHED 1550	Tennis Physical Education Course: 1 hour

Auburn University –Teaching Assistant

HLHP 7220	Lab Techniques (Teaching Assistant) Graduate Lab
HLHP 3680	Exercise Physiology (Teaching Assistant) Undergraduate Lab

Current Licenses/Certifications

2015	Blood Borne Pathogens	Mississippi State University
2014	Introduction to Laboratory Safety	Mississippi State University
2011	DEXA enCORE™ Operator Training	GE Healthcare
2006	Certified BodPod Technician	BodPod
2005	Heart Saver AED	American Heart Association
2005	First Aid	American Heart Association
2003	Thermography Technician	American Academy of Thermology
2002	Certified Strength and Conditioning Specialist (CSCS)	National Strength and Conditioning Association

Publications

B.M. Krings, T.J. Peterson, B.D. Shepherd, M.J. McAllister, and **J.W. Smith**. (2017) Effects of carbohydrate mouth rinse and ingestion on repeated sprint performance. *International Journal of Sports Nutrition and Exercise Metabolism*. (In Press)

P.M. Cummings, H.S. Waldman, B.M. Krings, **J.W. Smith**, and M.J. McAllister. (2017) Fat grip resistance training improves driving performance in Division I male golfers. *Journal of Strength and Conditioning Research*. (In Press)

S.P. Brown, **J.W. Smith**, M.J. McAllister, and L.A. Joe. (2017) Superhero Physiology: The Case of Captain America. *Advances in Physiology Education*, 41, 16-24. doi:10.1152/advan.00106.2016.

B.M. Krings, J.A. Rountree, M.J. McAllister, P.C Cummings, T.J. Peterson, B.J. Fountain, and **J.W. Smith**. (2016) Effects of acute carbohydrate ingestion on anaerobic exercise performance. *Journal of the International Society of Sports Nutrition*, 13(40), 1-11. DOI 10.1186/s12970-016-0152-9.

M.J. McAllister, H.E. Webb, D.K. Tidwell, **J.W. Smith**, B.J. Fountain, M.W. Schilling, and R.D. Williams. (2016) Exogenous carbohydrate reduces cortisol response from combined mental and physical stress. *International Journal of Sports Medicine*. 37(14), 1159-1165. DOI: 10.1055/s-0042-113467.

J.W. Smith, M.E. Holmes, and M.J. McAllister. (2015) Nutritional considerations for performance in young athletes. *Journal of Sports Medicine*. Volume 2015, 1-13. e734649. DOI: 10.1155/2015/734649

J.M. Molloy, **J.W. Smith**, and D.D. Pascoe. (2013) Age-related responses among adult males to a 14-day high intensity exercise-heat acclimation protocol. *International SportMed Journal*, 14(3): 103-118.

J.W. Smith, D.D. Pascoe, D.H. Passe, B.C. Ruby, L.K. Stewart, L.B. Baker, and J.J. Zachwieja (2013). Curvilinear dose-response relationship of carbohydrate (0-120 g·h⁻¹) and performance. *Medicine and Science in Sports and Exercise*, 45(2): 336–341. DOI: 10.1249/MSS.0b013e31827205d1

A.D. Karelis, **J.W. Smith**, D.H. Passe and F. Péronnet (2010). Review: Carbohydrate Administration and Performance: What are the Potential Mechanisms Involved? *Sports Medicine*, 40(9): 747-763. DOI: 10.2165/11533080

J.W. Smith, J.J. Zachwieja, F. Péronnet, D. Massicotte, C. Lavoie, D.D. Pascoe (2010). Fuel selection and cycling endurance performance with ingestion of ¹³C-glucose: Evidence of a carbohydrate dose-response. *Journal of Applied Physiology*, 108: 1520 – 1529. DOI: 10.1152/jappphysiol.91394.2008

K. Osterberg, J.J. Zachwieja, and **J.W. Smith** (2008). Benefits of carbohydrate and carbohydrate + protein for cycling time-trial performance. *Journal of Sports Sciences*, 26(3): 227 – 233. DOI: 10.1080/02640410701459730

J.W. Smith, J.M. Molloy, and D.D. Pascoe (2007). Efficacy of a compressive laminar flow body suit for use in competitive swimming. *The Journal of Swimming Research*, 17, 10-16

J.M. Molloy, D.D. Pascoe, **J.W. Smith**, R.C. Purohit, and R.T. Herrick (2005). Hypothenar hammer syndrome: case report with clinical and infrared thermographic correlations. *Thermology International*, 15, 63-67.

Book Chapters

J.W. Smith and A. Jeukendrup. (2013) Performance Nutrition for Young Athletes, In D. Bagchi, S. Nair and C.K. Sen, Nutrition and Enhanced Sports Performance: Recommendations for Muscle Building. Academic Press.

Patents

J.J. Zachwieja, M.A. Pirner, and **J.W. Smith** (2015). Methods of reducing blood lactate concentration. Patent: US 9198453.

J.J. Zachwieja, M.A. Pirner, and **J.W. Smith** (2014). Methods of reducing blood lactate concentration. Patent: AU2011302390.

International Invited Presentations

Performance Nutrition for Young Athletes. Presented at International Food Technologists Short Course, New Orleans, LA; June 2014.

Ergogenic Effect of Carbohydrate Ingestion During Exercise. Presented at KinGames, Hamilton, Ontario; March 2014.

Impact of Carbohydrate Ingestion during Exercise. Presented at the 1st International Sport Beverage Symposium, Sanshui, China; September 2010.

Keynote Speaker – *The Scientific Basis for Sports Drinks*. Presented at the 55th Annual International Society of Beverage Technologists Meeting, Savannah, GA; April 2008.

National Invited Presentations

The Role of Carbohydrate in Training and Performance. Athletic Nutrition Conference; Dallas TX; January 2017

Daily and Acute Hydration and Muscle Pump/Performance. Dymatize Advisory Summit; Dallas TX; January 2015

Science of Sport. NFL-Wharton Leadership Seminar; Philadelphia, PA; June 2013

Carbohydrate: Dose Response. ACSM Pre-Conference: Sports Nutrition All About Performance; Indianapolis, IN; May 2013

Role of Carbohydrate During and Around Sport. Detroit Lions Strength & Conditioning Clinic; Detroit, MI; March 2013

Science of Sport. NFL-Wharton Leadership Seminar; Philadelphia, PA; June 2012

Translating Research to Practice. Professional Football Strength and Conditioning Coaches; Indianapolis, IN; February 2012

Translating Research to Practice. Professional Football Athletic Trainers Society Annual Meeting; Indianapolis, IN; February 2012

Importance of Nutrition and Hydration Around Activity Occasions. National Football League Players Association Rookie Symposium; Bradenton, FL; August 2011

The Role of Carbohydrate in the Active Occasion. Collegiate Strength and Conditioning Coaches National Conference; Kansas City, MO; May 2011

Importance of Hydration. National Football League Rookie Symposium; Carlsbad, CA; June 2010

Nutrition for Performance. National Football League Players Association: Player Safety & Welfare Summit, Indianapolis, IN; April 2010

Don't Sweat It: The Science of Hydration. National Football League Players Association: Player Safety & Welfare Summit, Indianapolis, IN; April 2009

Minimizing Dehydration in Football. National Football League Rookie Symposium; Carlsbad, CA; July 2008

Science of Exercise Nutrition and Hydration. MetLife Cycling Team; Chicago, IL; October 2007

Science of Exercise Nutrition and Hydration. Vision Quest Cycling Team; Chicago, IL; August 2007

Heat, Hydration, and Fuel. Pittsburgh Steelers Training Camp; Latrobe, PA; August 2007

Heat, Hydration, and Fuel. Tampa Bay Buccaneers Mini-Camp; Tampa, FL; June 2007

Science of Hydration. Timex Triathlon Team Camp; Carefree, AR; April 2006

Infrared Thermography in Sports Medicine. Computerized Thermal Imaging User's Group Meeting; New Orleans, LA; March 2003.

Published Abstracts

B. Krings, J. Rountree, M.J. McAllister, **J.W. Smith**. Reliability of a commercial power and speed analyzer to common field and laboratory assessments of lower body peak power. *National Strength and Conditioning Conference Proceedings*, 2016.

B. Wax, A.N. Kavazis, E. Hall, A. Walton, B. Thebaud, **J. Smith**, J. Townsend. Upper body muscle endurance and power following acute supplementation with a select amino acid combination. *The Journal of Strength & Conditioning Research*, 30(S1) Supplement, S93, February 2016.

T.M. Lee, **J.W. Smith**, J.G. Lamberth, T.L. Luczak. Research distribution of sensory input parameters in golf stroke performance. *World Congress on Golf Science*, 65, September 2014.

T.L. Luczak, J.G. Lamberth, **J.W. Smith**, A. Knight. Activation of the right pec major and left deltoid muscles during the golf swing as an instructional technique. *World Congress on Golf Science*, 64, September 2014.

J.W. Smith, K.A. Lee. J.P. Dobson, T.J. Roberts, A.E. Jeukendrup. Fluid and carbohydrate ingestion improve performance in American football players. *Medicine & Science in Sports & Exercise*, 45(5) Supplement, S549, June 2013.

J.P. Dobson, **J.W. Smith**, K.J. Dalrymple, T.J. Roberts, A.E. Jeukendrup. Sport comparison for the physiology of high school lacrosse players. *Medicine & Science in Sports & Exercise*, 45(5) Supplement, S549, June 2013.

T.J. Roberts, **J.W. Smith**, K.J. Dalrymple, J.P. Dobson, A.E. Jeukendrup. Normative data for young athletes. *Medicine & Science in Sports & Exercise*, 45(5) Supplement, S672, June 2013.

K.J. Dalrymple, J.P. Dobson, T.J. Roberts, **J.W. Smith**, A.E. Jeukendrup. Comparison of body composition assessment methods in young athletes. *Medicine & Science in Sports & Exercise*, 45(5) Supplement, S671, June 2013.

J.W. Smith, M. Pirner, and J.J. Zachwieja. Quercetin lowers blood lactate response during progressively intense exercise. *Medicine & Science in Sports & Exercise*, 43(5) Supplement, S294, June 2011.

J.J. Zachwieja, A.S. Ragab, **J.W. Smith**, M. Pirner, M.M. Muehlbauer, R.D. Stevens, M.D. Butler, and C.B. Newgard. Exercise induced elevation of plasma acylcarnitines is a metabolic signature for endurance trained men. *Medicine & Science in Sports & Exercise*, 43(5) Supplement, S564, June 2011.

J.W. Smith, J.J. Zachwieja, C.A. Horswill, D.D. Pascoe, D. Passe, B.C. Ruby, L.K. Stewart. Evidence of a carbohydrate dose and prolonged exercise performance response. *Medicine & Science in Sports & Exercise*, 42(5) Supplement, S62, June 2010.

J.W. Smith, N.M. Suffredin, F. Peronnet, D. Massicotte, C. Lavoie, J.J. Zachwieja. Influence of ingested glucose dose on oxidation, endogenous carbohydrate utilization and cycling time-trial performance. *Medicine & Science in Sports & Exercise*, 39(5) Supplement, S21, May 2007.

J.W. Smith, E.A. Stover, S.C. Lovett, and J.J. Zachwieja. Efficacy of caffeinated and no-caffeinated carbohydrate beverages on cycling performance. *Medicine & Science in Sports & Exercise*, 38(11) Supplement, S29, November 2006.

K.L. Osterberg, J.J. Zachwieja, **J.E. Smith**, R. Murray. Relative benefits of carbohydrate and carbohydrate + protein intake for cycling time. *Medicine & Science in Sports & Exercise*, 38(5) Supplement, S189, May 2006.

D.D. Pascoe, **J.W. Smith**, E. Strecker, and R.D. Good. Physiological assessments of a university marching band. *Medicine & Science in Sports & Exercise*, 37(5) Supplement, S84, May 2005.

M.S. Kovacs, E. Strecker, W.B. Chandler, **J.W. Smith**, and D.D. Pascoe. Time analysis of work/rest intervals in men's collegiate tennis. *The Journal of Strength & Conditioning Research*, 18(4), e12, November 2004.

J.W. Smith, M.S. Kovacs, E. Strecker, R.C. Purohit, and D.D. Purohit. Reliability and validity of thermographic imaging in work physiology. *Thermology International*, 14(3), 111, July 2004.

M.S. Kovacs, **J.W. Smith**, E. Strecker, and D.D. Pascoe. Efficacy of aluminum weave cooling jacket at reducing thermal load following exercise in a hot environment. *Thermology International*, 14(3), 111, July 2004.

D.D. Pascoe, **J.W. Smith**, M.S. Kovacs, E. Strecker, and R.C. Purohit. Cutaneous circulation and infrared thermographic imaging. *Thermology International*, 14(3), 110, July 2004.

J.E. Harris, **J.W. Smith**, and D.D. Pascoe. Thermography of skin temperature following running at different intensities. *Thermology International*, 14(3), 111-112, July 2004.

M.B. Stanton, **J.W. Smith**, D. Pugh, D.D. Pascoe, and R.C. Purohit R.C. Testicular thermography as a diagnostic and prognostic tool in evaluation of testicular injury in stallions. *Thermology International*, 14(3), 107-108, July 2004.

E. Strecker, **J.W. Smith**, M.S. Kovacs, and D.D. Pascoe. Infrared imaging for tennis sports medicine. *Thermology International*, 14(3), 111, July 2004.

R.L. Gillette, T.C. Angle, **J. Smith**, D. Pascoe, and R. Purohit. Thermographic evaluation of the canine athlete. *Thermology International*, 14(3), 113, July 2004.

R.C. Purohit, J. Schumaker, **J.W. Smith**, and D.D. Pascoe. Obtaining valid and reliable thermography images in veterinary medicine. *Thermology International*, 14(3), 110, July 2004.

R.C. Purohit, J. Schumaker, **J.W. Smith**, and D.D. Pascoe. Recognition of dermal patterns by thermography as a diagnostic tool in veterinary medicine. *Thermology International*, 14(3), 107, July 2004.

M.S. Kovacs, E. Strecker, **J.W. Smith**, and D.D. Pascoe. Efficacy of aluminum weave jacket at reducing thermal load during high-intensity intermittent exercise. *Medicine & Science in Sports & Exercise*, 36(5) Supplement, S313, May 2004.

J.W. Smith, M.S. Kovacs, E. Strecker, and D.D. Pascoe. Efficacy of aluminum weave cooling capes at reducing thermal load exercise. *Medicine & Science in Sports & Exercise*, 36(5) Supplement, S313, May 2004.

D.D. Pascoe, **J.W. Smith**, and J.M. Molloy. Regional surface temperature responses during a high intensity heat acclimation protocol. *Medicine & Science in Sports & Exercise*, 36(5) Supplement, S84, May 2004.

J.M. Molloy, **J.W. Smith**, and D.D. Pascoe. Effect of a 14 day high intensity exercise protocol on heat acclimation responses. *Medicine & Science in Sports & Exercise*, 36(5) Supplement, S83, May 2004.

E. Strecker, M.S. Kovacs, **J.W. Smith**, and D.D. Pascoe. Efficacy of aluminum cooling jacket during continuous exercise. *Medicine & Science in Sports & Exercise*, 36(5) Supplement, S313, May 2004.

M.S. Kovacs, E. Strecker, W.B. Chandler, **J.E.W. Smith**, and D.D. Pascoe. Time analysis of work/rest intervals in men's professional tennis. *Southeastern American College of Sports Medicine Proceedings*, 35, January 2004.

J.W. Smith, J.M. Molloy, and D.D. Pascoe. The efficacy of body suits at reducing drag and oxygen cost in competitive swimming. *Medicine and Science in Sports and Exercise*, 35(5) Supplement, S97, May 2003.

J.M. Molloy, S.D. Lauten, **J.W. Smith**, W.R. Brawner Jr., and D.D. Pascoe. Influence of asymmetrical loading on skeletal and soft tissue structures. *Medicine and Science in Sports and Exercise*, 35(5) Supplement, S360, May 2003.

D.D. Pascoe, **J.W. Smith**, J.M. Molloy, and R.C. Purohit. Applying infrared thermography to sports medicine. *Thermology International*, 13(2), 78, April 2003.

D.D. Pascoe, J.M. Molloy, **J.W. Smith**, and R.C. Purohit. Influence of environmental conditions on regional mean skin temperature. *Thermology International*, 13(2), 78, April 2003.

R.C. Purohit, J. Schumaker, J.M. Molloy, **J.W. Smith**, and D.D. Pascoe. Elucidation of thoracic and lumbosacral dermatomal patterns in horse. *Thermology International*, 13(2), 79, April 2003.

R.C. Purohit, J. Schumaker, J.M. Molloy, **J.W. Smith**, and D.D. Pascoe. Thermographic evaluation of neurogenic mechanisms. *Thermology International*, 13(2), 79, April 2003.

J.W. Smith, J.M. Molloy, M. Goodlett, R.C. Purohit, and D.D. Pascoe. Efficacy of infrared thermography in sports medicine. *Thermology International*, 13(1), 37, January 2003.

J.M. Molloy, **J.W. Smith**, M. Goodlett, R.C. Purohit, and D.D. Pascoe. Interactive case study: Infrared thermography as a clinical diagnostic aid. *Thermology International*, 13(1), 37, January 2003.

R.C. Purohit, **J.W. Smith**, J.M. Molloy, and D.D. Pascoe. Standards for thermography data collection and interpretation for animal species. *Thermology International*, 13(1), 38, January 2003.

D.D. Pascoe, J.M. Molloy, **J.W. Smith**, and R.C. Purohit. Historical perspectives of thermal physiology and thermography. *Thermology International*, 13(1), 37, January 2003.

D.D. Pascoe, J.M. Molloy, **J.W. Smith**, and R.C. Purohit. Standards for thermography data collection and interpretation for humans. *Thermology International*, 13(1), 37, January 2003.

J.W. Smith, J.M. Molloy, and D.D. Pascoe. Issues related to heat stress for physical educators and coaches. *Alabama State Association of Health, Physical Education, Recreation and Dance Proceedings*, 13, November 2002.

J.M. Molloy, **J.W. Smith**, and D.D. Pascoe. Managing student backpack loads: A multi-disciplinary approach. *Alabama State Association of Health, Physical Education, Recreation and Dance Proceedings*, 13, November 2002.

D.D. Pascoe, J. Molloy, **J. Smith**, and R.C. Purohit. Symposium: Infrared thermography in the study of physiology. *Southeastern American College of Sports Medicine Proceedings*, 21, January 2002.

J.W. Smith, J.M. Molloy, D.D. Pascoe, and R.C. Purohit. The influence of protective barrier clothing on thermal skin responses. *Thermology International*, 11(3), 137, August 2001.

J.M. Molloy, **J.W. Smith**, D.D. Pascoe, and R.C. Purohit. Interpretation of Thermograms During Investigations of Thermal Physiology. *Thermology International*, 11(3), 137, August 2001.

D.D. Pascoe, J.C. Llanos, J.M. Molloy, **J.W. Smith**, and R.C. Purohit. Infrared detection of human regional skin temperatures at varying environmental conditions. *Thermology International*, 11(3), 138, August 2001.

D.D. Pascoe, J.C. Llanos, J.M. Molloy, **J.W. Smith**, and W.A. Kramer. Influence of environmental temperature on the calculations of mean skin temperature. *Medicine and Science in Sports and Exercise*, 33 (5), S222, May 2001.

Non-Published Conference Presentations

K.E. Wood, M.E. Holmes, K. Brocato, and **J.W. Smith**. Adolescent stress, coping resources, and health in high risk students participating in a studio based learning summer camp. *North American Society for Pediatric Exercise Medicine*, August 2016.

J.W. Smith. Performance nutrition. *Mississippi National Strength and Conditioning Association State Clinic*, April 2016.

K.E. Wood, M.E. Holmes, K. Brocato, and **J.W. Smith**. Adolescent stress, coping resources, and health in high risk students participating in a studio based learning summer camp. *Southeastern American College of Sports Medicine*, February 2016.

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

D.D. Pascoe, **J.W. Smith**, J.M. Molloy, R. Good, J. Good, T. Breaux, and D.W. Pascoe. Physical conditioning of marching band members for improved performance. *Hawaii International Conference on Arts and Humanities Proceedings*, 4551-4552, January 2004.

D.W. Pascoe, J.M. Molloy, **J.W. Smith**, R. Good, J. Good, T. Breaux, and D.D. Pascoe. Band members' health and fitness status. *Hawaii International Conference on Arts and Humanities Proceedings*, 4548-4550, January 2004.

D.D. Pascoe, J.M. Molloy, **J.W. Smith**, R. Good, J. Good, T. Breaux, and D.E. Pascoe. Physical performance attributes of band members. *Hawaii International Conference on Arts and Humanities Proceedings*, 4553-4556, January 2004.

University Student Presentations

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

S.A. Basham, M.J. McAllister, **J.W. Smith**, and H.E. Webb. Effect of carbohydrate ingestion on blood catecholamine levels from combines mental and physical stress. *Mississippi State University Undergraduate Research Symposium*, April 2016.

B.M. Krings, J.A. Rountree, M.J. McAllister, P.M. Cummings, T.J. Peterson, B.J. Fountain, and **J.W. Smith**. Effects of acute carbohydrate ingestion on strength and conditioning performance. *Mississippi State University Graduate Research Symposium*, April 2016.

B.M. Krings, S.D. Pope, J.A. Rountree, M.J. McAllister, **J.W. Smith**, and D.D. Pascoe. Reliability of a commercial power and speed analyzer to common field and laboratory assessments of lower body peak power. *Mississippi State University College of Education Research Forum*, April 2016.

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

K.E. Wood, M.E. Holmes, K. Brocato, and **J.W. Smith**. Adolescent stress, coping resources, and health in high risk students participating in a studio based learning summer camp. *Mississippi State University College of Education Research Forum AND Mississippi State University College of Education Research Forum*, April 2016.

S.D. Pope, **J.W. Smith**, M.J. McAllister, D.J. Jordan, B. Wax, S.M. Xiques, and D.D. Pascoe. Wingate peak power is solely based on resistance and cadence. *Mississippi State University College of Education Research Forum*, April 2016 **AND Mississippi State University Undergraduate Research Symposium**, July 2015.

External Support and Funding

Effects of human curcumin ingestion on blood antioxidant status and exercise induced muscle damage and inflammation: Primary Investigator: M. McAllister; Co-Investigator – **J.W. Smith** (2016). NOW Foods. Funded - \$15,653.00.

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-Investigator – H.S. Waldman, B. Krings, **J.W. Smith** (2016). MSU ORED. Funded - \$2,130.00.

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, and B. Fountain (2016). Mississippi State University Office of Research and Economic Development Undergraduate Research Grant. Submitted - \$2,000.

Effect of Carbohydrate Supplementation on Resistance Training Performance and Blood Markers: Primary Investigator – **J.W. Smith**; Co-Investigator – M. McAllister (2016). Dymatize, LLC. Funded - \$27,694.55.

Validation of a FitLight shooting protocol to identify officer response to fatigue: Primary Investigator – **J.W. Smith**; Co-Investigators – T. Garrison and M. McAllister (2016). Simunitions donated rounds and conversion kits to the Starkville Police Department for research execution. value \$1,500.00.

Validation of a FitLight shooting protocol to identify officer response to fatigue: Primary Investigator – **J.W. Smith** (2016). FitLight. Funded - \$3,000.00.

Validation of a FitLight shooting protocol to identify officer response to fatigue: Primary Investigator – **J.W. Smith**; Co-Investigators – T. Garrison and M. McAllister (2016). CAVS Mississippi State University. Funded - \$10,000.

SEC Travel Grant – Primary Investigator – **J.W. Smith**; Co-Investigators – Megan Holmes (2015). Not Funded - \$2,000.

Impact of tennis participation on parameters of health: Primary Investigator – M.E. Holmes; Co-Investigators – **J.W. Smith** (2015). International Tennis Federation. Funded - \$5,000.

Effects of AminoPro supplement with varying levels of carbohydrate (1 part dextrose: 2 part sucrose) on strength and conditioning training performance: – **J.W. Smith**; Co-Investigator – M. McAllister and B. Fountain (2015). Dymatize, LLC. Funded - \$8,497.86.

Impact of ingesting AminoPro pre- and post-resistance training on hydration status, muscle damage, and muscle pump: Primary Investigator – **J.W. Smith**; Co-Investigators – M. McAllister and R. Zak (2015). Dymatize, LLC. Funded - \$31,068.55.

Improving equipment fit and individual customization of the golf swing: Primary Investigator – A. Knight; Co-Investigators – L. Strawderman, T. Garrison, T. Luczak, M. Lafortune; Senior Personnel – J. Lamberth, **J. Smith**, H. Chander, and K. McRae (2015). National Science Foundation. Not Funded - \$982,201.

Impact of glycine arginine alpha ketoisocaproic acid calcium on resistance performance: Primary Investigator – B. Wax; Co-Investigator – **J.W. Smith** (2014). Iovate Health Sciences International donated a research gift to the Department of Kinesiology. \$9,899.15.

Influence of inertial load on cycling Wingate results: Primary Investigator – **J.W. Smith** (2014). Gatorade Sports Science Institute/PepsiCo, Inc. donated two used Velotron cycle ergometers to the Department of Kinesiology, value \$19,000.

Impact of carbohydrate ingestion during a strength and conditioning training session on exercise performance: Primary Investigator – **J.W. Smith**; Co-Investigator – B. Wax (2013). Gatorade Sports Science Institute. Not Funded - \$50,000.

Influence of asymmetrical loading on skeletal and soft tissue structures: Primary Investigator – J.M. Molloy; Co-Investigators – D.D. Pascoe and **J.W. Smith** (2002). Gatorade Sports Science Institute Student Grant. Funded - \$500.

Efficacy of body suits on reducing drag and oxygen cost during competitive swimming: Primary Investigator – **J.W. Smith**; Co-Investigators – D.D. Pascoe and J.M. Molloy (2001). TYR donated 12 Aquapel Bodysuits for research, value of \$2,640.

Dissertation Committees

Chair

Ben Krings. Proposed Graduation, May 2018

Member

Hunter Waldman. Proposed Graduation, May 2019

Matthew McAllister, *Effect of Carbohydrate Supplement on Cardiovascular and Metabolic Responses to Dual Concurrent Stressors*. Graduated, August 2015.

Richard Laird, *Effect of Concurrent Sprint Interval and Resistance Training on Measures of Strength, Power, and Aerobic Performance*. Graduated, August 2013.

Master's Thesis Committees

Chair

Ffion Price, *Impact of HIIT Training on Middle Distance Athletes*. Proposed Graduation, May 2017 (co-chair)

Jaden Rountree, *Effect of Carbohydrate Ingestion During Training on CrossFit Performance*. August 2016

Member

Steven Basham, Proposed Graduation, May 2018

Hunter DeBusk, *Impact of High Top Military Boots on Balance*. August 2016

Chris Hill, *Influence of Military workload on Muscle Exertion in Two Types of Military Footwear*. August 2016

Recognized Undergraduate Research Students

Katie Wood, 2016 College of Education Undergraduate Researcher of the Year.

Scott D. Pope, 2015 College of Education Undergraduate Researcher of the Year.

Lay Articles, Interviews and Appearances

SECU (U.S.A.) SEC Faculty Travel Grant Visit Leads to Study on Hydration. June 2015.

Gatorade Television Commercial (U.S.A.) "Everything to Prove". Debuted January 2013.

NFL.com Web Series (U.S.A.) Everything to Prove. September 2012. Act I Episodes 1 and 2, Act II Episodes 1 and 2, Act III Episode 1 and 2, Act V Episode 2. (September 2012)

Men's Health (U.S.A.). Cam Newton's Top-Secret Nutrition Plan. July 2012.

Gatorade Television Commercial (U.S.A.) "Greatness". Debuted July 2012.

ESPN Magazine (U.S.A.) Zoom: Panthers QB Cam Newton with the Gatorade Sports Science Institute's Kortney Dalrymple and JohnEric Smith. July 2012.

ABC 7 Sarasota (U.S.A.). Testing human limits in Bradenton. June 2012.

Sarasota Herald Tribune (U.S.A.). Behind the gates at IMG Academies, Gatorade tests top athletes. May 2012.

Washington Post (U.S.A.). Taking the measure of Robert Griffin III. April 2012

U.S.A. Football (U.S.A.). Experts warn against caffeinated energy drinks for young athletes. April 2012

Wired.com (U.S.A.). Gatorade Quenches Its Thirst to Build Better Athletes. February 2012

FoxSports (U.S.A.). Training Like NFL Prospect: GSSI Testing. January 2012

Globo TV (Brazil). Mano Menezes visits one of the world's most modern training center in Florida. February 2012

Bloomberg Business Week (U.S.A.). Gatorade Goes Back to the Lab. November 2011
Associated Press (U.S.A.). Dwyane Wade submits to Gatorade tests. November 2011

U.S.A. Football (U.S.A.). Coaches, Families Need to Watch Hydration Levels as Well. August 2011

U.S.A. Football (U.S.A.). Facts and Figures for Hydrating on the Field. April 2010

Stack TV (U.S.A.). Supplements. October 2009

U.S.A. Football (U.S.A.). Importance of Hydration in Cool Weather. September 2009

U.S.A. Football (U.S.A.). Importance of Hydration in Warm Weather. June 2009

Runners' World (U.K.). Sports Drinks: When and how much? November 2007

Albany Times Union (U.S.A.). 5, 4, 3, 2, 1... Go Nancy, Go! May 2006

Professional Service

2015-Present Mississippi National Strength and Conditioning Advisory Board

2015-Present Dymatize Nutrition Advisory Board

2009-2013 USA Football's Football and Wellness Committee (USA Football)

Book Reviewer

Chapter 11: Equipment and Assessment in Exercise Science. *Introduction to Exercise Science*, 3e. LWW.

Peer-Reviewer for Journal Service

Scandinavian Journal of Medicine & Science in Sports

International SportMed Journal

The Journal of Sports Medicine and Physical Fitness

International Journal of Sport Nutrition and Exercise Metabolism

Wilderness and Environmental Medicine Journal

Strength and Conditioning Journal

University Participation/Service

2016-Present Department of Kinesiology Graduate Committee

2015-Present Graduate Faculty Level 1

2014-Present College of Education Research Committee

2014-Present Department of Kinesiology Laboratory Committee

2014-Present Human Factors Working Group

2013-2016 College of Education Diversity Committee

2015-2016 Community Emergency Response Team Member

2015-2016 Bulldog Toastmaster's University Club Co-Advisor

2013-2015 Robotics Working Group

2013-2015 Graduate Faculty Level 2

2013-2014 Mississippi State Golf Institute Advisory Board

2001-2004 Band Physiologist (Auburn University Marching Band)

Service to the Community and Outreach

Starkville High School Track and Field. Exercise Physiology Roundtable with Dr. Megan Holmes, Dr. Neil Johannsen, and Dr. JohnEric Smith. May 2015.

Georgia Power: Plant Wansley (Roopville, GA). Whys and How of Hydration. December 2013.

Pendleton High School Science Classes (Bradenton, FL). The Role of Science in the Study of Athletes. February 2012.

Louisiana State University Kinesiology Group (Baton Rouge, LA). Science of Hydration. August 2008

Louisiana State University Kinesiology Group (Baton Rouge, LA). Life as an Exercise Scientist. August 2008

St. Anne's Elementary School Kindergarten (Barrington, IL) Experiences in Africa. March 2007.

Barrington Employee Resource Network (BERN) (Barrington, IL) Personal and Scientific Takeaways from the Sahara Desert. January 2007.

Benedictine University Kinesiology Group (Lisle, IL). The Science behind Proper Exercise Hydration. April 2006

Auburn University Volleyball Camp (Auburn, AL). Nutrition, Training, and Body Composition. July 2004.

Cannon Street Elementary School (LaGrange, GA). Thermography and Exercise Physiology. May 2004.

Cary Wood Elementary School 5th grade (Auburn, AL). Thermography and Exercise Physiology. March 2004.

Ethel Kight Elementary School (LaGrange, GA). Thermography and Exercise Physiology. October 2003.

Cary Wood Elementary School 5th grade (Auburn, AL). Thermography and Exercise Physiology. May 2003.

Cannon Street Elementary School (LaGrange, GA). Thermography and Exercise Physiology. April 2003.

Auburn University Swim Coach Clinic (Auburn, AL). Physiology of Swim Training. January 2003.

Auburn Rotary Club (Auburn, AL). Infrared Thermography: Asset for Exercise Physiology and Sports Medicine. November 2002.

Ethel Kight Elementary School (LaGrange, GA). Thermography and Exercise Physiology. October 2002.

Cary Wood Elementary School 5th (Auburn, AL). Thermography and Exercise Physiology. April 2002.

Auburn University Band Majorettes and Flag Corp (Auburn, AL). Exercise and Fitness. October 2001.

Professional Conferences Attended

July 2016	National Strength and Conditioning Association Annual Conference	New Orleans, LA
June 2016	American College of Sports Medicine	Boston, MA
April 2016	Mississippi National Strength and Conditioning Association Clinic	Hattiesburg, MS
February 2016	Southeast American College of Sports Medicine	Greenville, SC
July 2015	National Strength and Conditioning Association Annual Conference	Orlando, FL
January 2015	Dymatize Advisory Board Meeting	Dallas, TX
June 2014	International Food Technologists - Short Course	New Orleans, LA
May 2014	American College of Sports Medicine	Orlando, FL
May 2013	American College of Sports Medicine	Indianapolis, IN
February 2013	Southeast American College of Sports Medicine	Greenville, SC
May 2012	American College of Sports Medicine Annual Conference	San Francisco, CA
April 2012	Gatorade, IMG and Under Armour Technology Conference	Bradenton, FL
June 2011	American College of Sports Medicine Annual Conference	Denver, CO
August 2010	Dartfish Users Group Conference	Colorado Springs, CO

June 2010	American College of Sports Medicine Annual Conference	Baltimore, MD
October 2009	Midwest American College of Sports Medicine Annual Conference	St. Charles, IL
May 2009	American College of Sports Medicine Annual Conference	Seattle, WA
July 2008	Gatorade Sports Science Institute Summer Conference	Huntington Beach, CA
July 2008	National Strength and Conditioning Association Annual Conference	Las Vegas, NV
May 2008	American College of Sports Medicine Annual Conference	Indianapolis, IN
April 2008	International Society of Beverage Technologists	Savannah, GA
July 2007	Gatorade Sports Science Institute Summer Conference	Vail, CO
May 2007	American College of Sports Medicine Annual Conference	New Orleans, LA
February 2007	Southeastern American College of Sports Medicine Conference	Charlotte, NC
October 2006	Chicago Marathon Conference	Chicago, IL
September 2006	American College of Sports Medicine on Integrative Physiology of Exercise	Indianapolis, IN
June 2006	American College of Sports Medicine Annual Conference	Denver, CO
February 2006	Southeastern American College of Sports Medicine Conference	Charlotte, NC
June 2005	Gatorade Sports Science Institute Summer Meeting	Chicago, IL
June 2005	American College of Sports Medicine Annual Conference	Nashville, TN
January 2005	Southeastern American College of Sports Medicine Conference	Charlotte, NC
December 2004	Gatorade Sports Science Institute Sports Medicine Review Winter Board Meeting	Miami, FL
June 2004	American College of Sports Medicine Annual Conference	Indianapolis, IN
April 2004	American Academy of Thermology Conference	Auburn, AL
January 2004	Southeastern American College of Sports Medicine Conference	Atlanta, GA
May 2003	American College of Sports Medicine Annual Conference	San Francisco, CA
April 2003	Computerized Thermal Imaging User Groups Meeting	New Orleans, LA

January 2003	Southeastern American College of Sports Medicine Conference	Atlanta, GA
November 2002	American Academy of Thermology Conference	Orlando, FL
November 2002	Alabama State Association for Health, Physical Education, Recreation, and Dance Annual Conference	Birmingham, AL
May 2002	American College of Sports Medicine Annual Conference	St. Louis, MO
January 2002	Southeastern American College of Sports Medicine Conference	Atlanta, GA
June 2001	American Academy of Thermology Conference	Auburn, AL
May 2001	American College of Sports Medicine Annual Conference	Baltimore, MD
January 2001	Southeastern American College of Sports Medicine Conference	Columbia, SC

Consulting

2003	Aluminet	Effect of aluminum weave material on reducing thermal load
2003	TYR	Effect of TYR Thermal wear in maintaining temperature in youth swimmers
2001	Zero-G	Effect of backpack load on peripheral blood flow

Volunteer Experience

2016-Present	Vice President (West Union Home Owners Association)
2016-Present	Cub Scout Pack 14 Assistant Cub Master (Boy Scouts of America)
2015-Present	Cub Scout Pack 14 Committee Member (Boy Scouts of America)
2015-2016	Kickball Assistant Coach (Starkville Parks and Recreation)
2015	Baseball Head Coach (Starkville Baseball Association)
2014-2015	Watch D.O.G.S. (Sudduth Elementary School)
2014	Kickball Head Coach (Starkville Parks and Recreation)
1999-2002	CPR and First Aid Instructor (Lee County, American Red Cross): Taught CPR and First Aid Courses
1998-2000	Student Athletic Trainer (Auburn University): Worked in the prevention and rehabilitation of athletic injuries (track, football, tennis, golf, gymnastics, volleyball, weight training, and basketball)

Organizations

2001-Present	National Strength and Conditioning Association	Member
2001-Present	American College of Sports Medicine Environmental Physiology Interest Group	Member
2001-Present	Southeast American College of Sports Medicine	Member
2007-2010	Toastmasters 2008-2009 President 2007-2008 Sergeant at Arms	Member
2003-2004	American Academy of Thermology	Member
2002-2003	Alabama State Association of Physical Health Education Recreation and Dance	Member
2000-2004	Health and Human Performance Student Alliance 2002-2003 Student Council Member	Member
2000-2001	Auburn Alumni Association (ALUM)	Member
1999-2000	Auburn Sports Medicine Association	Member
1998-2000	Aerobics and Fitness Association of America	Member

Laboratory Experience

Exercise Physiology (Mississippi State University) - protocol design, budgeting, exercise performance, exercise testing, facility management, ultrasound, body composition (BodPod), anaerobic/aerobic performance testing, project management, data analysis, and presentation

(Gatorade Sports Science Institute) – protocol design, budgeting, exercise performance, glucose oxidation, substrate utilization, hydration and electrolyte balance, facility management, gastric emptying, cognitive function, reaction time, arterialized sampling, body composition (DEXA and BodPod), isokinetic muscle strength testing, anaerobic/aerobic performance testing, exercise testing, data analysis, gas analysis, project management, and publication

(Auburn University) – thermal factors, infrared thermal imaging, body composition, anaerobic/aerobic performance testing, exercise testing, data analysis, gas analysis, phlebotomy, and bench top lactate analysis

Biomechanics (Auburn University) – digitized movements, collected and analyzed data from a force platform, gait analysis on various age groups, and drag analysis of swimmers

Awards and Honors

2012	PepsiCo Astonishing Research Award	PepsiCo
2009	Advanced Leader Bronze	Toastmaster International
2008	Competent Leader	Toastmaster International
2008	Competent Communicator	Toastmaster International
2006	PepsiCo Keystone Award	PepsiCo
2002	Outstanding Masters Student	Health and Human Performance Department; Auburn University
1994	Eagle Scout	Boy Scouts of America