



10:00 – 10:10 am [Chris Lockwood PhD](#), Nutrabolt – Kickoff

Early Morning Session Moderator - K. Michelle Singleton PhD CISSN - Coastal Carolina University

10:10 – 10:30 am Jose Antonio PhD FISSN– Muscle Hustle: All About Protein – [Nova Southeastern University](#), Department of Health and Human Performance, Davie, Florida USA

10:30 – 10:50 am Darren Candow PhD FISSN– This Is Your Brain On Creatine – [University of Regina](#), Kinesiology and Health Studies, Regina, Saskatchewan, Canada

10:50 – 11:10 am Jeff Stout PhD FISSN – Buffer Up! Beta-Alanine and Sodium Bicarbonate – [University of Central Florida](#), College of Health Professions and Sciences, Orlando, Florida USA

Late Morning Session Moderator - Cassie Evans PhD RD CISSN - NSU Florida

11:10 – 11:30 am Tim Ziegenfuss PhD FISSN – From Beet Juice to Buzz Juice: Nitrates, Caffeine, Teacrine™, and Dynamine™ - [The Center for Applied Health Sciences](#), Canfield, Ohio USA

11:30 – 11:50 am Chris Lockwood PhD & [Mike Roberts PhD](#) – Protein Bioactives – Beyond Amino Acids & Total Nitrogen – [Auburn University](#), Nutrabolt Molecular and Applied Sciences Lab, Auburn, Alabama USA

11:50 - 12:30 pm Ergogenic Aids Panel Discussion & Q&A - Moderator - *Chris Lockwood PhD and Richard Kreider PhD FISSN*

12:30 – 1:30 pm Lunch Break (Nutrabolt Café)

Early Afternoon Session Moderator - Katie Vasenina PhD CISSN - University of Tampa

1:30 – 1:50 pm Shawn Arent PhD FISSN– Decode your Mojo: Biomarkers for Performance – [University of South Carolina](#), Arnold School of Public Health, Columbia, South Carolina USA

1:50 – 2:10 pm Jaime Tartar PhD FISSN – Bedtime Gains: Sleep is the Secret Sauce – [Nova Southeastern University](#), Department of Psychology and Neuroscience, Davie, Florida USA

2:10 – 2:30 pm [Cody Haun PhD](#) – Genetics Directed Training & Nutrition – Founder and CEO of Fitomics.

Late Afternoon Session Moderator - Antonella Schwarz PhD CISSN - Barry University

2:30 – 2:50 pm Alyssa Parten PhD – She-Eats, She-Competes: Female Physiology and Nutrition, [University of Alabama](#), College of Education, Tuscaloosa, Alabama USA

2:50 – 3:10 pm Bill Campbell PhD FISSN – Chiseled by Choice: Nutrition for Physique Sports, [University of South Florida](#), College of Education, Tampa, Florida USA

3:10 – 3:30 pm Tony Ricci EdD FISSN – Fuel to Fight: Combat Sports – It’s More than Just Pretzels and Hummus, [Nova Southeastern University](#), Department of Health and Human Performance, Davie, Florida USA

3:30 – 3:50 pm [Matt Frakes PhD RD](#) – Tackling Nutrition: Applied Performance Nutrition for the NY Football Giants

3:50 – 4:30 pm | Applied Performance Nutrition Discussion and Q&A - Moderator - *Douglas Kalman PhD RD FISSN*



10:00 – 10:10 am **Chris Lockwood PhD**, Nutrabolt – Kickoff and Introductions



10:10 – 10:30 am **Jose Antonio PhD FISSN**– Muscle Hustle: All About Protein – [Nova Southeastern University](#), Department of Health and Human Performance, Davie, Florida USA

BIO: Jose Antonio is the CEO of the ISSN (www.issn.net) and a Professor of Exercise and Sport Science at NSU.

Talk description: Protein remains one of the most debated topics in sports nutrition—surrounded by misconceptions about optimal intake, timing, and sources. In this talk, Dr. Antonio will present original data on high-protein intakes. In 2026, it is baffling that so many don’t understand the basics of dietary protein.



10:30 – 10:50 am **Darren Candow PhD FISSN**– This Is Your Brain On Creatine – [University of Regina](#), Kinesiology and Health Studies, Regina, Saskatchewan, Canada

BIO: Darren G. Candow, Ph.D., CSEP-CEP, FISSN is a Professor and Director of the Aging Muscle and Bone Health Laboratory, Director of Research for the Athlete Health and Performance Initiative and past Associate Dean-Graduate Studies and Research in the Faculty of Kinesiology and Health

Studies at the University of Regina, Canada. The overall objectives of Dr. Candow's research program are to develop effective lifestyle interventions involving nutrition (primarily creatine monohydrate) and physical activity (resistance training) which have practical and clinical relevance for improving properties of muscle, bone and brain health/function. Dr. Candow has published > 150 peer-refereed journal manuscripts, received > \$2 million in research support, and supervised over 20 MSc and PhD students. In addition, Dr. Candow serves as the Head of Sports and Wellness Supplementation for SinSeB, Italy and on the editorial review boards for the Journal of the International Society of Sports Nutrition; Nutrients; Frontiers; Advanced Exercise and Health Sciences and Scientific Reports and as a Scientific Advisor for AlzChem, Create and Iovate. Dr. Candow is also a fellow of the International Society of Sports Nutrition and a Canadian Society for Exercise Physiology-Clinical Exercise Physiologist.

Talk description: Accumulating research indicates that creatine monohydrate supplementation (CrM; 4-30 grams/day) can increase brain creatine levels in various populations. Greater brain creatine content may help explain some of the novel research findings showing that CrM improves measures of brain bioenergetics, health and function. Specifically, CrM has been shown to improve sleep quantity in young females, measures of cognition and memory (with and without periods of sleep deprivation), attenuate symptoms of concussion in children and improve various health outcome measures in clinical populations (i.e. Alzheimer's Disease, clinical depression). Mechanistically, creatine may serve as a neurotransmitter and provide neuroprotective and anti-inflammatory effects, especially during periods of elevated metabolic stress. The optimal dose of CrM needed to achieve these benefits is unknown. Further, any adverse effects on brain function from CrM remain to be fully determined.



10:50 – 11:10 am **Jeff Stout PhD FISSN** – Buffer Up! Beta-Alanine and Sodium Bicarbonate – [University of Central Florida](#), College of Health Professions and Sciences, Orlando, Florida USA

BIO: Dr. Jeffrey Stout is the founding director of the School of Kinesiology and Rehabilitation Sciences at UCF and a leading authority on sports nutrition and human performance. He's published more than 320 papers, secured over \$7 million in research funding, and mentored dozens of doctoral students shaping the future of exercise science.

Talk description: Discover how beta-alanine and sodium bicarbonate can give athletes a critical edge by delaying fatigue and sustaining peak performance. This talk breaks down their unique mechanisms, optimal dosing strategies, and real-world impact in sports from explosive sprints to grueling combat events. We'll also tackle the big question—should you use them alone or together—for the greatest gains in efforts lasting 30 seconds to 10 minutes.



11:10 – 11:30 am **Tim Ziegenfuss PhD FISSN** – From Beet Juice to Buzz Juice: Nitrates, Caffeine, Teacrine™, and Dynamine™ - [The Center for Applied Health Sciences](#), Canfield, Ohio USA

BIO: Dr. Ziegenfuss is the Co-Founder and CEO (also noted as Chief Scientific Officer or Director of Scientific Affairs) of the Center for Applied Health Sciences (CAHS). Prior to his industry roles, Dr. Ziegenfuss spent approximately five years in academia, teaching undergraduate and graduate courses covering exercise physiology, metabolism, body composition, anatomy, pathophysiology, and sports nutrition.

Explore the cutting-edge science behind some of the most popular and effective ergogenic aids in sports nutrition. This talk explores the physiological mechanisms and performance outcomes associated with dietary nitrates (e.g., beetroot juice) for improving oxygen efficiency, caffeine for enhanced focus and endurance, and newer neuroactive compounds like Teacrine and Dynamine, which may offer stimulant-like benefits with fewer side effects. Dr. Ziegenfuss unpacks the latest research, dosage strategies, synergistic effects, and practical applications for athletes and fitness enthusiasts alike.



11:30 – 11:50 am **Chris Lockwood PhD & Mike Roberts PhD** – Protein Bioactives – Beyond Amino Acids & Total Nitrogen – [Auburn University](#), Nutrabolt Molecular and Applied Sciences Lab, Auburn, Alabama USA

BIOS: Christopher M. Lockwood, PhD, is the VP of Scientific Affairs at Nutrabolt. Dr. Roberts received his undergraduate and Masters degree at Baylor University, his PhD at the University of Oklahoma, and his postdoctoral fellowship at the University of Missouri-Columbia. He is currently a Full Professor with dual endowments in the School of Kinesiology at Auburn University where he serves as the Director for the Nutrabolt Applied and Molecular Physiology Laboratory. Dr. Roberts's laboratory primarily examines how nutrition, supplementation, and different modes of exercise training affect skeletal muscle hypertrophy. He currently has over 240 publications in preeminent physiology and nutrition journals, has served senior editor roles for various physiology journals, and has given numerous lectures at regional, national, and international scientific conferences and venues.

Talk description: Protein Bioactives – Beyond Amino Acids & Total Nitrogen - This talk explores the evolving understanding of proteins, highlighting the significance of bioactive components that go far beyond traditional metrics like amino acid composition and total nitrogen content. Attendees will discover how protein-derived peptides, small molecules, and subtle structural motifs exert unique physiological effects, impacting health, metabolism, and cellular signaling. The discussion covers the identification, characterization, and functional roles of these bioactives in food, nutrition, and therapeutics. Participants will gain insights into the latest methods for assessing protein function, the implications for product development, and how harnessing bioactive potential is driving innovation in protein science. This session is ideal for researchers, nutritionists, food technologists, and industry professionals interested in moving past conventional protein analysis toward a holistic understanding of protein functionality in human health.

11:50 - 12:30 pm Ergogenic Aids Panel Discussion – Q & A with all speakers

12:30 – 1:30 pm Lunch Break



1:30 – 1:50 pm **Shawn Arent PhD FISSN**– Decode your Mojo: Biomarkers for Performance – [University of South Carolina](#), Arnold School of Public Health, Columbia, South Carolina USA

BIO: Dr. Arent is Professor and Chair of the Department of Exercise Science at the University of South Carolina’s Arnold School of Public Health. He also leads the USC Sport Science Lab, directing research and innovation in exercise science. His work explores the interplay between training, nutrition, and stress, with a focus on endocrine mechanisms, the HPA axis, and inflammatory biomarkers. His goal is to enhance performance, health, and recovery, particularly in athletes, military personnel, and first responders.

Talk description: This session explores how physiological biomarkers can offer critical insights into an athlete’s readiness, recovery, and overall performance capacity. Dr. Arent breaks down key indicators—including hormonal, inflammatory, and metabolic markers—that reflect training stress, adaptation, and overreaching. Learn how to interpret data from tools like cortisol profiles, cytokine levels, and heart rate variability to personalize training and optimize outcomes. Practical, science-based strategies are highlighted for both coaches and athletes aiming to move beyond guesswork.



1:50 – 2:10 pm **Jaime Tartar PhD FISSN** – Bedtime Gains: Sleep is the Secret Sauce – [Nova Southeastern University](#), Department of Psychology and Neuroscience, Davie, Florida USA

BIO: Dr. Jaime Tartar serves as a Professor and Chair of the Department of Psychology and Neuroscience at Nova Southeastern University (NSU). She played a pivotal role in founding NSU’s neuroscience program and has directed its development since 2015. Dr. Tartar’s research spans stress mechanisms, sleep perturbations, emotional processing, and the emerging field of sports neuroscience—particularly the interplay between sleep, stress, and athletic performance.

Talk description: Dr. Tartar is a leading figure in behavioral neuroscience, blending rigorous academic leadership with pioneering contributions to sleep, stress, and performance research. Her establishment of the Society for NeuroSports underscores her dedication to creating an intellectual home for the dynamic and growing discipline of sports neuroscience. Her seminar will cover the latest original research on the role of sleep in recovery and athletic performance.



2:10 – 2:30 pm **Cody Haun PhD** – Genetics Directed Training & Nutrition – Founder and CEO of [Fitomics](#).

BIO: Dr. Cody Haun is a research scientist and CEO of Fitomics with the vision of building the future of human optimization where precision medicine meets performance. He leads a team of PhDs and

licensed clinicians delivering lab-based assessments and precision coaching that integrate exercise physiology, nutrition, and translational research. Cody's work focuses on skeletal muscle hypertrophy, metabolic health, and translating physiological insights into personalized training and nutrition prescriptions.

Talk description: Genetics-Directed Training and Nutrition examines what current evidence supports—and what it does not—about using DNA to individualize programs. I'll review heritability of training responses, limited single-variant predictiveness, and selected gene–diet interactions. Finally, I'll discuss why epigenetics and multi-omics—particularly system-level, multi-tissue approaches—may offer the most promise for future predictability and truly personalized prescriptions.



2:30 – 2:50 pm **Alyssa Parten PhD** – She-Eats, She-Competes: Female Physiology and Nutrition, [University of Alabama](#), College of Education, Tuscaloosa, Alabama USA

BIO: Dr. Alyssa L. Parten, PhD, CSCS*D, is a Clinical Assistant Professor in the Department of Kinesiology at The University of Alabama. Her research examines how resistance training impacts cardiometabolic health and performance in females, focusing on adaptations in strength, power, muscular endurance, and substrate metabolism. Her work aims to advance understanding of female-specific responses to resistance training and translate these findings into strategies that enhance health and performance across the female lifespan.

Talk description: She-Eats, She-Competes: Female Physiology and Nutrition will examine how hormonal fluctuations and menstrual cycle phases influence nutrient metabolism and performance in competitive females. After a brief overview of cycle phases, Dr. Parten will discuss how key sex hormones impact performance potential, addressing both scientific evidence and current controversies. Drawing on her research comparing lipid oxidation and hormone profiles across the cycle, she will examine whether cycle phase should guide nutrition strategies. The session will feature detailed case studies of competitive female powerlifters, illustrating real-world fueling approaches leading up to and on competition day. Attendees will leave with science-supported and practical “in-the-gym” strategies to enhance performance, recovery, and overall health in competing females.



2:50 – 3:10 pm **Bill Campbell PhD FISSN** – Chiseled by Choice: Nutrition for Physique Sports, [University of South Florida](#), College of Education, Tampa, Florida USA

BIO: Dr. Bill Campbell is a Professor, Fat Loss Scientist, and Director of the Performance & Physique Enhancement Laboratory at the University of South Florida. His research focuses on enhancing exercise performance and physique within a sustainable lifestyle. His pioneering research includes dietary protein intakes to optimize body composition, rapid fat loss strategies, diet breaks, and reverse dieting.

Talk description: New investigational strategies have emerged for physique sport athletes in recent years. These newer approaches involve non-linear dieting strategies and extreme fat loss protocols

that were previously considered off limits. In this talk, Dr. Campbell will present preliminary research from his Performance & Physique Enhancement Laboratory, investigating novel dieting strategies that tomorrow's physique sport athletes will use.



3:10 – 3:30 pm **Tony Ricci EdD FISSN** – Fuel to Fight: Combat Sports – It's More than Just Pretzels and Hummus, [Nova Southeastern University](#), Department of Health and Human Performance, Davie, Florida USA

BIO: Dr. Tony Ricci serves as an Associate Professor within both the Health & Human Performance and Psychology & Neuroscience departments at Nova Southeastern University (NSU) in Fort Lauderdale, Florida. He is a Fellow and Advisory Board member of the International Society of Sports Nutrition (ISSN), serves on the Scientific Advisory Board for the National Academy of Sports Medicine, and holds certifications including CSCS (Certified Strength and Conditioning Specialist), PES (Performance Enhancement Specialist), and CNS (Certified Nutrition Specialist).

Talk description: In this session, Dr. Tony Ricci dives into the science of fueling elite fighters. Drawing from decades of experience coaching world-class MMA and boxing athletes, he unpacks evidence-based strategies for managing weight, maximizing performance, and sustaining recovery in high-intensity combat sports. Topics include periodized nutrition, hydration, metabolic conditioning, and neurocognitive demands unique to fight preparation. Practical insights bridge lab-based science with the demands of real-world competition.



3:30 – 3:50 pm **Matt Frakes PhD RD** – Tackling Nutrition: Applied Performance Nutrition for the NY Football Giants

BIO: Matt R. Frakes, PhD, RD, CSCS, is the Director of Performance Nutrition for the New York Giants, where he optimizes player performance, recovery, and career longevity. A former Division I football athlete, Dr. Frakes holds a PhD in Nutrition and Hospitality Management with research focused on sports-related concussions. His extensive experience includes leadership roles at LSU and the University of Notre Dame, as well as private practice counseling collegiate and professional athletes. He champions a philosophy built on his “4 Pillars of Nutrition Excellence”—choices, consistency, preparation, and timing.

Talk Description

This presentation will focus on the application of evidence-based nutrition within the NFL. We will discuss more than textbook principles and explore the practical strategies used during his first season in the league within the organization. Key topics include the periodization of nutrition across the NFL calendar, position-specific fueling, and strategizing hydration, recovery, and various nutrition interventions. Attendees will gain insight into bridging the gap between sports science research and real-world implementation, while building a performance nutrition culture that elite athletes deserve.