

## 2018 Annual Meeting

Central States Chapter – American College of Sports Medicine



October 18-19, 2018

Embassy Suites by Hilton, Kansas City Plaza  
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# Meeting Information

## Intended Audience

American College of Sports Medicine members, students and professionals interested in the field of sports medicine and exercise science.

## Meeting Objectives

The Central States Annual Meeting aims to provide attendees with a blend of research and clinical information. The meeting also provides opportunities for networking and socializing with colleagues from across the region. An integral part of the function of the Central States Chapter is getting students involved in their primary professional organization.

## ACSM Continuing Education Credits (CEC's)

The American College of Sports Medicine's Professional Education Committee certifies that this annual meeting meets the criteria for 10 credit hours of ACSM CEC's. Credit is awarded for these CEC's by attending the Central States Chapter ACSM Annual Meeting. The Central States ACSM is an approved provider of CEC's for the ACSM. A certificate documenting CEC's is available at the registration table.

## NSCA Continuing Education Credits (CEU's)

The National Strength and Conditioning Association certifies (L1387-C18A1) that this annual meeting meets the criteria for 0.8 credit hours in Category A. Credit is awarded for these CEU's by attending the Central States Chapter ACSM Annual meeting and properly completing the NSCA approved self-reporting grid. The grid link is available at: <https://www.nasca.com/certification/continuing-education/courses-activities/>  
Click on 'Midwest Region' to obtain the CEU grid.

## Name Badges

Name badges must be worn at all times for admittance to educational sessions, poster sessions, and student quiz bowl. Please always keep your badge with you!

## Future Meeting Site

The next meeting will be held in October 2019 under the direction of Dr. Adam Bruenger, University of Central Arkansas. Exact location to be determined.

Dear Central States Member/Attendee,

Welcome to the Annual Meeting of the Central States Chapter of the American College of Sports Medicine in Kansas City, MO! I am excited to deliver a great conference schedule including both academic professionals and clinical practitioners. I feel this meeting has excellent variety that will accommodate health/fitness professionals from all walks of life. The meeting starts with dual keynote presentations by Dr. Matt Ganio on arterial health and Dr. Kirk McCullough on management of foot/ankle pathology in athletes. Following these presentations Dr. Robin Shook will discuss physical activity, appetite control and energy balance, while Dr. Aaron Gray will present on athletic injuries in youth. After a short break, Dr. Michael Rogers will provide insight into older adult elastic band training and Dr. Stuart McIntosh will thoroughly define the SICK scapula. After another quick break, Master's and Doctoral level students will present. These grants were competitively obtained based upon a submission process that ALL student members are eligible for.....so please be sure you apply next year! Next, everyone will convene to view student and professional poster presentations. Master's and PhD level posters will be judged for the President's Award! After the posters the evening will come to an end with the ever so lively and competitive Student Quiz Bowl. There is a huge, gaudy trophy, bragging rights and a stipend to attend the national ACSM meeting in 2019, so the stakes are high for this year's Quiz Bowl.

Friday morning will begin with presentations by Dr. Bryan Smith on wearable energy expenditure technology and ACL injury prevention methods by Dr. Alex Bolin. Immediately after the student research awards will be conducted by selected Central States students. After a break, Dr. Lauren Ptomey and Dr. Amanda Szabo-Reed will present on physical activity intervention technology and Dr. Chad Kerksick and Hannah Zabriskie will discuss metabolic aspects of female collegiate athletes.

Lunch on Friday is a highlight of the conference, and this year I am pleased to host Dr. Jonathan Oliver from Texas Christian University. Dr. Oliver is an established researcher in the area of head trauma and nutritional supplementation.

After lunch, student members will attend a lecture on ACSM certifications by Dr. Francis Neric, while professional members will meet to discuss chapter business items hosted by Dr. Adam Bruenger. I sincerely hope you find this conference welcoming and interesting for both academic and clinical professionals! Enjoy the conference, peer networking, and Kansas City!

Sincerely,

A handwritten signature in black ink that reads "Jason D. Waggoner". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

Jason D. Waggoner, PhD, EP-C  
Past-President CSCACSM  
Southeast Missouri State University

A Special thank you to the Central States ACSM Board of Directors  
For all your contributions and leadership

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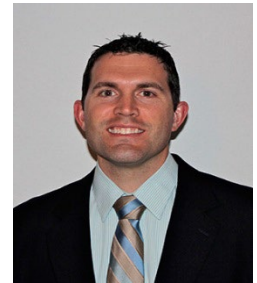
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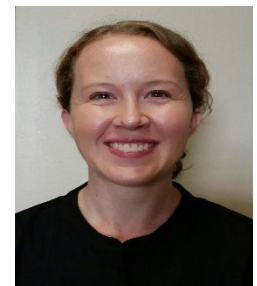
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## Thursday, October 18, 2018

9:00-10:00	<b>Vendor Set-Up</b>	Vera Cruz
9:00-11:00	<b>Executive Council Board Meeting</b>	Monterrey
9:00-11:00	<b>Registration</b>	Main Lobby
11:00-11:15	<b>Opening Remarks</b> Jason D. Wagganer, PhD, Past-President	Morelia
11:15-12:00	Matt Ganio, PhD, FACSM University of Arkansas <i>Sit, Stand, Move, Stop: How Daily Life Affects your Arterial Health</i>	Morelia
11:15-12:00	Kirk McCullough, MD Orthopaedic & Sports Medicine Clinic of Kansas City <i>Recent Trends in Management of Foot/Ankle Pathology in the Athlete</i>	Monterrey
12:00-12:45	Robin Shook, PhD Children's Mercy Hospital <i>Physical Activity, Appetite Control, and Energy Balance</i>	Morelia
12:00-12:45	Aaron Gray, MD Associate Professor in Orthopedics <i>Diagnosis and Treatment of Youth Athlete Injuries</i>	Monterrey
12:45-1:00	<b>Break</b>	
1:00-1:45	Michael Rogers, PhD, CSCS, FAAAJ, FACSM Wichita State University <i>Elastic Band Training for Older Adults</i>	Morelia
1:00-1:45	Stuart McIntosh, DC Cleveland University – Kansas City <i>Understanding the S.I.C.K. Scapula</i>	Monterrey
1:45-2:00	<b>Break</b>	
2:00-3:15	<b>Student Research Grant Presentations</b> Elizabeth Ott, BS, University of Missouri <i>Role of Carotid Chemoreceptors in Blood Flow and Blood Pressure Regulation During Exercise in Diabetes</i> Seth Sievers, BS, Southeast Missouri State University <i>Acute Effects of Resistance Training Intensity and Volume on Serum Cortisol Response in Division I American Football Linebackers</i> Samuel Buchanan, MS, University of Oklahoma <i>Alterations of C-Mirna Expression from Whole-Body Vibration and Resistance Exercise in Postmenopausal Women</i> Aaron Caldwell, MS, University of Arkansas <i>Influence of Heating, Standing, and Biological Sex on Vascular Dysfunction Associated with Long-Duration Sitting</i> Mitchel Magrini, MS, Oklahoma State University <i>The Physiological Determinants of Rate of Force Production Across the Life Span</i>	Morelia
3:15-3:30	<b>Break</b> (Put up posters in Monterrey)	
3:30-4:45	<b>Poster Presentations</b>	Monterrey
4:45-5:00	Break (Take down posters & Set-up for Quiz Bowl)	
5:00-6:30	<b>Student Quiz Bowl</b> Joe Pujol, PhD, FACSM Southeast Missouri State University	Morelia

## Friday, October 19, 2018

8:00-8:15	<b>Opening Remarks</b> , Jason Wagganer, Past-President	Morelia
8:15-9:00	Bryan Smith, PhD, CSCS Southern Illinois University – Edwardsville <i>Accuracy of Wearable Technology to Measure <math>VO_{2max}</math> and Exercise Energy Expenditure</i>	Morelia
8:15-9:00	Alex Bolin, DPT, CSCS Specialists in Sports and Orthopedic Rehabilitation <i>ACL Injury Prevention Methods</i>	Monterrey
9:00-11:00	<b>Student Research Awards</b> Undergraduate: Eric Nehlsen, University of Central Missouri <i>General Muscular Endurance Comparisons for Female and Male Collegiate Track and Field Athletes</i> Brad Currier, Lindenwood University <i>Fat-Free Mass Index in a Diverse Sample of Male Collegiate Athletes</i> Masters: Kirsten Dunlap, University of Arkansas <i>A Time Course Study of Mitochondrial Quality in Hindlimb Unloaded Mice: A Sex Comparison</i> Patrick Harty, Lindenwood University <i>Fat-Free Mass Index in a Diverse Sample of Female Collegiate Athletes</i> Doctoral: Emily Witte, Kansas State University <i>Exercise Intensity and Middle Cerebral Artery Dynamics in Humans</i> Jesse Stein, Kansas State University <i>Effects of Caffeine on High-Intensity Functional Training Performance in High- vs. Low-Caffeine Users</i>	Morelia
11:00-11:15	<b>Break</b>	
11:15-12:00	Lauren Ptomey, PhD, RD, LD & Amanda Szabo-Reed, PhD University of Kansas Medical Center <i>Using Technology for the Delivery of Physical Activity Interventions</i>	Morelia
11:15-12:00	Chad Kerkstick, PhD & Hannah Zabriskie, BS Lindenwood University <i>Evaluating Changes in Energy Expenditure, Dietary Intake, and Energy Availability in Female Collegiate Athletes</i>	Monterrey
12:00-1:30	<b>Luncheon Speaker</b> Jonathan Oliver, PhD, CSCS*D, USAW Texas Christian University <i>Protection Before Impact: The Potential Neuroprotective Role of Nutritional Supplementation in Sports-Related Head Trauma</i>	Morelia
1:30-1:45	<b>Break</b>	
1:45-2:30	<b>Student Meeting</b> Francis Neric, MS, MBA American College of Sports Medicine <i>I Graduated. Now What? The Role of Certification in the Exercise Profession</i>	Monterrey
1:45-2:30	<b>Professional Business Meeting</b> Adam Bruenger, PhD, CSCS University of Central Arkansas	Morelia
2:30-2:45	<b>Closing Remarks</b> , Jason D. Wagganer, Past-President	Morelia



## Session Presenter Biographies



### **Matthew S. Ganio, PhD**

Matt Ganio received his Undergraduate and Master's degrees from the University of Georgia, his Ph.D. from the University of Connecticut, and did post-doctoral training at the University of Texas Southwestern Medical School in Dallas. He is currently an Associate Professor and Department Head of Health, Human Performance and Recreation at the University of Arkansas.

Dr. Ganio has been awarded over \$750,000 in grants and contracts, published over 90 scientific articles, and 8 book chapters related to his research on hydration, thermoregulation, and health. Specifically, Dr. Ganio is investigating the mechanisms by which cardiovascular and thermoregulatory responses may be altered in healthy and patient populations during stresses such as dehydration, exercise, and heat exposure. Dr. Ganio is on the Editorial Board of the American Journal of Physiology, Journal of Athletic Training, Frontiers in Nutrition, and Journal of Strength and Conditioning Research.

Additionally, he serves on the Medical and Science Advisory board of the Korey Stringer Institute and is the state representative for Arkansas in the Central States American

College of Sports Medicine. He is a member of the American Physiological Society and Fellow of the American College of Sports Medicine.



### **Kirk McCullough, MD**

Kirk McCullough, M.D. is an Orthopaedic Sports Medicine and Foot/Ankle surgeon at the Kansas City Orthopaedic Institute. He is board certified in Orthopedic Surgery along with subspecialty certification in Sports Medicine. Born and raised in Kansas City, he is a graduate of the University of Kansas School of Medicine and completed his Orthopaedic Residency at Vanderbilt University Medical Center in Nashville, TN. After residency, Dr. McCullough completed a fellowship in Sports Medicine and Shoulder/Elbow Surgery at OrthoCarolina in Charlotte, NC, followed by an additional year of Orthopaedic Foot/Ankle fellowship training at the Cleveland Clinic Foundation in Cleveland, OH. He currently serves as a member of the NFL Foot and Ankle Subcommittee, assistant team physician for the Kansas City Chiefs, and team physician for Sporting KC and Swope Park Rangers professional soccer teams in Kansas City.



## **Robin Shook, PhD**

Robin Shook is a Research Assistant Professor in the Department of Pediatrics at Children's Mercy and the Center for Children's Healthy Lifestyles and Nutrition. His research interests include both public health and clinical approaches to understanding obesity. His clinical studies focus on energy balance, which is the interaction between an individual's diet, their physical activity level, and their body weight. This is an important area of research as there can be many physiological changes when someone tries to lose weight through dieting or exercise that may result in less than expected weight loss. From these studies, his team tries to develop strategies to prevent or reduce obesity on a population level using public health approaches.



## **Aaron Gray, MD**

Aaron Gray practices sports medicine at MU Health Care. He is an associated professor in the Departments of Orthopaedics and Family Medicine at the University of Missouri School of Medicine. He is board certified in family medicine and has a Certificate of Added Qualifications in sports medicine. He specializes in pediatric and adult sports medicine and non-operative treatment of musculoskeletal injuries. His specific areas of interest include stress fractures, overuse injuries, pitching and throwing injuries and concussions. Dr. Gray also is medical director of the Human Performance Institute. A graduate of the University of Tennessee Health Science Center-College of Medicine, he completed his residency at the University of Missouri. He also completed a primary care sports medicine fellowship at the University of California-Los Angeles. While at UCLA, he was the team physician for men's soccer, baseball, men's volleyball, women's golf and assistant team physician for football. Dr. Gray also has traveled internationally with U.S. Soccer Youth National Teams as a team physician, and he previously was a team physician for Mizzou Baseball and Women's Volleyball.



### **Michael E. Rogers, PhD**

Michael Rogers is a professor of Exercise Science at Wichita State University. He is also the Director for the WSU Center for Physical Activity and Aging. He has more than 90 published papers and made more than 400 presentations, regularly presenting in Europe and Asia. Dr. Rogers is internationally recognized for his research concerning the effects of balance and resistance training on older adults. Currently, Dr. Rogers is collaborating on studies regarding the efficacy of community-based exercise programs throughout Japan where he has visited 16 times and held visiting scholar positions twice. In addition, he works with several companies on product development and evaluation.



### **Stuart McIntosh, DC**

Stuart McIntosh is an assistant professor for Cleveland University-Kansas City's (CUKC) Doctorate of Chiropractic program. After several years in private practice, Dr. McIntosh joined CUKC in 2014. He has managed patient care in the Chiropractic Health Center as a full-time clinical educator, and currently serves as an academic instructor for the chiropractic program teaching physiotherapy courses that focus on functional movement assessment, soft tissue diagnosis and management, and rehabilitation.

He holds BS from Lindenwood University, MS in Sports Science and Rehabilitation from Logan University, and a DC degree from Logan University. He is certified through the National Strength and Conditioning Association (CSCS) and Functional Movement Systems (SFMA).

He has worked with the National Board of Chiropractic Examiners (NBCE) as both a committee member and a member of the inaugural NBCE Evidence Informed Practice Workshop. He has also worked with the Southeast Missouri State University Sports Medicine Department, the Hidden Valley Ski Patrol, as an onsite corporate wellness provider with Active Release Techniques, and has coached high school track and field athletes.

Dr. McIntosh works with athletes of all ages to correct poor movement patterns and enjoys working with "occupational athletes," or those who perform manual labor for a living.





### **Bryan Smith, PhD, CSCS**

Bryan Smith obtained his doctorate from the University of Missouri-Columbia in 2002. He spent 10 years at the University of Kansas as a Research Scientist focusing on Obesity and Weight Management related research. He has been at the Southern Illinois University Edwardsville since 2011. He currently is an Associate Professor in the Department of Applied Health and is the Undergraduate Coordinator of the Exercise Science Program. His research interests include the compensatory mechanisms of exercise induced energy expenditure and the accuracy of “wearable” technology.



### **Alex Bolin, DPT, PT, CSCS**

Alex Bolin earned his Doctorate of Physical Therapy from Rockhurst University in Kansas City, MO. Prior to attending Rockhurst, Alex attended Kansas State University where he earned a B.S. in Kinesiology. In addition, Alex has obtained his Certified Strength and Conditioning Specialist (CSCS) credentials. Alex’s clinical interests include treating active individuals of all ages, ACL injury prevention, and sports performance. He has a passion for working with high school and college athletes and assisting them in return to sport.



### **Lauren Ptomey, PhD, RD, LD**

Lauren Ptomey received her bachelor's degree in Nutrition and Dietetics from Saint Louis University, and her PhD in Medical Nutrition Science from the University of Kansas. She is currently a Research Assistant Professor for the Department of Internal Medicine at the University of Kansas Medical Center. She has over a decade of experience working within the research field with expertise in weight management, energy balance, physical activity and nutrition in both the general population and individuals with intellectual and developmental disabilities. She is interested on how technology can be used to deliver physical activity and weight management interventions to populations who typically don't have access to these types of services. Dr. Ptomey is currently MPI on two NIH funded grants, one that delivers weight management to adults with intellectual disabilities via technology, and one which delivers group exercise to adolescents with intellectual and developmental disabilities using technology. Additionally, she works as the lead health educator and health educator trainer for The Kansas Weight Management Programs; a weight management clinic conducted by the Center for Physical Activity and Weight Management at The University of Kansas Medical Center.



### **Amanda Szabo-Reed, PhD**

Amanda Szabo-Reed is a Research Assistant Professor at the University of Kansas Medical Center's, Center for Physical Activity and Weight Management and Alzheimer's Disease Center. Her research interests pertain to investigating how lifestyle behavioral adherence, particularly to diet and exercise, influence mental/cognitive health with the aim of 1) examining moderators of cognitive change and 2) improving cognitive and brain health to improve quality of life long term. Her long-term goal is to apply an understanding of psychology, neuroscience, exercise, and weight management to become an independent investigator examining the neuroscience of health behaviors. She currently has over 48 publications in this field and is funded through a KL2 award and as a Co-investigator on several ongoing R01 trials.



## **Chad Kerksick, PhD**

Chad Kerksick is an Associate Professor of Exercise Science in the Exercise Science department in the School of Health Sciences at Lindenwood University. He founded and directs the Exercise and Performance Nutrition Laboratory at Lindenwood University and his primary research interests include sport nutrition. He is currently certified as a sports nutrition by the International Society of Sports Nutrition and as a strength and conditioning specialist through the National Strength and Conditioning Association. Dr. Kerksick currently serves on the Board of Directors for the NSCA Foundation and as a Senior Associate Editor for the Journal of Strength and Conditioning Research. His current research investigates the impact of acute and chronic exercise and nutritional interventions on the physiological, biochemical, and molecular responses that impact muscle function, hypertrophy and atrophy in athletes, aging, and other clinical populations.



## **Hannah Zabriskie, BS**

Hannah Zabriskie is studying to obtain a Master of Science degree from Lindenwood University in the field of Health Sciences with an emphasis in Sport Science and Performance. Hannah graduated *summa cum laude* from Utah State University with degrees in Kinesiology and Statistics. Hannah is interested in advancing the body of knowledge surrounding female athletic performance and exercise physiology.



## GSSI LUNCHEON SPEAKER



### **Jonathan M. Oliver, PhD, CSCS\*D, USAW**

Jonathan Oliver is an Assistant Professor in the Department of Kinesiology within the Harris College of Nursing and Health Sciences at Texas Christian University (TCU) and inaugural Director of The Sport Science Center at TCU, completed his Ph.D. in Kinesiology at Texas A&M University in College Station, TX and M.Ed. in Kinesiology at the University of Texas at Austin. Following his Ph.D., he completed postdoctoral training at the University of Pittsburgh, working in Virginia Beach, on a Department of Defense Grant improving performance and preventing injury in Naval Special Warfare Operators (SEALs). Initially trained in data analytics and later pursuing additional education in Kinesiology (strength & conditioning), sport science is the primary focus of his research. However, recognizing that within sport science, athlete health is often absent, he more broadly characterizes his research to be dedicated toward the whole athlete; more specifically, sport/military performance and athlete health (sport science and medicine). A primary focus of his athlete health research agenda includes subconcussive impacts. Dr. Oliver has conducted some of the only large-scale studies in athlete

populations examining the effect of routine subconcussive impacts on blood biomarkers of head trauma in addition to conducting the only large-scale clinical trial to investigate the potential neuroprotective effect of nutritional supplementation. That work, and the more than 50 publications and 150 presentations, are a result of his graduate and undergraduate students who continue to make every day more interesting and exciting.





### **Francis Neric, MS, MBA**

Francis Neric is the National Director of Certification for the American College of Sports Medicine (ACSM). Neric leads the development and administration of ACSM's state-of-the-art certification programs. He also serves on the Committee on Accreditation for the Exercise Sciences (CoAES) which directly supports the mission, vision, and values of the College. Neric also has 14 years of coaching experience of age-group, collegiate, and masters level swimming. Neric has an Exercise Science BS from CSU Long Beach, a Clinical Exercise Physiology MS from CSU Fullerton, and a Management MBA from University of Colorado at Colorado Springs. While at CSU Fullerton Neric published "Comparison of Swim Recovery and Muscle Stimulation on Lactate Removal After Sprint Swimming" with the Journal of Strength and Conditioning Research.



### **Adam Bruenger, PhD, CSCS**

Adam Bruenger is an associate professor in the department of Exercise and Sport Science at the University of Central Arkansas. He is the current president of the Central States ACSM regional conference and is also currently the Arkansas state coordinator for the NSCA. He earned his PhD in Kinesiology with an emphasis in Biomechanics from Michigan State University, his Masters in Exercise Science from the University of Wisconsin LaCrosse and his Bachelors of Science in Education from Concordia University-Nebraska. His research focuses on biomechanical evaluation of strength training exercises. Adam was previously an athletic director and coach at the high school level. He has coached football, wrestling, track and field, and cross country. Adam is a certified as a strength and conditioning specialist (CSCS) through the NSCA and a Level II sprint and hurdles coach through USA track and field.

## Past Central States – ACSM Presidents

<b>Year</b>	<b>Name</b>	<b>University/Organization</b>
2004	Rich Sabath	Children's Mercy Hospital
2005	Michael Rogers	Wichita State University
2006	Joe Pujol	Southeast Missouri State University
2007	Barbara Bushman	Missouri State University
2008	Kenneth Turley	Harding University
2009	Steve Sayers	University of Missouri
2010	Phil Gallagher	University of Kansas
2011	Greg Kandt	Fort Hays State University
2012	John Thyfault	University of Missouri
2013	Steve Burns	University of Central Missouri
2014	Andrew Fry	University of Kansas
2015	Mike Godard	University of Central Missouri
2016	Michelle Gray	University of Arkansas
2017	Scott Richmond	Lindenwood University
2018	Jason Wagganer	Southeast Missouri State University