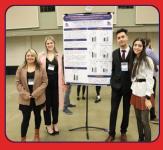
# 2024 TACSM ANNUAL MEETING PROGRAM







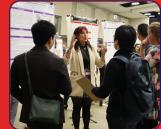






































**February 22-23, 2024**Waco Convention Center
Waco, Texas





### WELCOME MESSAGE

The 2024 Texas ACSM annual conference will be held Thursday, February 22nd and Friday, February 23rd at the Waco Convention Center. We have assembled another amazing group of speakers and feel that our final program is extremely well-rounded, providing "something for everyone" in attendance. We encourage everyone to seek out and spend time visiting with our vendors during the meeting, as they each make significant contributions to our annual meetings. Parking continues to be free in Heritage Square surrounding the Waco Convention Center.

Thursday afternoon will commence with registration open at 1:00 p.m. and our first round of concurrent sessions at 2:00 p.m. That will be followed by three more rounds of concurrent sessions held in the Brazos Ballroom, then things move into Chisholm Hall for the evening events and networking! Our poster presentation format has changed for 2024 with student poster finalists standing by their posters from 5:30 to 6:30 p.m. as teams of judges make their way through the exhibit hall to determine who will move to the President's Cup round. This year, the top 3 in each poster category will move on! Following the judging session, the TACSM student research poster session will open from 6:30 to 7:30 p.m. for all poster presenters to showcase their research. The TACSM Social and Sponsor Fair also commence at 5:30 p.m. in Chisholm Hall. For those that are interested, there will be an informal meet and greet at J.S. Barnett's Pub which is a short walk from the Waco Convention Center.

Friday starts off with a new edition to the meeting agenda. The first ever Women's Panel Breakfast (RSVP required) opens at 7:15 a.m., and the day will open in Chisholm Hall with a 2nd opportunity for students to stand by their posters during the President's Cup judging round and a Graduate Student Fair. The meeting will then shift back to a focus on presentations with two rounds of talks that will lead into our Keynote Address, the Raven Lecture at 11:00 a.m. This year's Raven Lecture will be given by Dr. George Brooks on Muscle and Whole Body Lactate Kinetics. Lunch will be provided and following that, in a brand-new time slot, the always entertaining TACSM Student Bowl XV competition will take place and will be immediately followed by the TACSM Awards Ceremony to close the 2024 Annual Meeting. Please stick around to cheer on the winners!

Steven E. Martin, Ph.D., ACSM-CCEP 2024 TACSM President and Program Chair Texas A&M University



### **GENERAL INFO**

#### **CONFERENCE REGISTRATION**

To register online, go to the Texas ACSM website (<u>www.tacsm.org</u>).

·Professional member: \$125.00

·Non-member professional: \$160.00 (plus 1-year chapter membership)

·Student member: \$45.00

Non-member student: \$45.00 (plus 1-year chapter membership)

Early registration ends February 16th at which time rates will increase.

### **DIRECTIONS TO THE CONFERENCE**

The Waco Convention Center is located in downtown Waco, TX. The physical address for the convention center is 100 Washington Avenue, Waco, TX 76701.

Attendees are asked to park in Heritage Square, a city block of surface parking located at 3rd Street and Austin Avenue, and bounded by 4th Street and Washington Avenue. Buses should be parked on this lot as well. Buses and vehicles taking more than one parking spot are not allowed in the parking lot facing Franklin Avenue.

For detailed driving directions, please visit the Texas ACSM website (www.tacsm.org).

## **HOTELS**

·See TACSM website for more info, room blocks are limited.

Hilton Waco
Courtyard Waco
Hotel Indigo Waco
Hampton Inn & Suites Waco-South
SpringHill Suites Waco
Comfort Suites Waco

## 2024 TEXAS ACSM PROGRAM



## DAY 1

1:00 - 7:30 P.M. REGISTRATION OPENS & NAME BADGE PICK-UP.

Room: Upper Lobby

1:00 - 8:30 P.M. **VENDOR BOOTHS OPEN** 

Room: Chisholm Hall

1:00 - 4:00 P.M. POSTER SET-UP OPENS

Room: Chisholm Hall

#### 2:00 - 2:45 P.M. CONCURRENT SESSIONS



**ACSM SPONSORED TALK** 

Gina Cortese Shipley, M.S. of Sports Medical Control of the WAY. The Ins and Outs of Accreditation:

An Introduction for Faculty Members

**Room: Brazos Ballroom North** 



STUDENT PRESENTATIONS

**2024 SRDA Presentation Finalists** 

Rapid Fire: The Student Research Grant Proposals Edition

Room: Brazos Ballroom South

#### 2:55 - 3:40 P.M. CONCURRENT SESSIONS



INVITED SCIENTIFIC TALK

John McCarthy, Ph.D.
Satellite Cell Proliferation is Not
Obligatory for Myofiber Fusion during

Muscle Hypertrophy

**Room: Brazos Ballroom North** 



**INVITED NUTRITION TALK** 

Nick Barringer, Ph.D., RD

Good Nutrition In Challenging Places: Warfighter Nutrition in a Deployed

**Environment** 

**Room: Brazos Ballroom South** 

## Thursday, February 22, 2024

#### 3:50 - 4:35 P.M. CONCURRENT SESSIONS



INVITED TACTICAL TALK Andrew Jagim, Ph.D. & Annette Zapp, M.A.

Drinking Science through a Fire Hose: Navigating the Field of Firefighter Health and Performance Research

Room: Brazos Ballroom North

ROOM: Brazos Bam Gom North



INVITED SCIENTIFIC TALK

Monica Hubal, Ph.D.
Drivers of Insulin Sensitivity
Responses to Exercise Training: A
Systems Biology Approach

Room: Brazos Ballroom South

### 4:45 - 5:30 P.M. CONCURRENT SESSIONS

### **ROUNTABLE PANEL DISCUSSION**

Panelists: Dr. Jasdeep Kaur, Dr. Abbie Smith-Ryan, Dr. Valerie Stevenson, and Ms. Annette Zapp Sharing the Mic: TACSM Women's

Panel Discussion

**Room: Brazos Ballroom North** 



GSSI LECTURE Brandon Shepherd, M.S.

Back to Basics: Physiology of Sweat

and Sweat Testing

**Room: Brazos Ballroom South** 

5:30 - 6:30 P.M. STUDENT POSTER FINALIST JUDGING SESSION

Room: Chisholm Hall

6:30 - 7:30 P.M. STUDENT RESEARCH POSTER SESSION (ALL PRESENTERS)

Room: Chisholm Hall

6:00 - 8:30 P.M. TACSM SOCIAL & SPONSOR FAIR

Room: Chisholm Hall

8:45 - TBD P.M. INFORMAL MEET AND GREET

J.S. Barnett's Pub

## 2024 TEXAS ACSM PROGRAM



DAY 2

Friday, February 23, 2024

7:15 - 11:30 A.M. REGISTRATION OPENS & NAME BADGE PICK-UP.

Room: Upper Lobby

7:15 - 9:00 A.M. COFFEE/CONTINENTAL BREAKFAST

Room: Chisholm Hall

7:15 - 8:15 A.M. WOMEN'S BREAKFAST (RSVP

**REQUIRED)**Room: McLennan Hall 209

7:45 - 8:00 A.M. TACSM BUSINESS MEETING

Room: Brazos Ballroom

**VENDOR BOOTHS OPEN** 8:00 A.M. -

1:00 P.M. Room: Chisholm Hall

8:00 - 9:20 A.M. PLENARY SESSION

PRESIDENTS CUP JUDGING AND GRADUATE STUDENT FAIR

**ALL PRESENTERS INVITED TO STAND AT** 

THEIR POSTERS

Room: Chisholm Hall

9:30 - 10:10 A.M. **OPENING LECTURE** 

INVITED SCIENTIFIC TALK Abbie Smith-Ryan, Ph.D., FACSM Scientific Skills for Life: A Journey of Collaboration & Creativity

Room: Brazos Ballroom

11:00 - 11:50 A.M. **KEYNOTE ADDRESS** 

THE RAVEN LECTURE George Brooks, Ph.D., FACSM Muscle and Whole Body Lactate Kinetics: Organ-Organ, Cell-Cell, Intracellular, and Postprandial

Lactate Shuttles

Room: Brazos Ballroom

11:50 A.M. -**LUNCH PROVIDED BY MILLERS** 12:50 P.M.

**SMOKEHOUSE** 

STUDENT BOWL PARTICIPANTS EAT FIRST

TO MOVE TO CHECK IN **Room: Chisholm Hall** 

12:15 - 12:45 P.M. STUDENT BOWL TEAM, REFEREE, &

SCOREKEEPER CHECK-IN

Teams that are not checked in by 12:45

p.m. will be disqualified. Room: Brazos Ballroom

1:00 - 2:45 P.M. **STUDENT BOWL XV** 

COMPETITION

Who will take home the title and

win a trip to Boston?

Room: Brazos Ballroom

1:00 - 3:30 P.M. POSTER BREAK-DOWN

10:15 - 10:55 A.M. CONCURRENT SESSIONS

**INVITED SCIENTIFIC TALK** Susan A. Bloomfield, Ph.D., FACSM Mission to Mars: Integrative Physiology's Essential Role

Room: Brazos Ballroom

2:45 - 3:45 P.M. TACSM AWARDS CEREMONY

Election results, recognitions, Honor and Service Awards presentation, student award presentations, and

transfer of Presidency. Room: Brazos Ballroom

3:45 P.M. **ADJOURNMENT** 

**INVITED PERFORMANCE TALK** Bryan Mann, Ph.D., CSCS\*D, RSCC\*D, TSAC-F, FNSCA For Sport to Any Population- The

Force Velocity Profile and You

**Room: Bosque Theater** 

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## 2024 TEXAS ACSM SPONSORED TALKS





#### **SESSION SPONSORED BY**

**Abbie Smith-Ryan, Ph.D., FACSM**Scientific Skills for Life: A Journey of
Collaboration & Creativity





#### **SESSION SPONSORED BY**

THE RAVEN LECTURE
George Brooks, Ph.D., FACSM

Department of Kinesiology
COLLEGE OF NURSING AND HEALTH INNOVATION

Muscle and Whole Body Lactate Kinetics: Organ-Organ, Cell-Cell, Intracellular, and Postprandial Lactate Shuttles

#### **SESSION SPONSORED BY**



## STUDENT BOWL XV COMPETITION

Who will take home the title and win a trip to Boston?





#### **SESSION SPONSORED BY**

**Susan A. Bloomfield, Ph.D., FACSM**Mission to Mars: Integrative Physiology's Essential Role





## SESSION SPONSORED BY TEXAS ACSM STUDENT RESEARCH POSTER SESSION





#### **SESSION SPONSORED BY**

**Nick Barringer, Ph.D., RD**Good Nutrition In Challenging Places: Warfighter
Nutrition in a Deployed Environment





#### SHARING THE MIC: TACSM WOMEN'S PANEL DISCUSSION

Panelists: Dr. Jasdeep Kaur, Dr. Abbie Smith-Ryan, Dr. Valerie Stevenson, and Ms. Annette Zapp







#### **SESSION SPONSORED BY**

### John McCarthy, Ph.D.

Satellite Cell Proliferation is Not Obligatory for Myofiber Fusion during Muscle Hypertrophy



#### **SESSION SPONSORED BY**



#### **2024 SRDA Presentation Finalists**

Rapid Fire: The Student Research Grant Proposals Edition



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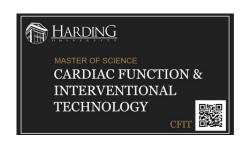














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WE WOULD LIKE TO THANK NATIONAL ACSM AND GSSI FOR THE CONTINUED SUPPORT OF REGIONAL CHAPTERS!







## **KEYNOTE SPEAKER**

## **GEORGE A. BROOKS, PH.D., FAPS, FACSM, FECSS**

Distinguished Professor of Integrative Biology University of California, Berkeley Docteur Honoris Causa

de l'Université Montpellier

George A. Brooks, Ph.D. is Professor of Integrative Biology at the University of California, Berkeley. Dr. Brooks is a Fellow of the American Physiological Society (APS), American College of Sports Medicine (ACSM), and European College of Sports Science (ECSS). From athletics and exercise and altitude physiology research George A. Brooks developed the Lactate Shuttle concept. Lactate shuttling has three functions; lactate is a fuel energy source, the main gluconeogenic precursor, and a signaling molecule with autocrine, paracrine and endocrine functions. Endurance training develops the capacities to produce, remove and utilize lactate as a fuel energy source. Lactate is favored as a fuel by working red muscle, heart, liver and brain. Moreover, from extant data related to the Hepatic Glycogen Paradox, it was possible to educe that a Postprandial Lactate Shuttle plays a major role in dietary carbohydrate metabolism. As a result of new understanding lactate is used to provide metabolic support to endurance athletes and as an extracellular fluid replacement (e.g., dehydration, hypovolemia, hemorrhage), metabolic acidosis, heart failure, myocardial infarction, inflammation and Dengue. As well, lactate supplementation being evaluated to treat, traumatic brain injury and sepsis. A notable exception to lactate efficacy is cancer where lactate shuttling needs to be blocked. In his lecture Brooks will inform about Lactate Shuttle theory and encourage others to translate theory into practice.



## THANK YOU DR. BROOKS FOR GIVING THE 2024 RAVEN LECTURE





## **DAY 1 SPEAKER BIOS**

## **GINA CORTESE SHIPLEY, M.S.**

Committee on Accreditation for the Exercise Sciences (CoAES)

Gina Cortese Shipley, M.S. is the Executive Director for the Committee on Accreditation for the Exercise Sciences, leading operations in alignment with the Commission on Accreditation of Allied Health Programs (CAAHEP). Gina has a deep passion for health and wellness which extends from improving the lives of consumers, to creating support for exercise professionals, to strengthening the industry at large. In as much, she has served as an advisor and subject matter expert; a speaker for many educational series, conferences, and certification courses nationally and internationally; authored several articles and books; and developed web and mobile applications. Prior to her current role, Gina served at The Cooper Institute where she was a member of both the CoAES and the Coalition for the Registration of Exercise Professionals.



## **JOHN J. MCCARTY, PH.D.**

Center for Muscle Biology, Department of Physiology, College of Medicine, University of Kentucky

Dr. McCarthy received a B.S. in Biology from the University of California at Irvine, a M.S. in Physical Education for California State University at Fullerton and a PhD in Exercise Physiology from the University of Oregon. He completed post-doctoral training at the University of Illinois at Urbana–Champaign and the University of Missouri at Columbia. He is a Professor in the Department of Physiology at the University of Kentucky. The primary focus of his lab is to better understand the molecular and cellular mechanisms regulating skeletal muscle mass in response to exercise and with aging. Ongoing projects are investigating the role of the muscle–specific microRNA miR–1, satellite cells and the gut microbiome in the regulation of muscle metabolism and hypertrophy. His research is supported by funding from NIH.



## **NICK BARRINGER, PH.D., RD**

Army-Baylor Master's Program in Nutrition

Nick Barringer is an expert on nutrition and performance for the tactical athlete. Nick currently serves as the Army-Baylor Master's Program in Nutrition program director. He also served as an assistant professor at the United States Military Academy at West Point. Previously while working at the United States Army Research Institute of Environmental Medicine, Nick researched Warfighter nutritional requirements in differing environments, including deployed Special Operators. Before that, he taught performance nutrition at the Army-Baylor Graduate Program in Nutrition. Nick served in the 75th Ranger Regiment as a member of the Ranger Athlete Warrior (RAW) program, where he oversaw the nutrition and aspects of the physical training of Rangers. Nick received his undergraduate degree in dietetics from the University of Georgia, and his doctorate in kinesiology from Texas A&M. Nick is married to Kathrin Barringer, and they have one daughter Sawyer and two sons Wolfe and Axel.



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## **DAY 1 SPEAKER BIOS**

## **ANDREW JAGIM, PH.D., CSCS\*D, CISSN**

Director of Sports Medicine Research Mayo Clinic Health System

Andrew Jagim, Ph.D., CSCS\*D, CISSN, is currently the Director of Sports Medicine Research for the Mayo Clinic Health System in La Crosse, Wisconsin. Dr. Jagim completed his Ph.D. in Exercise Physiology at Texas A&M University. His primary research area focuses on how various nutrition and exercise-related strategies influence the performance and health of athletes. Dr. Jagim's research also focuses on the physiological demands of various sports and tactical professions and how they pertain to injury, recovery status, and performance. Andrew is also a certified strength & conditioning specialist through the National Strength & Conditioning Association and a certified sports nutritionist through the International Society of Sports Nutrition and has worked as a consultant for various clients and athletes.



## **ANNETTE ZAPP, M.A., CSCS\*D, CISSN**

City of Chicago Firefighter; Owner. Fire Rescue Wellness

Annette Zapp, MA, CSCS\*D, CISSN, is a recovering biochemist who wandered into the fire service 20 years ago and never left. She found what broke her heart and thereby discovered her purpose. The fact that firefighters pledge their lives in the service to the public, and yet no one is taking care of them while they die of complications of cardiovascular disease, cancer, and suicide, is unacceptable. AZ finds the research and resources and brings them to the fire service in a way that provides them with the "So what, now what?" AZ owns and operates Fire Rescue Wellness and hosts the FRW podcast, which drops weekly on Tuesdays.



## **MONICA J. HUBAL, PH.D., FACSM**

Indiana University - Indianapolis

Monica Hubal currently works at Indiana University-Indianapolis. She is an Associate Professor of Kinesiology and is affiliated with the Indiana Center for Musculoskeletal Health. Dr. Hubal's main research interests are elucidating what factors make some people more prone to obesity, type 2 diabetes, and cardiometabolic disease (especially earlier in life) and identifying ideal intervention strategies to regain health. She is dual-trained in exercise physiology and genetic medicine, making her a key inter-disciplinary expert in molecular exercise science and cardiometabolic research.





## **DAY 1 SPEAKER BIOS**

## **BRANDON SHEPHERD M.S., CSCS**

Gatorade Sports Science Institute-Life Sciences R&D, PepsiCo Inc.

Brandon is an exercise scientist working at the Gatorade Sports Science Institute (GSSI), in Bradenton, FL. Before joining GSSI, Brandon received a master's degree in exercise physiology at Mississippi State University (MSU). Brandon's research background includes nutrition, technology, and training modification for performance. In his current role, Brandon is a member of the GSSI Insights and Innovation Team where he supports new product formulations and athlete insights. In his spare time, Brandon enjoys spending time with family and friends, traveling, and cooking.



## **WOMEN'S PANEL MEMBERS**



Jasdeep Kaur, Ph.D.
The University of Texas
at Austin



Abbie Smith-Ryan, Ph.D., FACSM, FNSCA, FISSN University of North Carolina at Chapel Hill



Valerie Stevenson, DAT, ATC, LAT, CSCS University of North Texas



CSCS\*D, CISSN

City of Chicago: Fire Rescue

Wellness



### **DAY 2 SPEAKER BIOS**

## ABBIE E. SMITH-RYAN, PH.D., CSCS\*D, FNSCA, FACSM, FISSN

Professor and Associate Chair for Research, Department of Exercise & Sport Science, University of North Carolina, Chapel Hill Abbie E. Smith-Ryan, Ph.D., CSCS\*D, FNSCA, FACSM, FISSN is a Professor in the Department of Exercise and Sport Science, where she serves as the Associate Chair for Research, and Director of the Applied Physiology Lab. She is an active researcher in the field of body composition, metabolism, sport nutrition and exercise performance, with a special interest in female health. Dr. Smith-Ryan contributes to the current body of scientific literature with over 185 peer-reviewed manuscripts, a number of scholastic books and book chapters, and international/national presentations. She is a leader in the field and has been recognized by the National Strength and Conditioning Association as the Outstanding Sports Scientist of the Year (2022), Young Investigator of the Year (2015), and the Nutrition Researcher of the Year (2013). Dr. Smith-Ryan has a passion for improving the health and quality of life of others through evidence-based research.



## SUSAN A. BLOOMFIELD, PH.D.. FACSM, FASBMR, FNAK

Research Professor, Kinesiology & Sport Management Texas A&M University

Susan A. Bloomfield, PhD, is Research Professor of Kinesiology at Texas A&M University. The long-standing objective of her integrative physiology laboratory was to understand the skeletal response to microgravity, including interactive effects of nutritional intake and radiation exposure. This work was funded by NASA and related agencies (~\$5.5 million in awards as PI). While at TAMU, she also served as Asst. Provost in the Graduate School and Associate Research Dean for her college. Dr. Bloomfield is a Fellow of the American College of Sports Medicine, the American Society of Bone & Mineral Research, and the National Academy of Kinesiology. She has served on three National Academy of Sciences, Engineering and Medicine committees advisory to NASA, including co-chairing last year's NASA Decadal Survey Biological Sciences Panel.



## BRYAN MANN, PH.D., CSCS\*D, RSCC\*D, TSAC-F, FNSCA

Clinical Associate Professor Texas A&M University

Dr. Bryan Mann joins Texas A&M University after serving as an Associate Professor, Director of Sports Science for Olympic Sports and Exercise Physiology program director at the University of Miami. He has also served as a coach, researcher and educator at various institutions, including Southwest Missouri State University, Arizona State University, the University of Tulsa and the University of Missouri. Mann's commitment to strength and conditioning has contributed to popularizing autoregulation training methods, including velocity-based training and progressive resistance exercise protocols, which help athletes improve their strength and power. He has also consulted for professional sports organizations and worked with student-athletes who went on to compete in the Olympics.





## **TEXAS ACSM SOCIAL MEDIA**







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