MARK A. SCHAFER

ACSM Certified Clinical Exercise Physiologist®, CSCS®

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	EDUCATION	
Doctor of Philosophy in Exercise Physiolo University of Pittsburgh, Pittsburg	.	2004-2007
Master of Science in Physical Education (Ohio University, Athens, Ohio	Sports Physiology and Adult Fitness)	1996-1997
Bachelor of Science in Sports Sciences Ohio University, Athens, Ohio		1994-1996
University of Cincinnati Cincinnati, Ohio, Biology / Exercin	se Physiology	1991-1994
PROF	ESSIONAL EMPLOYMENT	
Professor of Exercise Science & Kinesiology Western Kentucky University – School of Kinesiology, Recreation and Sport		2024 – Presen
Faculty Research Fellow for Center for Applied Sciences in Health and Aging (CASHA)		2023 - Present
Associate Professor of Exercise Science & Kinesiology Western Kentucky University – School of Kinesiology, Recreation and Sport		2014 – Presen
Program Coordinator Exercise Science (BS) Program Coordinator Kinesiology (MS)		2013 - 2022 2014 - 2020
Assistant Professor of Exercise Science Western Kentucky University – Sch	& Kinesiology hool of Kinesiology, Recreation and Sport	2008 - 2014
Instructor – Exercise Science Slippery Rock University – Depart	ment of Exercise and Rehabilitative Science	2007 - 2008

University of Pittsburgh - Baierl Student Recreation Center

2006 - 2007

Campus Fitness Coordinator

2006-2008

Current

Graduate Assistant Department of Health and Physical Activity, University of Pittsburgh	2004–2006
Research Study Coordinator, Botox Clinical Trial for Post–Stroke Spasticity Drake Center, Cincinnati, Ohio	2003-2004
Exercise Specialist, Cardiopulmonary Rehabilitation Drake Center, Cincinnati, Ohio	2002-2004
Cardiopulmonary Rehabilitation/Cardiopulmonary Exercise Testing New Hanover Health Network, Wilmington, North Carolina	1997-2002
Part-time Faculty University of North Carolina at Wilmington – Exercise Science – Department of Health, Physical Education and Recreation, Wilmington, North Carolina	2001
Internship, Cardiopulmonary Rehabilitation The Heart Center – Pitt County Memorial Hospital Inc. University Medical Center of Eastern Carolina-Pitt County, Greenville, North Carolina	1997
Graduate Assistant, Clinical Exercise Physiology Ohio University, Sports Physiology and Adult Fitness Graduate Program, Athens, Ohio	1996-1997
Fitness Center Supervisor Healthbeat – Ohio University's Employee Wellness Program, Athens, Ohio	1995-1996
Exercise Testing Assistant and Fitness Center Supervisor Ohio University, Adult Fitness Program, Athens, Ohio	1995-1997
PROFESSIONAL CERTIFICATIONS & MEMBERSHIPS	
ACSM, Certified Clinical Exercise Physiologist, CEP®	2001-Present
NSCA, Certified Strength and Conditioning Specialist, CSCS®	2003-Present
American Heart Association or American Red Cross - Adult/Infant/Child CPR, AED	1995-Present

Mid-Atlantic American College of Sports Medicine, Member

Southeast American College of Sports Medicine (SEACSM), Member

TEACHING

Western Kentucky University - Kinesiology, Recreation & Sport

2008 to Present

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

Schafer M, Crandall J, Grieve R, Dispennette K, and *Michalik J. Muscle Dysmorphia Comparisons Between High Intensity Functional Training And Traditional Strength Training Environments. Journal of Sport Behavior, 2024, Vol 47, Issue 1, p74

Buoncristiani, N. A., Malone, G., Stone, W. J., Arnett, S., **Schafer, M. A.**, & Tolusso, D. V. (2023). The Validity of Perceptual Recovery Status on Monitoring Recovery During a High-Intensity Back-Squat Session. International journal of sports physiology and performance, 19(3), 242–248. https://doi.org/10.1123/ijspp.2023-0241

Schafer M, Upright P, *Michalik J, Crandall J. Impact of 10-Week Evidence–Based Falls Prevention Program on Outcomes Related to Falls Risk in Community-Dwelling Older Adults. Int J Exerc Sci 16(7): 1131–41, 2023. Available at: https://digitalcommons.wku.edu/ijes/vol16/iss7/5

^{*}Student author

Green, G. K., Stone, W. J., Tolusso, D. V., **Schafer, M. A.**, & Lyons, T. S. (2023). A VO_{2max} Protocol for Young, Apparently Healthy Adults. *International journal of exercise science*, *16*(4), 1257–1268.

Crandall K. J, Sullivan D, **Schafer M**, Johnson L. Evaluating the Effect of a Supplemental Home-Delivered Meal Program on Physical Health and Nutrition Status of Community-Dwelling Vulnerable Older Adults: A Pilot Study. The International Journal of Continuing Social Work Education. 2023. In-press.

Tinius RA, Maples JM, **Schafer MA**, Paudel A, Fortner KB, Zite NB, et al. To Be Active or to Stop? A Cross-Sectional Retrospective Study Exploring Provider Advice and Patient Fears Surrounding Physical Activity in Pregnancies Complicated by Fetal Growth Restriction. Int J Environ Res Public Health 19(10): 6076, 2022. https://doi.org/10.3390/ijerph19106076

Stone W, **Schafer M**, Arnett S, Lyons S. Post Exercise Hypotension Following Concurrent Exercise: Does Order of Exercise Modality Matter? Int J Exerc Sci 13(2): 36–48, 2020.

Lyons TS, Navalta JW, Stone WJ, Arnett S, **Schafer MA**, *Igaune L. Evaluation of Repetitive Jumping Intensity on the Digi-Jump Machine. Int J Exerc Sci 13(2): 818–25, 2020.

*Dispennette AK, **Schafer MA**, Shake M, Clark B, Macy GB, Vanover S, et al. Effects of a Game-Centered Health Promotion Program on Fall Risk, Health Knowledge, and Quality of Life in Community-Dwelling Older Adults. Int J Exerc Sci 12(4): 1149–60, 2019.

Young S, VanWye W, **Schafer M**, Robertson T, Poore AV. Factors Affecting PhD Student Success. Int J Exerc Sci 12(1): 34–45, 2019.

Morris CE, *Wessel PA, Tinius RA, **Schafer MA**, Maples JM. Validity of Activity Trackers in Estimating Energy Expenditure During High-Intensity Functional Training. Res Q Exerc Sport 90(3): 377–84, 2019.

Stone W, Navalta J, Lyons S, **Schafer M**. From the Editors: A Guide for Peer Review in the Field of Exercise Science. Int J Exerc Sci 11(1): 1112–9, 2018.

Sobrero G, Arnett S, **Schafer M**, Stone W, Tolbert TA, Salyer-Funk A, et al. A Comparison of High Intensity Functional Training and Circuit Training on Health and Performance Variables in Women: A Pilot Study. Women Sport Phys Act J 25(1): 1–10, 2017.

Crandall KJ, *Zagdsuren B, Schafer MA, Lyons TS. Static and Active Workstations for Improving Workplace Physical Activity and Sitting Time. Int J Hum Mov Sports Sci 4(2): 20–5, 2016.

Navalta JW, *Fedor EA, **Schafer MA**, Lyons TS, *Tibana RA, *Pereira GB, et al. Caffeine affects CD8+ lymphocyte apoptosis and migration differently in naïve and familiar individuals following moderate intensity exercise. Int J Immunopathol Pharmacol 29(2): 288–94, 2016.

Mays RJ, Goss FL, Nagle EF, Gallagher M, Haile L, **Schafer MA**, et al. Cross-validation of Peak Oxygen Consumption Prediction Models From OMNI Perceived Exertion. Int J Sports Med 37(10): 831–7, 2016.

Mays RJ, Goss FL, Nagle-Stilley EF, Gallagher M, **Schafer MA**, Kim KH, et al. Prediction of VO₂ peak using the OMNI ratings of perceived exertion from a submaximal cycle exercise test. Percept Mot Skills 118(3): 863–81, 2014.

Schafer M, *Kell H, Navalta J, *Tibana R, Lyons S, Arnett S. Effects of a simulated tennis match on lymphocyte subset measurements. Res Q Exerc Sport 85(1): 90–6, 2014.

Schafer MA, Goss FL, Robertson RJ, Nagle-Stilley EF, Kim K. Intensity selection and regulation using the OMNI scale of perceived exertion during intermittent exercise. Appl Physiol Nutr Metab Physiol Appl Nutr Metab 38(9): 960–6, 2013.

Schafer MA, Robertson RJ, Thekkada SJ, Jr MG, Hunt SE, Goss FL, et al. Validation of the OMNI RPE Seven Day Exertional Recall Questionnaire. Res Q Exerc Sport 84(3): 363–72, 2013.

*Kell H, *Pereira G, *Tibana R, Jarrett M, **Schafer M**, *Prestes J, et al. Acquisition Delays Affect Lymphocyte Subset Counts but not Markers of Exercise-induced Apoptosis. Int J Exerc Sci 6(3), 2013.

Navalta JW, Lyons S, *Prestes J, Arnett SW, **Schafer M**, Sobrero GL. Exercise Intensity and Lymphocyte Subset Apoptosis. Int J Sports Med 34(03): 268–73, 2013.

*Friedman RA, Navalta JW, *Fedor EA, *Kell HB, Lyons TS, Arnett SW, and **Schafer MA**. Repeated high-intensity Wingate cycle bouts influence markers of lymphocyte migration but not apoptosis. Appl Physiol Nutr Metab Physiol Appl Nutr Metab 37(2): 241–6, 2012.

Gallagher M, Robertson RJ, Goss FL, Nagle-Stilley EF, **Schafer MA**, Suyama J, et al. Development of a perceptual hyperthermia index to evaluate heat strain during treadmill exercise. Eur J Appl Physiol 112(6): 2025–34, 2012.

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. http://medicalphysiologyonline.wordpress.com

Navalta J, McFarlin B, Simpson R, *Fedor E, *Kell H, Lyons S, Arnett S, and **Schafer M**. Finger-stick Blood Sampling Methodology for the Determination of Exercise-induced Lymphocyte Apoptosis. J Vis Exp (48): 2595, 2011.

Navalta JW, McFarlin BK, Lyons S, Arnett SW, **Schafer MA**. Cognitive awareness of carbohydrate intake does not alter exercise-induced lymphocyte apoptosis. Clinics 66(2): 197–202, 2011.

Navalta JW, McFarlin BK, Lyons TS, *Ramos AR, Arnett SW, and **Schafer MA**. Intra- and Interrater Reliability of Morphologically Evaluated Lymphocyte Apoptosis in Trained and Untrained Observers. Biology of Sport. 28, 223-226, 2011.

Mays RJ, Goss FL, **Schafer MA**, Kim KH, Nagle-Stilley EF, Robertson RJ. Validation of adult omni perceived exertion scales for elliptical ergometry. Percept Mot Skills 111(3): 848–62, 2010.

Robertson RJ, Goss FL, Aaron DJ, Nagle EF, Gallagher M, Kane IR... **Schafer MA**...et al. Concurrent muscle hurt and perceived exertion of children during resistance exercise. Med Sci Sports Exerc 41(5): 1146–54, 2009

Grants

Civil Money Penalty (CMP) Grant. <i>Implementation of Bingocize® in Signature HealthCARE</i> project. \$502,845.00. Under review.	2024
CHHS – QTAG: Schafer, Mark. Bingocize® Immune Support and Wellness Workshop. \$2,271	2023
Owensboro Regional Health Hospital Community Benefit Grant. Co- Investigator; <i>Bingocize</i> ® <i>improves health and quality of life in older adults.</i> \$36,677.00.	2017
National Science Foundation: Major Research Instrumentation grant, NSF. 2017 \$315,357.00. Philips EPIQ 7G 3D ultrasound imaging system. Co-Author. Not funded.	2017
Ergotron – Standing workstations. <i>Evaluation of sit-stand desktop workstations in the workplace</i> . A grant of 60 workstations (\$25,000)	2017
College of Health and Human Services Research Grant, Western Kentucky University, \$3,000.	2013
Western Kentucky University, RCAP II Award #: 13-8003. Fall 2012 - \$8,000.00.	2012
Western Kentucky University, New Faculty Grant. \$4,000	2011
College of Health and Human Services Research Grant, Western Kentucky University. \$3,000	2011
College of Health and Human Services Research Grant, Western Kentucky University. \$1,500	2009
University of Pittsburgh - Alumni Doctoral Fellowship. \$2,000	2006
University of Pittsburgh - School of Education Student Research Grant. \$1,497	2006

Current investigations and Manuscripts in Preparation

Madhawa Perera, Taniya S. Nagpal, Maire M. Blankenship, Danilo V. Tolusso, Jordyn M. Cox, Dilini Prashadika, Mark Schafer, and Rachel A. Tinius. Perspectives of midwives and nurse practitioners in Kentucky on exercise counseling during pregnancy: A qualitative study. Healthcare. 2024. In-review.

Kentucky Department of Public Health. Promoting Health Equity & COVID Immunizations in Underserved Populations Across Kentucky Using the Bingocize® Platform: Phase III. \$258,728.00. Co – Investigator. IRB # 24-006. Data collection Fall 2023 and Spring 2024.

USAging-Kentucky Department of Aging and Independent Living, Aging and Disability Vaccination Collaborative. \$152,837.00. Link, Kim; Haughtigan, Kara; Schafer, Mark; Crandall, Jason. Bingocize® Immune Support and Wellness Workshop. IRB # 24-028. Data collection Fall 2023 and Spring 2024.

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. *Manuscript in preparation*.

Regional and National Presentations and Published Abstracts

- **Schafer M**, Scali S, Stone W, Lyons, S, Crandall, J. Impact of 10-Week Bingocize[®] Program on self-reported general health, fear of falling, and physical activity. (2023) Presentation at the Annual Meeting of the American College of Sports Medicine, Denver, CO. Exerc Sci 16(7): 1131–41, 2023.
- **Schafer M**, Scali S, Stone W, Lyons, S, Crandall, J. Impact of 10-Week Bingocize[®] Program on self-reported general health, fear of falling, and physical activity. (2023) Presentation at the Annual Meeting of the Southeast American College of Sports Medicine, Greenville, SC.
- *Avendano A, Stone W, **Schafer M.** Rock Out Workout: Cardiodrumming's Impact on Function with Down Syndrome. (2023) Presentation at the Annual Meeting of the Southeast American College of Sports Medicine, Greenville, SC.
- *Rassi, S., Crandall, J., **Schafer, M**., & Shake, M., Otto, S. (2022). Activity trackers and older adults. *Eastern Canada Sport and Exercise Psychology Symposium (ECSEPS)*, Ottawa, Ontario.
- *Buoncristiani N, Tolusso DV, Arnett SW, Stone WS, **Schafer M.** The Validity of Perceptual Recovery Status on Monitoring Recovery During a High-Intensity Back Squat Session. National Strength and Conditioning Annual Meeting. New Orleans, LA, 2022
- *Malone G, Stone WS, Tolusso DV, Arnett SW, Buoncristiani N, **Schafer M.** Validity of the Repetitions in Reserve Based Rating of Perceived Exertion Scale in Single Joint Exercise. National Strength and Conditioning Association Annual Meeting. New Orleans, LA, 2022.
- *Dispennette AK, Focht B, Clark B, **Schafer M**, Shake M, Macy G, et al. Effects Of Bingocize® On Quality Of Life, Fall Risk, And Health Knowledge In Community-Dwelling Older Adults: 3096 Board #142 May 31 3:30 PM 5:00 PM. Med Sci Sports Exerc 51(Supplement): 854, 2019.
- **Schafer MA**, *Alvis M, Morris C, Garrard T, Hughes A, Hunt L, et al. Evidence-based Educational Brochures Influenced Beliefs And Improved Knowledge Regarding The Benefits Of Exercise During Pregnancy: 3109 Board #155 May 31 2:00 PM 3:30 PM. Med Sci Sports Exerc 51(Supplement): 859, 2019.
- **Schafer MA**, Jason Crandall K, Scott Lyons T, *Edens K, *Blankenship L, *Shaker N, et al. Impact Of Sitstand Workstation Progressions On Stress, Focus, And Productivity In University Staff Members: 2899 Board #182 June 1 2 00 PM 3 30 PM. Med Sci Sports Exerc 50(5S): 716, 2018.
- 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.
- *Edens K, **Schafer M,** Crandall J, Lyons S, *Vondy R, *Olenick A, *Blankenship L, Shaker N. (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 AT, Morris CE, Forsythe S, Jordan T, **Schafer MA**, *Wiczynki TL, et al. Evaluation Of The Health And Physical Fitness And Factors Influencing Retention Of Scholastic Sports Officials In The Sport Of American Football: 782 Board #43 May 30 2 00 PM 3 30 PM. Med Sci Sports Exerc 50(5S): 170, 2018.

- **Schafer MA**, Hoover DL, *Wright J, *Reese M, Crandall KJ, *Olenick A, et al. Effect Of Sitting, Standing, And Walking Upon Physiological Measures During A Traditional College Lecture: 3244 Board #309 June 3, 2. Med Sci Sports Exerc 48: 928, 2016.
- *Bubnis M, Crandall JK, **Schafer M**, Grieve F. Muscle Dysmorphia Comparisons Between High Intensity Functional Training And Traditional Strength Training Environments: 1124 Board #7 June 1, 3. Med Sci Sports Exerc 48: 306, 2016.
- *Olenick A, Jason C, **Schafer MA**, *Battogtokh Z, Lyons ST, *Brown J, et al. Workstations To Increase Workplace Physical Activity And Reduce Sitting Time: A Pilot Study. Med Sci Sports Exerc 48: 137, 2016.
- **Schafer M**, Hoover D, *Wright J, *Reece M, Lyons S, Crandall J, *Olenick A, *Brown J. (2016) Effect of Sitting, Standing, and Walking During a Traditional College Lecture. Presentation at the Annual Meeting of the Southeast American College of Sports Medicine, Greenville, SC.
- *Brown J, *Zagdsuren B, Crandall J, **Schafer M,** T. Lyons S, *Falls D, and *Olenick A. (2016) Workstations to increase workplace physical activity and reduce siting time: A pilot study. Presentation at the Annual Meeting of the Southeast American College of Sports Medicine, Greenville, SC.
- *Perkins BE, **Schafer MA**, Hoover DL. Preparing a Student with Paraplegia for Health Fitness Specialist Certification: Functional Capacity Evaluation and Accommodation. Med Sci Sports Exerc 47: 367, 2015.
- *Zagdsuren B, Evans GS, *Inman C, *Stone W, Arnett S, **Schafer M**, et al. Crossfit Vs. Circuit-training: Effects Of A Ten-week Training Program On Aerobic, Anaerobic And Flexibility Indicators. Med Sci Sports Exerc 47: 801, 2015.
- Sobrero GL, *Inman C, Stone W, *Zagdsuren B, Arnett SW, **Schafer MA**, et al. Crossfit Vs. Circuit-trained Individuals: Effects Of A Ten-week Training Program On Body Composition And Bone Mineral Density. Med Sci Sports Exerc 47: 800, 2015.
- *Brown JT, Sobrero GL, *Inman C, Stone W, *Zagdsuren B, Arnett SW, **Schafer M** et al. Crossfit Vs. Circuittrained Individuals: Effects Of A Ten-week Training Program On Muscular Strength And Endurance. Med Sci Sports Exerc 47: 800, 2015.
- *Wessel P, Sobrero GL, *Inman C, *Stone W, Arnett SW, **Schafer MA**, et al. Crossfit Vs. Circuit-trained Individuals: Effects Of A 10-week Training Program On Power. Med Sci Sports Exerc 47: 800, 2015.
- 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):
- 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):
- 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):
- *Weatherholt WT, *McMullen RS, *Inman CF, **Schafer MA**, Hoover DL. Bone Mineral Density Not Significantly Changed By Cycling Across The United States: 2326 Board #73 May 29, 11. Med Sci Sports Exerc 47: 622, 2015.

- *McMullen RS, *Weatherholt WT, *Inman CF, **Schafer MA,** Hoover DL. Vo2 Max And Time To Volitional Failure Improved Following Bike Ride Across The United States: 3304 Board #65 May 30, 8. Med Sci Sports Exerc 47: 884, 2015.
- **Schafer M,** Sobrero G, Arnett S, Lyons S, *Stone W, Navalta J, et al. Performance Indicators in ROTC Cadets After 12 Weeks of Training that Included CrossFit: 443 Board #281 May 28, 9. Med Sci Sports Exerc 46: 119, 2014.
- Sobrero G, Arnett S, **Schafer M**, *Stone W, Lyons S, Esslinger, K, Esslinger, T, Crandall J, Maples J. Crossfit Vs. Resistance-training: Effects Of A Six-week Training Program On Selected Performance Indicators. Med Sci Sports Exer 46(5): G29, 2014.
- 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 46(5): S528, 2014.
- *Stone, W.J.; Schafer M.A., Lyons, TS., 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. Greenville, SC.
- G.L. Sobrero, *W.J. Stone, **M.A. Schafer**, S.W. Arnett, T.S. Lyons, J. Crandall, J. Maples, J.W. Navalta, S.D. Bean, F.T. Esslinger, K. Esslinger. (2014). Evaluation of Upper and Lower Body Power in First Year ROTC Cadets after One Semester of ROTC training that Included Crossfit. Presentation at the Annual Meeting of the Southeast American College of Sports Medicine. Greenville, SC.
- **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. Med Sci Sports Exerc 45 (5): S130, 2013.
- Lyons, T.S., Evans, G., **Schafer, M.A.**, Arnett, S.A., *Igaune, L. Determination of Repetitive Jumping Intensity Relative to Measured VO₂max. Med Sci Sports Exerc 45 (5): S32, 2013.
- *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. Med Sci Sports Exerc 45 (5): S114, 2013
- 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. Med Sci Sports Exerc 45 (5): S130, 2013.
- 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. Med Sci Sports Exerc 45 (5): S130 2013.
- *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. Med Sci Sports Exerc 45 (5): S428, 2013.
- *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. Med Sci Sports Exerc 45 (5): S583, 2013.

- **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) Mucular 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. Med Sci Sports Exerc 44 (5): S242, 2012.
- *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. Med Sci Sports Exerc 44 (5): S67, 2012.
- *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. Med Sci Sports Exerc 43(5):404, 2011.
- 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. Med Sci Sports Exerc 43(5):335, 2011.

- *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. Med Sci Sports Exerc 43(5):483-4, 2011.
- *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.
- *D.D. Kirkwood, R.L. *Zierten, S.D. *Bean, M.A. Schafer, T.S. Lyons, S.W. Arnett, F.T. Esslinger, J.W. (2011) Exercise-induced Apoptosis of Lymphocytes Does Not Depend on Anaerobic Training Status. 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. Med Sci Sports Exerc 42(5):670-1, 2010.
- *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. Med Sci Sports Exerc 42(5):647, 2010.
- *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. Med Sci Sports Exerc 42(5):366-7, 2010.
- 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. Med Sci Sports Exerc 42(5):631, 2010.
- 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. Med Sci Sports Exerc 42(5):365, 2010.
- *Richardson D, *Kell H, *Lee G, Fedo Er, **Schafer M.** (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.

Schafer M., Goss F., Robertson R., Nagle E., and Kim K. Intensity Selection and Regulation using the OMNI Scale of Perceived Exertion during Intermittent Exercise. Med Sci Sports Exerc 40(5):S263, 2008.

Welikonich M., Koch K., Haile L., Mays R, **Schafer M.,** Goss F.L., Aaron D., and Robertson R.J. Self-Regulation of Exercise Intensity Using the OMNI RPE Scale During Intermittent Cycle Ergometry. Med Sci Sports Exerc 40(5):S265, 2008.

Schafer M.A., Koch K., Rothstein J., Goss F., Aaron D., and Robertson R. Self-regulation Of Exercise Intensity Using The Omni Rpe Scale During Intermittent Cycle Ergometer Exercise. *Medicine & Science in Sports & Exercise*. 2007;39(5):S485

Schafer M.A., Thekkada S.J., Gallagher M.J., Hunt S.E., Goss F.L., Aaron D.J., and Robertson R.J. Validation of the OMNI RPE Seven Day Effort Recall Questionnaire. Med Sci Sports Exerc 38(5):S79, 2006.

Thekkada S.J., Ghigiarelli J.J., **Schafer M.A.**, Goss F.L., Aaron D.J., and Robertson R.J. Validation of a OMNI RPE based 7-day recall questionnaire to assess session RPE. Med Sci Sports Exerc 38(5):S78, 2006.

Gairola A., Gallagher M.J., **Schafer M.,** Resler K., Goss F.L., Aaron D.J., Metz K.F., and Robertson R.J. Validation of the OMNI Walk/Run RPE Scale for Intermittent Treadmill Exercise. Med Sci Sports Exerc 38(5):S79, 2006.

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.

Invited Presentations

Schafer, M. Kentucky Department of Aging Independent Living (DAIL). Webinar Training for Promoting Health Equity & COVID Immunizations in Underserved Populations Across Kentucky Using the Bingocize®

2023

Crandall, K.J, & Schafer, M. Bingocize® | Impactful Applied Research & Engaging Community and Students. Presentation for Western Kentucky University, Board of Regents Quarterly Meeting.

2023

Crandall, K.J. & M. Schafer. Bingocize®. Lincoln Trails Area Development District, Elizabethtown, Ky.

2015

Crandall, K.J. & M. Schafer. Bingocize[®]. Kentucky River Area Development District, Lexington, Ky. **2015**

Dissertation and Thesis Committees

Willarachilage Perera: Health professional communication regarding physical activity during pregnancy: is it appropriate and can BumptUp® influence it? Thesis Chair, Rachel Tinius. Committee, Mark Schafer & Dano Tolusso. Western Kentucky University.

2023 – 2024

Jada Shannon: Factors Affecting Mental Health of College-Aged Individuals. Thesis Chair, Rachel Tinius.

Committee, Mark Schafer.

2023 – 2024

Nick Buoncristiani: *The Validity of Perceptual Recovery Status on Monitoring Recovery During a High-Intensity Back Squat Session.* Thesis Chair, Dano Tolusso. Committee Scott Arnett, Whitley Stone, Mark Schafer. Western Kentucky University.

2021-2022

Grant Malone: Thesis Chair, Whitley Stone Committee, Dano Tolusso, Scott Arnett, Mark Schafer. *Validity of the Repetitions in Reserve Based Rating of Perceived Exertion Scale in Single Joint Exercise*. Western Kentucky University.

2021-2022

Ariel Tomes: *Biopsychosocial effects of Bingocize® remote delivery in community-dwelling older adults*. Thesis Chair Jason Crandall. Advisors: Mark Schafer and Scott Lyons. Western Kentucky University.

2020 - 2021

Griffin Green: Validation of a New VO2max Protocol for Cardiorespiratory Fitness Testing. Thesis Chair Scott Lyons. Advisors: Mark Schafer and Dano Tolusso. Western Kentucky University.

2019 - 2020

Rassi, Sepehr: Effects Of Bingocize® On Overall Physical Activity, Functional Performance, Blood Glucose Level, Sleep Quantity And Quality Among Older Adults in Long-Term Care Facilities. Thesis Chair Jason Crandall Advisors: Matthew Shake and Mark Schafer. Western Kentucky University.

2019 – 2020

Elise VanMeter: *An examination of factors that affect male body image in college students*. Thesis 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. Thesis 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. Thesis Advisors: Scott Arnett, Mark Schafer, Lee Winchester. Western Kentucky University.

2018

Teresa Wiczynski: *Interactions Between Aerobic Exercise Intensity, Academic Stress, and Immune Function*. Thesis 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 – 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.

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

AWARDS

Emily M. Haymes Mentoring award - Southeast American College of Sports Medicine (SEACSM)	2022
Faculty Award for Student Advisement - College of Health and Human Services (CHHS)	2021
WKU Faculty Mentoring Award – Provost and Vice President for Academic Affairs	2018

SERVICE

College of Health and Human Services (CHHS)

CHHS Undergraduate Curriculum Committee	2017 - 2023
CHHS Recruiting & Retention Workshop	2021 – Present
CHHS First Generation Advocate	2022 - Present
CHHS Career day	2013 – Present
CHHS Sabbatical and Awards Committee	2020 – 2022
Faculty research mentor – Dr. Mike Kennedy	2019–2020
WKU REACH week Judge for poster presentations	2016 – 2020
Faculty Marshall for CHHS Commencement Ceremony	2018
CHHS academic complaint committee	2016
CHHS Representative for faculty development	2014
Western Kentucky University (WKU)	
Faculty Senate, At-Large Senator	2018 – 2020
Academic Quality Committee	2018 - 2020
Faculty Senate, Senate Representative Undergraduate Curriculum Committee, Senate Representative Alternate	2008 - 2011 2010 - 2011
Undergraduate Curriculum Committee, Senate Representative	2009 - 2010
School of Kinesiology, Recreation & Sport (KRS)	
EXS 223 Introduction to Exercise Science Colonnade committee	2022 - 2023
Exercise Science (BS) Program Coordinator	2013 – 2022
Kinesiology (MS) Program Coordinator	2014 – 2020
Chair, Assurance of Student Learning - (ASL) Exercise Science & Kinesiology	2018 -2021
Grow & Enhance Funds – Facilitator of \$60,000 in funds for Exercise Science equipment	2019
Chair, Comprehensive Academic Program Evaluation (CAPE) Exercise Science & Kinesiology	2018

Chair, Exercise Science Faculty search committee	2018 - 2019
Exercise Science - Facebook, Instagram, and Twitter Social Media	2016 to Present
KRS Continuance and Tenure & Promotion committee	2017 – Present
Chair, KRS Continuance and Tenure & Promotion committee	2015 - 2017
Chair, Exercise Science Faculty search committee	2016
Chair, Exercise Science Faculty search committee	Fall 2015
Chair, Exercise Science Faculty search committee	Spring 2015
Chair, Exercise Science Faculty search committee	2014
Exercise Science webpage coordinator.	2012 – 2015
Founder and Faculty Advisor of the Exercise Science Club	2008 - 2015
Faculty Advisor for the WKU Run Club	2012 – 2014
KRS Director search committee	Fall 2014
Faculty search committee for Physical Education	2008, 2009, and 2013
Faculty Advisor for the WKU Hillbomber's Longboard Club	2012 – 2013
Exercise Science Faculty search committee	2012
Exercise Science Faculty search committee KRS, Instructor search committee	2011 2008, 2011, and 2012
Buildings and space committee, Kinesiology, Recreation and Sport representative	2011 – 2012
Master Adviser Certificate (MAC)	2010
Recruiting & Student Engagement - WKU, CHHS, KRS, and Exercise Science	2008 to present
Academic Transitions Program (ATP) / TOP advising Majors and Minors fair	

M.A.S.T.E.R Plan Head for the Hill

Professional service

International Journal of Exercise, Clinical Exercise Physiology - Section Editor 2009 to present Southeast American College of Sports Medicine (SEACSM) SEACSM Mentoring committee (2 year term) 2023-2024 SEACSM Member At Large – Nominated 2021 Chair, SEACSM Speaker Tour 2019 - 2020Mentor, SEACSM Leadership Diversity Training Program (LDTP) 2020 Abstract reviewer, SEACSM Annual Conference 2010, 2012, 2013, 2014, 2018, 2019, 2020, 2021, 2022, & 2023 SEACSM Abstract reviewer (Top 8) 2023 Chair, Conference Symposium 2023 SEACSM Abstract Review for Student Poster Awards 2021 2021 Judge, Undergraduate Student Poster Competition Chair, SEACSM Tutorial session 2012, 2020 & 2022 Judge, SEACSM Quiz Bowl 2019 Chair, Free communication session at annual SEACSM conference 2010 American College of Sports Medicine (ACSM) Annual Meeting & World Congress 2023 Abstract Reviewer Chair – Thematic Poster. Fitness Assessment in Collegiate Athletes. **Professional Manuscript reviews**

PCI Health & Movement Science. Perceived exertion and pain during aerobic exercise differ by body mass index classification in college-aged women. 2023

European Journal of Sports Science. RPE during concentric and eccentric cycling: Are we measuring effort or exertion?

BMC Cardiovascular Disorder. Resistance exercise leading to failure versus not to failure: effects on cardiovascular control.

Diabetology. 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. A Study of Exercise Training In Coronary Artery Bypass C Patients to Improve Their Exercise Capacity (6MWTD)	Graft Surgery 2011
International Journal of Exercise Science. Arm positioning and pulmonary function, repeated measure experimental study.	res, 2010
Lipids. Postprandial lipemia detects the effect of soy protein on cardiovascular disease risk compared with the fasting lipid profile.	
International Journal of Exercise Science. Performance Following Adaptation To Hypoxemia Induced By Breath Holding In Exercise.	
International Journal of Exercise Science. Parameters of Walking and Jogging in Healthy Young Adults.	
Community Service	
Fortify – Youth leader. Crossland Community Church Deacon for the Presbyterian Church of Bowling Green, KY Sunday school youth leader. Presbyterian Church of Bowling Green, KY Assistant Soccer coach. SKY soccer girls age 6 Head Soccer coach. SKY soccer girls U13 Fall Field Day volunteer at Potter Gray Elementary Accelerated reader volunteer for Potter Gray Elementary Guest Speaker. Say Yes to Health, Right Choice, Right Now. Bowling Green Junior High	2016 - 2020 2011 - 2014 2011 to 2014 2010 to 2012 2012 - 2015 2009 2010 2012