

MARK A. SCHAFER,
ACSM Certified Clinical Exercise Physiologist®, CSCS®

Business Address:

Western Kentucky University
School of Kinesiology, Recreation, and Sport
1056 Smith Stadium
1906 College Heights Blvd #11089
Bowling Green, KY 42101
Office (270) 745-5857
Fax (270) 745-6043
e-mail: mark.schafer@wku.edu

EDUCATION

Doctor of Philosophy in Exercise Physiology <i>University of Pittsburgh, Pittsburgh, Pennsylvania</i>	2004-2007
Master of Science in Physical Education (Sports Physiology and Adult Fitness) <i>Ohio University, Athens, Ohio</i>	1996-1997
Bachelor of Science in Sports Sciences <i>Ohio University, Athens, Ohio</i>	1994-1996
University of Cincinnati <i>Cincinnati, Ohio, Biology / Exercise Physiology</i>	1991-1994

PROFESSIONAL EMPLOYMENT

Associate Professor of Exercise Science	2014 – present
Assistant Professor of Exercise Science	2008 – May 2014
Exercise Science - Program Coordinator	Spring 2013 - Present
Kinesiology - Program Coordinator	Spring 2014 -Present
<i>Western Kentucky University – School of Kinesiology, Recreation and Sport</i>	
Instructor – Exercise Science	2007 – 2008
<i>Slippery Rock University – Department of Exercise and Rehabilitative Science</i>	

Campus Fitness Coordinator

2006 - 2007

University of Pittsburgh - Baierl Student Recreation Center

Responsibilities included: supervision and administration of the 40,000 sq. ft. Baierl Student Recreation Center. Improve and expand the “Fit at Pitt” student wellness testing and training services. Recruit, hire, train, schedule, supervise, and evaluate fitness center staff. Train and supervise graduate assistants teaching personal fitness, weight training, running, and power lifting. Maintain Baierl fitness facility records and prepare usage and maintenance reports. Purchase new equipment and perform maintenance on exercise equipment.

Graduate Assistant

2004–2006

*Department of Health and Physical Activity, University of Pittsburgh***Research Study Coordinator, Botox Clinical Trial for Post–Stroke Spasticity**

2003-2004

Drake Center, Cincinnati, Ohio

Responsibilities included: recruiting for the study, scheduling patients, performing pre/post PFT's, completing patient informed consents and questionnaires, collecting and submitting data, and organizing and implementing of study procedures and protocol.

Exercise Specialist, Cardiopulmonary Rehabilitation

2002-2004

Drake Center, Cincinnati, Ohio

Outpatient cardiac and pulmonary rehabilitation – contacted/scheduled incoming patients for program orientation, provided exercise orientation to program, provided individualized exercise prescriptions/progressions, conducted exercise therapy sessions, and taught individual/group education classes.

Peripheral Arterial Disease Rehabilitation – served on a committee to start a PAD program, contacted and visited physicians to promote new service, implemented PAD procedures and protocols for incoming patients and provided staff training.

Cardiopulmonary Rehabilitation/Cardiopulmonary Exercise Testing

1997-2002

New Hanover Health Network, Wilmington, North Carolina

Inpatient cardiac rehabilitation – designed and implemented the exercise component of inpatient cardiac rehabilitation, assessed medical or surgical patients, ambulated patients prior to discharge, provided discharge home exercise program and risk factor modification, promoted outpatient rehabilitation program, and performed documentation on patient status and progress.

Outpatient cardiac and pulmonary rehabilitation – contacted/scheduled incoming patients for program orientation, provided exercise orientation to program, provided individualized exercise prescriptions/progressions, conducted exercise therapy sessions, taught individual/group education classes, developed policies and procedures, trained and mentored incoming exercise staff and interns.

Cardiopulmonary exercise testing and pulmonary function testing – (SensorMedics Vmax 29 metabolic system) Performed diagnostic testing for patients referred by their doctor or referred to the pulmonary rehabilitation program, utilized bicycle ergometer or treadmill protocols to measure cardiovascular/ventilatory/gas-exchange responses to peak exercise, developed policies and procedures and provided training for staff members.

Wellness – provided teaching and educational materials regarding exercise and preventative health measures to area businesses and schools. Provided education through private consultations or classroom setting. Education sessions included: blood pressure, risk factors for heart disease, beginning/maintaining an exercise program, diabetes, obesity and diet.

Part-time Faculty	2001
<i>University of North Carolina at Wilmington – Exercise Science – Department of Health, Physical Education and Recreation, Wilmington, North Carolina</i>	
Internship, Cardiopulmonary Rehabilitation	1997
<i>The Heart Center – Pitt County Memorial Hospital Inc. University Medical Center of Eastern Carolina-Pitt County, Greenville, North Carolina</i>	
Graduate Assistant, Clinical Exercise Physiology	1996-1997
<i>Ohio University, Sports Physiology and Adult Fitness Graduate Program, Athens, Ohio</i>	
Fitness Center Supervisor	1995-1996
<i>Healthbeat – Ohio University’s Employee Wellness Program, Athens, Ohio</i>	
Exercise Testing Assistant and Fitness Center Supervisor	1995-1997
<i>Ohio University, Adult Fitness Program, Athens, Ohio</i>	

PROFESSIONAL CERTIFICATIONS AND MEMBERSHIPS

1995-Present	American Heart Association, Adult/Infant/Child CPR, AED
1997-Present	American College of Sports Medicine, Member
2006-Present	Mid-Atlantic American College of Sports Medicine, Member
2003-Present	NSCA, <i>Certified Strength and Conditioning Specialist</i> , CSCS®
2001-Present	<i>ACSM Certified Clinical Exercise Physiologist</i> ®

TEACHING

Western Kentucky University – Kinesiology, Recreation and Sport

2008 to Present

Undergraduate Courses:

EXS 223 Health Related Fitness – Exercise Science
 EXS 296 Practicum in Exercise Science
 EXS 325 Applied Exercise Physiology
 EXS 412 Exercise Testing & Prescription
 EXS 420 Clinical Exercise Physiology
 EXS 496 Internship in Exercise Science

Graduate Courses:

KIN 522 Advanced Exercise Prescription
 KIN 504 Advanced Exercise Physiology
 KIN 523 Seminar in Exercise Physiology
 KIN 514 Lab Methods in Exercise Physiology
 KIN 501 Research Methods Kinesiology

Slippery Rock University – Department of Exercise and Rehabilitative Science

2007 – 2008

Undergraduate Courses:

ERS 375 Exercise Physiology
 ERS 377 Exercise Leadership – Strength and Fitness
 ERS 321 Care and Prevention of Injuries of the Physically Active
 ERS 475 Clinical Exercise Physiology

University of North Carolina at Wilmington – Exercise Science – Department of Health, Physical Education and Recreation

2001

EXS 347 Field Experience in Exercise Science

RESEARCH

Publications

Gina Sobrero, Scott Arnett, **Mark Schafer**, Whitley Stone, T. A. Tolbert, Amanda Salyer-Funk, Jason Crandall, Lauren B. Farley, Josh Brown, Scott Lyons, Travis Esslinger, Keri Esslinger, and Jill Maples. (2017) A Comparison of High Intensity Functional Training and Circuit Training on Health and Performance Variables in Women: A Pilot Study. *Women in Sport and Physical Activity Journal* 0 0:0, 1-3. <http://dx.doi.org/10.1123/wspaj.2015-0035>

K. Jason Crandall , Battogtokh Zagdsuren , **Mark A. Schafer** , T. Scott Lyons (2016). Static and Active Workstations for Improving Workplace Physical Activity and Sitting Time. *International Journal of Human Movement and Sports Sciences*, 4 , 20 - 25. doi: 10.13189/saj.2016.040202.

James W Navalta, Elizabeth A Fedor, **Mark A Schafer**, T Scott Lyons, Ramires A Tibana, Guilherme B Pereira and Jonato Prestes. (2016) Caffeine Supplementation and Moderate Intensity Exercise Modulates the Cytotoxic Lymphocyte Subset (CD+8) in Naive and Tolerant Individuals. *International Journal of Immunopathology and Pharmacology*. 29 (2), 288-294.

Mays RJ, Goss FL, Nagle-Stilley EF, Gallagher M, Halie, L, **Schafer MA**, Kim KH, Robertson RJ. (2016) Cross-validation of statistical models derived from OMNI ratings of perceived exertion for prediction of peak oxygen consumption. *International Journal of Sports Medicine*. 37, 1-7.

Mays RJ, Gallagher M, , Kim KH, Nagle-Stilley EF, Goss FL, **Schafer MA**, Robertson RJ. (2014) Prediction of VO_{2peak} using OMNI RPE from a Submaximal Cycle Exercise Test. *Perceptual Motor Skills* 118, 863-881.

Schafer M.A., Kell H, Navalta J.W., Tibana R, Lyons T.S., and Arnett S.A. (2014) Effects of a Simulated Tennis Match on Lymphocyte Subset Measurements. *Research Quarterly for Exercise and Sport* 85, 90-96.

Schafer, M.A., Goss, F.L., Robertson, R.J., Nagle-Stilley, E.F., and Kim, K. (2013). Intensity selection and regulation using the OMNI scale of perceived exertion during intermittent exercise. *Applied Physiology, Nutrition, and Metabolism* 38, 960–966.

Schafer, M.A., Robertson, R.J., Thekkada, S.J., Gallagher, M., Hunt, S.E., Goss, F.L., and Aaron, D.J. (2013). Validation of the OMNI RPE Seven Day Exertional Recall Questionnaire. *Research Quarterly for Exercise and Sport* 84, 363–372.

Kell, H., Pereira, G., Tibana, R., Jarrett, M., **Schafer, M.**, Prestes, J., Santo, A., and Navalta, J. (2013). Acquisition Delays Affect Lymphocyte Subset Counts but not Markers of Exercise-induced Apoptosis. *International Journal of Exercise Science* 6(3): 250-255.

Navalta, J.W., Lyons, S., Prestes, J., Arnett, S.W., **Schafer, M.**, and Sobrero, G.L. (2013). Exercise intensity and lymphocyte subset apoptosis. *Int J Sports Med* 34(3), 268–273.

Friedman, R.A., Navalta, J.W., Fedor, E.A., Kell, H.B., Lyons, T.S., Arnett, S.W., and **Schafer, M.A.** (2012). Repeated high-intensity Wingate cycle bouts influence markers of lymphocyte migration but not apoptosis. *Appl Physiol Nutr Metab* 37, 241–246.

Gallagher, M., Jr, Robertson, R.J., Goss, F.L., Nagle-Stilley, E.F., **Schafer, M.A.**, Suyama, J., and Hostler, D. (2012). Development of a perceptual hyperthermia index to evaluate heat strain during treadmill exercise. *Eur. J. Appl. Physiol*. 112, 2025–2034.

Navalta JW, Lyons TS, Pereira GB, Arnett SW, **Schafer MA**, Esslinger FT, and Sobrero GL. Effectiveness of blended instruction utilizing on-line lectures and split classes in delivering an applied exercise physiology course. *Medical Physiology Online* 2012; published Jan 14, 2012 available from <http://medicalphysiologyonline.wordpress.com>

Navalta, J., McFarlin, B., Simpson, R., Fedor, E., Kell, H., Lyons, S., Arnett, S., and **Schafer, M.** (2011). Finger-stick Blood Sampling Methodology for the Determination of Exercise-induced Lymphocyte Apoptosis. *Journal of Visualized Experiments* 48.

Navalta, J.W., McFarlin, B.K., Lyons, S., Arnett, S.W., and **Schafer, M.A.** (2011). Cognitive awareness of

carbohydrate intake does not alter exercise-induced lymphocyte apoptosis. *Clinics (Sao Paulo)* 66 (2), 197–202.

Navalta J.W., McFarlin B.K., Lyons T.S., Ramos A.R., Arnett S.W., and **Schafer M.A.** (2011) Intra- and Interrater Reliability of Morphologically Evaluated Lymphocyte Apoptosis in Trained and Untrained Observers. *Biology of Sport*. 28, 223-226.

Mays, R.J., Goss, F.L., **Schafer, M.A.**, Kim, K.H., Nagle-Stilley, E.F., and Robertson, R.J. (2010). Validation of adult OMNI perceived exertion scales for elliptical ergometry. *Perceptual Motor Skills* 111, 848–862.

Robertson, R.J., Goss, F.L., Aaron, D.J., Nagle, E.F., Gallagher, M., Kane, I.R., Tessmer, K.A., **Schafer, M.A.**, and Hunt, S.E. (2009). Concurrent Muscle Hurt and Perceived Exertion of Children during Resistance Exercise: *Medicine & Science in Sports & Exercise* 41, 1146–1154.

Grants

Owensboro Health Hospital Grant. Co-PI. \$36,827.00

National Science Foundation: Major Research Instrumentation grant, NSF, January 2017 (submitted for review) \$315,357.00. Philips EPIQ 7G 3D ultrasound imaging system. Co-Author. Not funded.

Ergotron – Standing workstations. A grant of 60 workstations for IRB approved investigation. 2016-2017 College of Health and Human Services Research Grant, Western Kentucky University, Spring 2013 - \$3,000
Western Kentucky University, RCAP II Award #: 13-8003. Fall 2012 - \$8,000.00.

Western Kentucky University, New Faculty Grant, Spring 2011 – \$4,000

College of Health and Human Services Research Grant, Western Kentucky University, Spring 2011 - \$3,000

College of Health and Human Services Research Grant, Western Kentucky University, Fall 2009 - \$1,500

University of Pittsburgh - Alumni Doctoral Fellowship, Fall 2006 - \$2,000

University of Pittsburgh - School of Education Student Research Grant, Fall 2006 – \$1,497

Current investigations

Cody Morris, Jill Maples, Rachel Tinius, and Mark Schafer. Accuracy of Commercial Fitness Trackers During High-Intensity Functional Training. *International Journal of Sport Nutrition & Exercise Metabolism*. Under revision.

Stone, W.J.; Schafer M.A., Lyons, TS., Hoover, D., Evans, G., Maples, J., Crandall, J. Post Exercise Hypotension Following Concurrent Exercise: Does Order of Exercise Modality Matter? *Journal of Human Hypertension*. Under review.

Sonia N. Young, William R. VanWye, Mark A. Schafer, Troy A. Robertson, Ashley Vincent Poore. Factors Affecting Kinesiology Doctoral Student Success: A Narrative Review. *International Journal of Exercise Science*. Under revision.

Evaluation of sit-stand desktop workstations in the workplace. IRB 17-022. Data has been presented at the Southeast American College of Sports Medicine (SEACSM) conference. Abstract has been accepted for the national American College of Sports Medicine conference. Manuscript in preparation.

Mark Schafer, Donald L. Hoover, Jason Wright, Melissa Reece, K. & Jason Crandall. *Effect of Sitting, Standing, and walking during a traditional college lecture*. Manuscript under preparation.

Gina L. Sobrero, Mark A. Schafer, Scott W. Arnett, Whitley J. Stone, Chase Inman, Battogtokh Zagdsuren, T. Scott Lyons, Keri Esslinger, Travis Esslinger, Jill Maples, and Jason Crandall. *Health and Fitness Adaptations to CrossFit and Circuit Training in Premenopausal Women*. Submitted to European Journal of Applied Physiology. Rejected. Under revision for submission to another journal.

Presentations and Published Abstracts (National and Regional)

Schafer, Mark, A.; Jason Crandall, K.; Scott Lyons, T., FACSM; Edens, Kolbi; Blankenship, Lydia; Shaker, Nuha; Vondy, Robert. Impact Of Sit-stand Workstation Progressions On Stress, Focus, And Productivity In University Staff Members. *Medicine & Science in Sports & Exercise*: May 2018 - Volume 50 - Issue 5S - p 716 doi: 10.1249/01.mss.0000538359.20115.44

Hoover DL, O'Brien J, Arnett SW, Schafer MA, Judge LW, Norris B. (2018) Field testing equations for predicting maximal anaerobic power. Annual Meeting of the National Strength and Conditioning Association. Indianapolis, IN.

K. Edens, M. Schafer, J. Crandall, T.S. Lyons, R. Vondy, A. Olenick, L. Blankenship, N. Shaker. (2018) Impact of utilizing sit-stand workstations for 10 weeks in university staff members. Presentation at the Annual Meeting of the Southeast American College of Sports Medicine, Chattanooga, TN.

Hall, Aaron T.; Morris, Cody E.; Forsythe, Stacey; Jordan, Tricia; Schafer, Mark A.; Wiczynki, Teresa L.; Upright, Paula. Evaluation Of The Health And Physical Fitness And Factors Influencing Retention Of Scholastic Sports Officials In The Sport Of American Football. *Medicine & Science in Sports & Exercise*. 50(5S):170, May 2018. doi: 10.1249/01.mss.0000535647.73289.c7

Schafer, Mark A.; Hoover, Donald L.; Wright, Jason; Reese, Melissa; Crandall, K Jason; Olenick, Alyssa; Brown, Josh. Effect Of Sitting, Standing, And Walking Upon Physiological Measures During A Traditional College Lecture. *Medicine & Science in Sports & Exercise*. 48(5S):928, May 2016.

Bubnis, Michelle; Crandall, Jason K.; Schafer, Mark; Grieve, Frederick. Muscle Dismorphia Comparisons Between High Intensity Functional Training And Traditional Strength Training Environments. *Medicine & Science in Sports & Exercise*: May 2016 - Volume 48 - Issue 5S - p 306. doi: 10.1249/01.mss.0000485921.07059.07

Olenick, Alyssa; Jason, Crandall; Schafer, Mark A.; Battogtokh, Zagdsuren; Lyons, Scott T.; Brown, Joshua; Falls, Dustin. Workstations To Increase Workplace Physical Activity And Reduce Sitting Time. *Medicine & Science in Sports & Exercise*. 48(5S):137, May 2016.

Joshua Brown, Battogtokh Zagdsuren, K. Jason Crandall, Mark A. Schafer, T. Scott Lyons, Dustin Falls, and Alyssa Olenick. (2016) Workstations to increase workplace physical activity and reduce sitting time: A pilot study. Presentation at the Annual Meeting of the Southeast American College of Sports Medicine, Greenville, SC.

Perkins, B., Schafer, M.A., Hoover, D. Preparing a Student with Paraplegia for Health Fitness Specialist Certification: Functional Capacity Evaluation and Accommodation. *Med Sci Sports Exer*. 2015: 47(5).

Zagdsuren, B., Sobrero, G.L., Inman, C., Stone, W., Arnett, S. W., Schafer, M.A., Lyons, T.S., Maples, J., Crandall, J., & Callahan, Z. Crossfit Vs. Circuit-training: Effects Of A Ten-week Training Program On Aerobic, Anaerobic And Flexibility Indicators. *Med Sci Sports Exer.* 2015: 47(5).

Sobrero, G.L., Inman, C., Stone, W., Zagdsuren, B., Arnett, S. W., Schafer, M.A., Lyons, T.S., Maples, J., Crandall, J., & Callahan, Z. Crossfit Vs. Circuit-trained Individuals: Effects Of A Ten-week Training Program On Body Composition And Bone Mineral Density. *Med Sci Sports Exer.* 2015: 47(5).

Brown, J.T., Sobrero, G.L., Inman, C., Stone, W., Zagdsuren, B., Arnett, S. W., Schafer, M.A., Lyons, T.S., Maples, J., Crandall, J., & Callahan, Z. Crossfit Vs. Circuit-trained Individuals: Effects Of A Ten-week Training Program On Muscular Strength And Endurance. *Med Sci Sports Exer.* 2015: 47(5).

Wessel, P., Sobrero, G.L., Inman, C., Stone, W., Zagdsuren, B., Arnett, S. W., Schafer, M.A., Lyons, T.S., Maples, J., Crandall, J., & Callahan, Z. Crossfit Vs. Circuit-trained Individuals: Effects Of A 10-week Training Program On Power. *Med Sci Sports Exer.* 2015: 47(5).

Norris B, McMullen RS, Weatherholt WT, Arnett SW, Judge LW, Schafer MA, Hoover DL. Cross-country cycling does not significantly affect bone mineral density measures. *J Strength Cond Res*; 2015: 29(S): *In press*.

Judge LW, Bellar DM, Norris B, McMullen RS, Weatherholt WT, Arnett SA, Schafer MA, Hoover DL. Novice cyclists show improved aerobic fitness measures following ride across United States. *J Strength Cond Res*; 2015: 29(S): *In press*.

Arnett SW, Norris B, Weatherholt WT, McMullen RS, Judge LW, Schafer MA, Hoover DL. Ratings of perceived exertion lessened following bike ride across America. *J Strength Cond Res*; 2015: 29(S): *In press*.
Weatherholt WT, McMullen RS, Inman CF, Schafer MA, Hoover DL. Bone mineral density not significantly changed by cycling across the United States. *Med Sci Sports Exer.* 2015: 47(5): S622.

McMullen RS, Weatherholt WT, Inman CF, Schafer MA, Hoover DL. $VO_{2\text{ Max}}$ and time to volitional failure improved following bike ride across the United States. *Med Sci Sports Exer.* 2015: 47(5): S884.

Schafer MA, Sobrero GL, Arnett SW, Lyons TS, Navalta JW, Stone WJ, Bean SD, Crandall J, Maples J, Hoover DL. Performance indicators in ROTC cadets After 12 weeks of training that included CrossFit. *Med Sci Sports Exer.* 2014. 46(5): S93.

Gina L. Sobrero, Scott Arnett, Mark Schafer, Whitley Stone, Scott Lyons, Keri Esslinger, Travis Esslinger, Jason Crandall, Jill Maples. Crossfit Vs. Resistance-training: Effects Of A Six-week Training Program On Selected Performance Indicators. *Med Sci Sports Exer.* 2014. 46(5): G29.

Hoover DL, Schafer MA, Evans B, Besser T, Finn D, O'Neill A. Static stretching does not affect ratings of perceived exertion during a graded cycling test. *Med Sci Sports Exer.* 2014: 46(5): S528.

Stone, W.J.; Schafer M.A., Lyons, T.S., Hoover, D., Evans, G., Maples, J., Crandall, J. "Twenty-Four Hour Post-Exercise Hypotension Following Concurrent Cardiovascular and Resistance Exercise" (2014). *Presentation at the Annual Meeting of the Southeast American College of Sports Medicine. Jacksonville, FL.*

Schafer, M.A., Arnett, S.W., Sobrero, G., Lyons, T.S., Navalta, J.W., Bean, S.D., Esslinger, F.T., Esslinger, K., Stone, W.J., Bean, S., Goss, F.L. Evaluation of Muscular Endurance, Agility, and Flexibility In Healthy Trained Crossfit and Weight Trained Individuals. *Medicine & Science in Sports & Exercise*. 2013; 45 (5): S130.

Lyons, T.S., Evans, G., Schafer, M.A., Arnett, S.A., Igaune, L. Determination of Repetitive Jumping Intensity Relative to Measured VO₂max. *Medicine & Science in Sports & Exercise*. 2013; 45 (5): S32.

Finn, F., Besser, T., O'Neill, A., Evans, B., Schafer, M.A., Hoover, D. Static Stretching Does Not Affect VO₂ Max Or Time To Volitional Failure During Graded Cycling. *Medicine & Science in Sports & Exercise*. 2013; 45 (5): S114.

Arnett, S.W., Sobrero, G., Schafer, M.A., Lyons, T.S., Navalta, J.W., Stone, W.J., Bean, S.D., Esslinger, F.T., Esslinger, K. Goss, F.L. Crossfit vs. Resistance-trained Individuals: Evaluation of Strength and Power. *Medicine & Science in Sports & Exercise*. 2013; 45 (5): S130.

Sobrero, G., Schafer, M.A., Arnett, S.W., Lyons, T.S., Navalta, J.W., Stone, W.J., Bean, W.J., Esslinger, F.T., Esslinger K. Comparison of Aerobic and Anaerobic Power in Crossfit and Resistance Trained Individuals. *Medicine & Science in Sports & Exercise*. 2013; 45 (5): S130.

Besser, T., Evans, B., Finn, D., O'Neill, A., Schafer, M.A., Hoover, D.A. The Effects of Static Stretching on Metabolic Efficiency during a Graded Cycling Test. *Medicine & Science in Sports & Exercise*. 2013; 45 (5): S428.

O'Neill, A., Finn, D., Evans, B., Besser, T., Schafer, M.A., Hoover, D.A. The Effects of Static Stretching on Gross Motor Coordination during a Graded Cycling Test. *Medicine & Science in Sports & Exercise*. 2013; 45 (5): S 583.

Schafer, M.A., Arnett, S.W., Sobrero, G., Lyons, T.S., Navalta, J.W., Stone, J.W., Bean, S.D., Esslinger, F.T., Esslinger, K. (2013) Evaluation of Power in Crossfit vs. Weight Trained Individuals. Presentation at the Annual Meeting of the Southeast American College of Sports Medicine, Greenville, SC.

Stone, W.J., Schafer, M.A., Sobrero, G., Arnett, S.W., Lyons, T.S., Navalta, J.W., Bean, S.D., Esslinger, F.T., Esslinger, K. (2013) Muscular Endurance, Agility, and Flexibility in Crossfit vs. Weight Trained Individuals. Presentation at the Annual Meeting of the Southeast American College of Sports Medicine, Greenville, SC.

Arnett, S.W., Sobrero, G., Schafer, M.A., Lyons, T.S., Navalta, J.W., Stone, W.J., Bean, S.D., Esslinger, F.T., Esslinger, K. (2013) Assessment of 1RM Strength Between Crossfit and Resistance Trained Individuals. Presentation at the Annual Meeting of the Southeast American College of Sports Medicine, Greenville, SC.

Falls, D.G., Lyons, T.S., Schafer, M.A., Durham K.F. (2013) Effectiveness of the Life Improving Functional Exercise (LIFE) Program on Physiological and Performance Variables in Elderly Adults. Presentation at the Annual Meeting of the Southeast American College of Sports Medicine, Greenville, SC.

Sobrero, G., Schafer, M.A., Arnett, S.W., Lyons, T.S., Navalta, J.W., Stone, W.J., Bean, W.J., Esslinger, F.T., Esslinger K. (2013) Comparison of Aerobic and Anaerobic Power in Crossfit and Resistance Trained

Individuals. Presentation at the Annual Meeting of the Southeast American College of Sports Medicine, Greenville, SC.

Lyons, T.S., Gibson, F.W., Jackson, J.C., Sobrero-Evans G., Arnett, S.A., Schafer M.A. (2013) Examining Quality of Life and Health Satisfaction Factors of a Mid-South University Population. Presentation at the Annual Meeting of the Southeast American College of Sports Medicine, Greenville, SC.

Schafer M.A., Navalta J.W., Arnett S.W., Lyons T.S., Sobrero G., Bean S., Sims S., Kirkwood K., Goss F.L. Participation in a 10K Running Race Significantly Decreases Post Exercise Blood Pressure. *Medicine & Science in Sports & Exercise*. 2012; 44 (5): S242

Friedman R.A., Lyons T.S., Navalta J.W., Schafer M.S., Arnett S.A. Investigation Of C-reactive Protein And Leptin As Biomarkers Of Obesity With Potential Clinical Utility. *Medicine & Science in Sports & Exercise*. 2012; 44 (5): S67

Bush J., Schafer M.A., Arnett S., Navalta J., Lyons S., Sobrero G. (2012) Post-Exercise Hypotension in brief exercise. Presentation at the Annual Meeting of the Southeast American College of Sports Medicine, Jacksonville, FL.

Kirkwood D., Sims S., Igaune L., Navalta J.W., Lyons T.S., and Schafer M.A. (2012) Effect of different exercise test protocols on post-exercise hypotension. Presentation at the Annual Meeting of the Southeast American College of Sports Medicine, Jacksonville, FL.

Navalta J.W., Lyons T.S., Whitlock S., Kirkwood D., Arnett S.W., Schafer M.A., and Sobrero G. (2012) The disease analog model and leptin may identify susceptible pre-obese African American women. Presentation at the Annual Meeting of the Southeast American College of Sports Medicine, Jacksonville, FL.

Lyons T.S., Navalta J.W., Schafer M.A., Arnett S.W., Sivley J.C., and Livesay K.S. Comparative Analysis Of Heart Rate During Circuit Training Compared With Different Cardiovascular Training Apparatus. *Medicine & Science in Sports & Exercise*. 2011;43(5):404

Navalta J.W., Schafer M.A., Fedor E.A., Friedman R.A., Lyons S., and Arnett S.W. Lymphocyte Subset and Apoptotic Response to a 5K Road Race. *Medicine & Science in Sports & Exercise*. 2011;43(5):335

Kirkwood D.D., Zierten R.L., Bean S.D., Schafer M.A., Lyons S., Arnett S.W., Esslinger T., and Navalta J.W. Exercise-induced Apoptosis of Lymphocytes Does Not Depend on Anaerobic Training Status. *Medicine & Science in Sports & Exercise*. 2011;43(5):483-4

Bean, S.D., Kirkwood, D.D., Zierten, R.L., Schafer, M.A., Arnett, S.W. & Navalta, J.W. (2011). High Intensity Exercise Increases Cell Death of B-Lymphocytes (CD19) in Anaerobically Trained Individuals. Presentation at the Annual Meeting of the Southeast American College of Sports Medicine, Greenville, SC.

Navalta, J.W., Lyons, T.S., Arnett, S.W., Schafer, M.A. & Esslinger, F.T. (2011). Utilizing On-line Lectures and Split Classes are Effective in Delivering Instruction to a Large Laboratory-Based Applied Exercise Physiology Course. 9th Annual Hawaii International Conference on Education. Honolulu, HI.

Navalta, J.W., McFarlin, B.K., Simpson, R.J., Fedor, E.A., Kell, H.B., Lee, C.G., Lyons, T.S.,

- Arnett, S.W. & Schafer M.A. (2010). A Methodology for Determining Exercise-induced Changes of Fractalkine in Lymphocyte Subsets. International e-Conference on Kinesiology and Integrated Physiology, <http://kinesiology.econferenceintl.com>.
- Gallagher M.J., Robertson R.J., Nagle E.F., Goss F.L., Schafer M.A., Hostler D., and Suyama J. Development of a Perceptual Hyperthermia Index to Evaluate Heat Strain during Treadmill Exercise. *Medicine & Science in Sports & Exercise*. 2010;42(5):670-1
- Kell H.B., Fedor E.A., Lee G., Richardson D., Navalta J.W., Lyons S., Schafer M.A., and Arnett S.W. Maximal Exercise Significantly Affects Helper T-Cell (CD3+/CD4+) Count Compared to Rest and 1-h Post Exercise. *Medicine & Science in Sports & Exercise*. 2010;42(5):647
- Lee G., Fedor E.A., Kell H.B., Navalta J.W., Lyons S., Richardson D.N., Schafer M.A., and Arnett S.W.. No Relationship between Lymphocyte Apoptosis and Lymphocytopenia Post-exercise following Maximal Treadmill Running. *Medicine & Science in Sports & Exercise*. 2010;42(5):366-7
- Lyons S., Navalta J., Schafer M.A., Arnett S., Fedor E., Lee G., and Kell H. Excess Postexercise Oxygen Consumption following Repeated Bouts of Anaerobic Exercise. *Medicine & Science in Sports & Exercise*. 2010;42(5):631
- Navalta J.W., Fedor E.A., Lee G., Kell H.B., Lyons S., Schafer M.A., Arnett S.W., McFarlin B.K., and Simpson R.J. Exercise Induces Apoptosis of Blood Lymphocytes but not in the Helper or Cytotoxic T Cell Subsets. *Medicine & Science in Sports & Exercise*. 2010;42(5):365
- D. Richardson, H. Kell, G. Lee, E. Fedor, M. Schafer. (2010) No relationship between lymphocyte apoptosis and lymphocytopenia in the post-exercise period following maximal treadmill running. Presentation at the Annual Meeting of the Southeast American College of Sports Medicine, Greenville, SC.
- Sivley C., Navalta J/, Lyons T.S., Schafer M. (2010) Effects of Repeated Anerobic Bouts on Plasma Levels of TH1/TH2 Cytokines and Caspase-3. Presentation at the Annual Meeting of the Midwest American College of Sports Medicine.
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- Schafer, M., Presentation, Peripheral Arterial Disease. Science to Practice. 22nd Annual Cardiac & Pulmonary Conference, 2003.
- Schafer, M., Presentation, Energy Expenditure in Cardiac and Pulmonary Patients. 22nd Annual Cardiac & Pulmonary Conference, 2003.
- Schafer, M., Physical Activity and Health. Radio Interview, June 2000.
- Schafer, M., Presentation, Determining a patient's physical work capacity. Coastal Area Health Education Center (AHEC), 1999.
- Schafer, M., Presentation, Exercise for Patient's with Diabetes. Coastal Area Health Education Center (AHEC), 1999.
- Schafer, M., Risk Factors for Heart Disease. Radio interview, May 1998.

Manuscript reviews

- European Journal of Sports Science*, 2016. RPE during concentric and eccentric cycling: Are we measuring effort or exertion?
- BMC Cardiovascular Disorders*, 2013. Resistance exercise leading to failure versus not to failure: effects on cardiovascular control.
- Diabetology* 2012. Effects of eight weeks of resistance training on the risk factors of metabolic syndrome in overweight /obese women - "A Pilot Study"
- International Journal of Exercise Science*, 2011. A Study of Exercise Training In Coronary Artery Bypass Graft Surgery Patients to Improve Their Exercise Capacity (6MWT D)
- International Journal of Exercise Science*, 2010. Arm positioning and pulmonary function, repeated measures, experimental study
- Lipids*, 2010. Postprandial lipemia detects the effect of soy protein on cardiovascular disease risk compared with the fasting lipid profile
- International Journal of Exercise Science*, 2009. Performance Following Adaptation To Hypoxemia Induced By Breath Holding In Exercise
- International Journal of Exercise Science*, 2009. Parameters of Walking and Jogging in Healthy Young Adults

Section Editor Reviews for the International Journal of Exercise Science 2009- 2015

The Effects of Self-Monitoring on Strength Improvements Following an 8-Week Resistance Training Program

Profiling Elite Stand Up Paddle Boarders

Acute Cardiovascular Responses to Resistance Exercise With Tension And Metabolic Stimuli

Upper Body Muscular Activation during Variations of Push-Ups in Healthy Men

Effects of BMI on Q-angle in overweight individuals- who are at high risk for patellar subluxation

The Impact of Strengthening Hip Rotator Muscles on Agility in Male High School Soccer Players

Kinesio Tape® Applied to the Thorax Augments Ventilatory Efficiency during Heavy Exercise

Resistance Evaluation: Effects of a specific training program on professional fire-fighter cardio-respiratory fitness.

Acute Ingestion Of L-Arginine Alpha-Ketoglutarate Fails To Improve Muscular Strength And Endurance In ROTC Cadets

The Effects of Exercise of Multiple Sclerosis: A Systematic Review

Stability Ball Sitting Versus Chair Sitting During Sub-maximal Arm Ergometry

Validation of Three Body Composition Techniques with a Comparison of Ultrasound Abdominal Fat Depths against an Octopolar Bioelectrical Impedance Device

Effects of Short Term Low Intensity Resistance Training with Blood Flow Restriction on Bone Markers and Muscle Cross-Sectional Area in Young Men

A comparison of bioelectrical impedance devices with Dual Energy X-ray Absorptiometry

The relationship between stride rates, lengths and body size and their affect on elite triathletes' running performance during competition

Blood lactate kinetics on passive and active recovery

High Percentage of Fat Intakes, Not Low Fat Oxidation, May Cause Overweight Cyclists

Nintendo Wii Sports: Simple gadget or serious “measure” for health promotion? - A mixed-method pilot study according to energy expenditure, observed motion, and perceptions of sport science students

The Effect of Energy Patches on Substrate Utilization in Collegiate Cross-Country Runners

Challenging The Accuracy of a Single-test Lactate Threshold Protocol in Collegiate Rowers
Perceived Muscle Soreness In Recreational Female Distance Runners

A Review of Unstable Surface Training in Elite Athletes

Inter examiner reliability of hand grip evaluation using modified sphygmomanometer in healthy collegiate – a cross sectional trial.

Objective and Subjective Assessments of ‘Normal’ Walking Pace, in Comparison with that Recommended for Moderate Intensity Physical Activity

Neuromuscular Adaptations in Elderly Adults are Task-Specific during Walking, Stepping and Obstacle Clearance Activities.

Resistance Evaluation: Effects of a specific training program on professional fire-fighter cardio-respiratory fitness.

Dissertation and Thesis Committees

Elise VanMeter: *An examination of factors that affect male body image in college students.* Advisors: Rick Grieve, Ryan Farmer, and Mark Schafer. Western Kentucky University, Department of Psychology 2018.

Kathryn Dispenette: *The effects of Bingocize on fall risk, health knowledge, and quality of life in community-dwelling older adults.* Advisors: Jason Crandall and Mark Schafer. Western Kentucky University, 2018.

TJ Gerking: *Effects of Resistance Training on Kinetic Outcomes during a Heavy Conventional Deadlift Exercise.* Advisors: Scott Arnett, Mark Schafer, Lee Winchester. Western Kentucky University, 2018.

Teresa Wiczynski: *Interactions Between Aerobic Exercise Intensity, Academic Stress, and Immune Function.* Advisors: Lee Winchester, Scott Arnett, and Mark Schafer. Western Kentucky University, 2018.

Jason Wright, Melissa Reece, K. & Jason Crandall. *Effect of Sitting, Standing, and walking during a traditional college lecture.* Advisors Mark Schafer and Donald L. Hoover. Western Kentucky University, Department of Physical Therapy, 2015.

Whitley Stone: *24-Hour Post-exercise Hypotension Following Concurrent Aerobic and Resistance Exercise.* Thesis Chair: Mark Schafer. Western Kentucky University, 2013. Final Defense April 17, 2014.

Battogtokh Zagdsuren: *The effects of jump training on bone mineral density in young adult females.* Advisors: Scott Lyons, Mark Schafer, Scott Arnett. Western Kentucky University, 2013.

Jeremiah Bush: *Post-Exercise Hypotension in Brief Exercise.* Thesis Chair: Mark Schafer. Thesis Advisers: James Navalta, Scott Lyons, Scott Arnett. Western Kentucky University, 2011.

Rachel Friedman: *Investigation of C-Reactive Protein and Leptin as Biomarkers of Obesity with Potential Clinical Utility.* Thesis Advisers: James Navalta, Scott Lyons, Mark Schafer, Scott Arnett. Western Kentucky University, 2011.

Holly Kell: *Effects of a Simulated Tennis Match on Lymphocyte Subset Measurements.* Thesis Advisers: James Navalta, Scott Lyons, Mark Schafer. Western Kentucky University, 2010.

Elizabeth Fedor: *Caffeine Supplementation and Moderate Intensity Exercise Modulates the Cytotoxic Lymphocyte Subset (CD+8) in Naive and Tolerant Individuals*. Thesis Advisers: James Navalta, Scott Lyons, Mark Schafer. Western Kentucky University, 2010.

Carrie E. Varvil: *Effects of a Topical Analgesic Using Massage on Delayed Onset Muscle Soreness*. Thesis Advisers: James Navalta, Scott Lyons, Mark Schafer. Western Kentucky University, 2009.

Emily Jenson: *Prevalence of childhood obesity: A Study on bowling Green, KY Middle School students*. Emily Jensen. Thesis Advisers: James Navalta, Scott Lyons, Mark Schafer. Western Kentucky University, 2009.

Cody Sively: *The Effects of Repeated Anaerobic Bouts on Immune Parameters*. Thesis Advisers: James Navalta, Scott Lyons, Mark Schafer. Western Kentucky University, 2009.

Mike Gallagher: *Development and Validation of a Perceptual Hyperthermia Index (PHI) in the Assessment of Heat Strain*. Dissertation Advisers: R. J. Robertson, D Hostler, F Goss, Elizabeth Nagle-Stilley, M Schafer. University of Pittsburgh, 2009.

Ryan Mays: *Validation of Adult OMNI Perceived Exertion Scales for Elliptical Ergometry*. Dissertation advisers: Fredric L. Goss, Robert J. Robertson, Elizabeth F. Nagle-Stilley, Kevin H. Kim, Mark A. Schafer. University of Pittsburgh, 2009.

SERVICE

Western Kentucky University

CHHS Undergraduate Curriculum Committee, Fall 2017 -

Faculty Marshall for CHHS Commencement Ceremony – Spring 2018

Faculty Senate, At-Large Senator. 2018 -2020

Academic Quality Committee Fall. 2018 -

Exercise Science Program Coordinator. Spring 2013 – Present

Kinesiology Program Coordinator. Spring 2014 – Present

Exercise Science webpage coordinator. Update and maintain program website, Fall 2012 - 2015

Faculty Advisor and founder of the Exercise Science Club, Fall 2008 to Spring 2015

- Canine for Caden charity 5K.
- Light of Chance boys and girls club. Regular fitness testing.
- Healthy day's annual health fair at the Preston Center.
- Community health fairs.

Faculty Advisor for the Run Club, Spring 2012 to 2014

Faculty Advisor for the WKU Hillbomber's Longboard Club. Fall 2012 - 2013

Faculty Senate, Senate Representative, Fall 2008 to Spring 2011

Undergraduate Curriculum Committee, Senate Representative Fall 2009 and Spring 2010

Undergraduate Curriculum Committee, Senate Representative Alternate Fall 2010 and Spring 2011

Buildings and space committee, Kinesiology, Recreation and Sport representative Fall 2011 to present

Master Adviser Certificate (MAC), completed Spring 2010

Southeast American College of Sports Medicine. Abstract reviewer. 2010, 2012, & 2013

Southeast American College of Sports Medicine. Presentation chair. 2010 & 2012

Body composition assessment for Western Kentucky University's Volleyball team, Fall 2008 and Summer 2011, 2012 and 2013

School of Kinesiology, Recreation and Sport

Faculty search committee, Fall 2008

Faculty search committee, May 2009

Instructor search committee, Summer 2010

Instructor search committee, Summer 2011

Instructor search committee, Spring 2012

Faculty search committee, Spring 2013

Faculty search committee Chair, Fall 2014

Faculty search committee Chair, Spring 2015

Faculty search committee Chair, Fall 2015

Faculty search committee Chair, Spring 2016

Continuance committee Chair, Fall 2015 to Spring 2017

Tenure and Promotion committee Chair, Fall 2015 to Spring 2017

Academic Transitions Program (ATP) / TOP advising, Fall 2008 to present

Spirit Masters, Fall 2008 to Fall 2013

Majors and Minors fair, Fall 2008 to present

REACH week Judge for poster presentations – Spring 2016, 2017, & 2018

CHHS academic complaint committee, Spring 2016

Slippery Rock University

Faculty advisor, Strength and Conditioning Club (Advisor)

Community

Fortify – Youth leader. Crossland Community Church. 2016 – current

Deacon for the Presbyterian Church of Bowling Green, KY. 2011 to march 2014.

Sunday school youth leader. Presbyterian Church of Bowling Green, KY. 2011 to current

Assistant Soccer coach. SKY soccer girls age 6, Fall 2010 to 2012

Head Soccer coach. SKY soccer girls U13, Fall and Spring 2012 - 2015

Field Day volunteer at Potter Gray Elementary. Spring 2009

Accelerated reader volunteer for Potter Gray Elementary. Fall and Spring 2010.

Guest Speaker. Say Yes to Health, Right Choice, Right Now. Bowling Green Junior High. Fall 2012.