











2023-2024 ANNUAL REPORT

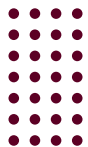
Huffines Institute for Sports Medicine & Human Performance





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MESSAGE FROM THE INTERIM DIRECTOR

As my time as Interim Director of the Sydney and J.L. Huffines Institute for Sports Medicine and Human Performance is ending, I would like to thank you for your continued support. In the past two years, Huffines has met several challenges and exceeded the expectations of many stakeholders. In addition, Huffines hosted two successful community events this year: HD13 and a summit on tactical athletes.

Hilliard Discussion 13 (HD13) was the first in-person discussion since 2019, and what a success it was. The event featured Dr. Heather Linden from the UFC, Dr. Joyce Terrell from Morehouse College, Maj. Evan Carson from Air Force Special Operations Command, Dr. David Suarez from Rice University, and Mr. Saul Luna from Texas A&M Athletics. They spoke on the Ultimate Recovery Modality for Performance including dry needling, shockwave therapy, cryotherapy, and cupping. More than 250 individuals attended in-person and another 150 attended virtually. Congratulations to Ms. Navika Kumar, the producer of HD13. We are planning HD14, please check your inbox for details.

In addition to HD13, Huffines had the opportunity to plan and host the 1ST Annual Tactical Summit in the Bryan/College Station area. Seventy-five individuals including first responders, city representatives, researchers, students, and community members attended this 1½ day event. The summit focused on developing and sustaining a resilient tactical athlete. More information on this event can be found on page 19. A huge thank you to the steering committee and sponsors.

My letter in last year's report spoke about transition. One of the most exciting transitions that we have made this year is the hiring of a new Director, Dr. James Carson. Dr. Carson comes to Huffines with a wealth of knowledge in running institutes. More information about Dr. Carson can be found on pages 2-3 of this report. We welcome him to the Huffines family and look forward to the growth and expansion that is not only on the horizon but at our doorstep.

The transitions did not stop with the addition of a new Director. In early 2024, President Welsh released a space allocation document that directed

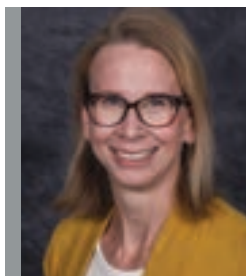
management and oversight of the Human Clinical Research Facility to Huffines. In addition, we were tasked with the renovation of a space in Reynolds to create a laboratory to house a new environmental chamber and other performance testing equipment.

We are beyond excited for the expansion of Huffines. Adding the clinical research facility will provide the opportunity to expand into sports medicine.

The environmental chamber will facilitate research in populations that work in hot and humid climates, including our military operators, industrial workers, and first responders. With the expansion also comes the expansion of our staff including Dr. Jason McKnight, Medical Director of the Human Clinical Research Facility, and Dr. Steve Riechman, Associate Director of the new lab in Reynolds.

With this growth, we have expanded our Internal Advisory Board. The Board has historically been members from Kinesiology & Sport Management and Texas A&M Athletics. The new makeup of the Board consists of additional individuals from the Health Science Center, including Pharmacy, Nursing, and Medicine; Engineering; Public Health; AgriLife; and the community. The expanded Board will assist Huffines in reaching further into the Texas A&M community, both in College Station and around the State of Texas.

The past two years have been a wild ride as the Interim Director! I am grateful to my research laboratory members for their patience and stepping up to the plate when I could not. Thank you to the faculty in Kinesiology & Sport Management, my Department Head, and Dean for supporting me as a faculty member. Lastly, thank you to the Huffines' staff; you all made my time at Huffines incredibly special.



Jenna Yentes, PhD

Interim Director, Sydney and J.L. Huffines Institute for Sports Medicine and Human Performance

Associate Professor, Department of Kinesiology & Sport Management

SPOTLIGHT: Dr. James Carson

This year, after a national search, Dr. James Carson was named Director of the Huffines Institute for Sports Medicine and Human Performance. He is also a Professor in the Department of Kinesiology and Sports Management. He assumed these duties in June of 2024. Dr. Carson came to Texas A&M from the University of Tennessee Health Science Center in Memphis (UTHSC), where he served as the Senior Associate Dean for Research and Graduate Studies in the College of Health Professions and a Professor in the Department of Physical Therapy.

At UTHSC, he also served as the Director of the Tennessee Institute for Regenerative Medicine and head of the Rehabilitation Sciences Division in the College of Health Professions. Outside of the many administrative positions he has held at the department, college, and university levels, he has led his Integrative Muscle Biology Laboratory for over 25 years.

Dr. Carson received his B.S. in Business Administration and PhD in Education with an emphasis in Exercise Physiology from The Ohio State University. At Ohio State, he was a 3-year Varsity letterman in football and a Graduate Assistant Strength and Conditioning Coach with the Ohio State Athletic Department, where he worked with football, men's and women's basketball, and ice hockey teams.

He received his research training in cell biology during post-doctoral research fellowships at the University of Texas Health Science Center in Houston and Baylor College of Medicine. His research integrates his training as an exercise physiologist with molecular and cell biology techniques. His Integrative Muscle Biology Laboratory has had a long-term focus on biological mechanisms that regulate

skeletal muscle mass, regeneration and metabolism. These outcomes have critical roles in key health outcomes that include frailty with aging and the quality of life and survival of cancer patients.

He has over 125 peer-reviewed publications in these areas that have accumulated over 11,000 citations. Federal agencies have funded his research for over 20 years, and he has been an active collaborator on many funded projects with junior investigators.

Dr. Carson brings a record of organization and productivity to the Huffines Institute Director role.

Student and faculty mentorship has been a cornerstone of Dr. Carson's laboratory and administrative career.

He has successfully mentored student trainees and faculty at the department, college, and research center levels. He brings considerable leadership experience in research centers and institutes related to colon cancer and tissue regeneration. He looks forward to applying his leadership experience to provide faculty and student mentorship to grow the Huffines Institute as a resource for faculty-driven research, cross-college collaborative opportunities, and scholarship.

Furthermore, he brings extensive experience and a strong interest in disseminating and applying exercise physiology knowledge to performance-based areas such as athletics and rehabilitation. Dr. Carson and his wife of 37 years, Margaret, look forward to life in College Station and the frequent visits by their four children and their families.

HUFFINES MISSION



The mission of the Huffines Institute is to bring together basic and applied scientists and clinicians to work in collaboration on important research issues in sports medicine and human performance, providing local, regional, statewide, and national leadership in the generation (research) and dissemination (education) of knowledge in the broad areas of sports medicine and human performance.

MESSAGE FROM THE NEW DIRECTOR

As the new Director of the Sydney and J.L. Huffines Institute for Sports Medicine and Human Performance, I am pleased to welcome you to the 2023–2024 Annual Report of activities and events. While I am new to the Institute Director role here in College Station, the Huffines Institute and Texas A&M University are not new to me. The annual Huffines Discussion lectures, which have continued as Hilliard Discussions, have resonated nationally for many years as a forum highlighting innovative and impactful research on sports medicine and human performance. I have had the good fortune to have many colleagues participate in these annual events, which are eagerly anticipated and viewed by students, faculty, coaches, and clinicians nationally and internationally.

Over the years, I have also had many opportunities to interact with talented students, faculty, and alumni across the Texas A&M campus. These individuals have made and continue to make significant contributions to research, education, and professional organizations that impact the broad fields of health and exercise science, sports medicine, and athletic performance. Needless to say, I am very excited about the opportunity to join the vibrant environment on the Texas A&M campus and the Huffines Institute.

From the past year's activities detailed in this report, you will see that the Huffines Institute is well positioned within the energetic environment at Texas A&M to positively impact the people of Texas and the Nation by disseminating, applying, and creating new knowledge involving sports medicine and human performance.

Undoubtedly, the strategic leveraging of Huffines Institute resources and planning for future growth can continue to catalyze these impactful contributions from our talented, motivated, and creative students, faculty, clinicians, coaches, and community. I look forward to working with our students, faculty affiliates, advisory board members, and administration to

generate the creative space, interactions, and resources to foster this future growth.

As we examine all the activities the Huffines Institute has been involved in recently and subsequently plan for the future, we must look back to acknowledge the forward-thinking individuals who laid the foundation for all of those who have and will benefit from the Huffines Institute. These individuals include Dr. Jack Wilmore's vision, financial resources provided by an endowment by Mr. and Mrs. J.L. Huffines, and a separate estate gift from Mike and Debbie Hilliard.

The path to today was also paved by the outstanding leadership of prior Institute Directors Dr. Stephen Crouse and Dr. Tim Lightfoot. A special thank you is reserved for the tireless work of Dr. Jenna Yentes, who, in her service as Acting Director of the Huffines Institute, successfully led the Institute into a new era of growth, and productivity through the development of new interactions, programs, and initiatives that you will read more about in the report that follows.

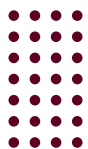
Furthermore, there is an extraordinary place in the Huffines Institute legacy that has served as the x-factor in all the success to date; these individuals are the talented, creative, and motivated Texas A&M undergraduate and graduate students who have been the boots on the ground for all the successful initiatives and events over the years.

In closing, it is my hope after reviewing this report, you are as excited as I am for how the Sydney and J.L. Huffines Institute for Sports Medicine and Human Performance can continue to grow in the role as a critical catalyst at Texas A&M for education, research, and community interaction in the broadly defined areas of sports medicine and human performance.



James Carson, PhD

*Director, Sidney and J.L. Huffines Institute for Sports Medicine & Human Performance
Professor, Department of Kinesiology and Sports Management*



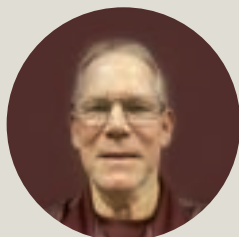
STAFF



Dr. Jenna Yentes



Dr. Steven Martin



Brett Henry



Macilynn Coles



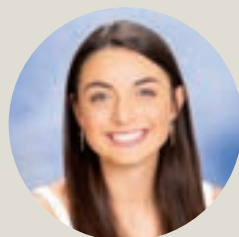
Lauryn Hawkins



Anisha Patel



Navika Kumar



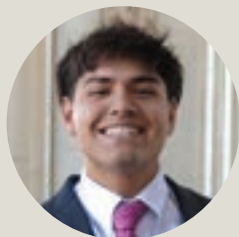
Meghan Moore



Dimas Kusuma



Willing DeMott

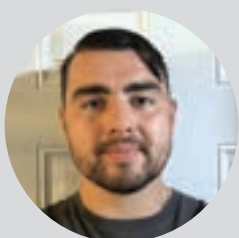


Julian Urrego



Alex Blazo

Interns



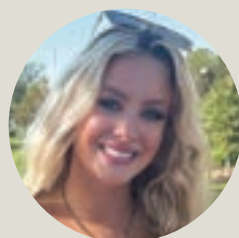
Jared Daniels



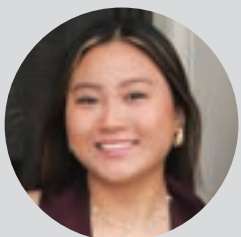
Hannah Malone



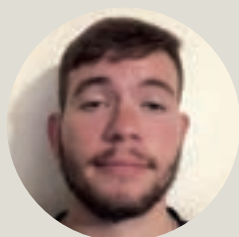
Victor Flores



Samantha Williams



Michelle Ng



Wilk Eckert

ADVISORY BOARD MEMBERS



Jim Fluckey, PhD

Chair of the Advisory Board;
Professor, Department
of Kinesiology and Sport
Management



Laura E. Marsh, MD

Clinical Assistant Professor,
Texas A&M & Head Team
Physician, Texas A&M Athletics



Justin Moore, MS

Executive Deputy Athletics
Director / Chief Operating
Officer, Texas A&M Athletics



Mike Thornton, Ed.D.

Clinical Assistant Professor
and Director of the Thornton-
McFerrin Coaching Academy



Amy Hurley

Director of Development,
Texas A&M Foundation



Marlene Dixon, PhD

Professor & Department Head,
Department of Kinesiology
and Sport Management



Dan Jacobi, ATC

Senior Associate Athletics
Director, Sports Medicine,
Texas A&M Athletics



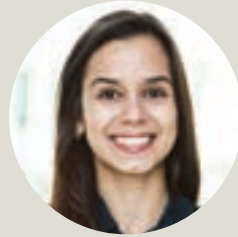
Howard Gray

Associate Athletics Director
for, Performance, Texas A&M
Athletics



John Lawler, PhD

Professor, Department
of Kinesiology and Sport
Management



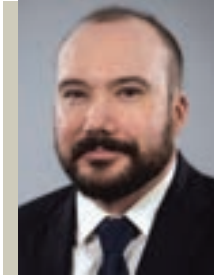
**Mariana
Janini-Gomes, PhD**

Assistant Professor,
Department of Kinesiology
and Sport Management



FACILITATING RESEARCH

2023-2024 JP Bramhall Grant Recipients



Andrew Nordin: *Human Supraspinal Locomotor Network Dynamics*

During the research project, we conducted experiments aimed at identifying neurological substrates of human locomotor control

based on spatiotemporal electrical activation patterns throughout the brain during locomotor movements. Our long-term goal is to develop mobile brain imaging technologies that can be applied to brain computer interfaces and rehabilitation strategies for restoring functional mobility. Datasets generated from the study led to conference presentations and the submission of federal funding proposals.



Tyler Prochnow: *Longitudinal Social Network Analysis of Online Gamers: Understanding Social Connections, Bridging Social Capital, Bonding Social Capital, and Implications for Mental*

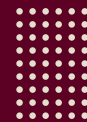
This study is examining the social dynamics and mental health implications within online gaming. We recruited 300 online gamers employing longitudinal social network analysis to investigate relationships between social connections, social capital, and mental health outcomes in these virtual environments.

By characterizing social network structures and examining bridging and bonding social capital, we are exploring the social ecosystem that esports athletes and casual gamers navigate. Our ongoing analysis aims to reveal potential associations between network characteristics, social capital distribution, and mental health indicators, including depression, anxiety, and social connectedness.

We are also investigating how changes in online gaming networks over time may influence these outcomes. This research seeks to advance our understanding of the psychosocial aspects of online gaming/esports. We anticipate that our results will highlight the importance of considering social connections and mental well-being in the support of online gamers.



Grant recipient, Tyler Prochnow, presenting his online gaming study.

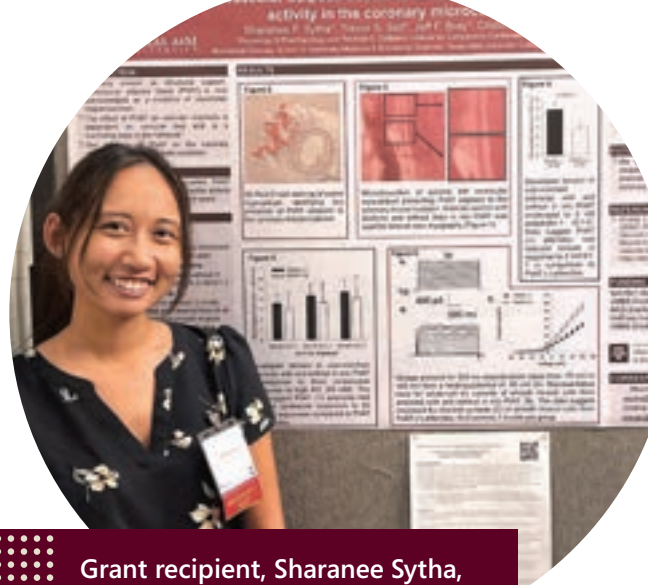


Huffines Student Research Grant Recipients



Renee Abott: *Multisensory Virtual Reality to Improve Behavioral Health and Performance*

My research focuses on developing and assessing the effectiveness of virtual reality technologies as tools to enhance behavioral health and performance. Specifically, we are testing if natural (e.g., a forest) VR environments with non-traditional stimuli such as scents, temperature, and wind better promote relaxation than audio-visual VR alone.



Grant recipient, Sharanee Sytha, presenting at the Vascular Biology 2023 Conference in Newport, RI.



Kun Chang: *Esports Attendance: motivation-based esports spectator identity approach*

This study explores the increasing appeal of attending esports events in-person, emphasizing the need for a nuanced understanding of the diverse motivations driving attendance. By segmenting esports fans based on their identification with different motivation-based identities, the research examines how different identification levels of these identities influence their decision-making process and attendance behavior, integrating Social Identity Theory and the Theory of Planned Behavior. The findings aim to provide actionable insights for personalized marketing strategies and enhanced fan engagement in the esports industry.



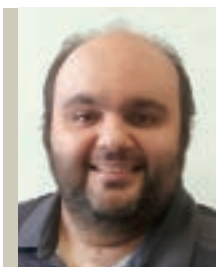
Trevor Self: *Hypoxia signaling in the coronary microcirculation*

Ischemic heart disease is the leading cause of death worldwide with reduced blood flow and oxygen supply generating a hypoxic environment in the working myocardium. Vascular adaptations in this diseased state are far from complete characterization and my ongoing studies demonstrate a decreased role for voltage gated potassium channels in vascular smooth muscle reactivity that may contribute to impaired vascular function in ischemic heart disease.



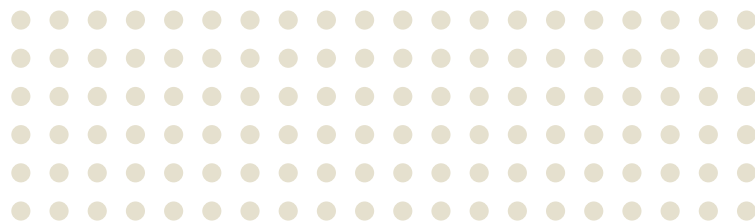
Sharanee Sytha: *The role of perivascular adipose tissue in the coronary microcirculation*

Recent reports have demonstrated the effects of perivascular adipose tissue (PVAT) as a vasoactive modulator. However, little is known about the effects intramyocardial PVAT on the coronary microcirculation, a critical regulator of coronary blood flow. Therefore, our study examines the potential for PVAT to elicit acute and chronic reductions in contractile activity in the coronary microcirculation.



Amin Mohajeri: *Stretch Regulation of Contractility in Aged Vascular Smooth Muscle Cells*

Age may bring wisdom, but it inevitably alters our arteries, increasing the risk of cardiovascular diseases. In our multidisciplinary research, we are delving into the molecular wizardry and mechanisms underlying exercise's ability to reverse age-related declines in resistance arterial function, ultimately improving quality of life and longevity for our senior citizens!



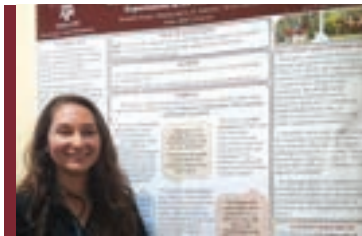
Student Travel Awardees



Macilynn Coles
American College of Sports Medicine
Boston, MA



**Drew Gonzalez, Sarah Johnson
& Kuanting Chen**
Athlete Engineering at MSU
Mississippi State University



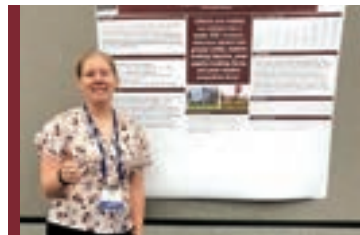
Melody Alanis
North American Society for the Sociology
of Sport
New Orleans, LA



Brock Balthazor
Neural Control of Movement
Dubrovnik, Croatia



Sunghyun Chung
American Public Health Association 2023
Annual Meeting and Expo
Atlanta, GA

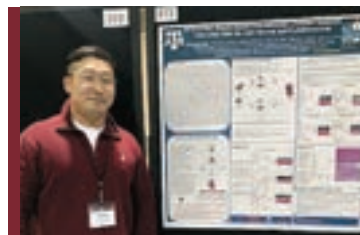


Kelly Hines
National Strength and Conditioning
Association (NSCA) National Conference

Sofie De Wandel
45th ESPEN Congress on Clinical Nutrition



Hakjoo Kim
The Brainbox Initiative Conference 2023
London, UK



Joo Hyun Kim
2024 NASA Human Research Program
Investigators' Workshop



Farzaneh Kosari Esfahani
SMA (The Sport Marketing Association)
Tampa-St. Petersburg, FL



Mariam Othman
2024 NASA Human Research Program
Investigators' Workshop
Galveston, TX



Jeonghui Park
2024 Annual Meeting and World Congresses
of the American College of Sports Medicine
Boston, MA



Rachel Rauth
American Society for Gravitational and
Space Research
Washington D.C.



Trevor Self
Vascular Biology 2023
Newport, RI



Sharanee Sytha
Vascular Biology 2023
Newport, RI



Madison Weinrich
Neural Control of Movement
Dubrovnik, Croatia

\$39,000
Total Grant Funds Awarded In
2023-2024

SPOTLIGHT: The Tactical Athlete Research Unit (TARU)

The Tactical Athlete Research Unit (TARU) was created in 2022 by Dr. Drew Gonzalez at a live burn data collection. Since its inception, TARU has transformed into a student-led research organization focusing on service, research and innovation, professional development, mentorship, and community. The group makes use of the Huffines facilities for their monthly meetings.

During the past year, TARU engaged in coordinated efforts with **Dr. Steve Martin** to utilize data from the Cardiovascular Health Profile Screenings. These efforts and subsequent analysis resulted in several student poster presentations at the Texas American College of Sports Medicine, National American College of Sports Medicine, and National Strength and Conditioning Association meetings.

TARU Mission, Vision, and Values

Mission: To enhance the health, performance, and protection of tactical personnel in the local Bryan and College Station area through pragmatic research, education, and student-driven consultation.

Vision: Through research and education, we can make an impact on local public safety, in addition to foster an encouraging and educational environment for the students leading the initiatives of the TARU.

Values: To support student-driven research through collaboration and mentorship. To support local first responder populations through research and education.

President: Macilynn Coles, BS

Vice President: Bethany Guerra, BS

Treasurer: Kelly Hines, BS

Social / PR: Caiti Dodge, BS

Research: Sarah Johnson, MS

Advisors: Drew E. Gonzalez, PhD, Steven E. Martin, PhD, Lisa C. Colvin, PhD



Utilizing data from the Cardiovascular Health Profile Screenings, TARU generated 10 Texas American College of Sports Medicine posters, 8 National American College of Sports Medicine posters, and 2 National Strength & Conditioning Association poster.



9/11 Stair Climb

Texas A&M's Tactical student organization (TARU) participated in the 9/11 Stair climb with the Bryan and College Station Fire Departments at Kyle Field. Students, first responders, and family members came together to honor those who put the lives of others before their own. Participants carried the names and pictures of first responders lost on 9/11 around their neck for the 110 flights of stairs.

This event was supported by the Huffines Institute, Texas State THRC, TAMU KNSM and ESNL, Bryan Fire Department, and College Station Fire Department.

2023 Stair Climb participants came together to honor 9/11 first responders.



The Big Event

TARU, Texas A&M's tactical research student organization worked alongside Aggieland Cycling to clean up Bee Creek as a part of the Big Event. The Big Event is the largest one-day, student-run service project in the nation; each spring, tens of thousands of Texas A&M students come together to say "Thank You" to the residents of Bryan and College Station.

Volunteers working at The Big Event to clean up Bee Creek on March 23, 2024.





FACILITATING APPLICATION

Cadets, Athletes, First Responders, Research Studies: A Banner Year for the Testing Center

Dr. Steve Martin, Clinical Associate Professor with the Kinesiology and Sports Management Department, is the Associate Director of the Testing Center (TC). In this role, he manages the day-to-day testing activities of the staff and students involved in the center. The TC provides health screen and performance assessments to the Texas A&M community, including faculty, staff, students, and area residents.

Last year, the TC performed 78 DEXA scans, five maximal VO2 tests, and four pulmonary function tests. During the past year, the Huffines Institute and TC have established an interaction with Corps of Cadets Ranger Challenge members. Thirty cadets underwent VO2 testing and a DEXA scan before and after their intensive training. This experience has led to a growing partnership with the Corps to integrate more testing with cadets in 2024. The TC maintains an active and impactful program that provides cardiovascular health profile screening to first responders from the Bryan Police Department, Bryan Fire Department, College Station Police, and TEEEX- Texas Force One (see separate article).

Last year, they completed approximately 300 of these critical first responder health screenings. In addition to the health of the first responders, these screenings serve as a valuable educational opportunity as a practicum for Kinesiology and Sports Management students.

The TC and Huffines Institute Huffines continued important interactions with the Athletic department, and their Sports Science and Sports Medicine programs.

The TC provided critical space and infrastructure for Athletics to complete their scheduled important athlete testing program.

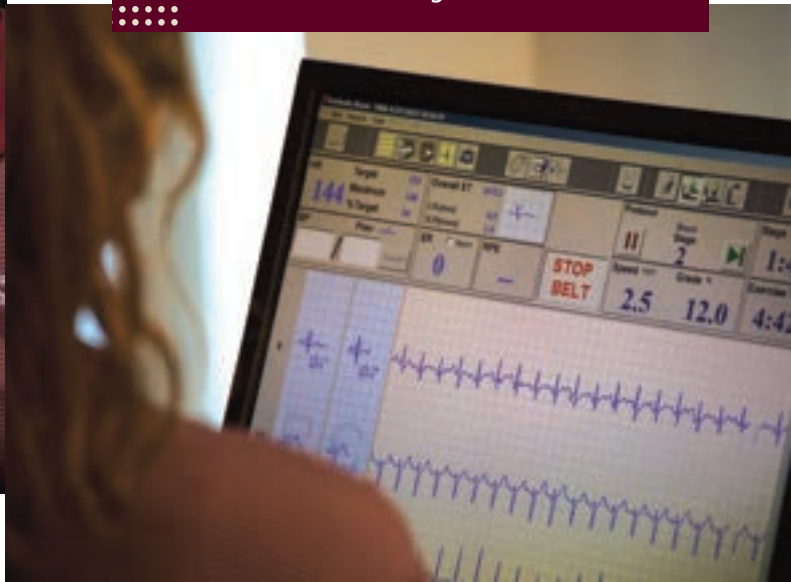
During the past year, the TC provided equipment to conduct a significant amount of performance testing, including 713 countermovement jump assessments, 54 drop jump assessments, and 34 isometric mid-thigh pull assessments. Furthermore, the Department of Athletics' Performance Nutrition completed over 1300 DEXA scans last year.

These tests were often performed by the Athletics staff with the Athletics DEXA scanner that is currently housed in the TC. The Texas A&M Football coaching staff also used the TC for cardiac stress testing, DEXA body composition, and cardiology screening evaluations. These testing and screening interactions with Athletics, Sports Science and Sports Medicine continue to expand in 2024.

The TC has also been involved in Texas A&M student and faculty research this past year. The TC and Huffines Institute provided facilities, infrastructure, equipment, and student support for four faculty and



Students learn how to operate and conduct exercise electrocardiograms.



five student research projects. The TC also assisted in data collection for these projects. For example, **Dr. Steve Riechman**, Associate Professor of Kinesiology and Sports Management, used the TC to complete 54 DEXA body composition scans for his study funded by the Defense Advanced Research Projects Agency's (DARPA) Biological Technology Office. His study is designed to understand sleep deprivation and mental and physical fatigue in humans by measuring breath volatile organic compounds biomarkers and how they can affect performance.

In another study, **Dr. Drew Gonzalez**, Kinesiology and Sports Management, led a study investigating markers of cardiovascular disease risk in First responders by analyzing salivary and blood samples collected during their annual cardiovascular health profile screenings. In conjunction with the Huffines Institute, the TC will continue to grow as a valuable resource for Texas A&M faculty conducting innovative and impactful biomedical research.

The Testing Center and Firefighter Health

The Testing Center within the Huffines Institute continues to provide diagnostic testing for firefighters who may be at risk for developing heart disease, which began in 1984.

Dr. Steve Martin, along with Kinesiology and Sport Management students within the Applied Exercise Physiology track, are involved in providing cardiovascular screening along with health and fitness testing for local fire and police agencies such as CSPD, CSFD, BPD, BFD, Texas Task Force One, and Brazos County Pct. 3 VFD.

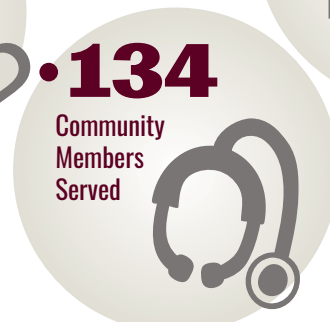
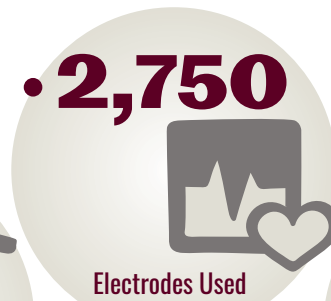


Dr. Steve Martin running a VO2 max test.

These assessments include blood pressure, body composition analysis, pulmonary function screening, force plate testing, muscle strength/ endurance tests, flexibility tests, and graded exercise testing with ECG analysis. Along with various lab work, physical work capacity is assessed to verify the physical readiness of the first responders performing their physically demanding duties.

The program benefits local first responders and allows our students to perform the skills they've learned in the classroom on live personnel.

Testing Totals



*Cardiovascular Health Profile

Sports Science & The Huffines Institute

Sports Science is genuinely multidisciplinary and involves numerous fields spanning biomechanics, physiology, engineering, nutrition, and psychology, amongst others. The interest in the broad areas encompassing sports science has experienced tremendous growth on the Texas A&M campus over the past several years, and the Athletics Department and Kinesiology and Sports Management Department have been central to fostering student and faculty interactions in this area. Notably, the Huffines Institute has played a critical role in facilitating this expansion of Sports Science at Texas A&M. Texas A&M Athletics and the Kinesiology and Sports Management Departments have always been and continue to be partners with the Huffines mission.

Since its inception, the Huffines Institute has strived to facilitate the creation and dissemination of information on Exercise Science, Sports Science, Human Performance, and Sports Medicine. During the past year the Huffines Institute promoted Sports Science through interaction with the Athletics Department and their Sports Science Program directed by Scott Battle. We are pleased to welcome Scott as a member of the Huffines Internal Advisory Board in 2024.

Scott's program provides opportunities for Fellows, Interns, students, and coaches to develop as professionals in Sports Science.

The Huffines Institute has supported this critical area by sponsoring and bringing internationally renowned researchers and practitioners to campus to interact with students and faculty. Other interactions promoted by

the Huffines Institute included the collaborative use of the Huffines-associated Testing Center, supervised by Dr. Steve Martin, to assist Athletics with their scheduled athlete testing programs. Tests conducted in the Testing Center include DEXA scans for body compositions and crucial assessments related to counter-movement jumps, drop jumps, and isometric mid-thigh pulls. The Huffines-associated Testing Center Main Space in the Player Development Center was also used for Star Balance, Grip Assessment, and ASH Shoulder Assessment tests.

These assessments and tests provide critical data for analysis by the Sports Science staff, which subsequently offers recommendations to coaches for the respective sports.

This crucial information provides data-driven decisions spanning weight room training, nutrition center guidance, and Sports Medicine related to athlete health.

The countermovement jump is an excellent example that the Sports Science group widely uses. Performed on athletes throughout the year, the results from this measurement can provide insight to guide their training to maximize performance and offer guidance on rehabilitation when needed. By identifying benchmark standards, Sports Medicine staff can make data-driven decisions about the athlete's return to play and training strategies. The Huffines Institute looks forward to being a resource for growing innovative and impactful Sports Science initiatives at Texas A&M University.

Testing Center Steering Group



Dr. Steven Martin

Associate Director of Testing,
Huffines Institute Clinical
Associate Professor,
Department of Kinesiology
& Sport Management



Dr. Sheri Walters

Assistant Athletics
Director, Director of
Physical Therapy &
Olympic Sports
Athletic Training



**Scott
Battle**

Director of Sports
Science Service



**Madison
Treece**

Sports Science Fellow



**Bo
Sandoval**

Assistant Athletics
Director, Strength
& Conditioning
(Golf, Men's Tennis)



**Bryan
Snyder**

Assistant Athletic Director
for Performance Nutrition

STUDENT SPOTLIGHT: Alex Romy Moynihan



This year, the Huffines Institute student spotlight shines on Alex Remy Moynihan, a member of Texas A&M University's graduating class of 2019. Alex is originally from Sugar Land, Texas, and was born into an Aggie family, so she embraced the Aggie spirit early on.

While at Texas A&M, she demonstrated exemplary leadership and commitment through active participation in Class Council, Fish Camp, A&M Swim Team Manager, and A&M Club Swimming. Notably, she was also involved with the Huffines Institute.

After graduation, Alex's professional journey began as an exercise physiologist at Texas Children's Hospital, where she specialized in exercise stress testing and patient care. She subsequently advanced her career by joining Boston Scientific as a field clinical representative in the cardiac rhythm management sector.

Her career path has remained focused on all things Cardiology but has grown into fields of implanting devices and following patients in the clinic, which she finds extremely gratifying.

Alex worked at Boston Scientific as a field clinical representative in the cardiac rhythm management sector.

The Influence of Huffines Institute on Alex's career path:

Alex discovered her passion for cardiology during her exercise physiology classes, particularly Kinesiology 433, with Dr. Steve Martin, who introduced her to EKGs. Her work at the Huffines Institute solidified this interest, providing essential knowledge in cardiac stress testing and patient care. Mentored by Dr. Martin and Dr. Crouse, Alex honed her academic and interpersonal skills and gained confidence through presentations at Texas ACSM conferences.

Alex's first job as an exercise physiologist at Texas Children's Hospital was greatly inspired by her work at the Huffines Institute, which involved EKGs and cardiac stress testing.

Alex's Advice for Current Students:

Alex advises students to seek out mentors who can guide them in discovering their passions and career paths. She emphasizes the importance of mentorship in her journey and credits Dr. Martin and Dr. Crouse for helping her grow her passion for patient care as a career.

Her Take-Home Message:

Alex encourages students to explore the multitude of interesting opportunities available at Texas A&M, including majors, classes, and extracurriculars. She believes that making the most of the college experience to find and pursue one's passions is one of the best uses of a student's valuable time at Texas A&M University.





FACILITATING OUTREACH

The 13TH Annual Hilliard Discussion

In 2023, the Hilliard Discussion, formerly Huffines Discussion, sponsored by funding from the Huffines Institute, carried on the tradition of creating a forum where visionary speakers discuss the latest research and information on important sports medicine and human performance topics. The much-anticipated event was held on September 21, 2023, in-person at the Annenberg Presidential Conference Center at the George Bush Library Complex on Texas A&M University's campus, and over 250 Texas A&M community members attended.

Hilliard Discussion 13 allowed attendees to learn about unconventional recovery techniques beyond the typical methods.

Five invited speakers presented a range of recovery methods, providing their viewpoints on what they consider to be the "Ultimate Recovery Modality for Performance."

The audience learned about novel treatment modalities ranging from dry needling, cryotherapy, and cupping to shockwave therapy. **Maj. Evan Carson**, an active-duty physical therapist in the United States Air Force, spoke about the challenges of overseeing a multi-discipline resiliency team responsible for maximizing the health and wellness of air commandos and elite tactical athletes.

Dr. Joyce Terrell, an Assistant Professor in the Department of Kinesiology, Sports Studies, and Physical Education at Morehouse College, discussed treating athletes ranging from professional to little-leaguers and the therapeutic utility of cryotherapy.

Dr. David Suarez, a Physical Therapist at Rice University and Houston Methodist Hospital, discussed the value of cupping as a recovery option for collegiate athletes participating in rehab within an integrated sports medicine and performance model.



Dr. Heather Linden, the Senior Director of Physical Therapy for the UFC Performance Institute (UFCPI), spoke on the utility of extracorporeal shockwave therapy as a non-invasive treatment option for musculoskeletal injuries for the elite athlete.

Finally, **Saul Luna**, Senior Associate Athletic Trainer for Texas A&M Athletics, discussed the use of dry needling in athlete recovery. For more information on the 13TH Annual Hilliard Discussion and updates on the upcoming 14TH Annual event, please go to the Huffines Institute web page and follow the Institute on Instagram and X (formerly Twitter) social media platforms.



Dr. Yentes and the five guest speakers at the 250-person event. Another 150 attended virtually.

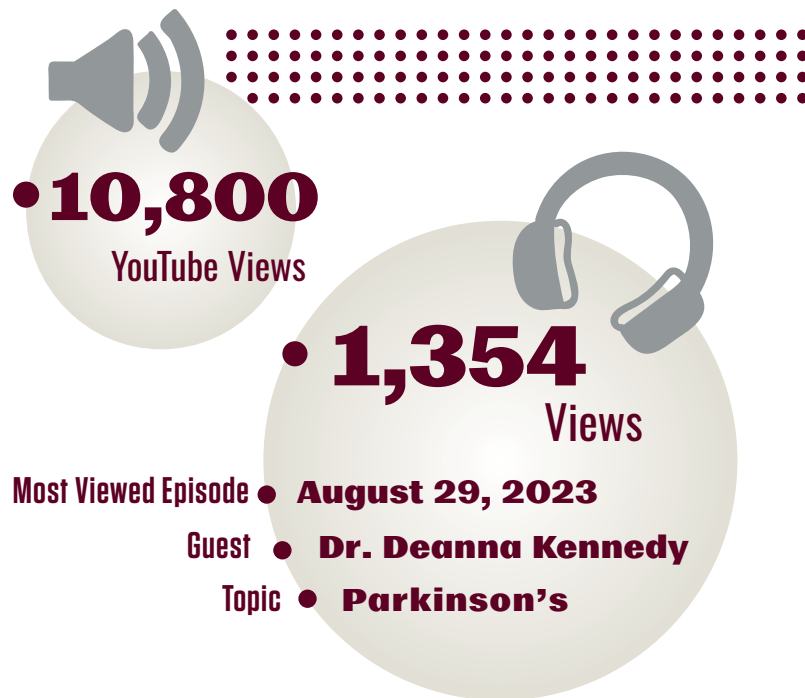
PODCAST: We Do the Heavy Lifting

The “We Do the Heavy Lifting” podcast by the Huffines Institute provides a valuable platform for individuals to share their experiences and successes in the areas of sports medicine and human performance. Related directly to the Huffines Institute’s mission, the podcast aims to strengthen connections between researchers, clinicians, and the general public.

In 2023, the Huffines Institute released seventeen “We Do The Heavy Lifting” podcasts.

These podcasts contained exciting and vital information from featured guests specializing in sports science, nutrition, physical therapy, and fatigue.

While all our guests provided impactful information for our listeners, this year, we recognize our most popular “We Do the Heavy Lifting” podcast that featured **Dr. Deanna Kennedy**. Her episode was titled “The Fight Against Parkinson’s.” Dr. Kennedy, an Associate Professor in the Kinesiology and Sport Management department at Texas A&M, directs the Student-Fighter Project in partnership with the Robert Conte Foundation for Parkinson’s Disease and Movement Disorders.



In her episode, Dr. Kennedy discussed the significant impact of the Robert Conte Foundation’s partnership, not only on patients who have Parkinson’s but also on her students. Her students were provided the opportunity to conduct hands-on motor assessments and develop personalized plans to assist the “fighters,” a term used for patients in the program combating Parkinson’s. Congratulations to Dr. Kennedy, and we will check back in with her in the future to hear about progress in this critical area.

Huffines Human Performance Minutes



The Huffines Human Performance Minute (HHPM) is a one-minute, informational audio segment about a current topic related to human performance. These are written and produced by our staff.



• **11,201**
Total Views



A Summit to Promote the Resilient Tactical Athlete

Nationally, there is a rapidly growing interest in tactical athletes from a sports medicine and human performance perspective. Tactical athletes directly impact the safety and resiliency of our communities and national security. While this field is quickly maturing and becoming more well-defined, tactical athletes have been described as individuals in service occupations with significant physical fitness and performance requirements who are involved in areas related to military service, emergency responders, law enforcement, and firefighters.

While many faculty and students within the Texas A&M community are interested in tactical athlete health and performance, the Huffines Institute, spurred by **Dr. Jenna Yentes**, has initiated efforts to coordinate and grow campus initiatives in these areas. To this end, the Huffines Institute and other sponsors hosted a summit focused on providing novel and unique solutions to the challenges faced by tactical athletes. The novel summit was titled “Developing and Sustaining a Resilient Tactical Athlete,” with the underlying theme tied to the concept that for the tactical athlete, health is the foundation and performance is the job. The summit was held on March 19th and 20th, 2024, at the Legends Event Center in Bryan, Texas.

Over 75 attendees, consisting of faculty, students, industry professionals, and community partners, listened and engaged with nationally recognized speakers.

They examined issues experienced by community-based tactical athletes, such as firefighters and law enforcement. The ensuing discussions assessed the importance of physical screening, training, and monitoring. Key themes of the summit included both physical and mental health, as well as actionable data-driven decision-making.

The keynote address was presented by **Brigadier General Patrick R. Michaelis** '93, a distinguished military leader and alumnus of Texas A&M University, who is the Commandant of the Corps of Cadets. Nine other invited speakers engaged attendees and participated in panel discussions.



Participants engaged in discussions at round tables to respond to the provided prompts.

Other speakers at the summit included **Dr. Joe Dervay**, a Flight Surgeon at the NASA Johnson Space Center, and **Dr. Brittany Hollerbach**, Associate Scientist and Deputy Director at the Center for Fire, Rescue & EMS Health Research. A complete list of program topics and invited speakers can be found on the Huffines Institute website. A much-anticipated meeting outcome will be a white paper highlighting tactical athletes' problems and issues and proposing potential solutions.

The meeting also sought to help attendees understand opportunities at Texas A&M University in this critical area. Attendee opportunities to collaborate with regional partners were also highlighted with the hope that these interactions might lead to innovative solutions to the issues discussed at the summit.

For more information and updates on follow-up activities related to summit outcomes and upcoming tactical athlete events, please go to the Huffines Institute web page and follow the Institute on Instagram and X (formerly Twitter) social media platforms.

Tactical Athlete Summit Sponsors included:

- Sydney and J.L Huffines Institute for Sports Medicine and Human Performance
- Texas A&M University School of Education & Human Development
- Texas A&M University Department of Kinesiology and Sport Management
- Texas A&M USA Center for Rural Public Health Preparedness



MORE GOOD STUFF

Moving Forward

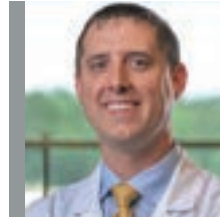
While the organization and components of the Huffines Institute are shifting and growing with new roles and responsibilities, the fundamental mission and goals remain intact. The programs, grants, lectures, and travel awards that have positively impacted Texas A&M faculty and students will remain an essential part of the Huffines Institute. The new responsibilities will serve to expand the impact that the Huffines Institute can have on the Texas A&M community. We look forward to informing you of the innovative and impactful work created by these new additions to the Institute. For more information and updates on follow-up activities related to the Huffines Institute



and upcoming events, please go to the Huffines Institute web page and follow the Institute on Instagram and X (formerly Twitter) social media platforms.

The Huffines Institute and the Human Clinical Research Facility at Texas A&M University

The Huffines Institute took on a new role involving clinical research on the Texas A&M campus in January 2024. Under the supervision of the School of Education and Human Development, the Human Clinical Research Facility (HCRF) will be administratively managed by the Huffines Institute. This administrative rearrangement aims to grow multidisciplinary efforts related to human clinical research across the campus, including sports medicine and human performance, which are central to the mission of the Huffines Institute. **Dr. Jason McKnight**, Clinical Associate Professor at the Texas A&M School of Medicine, serves as the Medical Director and provides guidance and administrative support on the research utilization of the HCRF in consultation with Huffines Institute leadership. Dr. McKnight received his medical degree from the University of Texas Medical at Houston and a residency with the Texas A&M Family Medicine Program.



Dr. Jason McKnight

HCRF Medical Director

Clinical Associate Professor at the Texas A&M School of Medicine

The Human Clinical Research Building, completed in 2017, provides a state-of-the-art clinical biomedical research facility and is a valuable resource for supporting Texas A&M faculty seeking to conduct human clinical research. Current faculty members who have research space in the building include Dr. Nicolass Deutz, Dr. Marielle Engelen, and Dr. Rick Kreider, all faculty members in the Kinesiology and Sports Management Department. Dr. Bonnie Dunbar, a Professor in Aerospace Engineering, also has research space in the building.

The building contains hospital-style rooms with beds capable of research studies that require overnight stays and a nursing station for monitoring participants. The building also houses equipment that can conduct cardiovascular, metabolic, exercise, body composition, balance, and biomedical assessments. Wet lab space is available to analyze blood, urine, feces, and tissue samples. An exercise training facility for research studies is also located in the building. Related to Dr. Bonnie Dunbar's space flight research, the building also houses a short-arm human centrifuge. Additional information on the HCRF can be found on their website.



Testing equipment used in the Human Clinical Research Facility.



Thornton-McFerrin Coaching Academy

First established in 2012 through the efforts of the Huffines Institute Director **Dr. Tim Lightfoot** and Texas A&M Athletic Director **John Thornton**, what was then known as the Texas A&M University Coaching Academy has grown to have a significant impact on the preparation, support, and promotion of the coaching profession in Texas and beyond.

Dr. Michael Thornton is the Director of the Thornton-McFerrin Coaching Academy (TMCA) and is a Clinical Assistant Professor in the Kinesiology and Sports Management Department. **Ms. Kelli Campbell** serves as the Assistant Director, and the Program Coordinator for the academy is **Ms. Lindsey Killingsworth**.

The TMCA provides exceptional opportunities to advance the Texas coaching community through mentorship programs, educational seminars, and community outreach partnerships. The TMCA administers the highly successful Undergraduate Coaching Certificate Program in the School of Education at Texas A&M and had over 75 students from across campus participating last year.

The TMCA is committed to fostering the promotion and growth of the coaching profession in Texas.

To this end, the TMCA provides oversight and curriculum development for the Future Coaches of Texas Association (FCTA), a high school student organization focused on attracting students interested in the Coaching profession. Approximately 30 districts have begun implementing the FCTA program in their schools.



Dr. Michael Thornton

Director of the Thornton-McFerrin Coaching Academy (TMCA)

Clinical Assistant Professor in the Kinesiology and Sports Management Department

During the past year, the TMCA has also collaborated with the Texas High School Coaches Association (THSCA) to provide curriculum oversight and development for their successful state-wide ROCK mentoring program for young coaches and their mentors. Director Mike Thornton



was also an invited speaker at the THSCA Coaching Convention, attended by over 17,000 Texas High School coaches. Please visit the TMCA website for more information on upcoming activities.



Dr. Mike Thornton speaks with future coaches at student seminar.

KEEP AN EYE OUT for Hilliard Discussion 14, sponsored lectures and seminars, and grant applications!

Acknowledgments

Dr. Yentes, Thank You!

The Huffines Institute members and associated student and faculty affiliates would like to express our heartfelt gratitude to Dr. Yentes for her outstanding leadership and dedication.

During her tenure as the Acting Director, Dr. Yentes managed the day-to-day operation of the Huffines Institute, which involved fulfilling the core mission and goals of the institute. She also pioneered new initiatives that included steps to move the Huffines Institute into innovative areas around tactical athlete research and foundational first responder testing. Her efforts include successfully bolstering Huffines Institute interactions at Texas A&M with the Athletics Department, Corps of Cadets, and fostering the growth of sports science.

Dr. Yentes was heavily involved in initiatives to disseminate novel and important information to the Texas A&M community regarding sports medicine and human performance. Besides bringing impactful speakers and workshops to campus, Dr. Yentes spearheaded the creation of our new podcast, "We Do the Heavy Lifting." This podcast has become a vital platform for discussing cutting-edge research, sharing best practices, and highlighting the incredible work being done within the field.

Her innovative vision and commitment to advancing our mission have left a lasting impact.

Dr. Yentes maintained Huffines' operations at a high level, ensuring continued excellence in our goals of facilitating research, application, and communication. She carried us through challenging times, playing a pivotal role in the Huffines Institute operations returning to normalcy after COVID-19. While Dr. Yentes will return full-time to her research and teaching roles as an Associate Professor in Kinesiology and Sports management, we are excited that she has agreed to serve as the Internal Advisory Board Chair for the Huffines Institute.

In closing, we are deeply grateful for Dr. Yentes' contributions to the Huffines Institute and look forward to future interactions with her.


Continued Support

Funding allows the pursuit of activities to carry out the mission of the Sydney and J.L. Huffines, Jr. Institute for Sports Medicine and Human Performance.

Thank you to the Huffines family. The Huffines Family has played an instrumental role in the development of the College of Education and Human Development at Texas A&M University. In 1999, Mr. and Mrs. J.L. Huffines made a significant donation to endow a faculty chair, laying the groundwork for future growth. This generous donation established a financial endowment to sustain the Institute for Sports Medicine and Human Performance (ISMHP) and led to its renaming as the Sydney and J.L. Huffines, Jr. Institute for Sports Medicine and Human Performance.

Thank you to the Hilliard family. In 2017, Texas A&M alumni Michael Hilliard, who graduated with a degree in physical education in 1973, and his wife Debra were so impressed with the Huffines Discussion series and the Institute behind these talks that they formalized an estate gift for the Huffines Institute. This generous donation supplied funds for an endowed chair, Huffines Discussion support, and a graduate fellowship. The Huffines Discussion was renamed the Hilliard Discussion and remains a yearly event the Sports Medicine community looks forward to.





Sydney and J.L. Huffines Institute
for Sports Medicine and Human Performance

Department of Kinesiology and
Sport Management

School of Education and Human Development

Texas A&M University
West Campus - Player Development Center
4259 TAMU
College, Station, TX 77843

www.huffinesinstitute.org

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