Robert H. Brooks Sports Science Institute
ANNUAL REPORT 2020
About Robert H. Brooks

Robert Howell Brooks was a man whose philanthropy and love of Clemson University inspired him to give generously to his alma mater.

Born in 1937, Robert Brooks grew up on a farm in Loris, South Carolina. He developed a strong work ethic as a result of his rural background and earned a degree in dairy science at Clemson in 1960. After an internship in Gastonia, North Carolina, Brooks moved on to a sales job at a dairy plant in Rock Hill, South Carolina.

As a child working on the family farm, he never envisioned that he would become a revolutionary in the food-service industry; however, he eventually founded Naturally Fresh, Inc. and became the chairman of Hooters of America, Inc., when he purchased the franchise rights to the restaurant chain. Both companies are highly successful Atlanta-based corporations well known for innovation.

In 1961, he joined a food processing company in Atlanta as a sales engineer before serving active duty in the U.S. Army. After his military service, Brooks joined a food formula company in Philadelphia and saved to pursue his dream of becoming an entrepreneur.

Brooks formed Eastern Foods in 1966 and combined his dairy background and entrepreneurial drive to develop the first non-dairy creamer in 1967, which primarily served the airline industry. Over time, Eastern Foods began to focus on a more diverse food business. Now known as Naturally Fresh, the company boasts such brands as Jackaroo Meat Sauces and Naturally Fresh dressings, sauces and dips.

In 1984, he began an association with Hooters, a nationwide restaurant chain. Brooks’ division of Hooters of America, Inc. controlled the developmental rights to the concept and quadrupled sales from 1990 through 1995. In April 2001, he consolidated the Hooters concept with the purchase of the trademark from its founders, enabling him to have full control over all business decisions. Today, there are more than 420 Hooters restaurants in 42 states and 29 countries.

Brooks was a man whose philanthropy and love of Clemson University inspired him to give generously to his alma mater. His $2.5 million gift established the Brooks Center for the Performing Arts and has enabled hundreds of thousands of patrons to experience world-class performances and given countless students the opportunity to pursue their artistic passion.

Additionally, in the mid-1990s, Brooks gave Clemson University a gift to establish a sports science institute. The gift was given in memory of members of his racing team, including his son Mark Brooks ’91, NASCAR Champion Alan Kulwicki, and co-workers Dan Duncan and Charlie Campbell, who died in a plane crash on April 1, 1993.

In summary, Mr. Brooks has taken his place in a long line of Clemson philanthropists dating back to the original gift of Thomas Green Clemson to the state of South Carolina. Mr. Clemson gave so that the youth of South Carolina could receive a quality education, and W. B. Camp, a beneficiary of Mr. Clemson’s vision, also gave so that students like Robert Brooks could afford to attend Clemson University. Mr. Brooks made the most of the scholarship that Mr. Camp provided for him, and he honored this tradition of generosity with many contributions to the university. His legacy is intertwined with the generations that preceded him and stands to inspire those who follow.
Dear Friends, Family and Associates of the Robert H. Brooks Sports Science Institute:

It is always enjoyable to look back on a busy year and take stock of all that the faculty, staff and students of the Robert H. Brooks Sports Science Institute have accomplished over the past year, and this year has been no exception. However, it would be hard to describe this year as being anything but extraordinary. Despite the challenges faced by the global community due to the coronavirus pandemic, the role of sports has been a frequent topic of national conversation, their eventual return evolving into the benchmark for when we will know that our communities are “back to normal.”

To that end, I am very pleased to introduce this annual report of the activities and accomplishments of the Clemson faculty, staff and students who are actively engaged in the Institute’s mission. Furthermore, I am very pleased to say that the Institute continues to collaborate actively with the Clemson’s Department of Athletics in research and education programs that have potential to positively affect the general health, safety and well-being of our Clemson student-athletes. This continues to stand out as another terrific example of the philosophy of “One Clemson!”

As a result, I am proud to share it with you and hope you will follow our progress in the years ahead as we continually seek to honor the life, vision and generosity of the late Bob Brooks, Clemson class of ’60.

So, from the people of RHBSSI, we wish you only the best of health, safety and happiness and look forward to the day when we can again join together in person to support our athletic teams and display our spirit by chanting loudly…..

Go Tigers!

Brett A. Wright
Mission

The Robert H. Brooks Sports Science Institute at Clemson University serves as a multi-disciplinary platform for the academic study of sports sciences across the University. Through the foundation of four Legacy Professors in motorsports engineering, sports communication, sports management and sports marketing, the Institute will define, enhance and promote the role of sports in academia and society. The Institute provides experiential learning opportunities through academic programs, research, sports organizations, and support for service and outreach programs. Through all of its activities, the Institute seeks to prepare people to perform at the highest levels within sports industries, as well as provide an acute understanding of the significance of sport in modern society.

Vision

The Robert H. Brooks Sports Science Institute will be the nation’s preeminent academic institute regarding the comprehensive study of sports sciences. It will engage faculty, staff and students from disciplines across the University in the study of sport, including enhancing individual and organizational performance, promoting human development, and improving the general health and social well-being of our communities.

Board of Directors

ANAND GRAMOPADHYE
Dean, College of Engineering, Computing and Applied Sciences

LESLIE HOSSFELD
Dean, College of Behavioral, Social and Health Sciences

DAN RADAKOVICH JR.
Director, Department of Athletics

WENDY YORK
Dean, College of Business

BRETT A. WRIGHT
Director, (ex officio)
History

Over the years, the Institute has partnered with various individuals and organizations in the sports industry for research, academic programs and student internships — with a focus on motorsports engineering, sports communication, sports management and sports marketing.

Among its accomplishments:

• The Institute has been a conduit for the comprehensive study of sports, emphasizing the physiological, psychological, technological, managerial, cultural and societal perspectives.
• The Institute has fostered sports-related research, outreach programs and initiatives that include internships for Clemson students at leading sports organizations such as the Philadelphia Phillies, Philadelphia 76ers, New York Yankees, Baltimore Orioles, Milwaukee Brewers, Seattle Seahawks, Dodge Rockwell’s motor sports and ESPN.
• Through the Institute and various academic departments across the entire Clemson landscape, researchers have developed and tested various grasses for use on golf courses and athletic fields, and worked to make golf accessible for Americans with disabilities. Others have examined the strength of football facemasks, and they have studied the inhibitors of high school athletes’ intent to report concussion symptomology. They have developed marketing campaigns for the Clemson Deep Orange 9 motorsports project and developed protocols for using Clemson sports memorabilia in the treatment of dementia patients.
• In the motorsports program, Clemson engineering students and faculty have engaged in highly technical research areas ranging from vehicle chassis software and computational fluid dynamics, to thermal engine controls and composite materials capabilities. These efforts have been widely viewed as instrumental in the creation of the Clemson University International Center for Automotive Research (CU-ICAR). The Institute is the proud sponsor of the Clemson Formula SAE team.
• Through the Markvan Bellamy Brooks Endowed Scholarship Fund, the Institute has provided undergraduate scholarships to students who major in one of the legacy programs: motorsports engineering, sports communication, sports management and sports marketing.
Legacy Professors

Four Legacy Professors assist in the day-to-day operations of the Institute. The professors are responsible for building a more in-depth program of study within each of their disciplines by recruiting and encouraging other faculty and students to contribute to the Institute’s mission. These professorships were named for Brooks’ son and three colleagues who died in the 1993 plane crash.

**MARK BROOKS PROFESSORSHIP IN SPORTS MANAGEMENT**

**DR. SHEILA BACKMAN**
Professor, Department of Parks, Recreation and Tourism Management

Backman received her undergraduate degree and master’s degrees from Acadia University in Canada. She was awarded her Ph.D. from Texas A&M University in 1988. She began her academic career at the University of Illinois then joined the Department of Parks, Recreation and Tourism Management at Clemson University. She teaches recreation and tourism marketing to both undergraduate and graduate students. In addition, she has focused a line of research specific to the golf industry. Her research has explored turf preferences and also examined why golfers leave the game and why they continue to play. Although golf has been the primary focus, she has examined fan loyalty and the social media preferences and Twitter behavior of NCAA basketball fans. She has published in Tourism Management, Journal of Travel and Tourism Research, Event Management and the Journal of Park and Recreation Administration. Additionally, she is an active reviewer for other major journals.

**ALAN KULWICKI PROFESSORSHIP OF MOTOR SPORTS ENGINEERING**

**DR. ROB PRUCKA**
Associate Professor, Department of Automotive Engineering

Prucka is an associate professor in the Department of Automotive Engineering at the Clemson University International Center for Automotive Research (CU-ICAR). His first big project was guiding a team of graduate students and industry sponsors in building Deep Orange 9. The ninth installment of the celebrated program will be the first aimed at motorsports — constructing a next-generation Rallycross race car. Prucka has been a member of the automotive engineering faculty since 2008. His research and teaching interests include the design, performance, control, calibration and emissions of advanced internal combustion engines. Prior to joining Clemson, he worked for the Ford Motor Company and was an independent consultant for racing engine manufacturers.
CHARLIE CAMPBELL PROFESSORSHIP IN SPORTS COMMUNICATION

DR. BRYAN DENHAM, PROFESSOR
Professor, Department of Communication

Denham is a professor in the Department of Communication, where he studies media, policy and health issues related to performance-enhancing substance use in amateur and professional sports. His research has appeared in top-tier journals such as Communication Theory, the Journal of Communication, Journalism & Mass Communication Quarterly, and the Journal of Health and Social Behavior. Also working in the area of research methods, he is the author of Categorical Statistics for Communication Research. Denham is a member of five editorial boards and has served as a manuscript referee for more than 50 academic journals in the behavioral, social and health sciences. He has been a faculty member at Clemson since 1999.

DAN DUNCAN PROFESSORSHIP IN SPORTS MARKETING

DR. ANGELINE CLOSE SCHEINBAUM
Associate Professor, Department of Marketing

Scheinbaum is an associate professor in the Department of Marketing. She received her doctorate in marketing from the University of Georgia, and she comes to Clemson from the University of Texas at Austin. There, she served as the Associate Director for Research, Center for Sports Communication and Media. Dr. Scheinbaum has published or edited seven books on marketing, consumer behavior, and digital media and published numerous articles in major scholarly journals. Her research focus has been on sport and social/digital media.
Brooks Faculty Fellows

Faculty who excel at conducting research, teach sports-related courses, or provide administration/service to the sports industry are formally invited to affiliate with the Institute as Brooks Faculty Fellows. Along with the Legacy Professors, these faculty members constitute the Institute’s Board of Faculty. Fellows are appointed for three-year terms, renewable if faculty members remain actively engaged in the mission of the Institute.

SKYE ARTHUR-BANNING
Associate Professor, Parks, Recreation and Tourism Management

Arthur-Banning’s primary research interests involve amateur sport and, specifically, sport development. Lately, he has focused his work on adaptive sport and rehabilitation as well as sportsmanship, ethical behavior, and military sport programming. He is co-author of the textbook Recreational Sport: Program Design, Delivery and Management and has edited two more books on youth sport and the global influence of sports.

JOHNELL BROOKS
Associate Professor, Automotive Engineering

Brooks works with an interdisciplinary team that uses driving simulators to study the impact of concussions on the driving capabilities of high school and college athletes. She also uses driving simulators and instrumented vehicles to develop rehabilitation tools for clinical settings.

DEBORAH CADORETTE
Lecture and Coordinator, Athletic Leadership

Athletic Leadership is an emerging new discipline in the area of sport science and educational athletics. Study and research are based on the National Standards for Sport Coaches (NASPE 2006). Cadorette’s current interest is supporting positive environments for student-athletes, and professional development of interscholastic athletic coaches throughout the U.S. Cadorette currently collaborates with the National Federation of High Schools to provide Clemson students an opportunity to become Certified Interscholastic Athletic Coaches.

GREGORY CRANMER
Assistant Professor, Sports Communication

Cranmer’s research focuses on creating beneficial and stimulating experiences for high school and collegiate student-athletes through investigating effective coaching practices, student athletes’ socialization into collegiate athletics, and health and developmental outcomes through sport.

AMANDA FINE
Senior Lecturer, Marketing

Fine teaches courses on sports marketing, and her students implement the annual Tiger Paw Classic golf tournament benefiting a nonprofit started by former Clemson Basketball player Tanner Smith. She previously worked in marketing for Clemson Tiger Sports Properties, the Atlanta Braves, and Atlanta Spirit, parent company of the Atlanta Thrashers and Atlanta Hawks.

MICHAEL GODFREY
Senior Lecturer, Education and Organization Leadership Development

Michael Godfrey’s research explores athletic experience and performance; student athlete development; and leadership development in intercollegiate athletics with a focus on the impact of ethics and diversity on team culture and performance. He is the graduate program coordinator of the Master of Science degree in Athletic Leadership.
GREG RAMSHAW  
Associate Professor, Parks, Recreation and Tourism Management.

Ramshaw’s research explores the social construction and cultural production of heritage, with an interest in sports-based heritage and tourism. His book, Heritage and Sport: An Introduction, will be published by Channel View Publications in 2020.

JASMINE TOWNSEND  
Assistant Professor, Parks, Recreation and Tourism Management.

Townsend is a Certified Recreational Therapy Specialist and Certified Adaptive Recreation and Sport Specialist with 10 years of practice in these fields. She has worked primarily with individuals with physical disabilities during this time, helping them to reach their full potential and quality of life through participation in sport and recreation. Her primary research area is focused on examining the outcomes of participation in recreation and sport for individuals with various disabilities, with her most recent work exploring attitudes towards individuals with disabilities, as well as understanding the transformative power of adaptive sport.

ERICA WALKER  
Assistant Professor, Graphic Communications

Walker is working with members of Clemson Athletics’ New and Creative Media Team to develop courses taught by industry-expert adjuncts that give students the opportunity to take courses taught by members of the top sports content creation team in the country. In these courses, students learn relevant industry skills and 21st Century Skills such as perseverance, teamwork, and communication. She is also working with the Clemson marketing team to develop a system to manage the consistent display of Clemson’s brand colors on the jumbotrons in Death Valley and Littlejohn Coliseum during live sporting events.

QILUN ZHU  
Research Assistant Professor, Department of Automotive Engineering

Zhu serves as a control system specialist for Deep Orange 9, an initiative that gives graduate students the opportunity to construct a next-generation Rallycross race car. He advises students on modeling, simulation, control and design.
Dallara Energy Systems Network (ESN) and Clemson University International Center for Automotive Research (CUICAR) unveiled conceptual renderings of the autonomous Dallara-built race car that will be used by the university race teams in the Indy Autonomous Challenge at IMS throughout 2021.

The Indy Autonomous Challenge is a $1 million prize competition among universities to create software that enables self-driving Indy Lights race cars to compete in head-to-head, high-speed autonomous vehicle race at IMS. The development of such software can help speed the commercialization of highly autonomous vehicles and exchange existing advanced driver-assistance systems (ADAS) in people-driven cars. These technologies help drivers remain in control and avoid accidents by prompting awareness and improving accuracy.

Dallara designed the concepts for the autonomous version of its 210 mph IL-15 race car at its world headquarters in Parma, Italy. For the Indy Autonomous Challenge, Dallara worked closely with ESN and CUICAR to develop projections as to how autonomous vehicle technologies might be integrated into the vehicle to inform the final competition vehicle design. Listed are the international and domestic universities competing for the prize.
International Universities Competing (15)

Austria: Graz Univ. of Technology
Canada: Univ. of Waterloo
Germany (2): Karlsruhe Institute of Technology; Technical Univ. of Munich
India (2): Indian Institute of Technology Madras; Amrita Vishwa Vidyapeetham
Israel: Ariel Univ.
Italy (3): Univ. of Pisa; Univ. of Modena; Politecnico di Milano
Poland (2): Polish Academy of Sciences; Warsaw Univ. of Technology
South Korea (2): Kookmin Univ.; Korea Advanced Institute of Science & Technology
Switzerland: Eth Zurich

U.S. Universities Competing (23)

Alabama (2): Auburn Univ.; Univ. of Alabama
California (3): UC Berkeley; UCLA; California Polytechnic State Univ. (Cal Poly)
Colorado: Colorado State Univ.
Florida (2): Embry Riddle Aeronautical Univ.; Univ. of Florida
Georgia: Kennesaw State Univ.
Hawaii: Univ. of Hawaii
Indiana (2): Indiana Univ.-Purdue Univ. (IUPUI); Purdue Univ.
Massachusetts: Massachusetts Institute of Technology (MIT)
Michigan (3) Michigan State Univ.; Western Michigan Univ.; Univ. of Michigan-Dearborn
New York (2): Rochester Institute of Technology (RIT); U.S. Military Academy (West Point)
North Carolina: Univ. of North Carolina at Chapel Hill
Pennsylvania: Univ. of Pittsburgh
Texas: Texas A&M Univ.
One of the traditions at Clemson is to engage students in the mission of the University, and the Robert H. Brooks Sports Science Institute is no exception. Students who are interested in the study of sport will be invited to formally participate in the activities of the Institute as Brooks Student Scholars. These students will include, but not be limited to, those students awarded Markvan Bellamy Brooks Endowed Scholarships, graduate students funded as teaching and/or research assistants in the Institute’s legacy programs (motorsports engineering, sports communication, sports management and sports marketing), or other students actively engaged in the study of sport.

MARKVAN BELLAMY BROOKS ENDOVED SCHOLARSHIP

Endowed in memory of Robert H. Brooks’ son, Mark Brooks ’91, this fund provides scholarships to undergraduate students who major in one of the four legacy programs.

The following students received the Markvan Bellamy Brooks Endowed Scholarships for the 2020-2021 academic year:

• Kamryn Walker, sports communication
• Samantha Moody, marketing
• Scarlett Lawhorne, parks, recreation and tourism management
• Kyle M. Bonin, mechanical engineering

For the 2019-2020 academic year, the following students received scholarships:

• Meredith Priest, sports communication
• Elisa A. Aldrich, marketing
• Elaina (Laney) Edwards, parks, recreation and tourism management
For the 2018-2019 academic year, the following students received scholarships:

- Julee S. Williams, sports communication
- Maggy H. Powers, marketing
- Alexander G. Krolicki, mechanical engineering
- Caitlin R. Cannon, parks, recreation and tourism management

For the 2017-2018 academic year, the following students received scholarships:

- Ashley Hodge, sports communication
- Erin Andrews, marketing
- Luke Bittenbinder, mechanical engineering
- Paige Timberlake, parks, recreation and tourism management

To date, 52 undergraduate students have received support from the Robert H. Brooks Sports Science Institute.

---

Student Highlight

**Plans for after graduation:** After graduation I plan to find a job in a sports related field. Unfortunately, due to COVID-19, my job opportunities have been limited and put on hold.

**Interest in sports:** I have played soccer since I was three years old and have always been interested in playing and watching different sports. Throughout my life I played soccer, basketball, volleyball, golf, swam, and ran track. When I wasn’t playing an organized sport, I played pick-up games in the yard with friends or watched football – something I wish I could have played. Since sports have always been a huge part of my life, I decided that I wanted to be able to make it a career and work in the sports field every day.

What did it mean to you to receive the scholarship from the Robert H. Brooks Sports Science Institute?

I am so grateful for the opportunity to have been the recipient of the scholarship from the Robert H. Brooks Science Institute. Being an out of state student, this scholarship helped me fulfill my academic dreams of graduating as a Clemson Tiger.

Meredith Priest

**Hometown:** Asheboro, N.C.

**Major:** Sports Communication
Graduate Students

JOEY FONTANA recently graduated with a Master of Arts in Communication. He studied communication issues associated with concussions. In his research, he examined how manipulation of gameplay footage caused fans to view the videos differently, whether as entertainment or as a health concern for the players. Also, Joey delved into the underreporting of concussion in high school football and how social influencers (e.g., teammates, parents, and coaches) pressure young athletes to not disclose concussion symptoms. He also worked with Dr. Gregory Cranmer on how teams adjust to athletes’ exits (e.g., quit, kicked off, or transferred) and worked with Lecturer Katie McElveen and MACTS student Bailey Troutman on the Clemson Sports Signal creative inquiry class. In this creative inquiry, students used analytics of social media data to create sports media articles for a blog.

YOUNG SUK OH, a third-year graduate student in Parks Recreation and Tourism Management, is a valued member of the team studying paraplegic soccer with veterans. He has worked closely with Professor Skye Arthur-Banning on several projects. Among his many accomplishments, Suk has showcased both 5-a-side and 7-a-side soccer at Seattle. Furthermore, met with one of the Major League Soccer staff and discussed about the potential partnership with the Seattle Sounders Soccer Club to grow the sports in the country. He has also submitted an article titled Determining Capacity and Barriers to Disability Sport Development: The International Federation of Cerebral Palsy Football (IFCPF) Membership Perspective to the Sport Management Review, which is one of the top journals in the field of sport management.

FELIPE BERTAZZO TOBAR, a Ph.D. candidate in the Department of Parks, Recreational and Tourism Management at the Clemson University, under the supervision of Dr. Gregory Ramshaw, has presented a paper entitled ‘Brazilian Football and the Politics of Heritage’ at the ‘2018 Football Collective Annual Conference’ which took place in the iconic stadia, Hampden Park, in Glasgow, Scotland, on last November.

JUNGAH CHOI is a third-year doctoral student in the Department of Parks, Recreation and Tourism Management. Her dissertation research examines the lifecycle of post-event sports museums, including museums founded as part of Olympic or World Cup-hosting legacies.

BAILEY TROUTMAN recently graduated with a Master of Arts in Communication, Technology and Society program. As a graduate student supported through the Robert H. Brooks Sports Science Institute, Bailey worked with Dr. Gregory Cranmer on a content analysis in sports communication. She also assisted a class of undergraduates with Ms. Katie McElveen that focused on the Clemson Sports Signal, a blog that reports on social media trends, as analyzed by students in the Social Media Listening Center. Bailey is grateful for the support of the Robert H. Brooks Sports Science Institute for making it possible for her to research and assist in topic areas of interest to her.

DENNIS ROBERTSON is a Ph.D. student in the Department of Automotive Engineering on the CU-ICAR Campus in Greenville, SC. Dennis has been developing alternative exhaust emissions aftertreatment strategies for the Deep Orange 9 project, with the specific focus on strategies that have wide appeal in the racing industry. Typical gasoline-powered race engines operate fuel rich for maximum power and thermal management, rendering typical emissions reduction systems ineffective. The proposed strategy involves supplying additional oxygen in the exhaust to fully oxidize partially-burned emissions species and produce clean emissions without a significant impact on engine power. Dennis’ work shows that racecars can be both fast and clean. Dennis is expected to complete his Ph.D. requirements in 2020.
ESPN’s Rosalyn Durant visited Clemson in February 2020 to deliver her speech, “We Did This: Launching the ACC Network and Lessons Learned Along the Way,” as the 2020 Robert H. Brooks Sports Science lecturer. Durant was instrumental in launching the ACC Network and shared her work and life philosophies with the audience.

Durant discussed 10 approaches to work that helped her succeed at ESPN. She emphasized accountability, bravery, curiosity, kindness and old-fashioned hard work. Perhaps most importantly, Durant encouraged listeners to never stop learning.

For college students, Durant stressed the importance of work experience. Beyond merely filling up a resume, she emphasized the art of telling your story in a compelling fashion. Employers want to know what about students’ experiences are that make them special.

The inaugural lecture series, held in April 2018, featured former NFL coach Joe Gibbs. Gibbs spoke to students, faculty and sports fans-alike about his successful career on and off the field and the importance of maintaining life priorities in the face of great success.

In March 2019, Clemson welcomed Dr. David K. Wiggins, noted sport historian, to give the 2nd Annual Robert H. Brooks Lecture, entitled “An Altered Athletic Landscape: Sport, Race and the Civil Rights Movement.” This lecture series will continue to feature notable speakers from the intersection of sports, society and academics. It will highlight contemporary work in sports sciences outside of the Institute and provide a mechanism for engaging the entire Clemson community in the Institute’s work.
RESEARCH SEED GRANTS

Competitive seed grants are awarded each year to Clemson faculty and researchers to engage in multidisciplinary sports research. The purpose of these seed grants is to stimulate and expand faculty and graduate student research in the academic study of sport. The following grants were funded through the Institute:

2020

- Andrew Duchowski (PI) School of Computing
  Paige Rodeghero (Co-PI), School of Computing
  Dr. Tenley Murphy, M.D. (Co-PI), a Clemson team physician
  Dr. Chris Troup, M.D. (Co-PI), neurosurgeon from Prisma Health
  Topic: “Sideline Concussion Screening in Eye-Tracked Augmented Reality”
- Casey Hopkins (PI) School of Nursing
  Christopher Hopkins, Ph.D. Candidate, DPT, PT
- Jeremy Mercuri (PI) Bio-Engineering
  Steven Martin, M.D. (Co-PI) Sports Medicine
  Topic: “Comparing the Regenerative and Anti-Fibrotic Effects of Biologic Therapies for Muscle Injuries”
- Jasmine Townsend (PI) Parks, Recreation and Tourism Management
  John DesJardins, (Co-PI) Department of Bioengineering
  Chuck McCuen, (Co-PI), Director of Wheelchair Tennis Operations at Clemson University
  Topic: “3D Modeling and Kinematics of Wheelchair Tennis Within Novel Match Simulation Techniques”

2019

- John Desjardins (PI) Department of Bioengineering; Jordan Byrd (co-PI) Assistant Golf Coach; Topic: “The effect of balance on internal swing consistency: An athletic/academic partnership in movement science”
- Pingshan Wang (PI) Electrical and Computer Engineering; William R. Harrell (Co-PI) Electrical and Computer Engineering; David M. Feliciano (Co-PI) Biology; M. F. Casanova (Senior personnel) from the University of South Carolina School of Medicine; Danny Poole Head Athletic Trainer; Topic: “Cellular rectification of electrical stimulation fields”
- Ryan Gagnon (PI) Parks, Recreation and Tourism Management; Mariela Fernandez (co-PI), Parks, Recreation and Tourism Management; Topic: “Promoting Positive and Healthy Development in African American Youth Through the Sport of Climbing”
- Jeremy Mercuri (PI) Bio-Engineering
  Tong Ye (co-PI), Bio-Engineering; Topic: “Early Detection and Prophylactic Treatment for Post Traumatic Osteoarthritis”
- Thompson Mefford (PI) Materials Science and Engineering; Mark Bolding (co-PI), Chemistry; Irfan Asif (co-PI), a family medicine doctor with GHS; Danny Poole (co-PI), Head Athletic Trainer; Len Reeves (co-PI), Materials Science and Engineering
  Topic: “Advanced imaging agents to diagnose the state of confused brain”
- Heidi Zinzow (PI) Psychology; Jennifer Goree (co-PI), Student Health Center; Lauren Pollard (co-PI), Student Health Center; Natalie Honnen (co-PI), Athletic Administration; Dr. J.B. Kingree (co-PI), Public Health Sciences; Topic: “Sexual violence prevention program”
Over the past several years, the Clemson University Department of Athletics has modernized its strength and conditioning regimens and incorporated some of the latest innovations in sports science analytics into their operations. The strength and conditioning program for Olympic sports is a prime example. With the volume of data they are collecting on biomechanics and motion analyses, there is ample opportunity for faculty and students to create and conduct research studies.

In the 2019 fall semester, the Robert H. Brooks Sports Science Institute, in collaboration with the Department of Athletics, invited Clemson University faculty and graduate students to an informal information exchange. Rick Franzblau, Director of Olympic Sports Strength and Conditioning, led a discussion of collaborative research ideas and demonstrated some of the technology Athletics uses to develop student-athletes within the Jervey Athletic Center Weight Room.

---

2017

- Gregory Batt (PI), Department of Food, Nutrition and Packaging Sciences; John Desjardins (Co-PI) Department of Bioengineering; Topic: “Quantifying the impact performance of football helmet facemasks”
- Gregory Cranmer (PI) Department of Communication; Topic: “Factors affecting high school football players’ intent to report concussion symptomology: An application of the health disclosure decision-making model”
- Sabarish Babu (PI), School of Computing; Eileen Kraemer (Co-PI), School of Computing, and Christopher Pagano (Co-PI), Department of Psychology; Topic: “Investigating perceptual-motor synchrony and coordination on cybersickness, skills training, and spatial perception in a VR rowing simulator”
- Adam Hoover (PI), Department of Electrical and Computer Engineering; Elliot Jesch (Co-PI) Department of Electrical and Computer Engineering; Topic: “Pedometer evaluation during structured, semi-structured and unstructured gaits”
- Greg Ramshaw (PI), Department of Parks, Recreation and Tourism Management; Brent Hawkins (Co-PI) Department of Parks, Recreation and Tourism Management; Topic: “Reminiscing Howard’s Rock: Harnessing the power of Clemson Football memories to improve cognitive functioning of South Carolinians with dementia”
- Mary Anne Raymond (PI), Department of Marketing; Delancy Bennett, (Co-PI), Department of Marketing; Robert Prucka (Co-PI), Campbell Engineering Graduate Program, and Jennifer Siemens (Co-PI) Department of Marketing; Topic: “Collaborative marketing and vehicle engineering for the Deep Orange 9 motorsports project”
- Travers Scott (PI) Department of Communication; Topic: “What comes after coming out? Effective integration strategies for LGBTQ persons and college athletics.”

Athletics + Academics = research opps

Over the past several years, the Clemson University Department of Athletics has modernized its strength and conditioning regimens and incorporated some of the latest innovations in sports science analytics into their operations. The strength and conditioning program for Olympic sports is a prime example. With the volume of data they are collecting on biomechanics and motion analyses, there is ample opportunity for faculty and students to create and conduct research studies.

In the 2019 fall semester, the Robert H. Brooks Sports Science Institute, in collaboration with the Department of Athletics, invited Clemson University faculty and graduate students to an informal information exchange. Rick Franzblau, Director of Olympic Sports Strength and Conditioning, led a discussion of collaborative research ideas and demonstrated some of the technology Athletics uses to develop student-athletes within the Jervey Athletic Center Weight Room.
The Robert H. Brooks Sports Science Institute is a proud supporter of the annual MovieFest. MovieFest is hosted by the Department of Graphic Communication and spearheaded by Erica Walker, a Robert H. Brooks Sports Science Institute Fellow. The Robert H. Brooks Sports Science Institute provides funding for the sports category, which is one of the innovative ways we’re expanding the reach of the Institute across campus.

Sponsorship is what makes Campus Movie Fest a reality at Clemson University. In the past, sponsors have funded additional equipment for participants, exclusive screening, and helped to organize networking events for CMF participants and industry professionals.

Each year, student involvement grows. With your help, Fall 2020 Campus Movie Fest will be the greatest yet.

Of the students who participated in the Fall 2019 Campus Movie Fest, 6 different colleges at the University were represented.
Endowment Financials

Endowments 80191 and 90038 provide operating funds for the Robert H. Brooks Sports Science Institute, which was created by Mr. Brooks in October 1994.

<table>
<thead>
<tr>
<th>80191</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corpus</td>
<td>$5,555,463.00</td>
<td>$5,555,463.00</td>
<td>$5,555,462.80</td>
</tr>
<tr>
<td>Appreciation</td>
<td>$2,028,351.00</td>
<td>$1,975,746.00</td>
<td>$2,161,946.64</td>
</tr>
<tr>
<td>Market Value</td>
<td>$7,212,980.00</td>
<td>$7,583,813.00</td>
<td>$7,717,409.44</td>
</tr>
<tr>
<td>Carryover Balance</td>
<td>$549,466.00</td>
<td>$612,320.00</td>
<td>$591,653.00</td>
</tr>
<tr>
<td>Endowment Value</td>
<td>$7,762,447.00</td>
<td>$8,196,133.00</td>
<td>$8,309,062.44</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>90038</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corpus</td>
<td>$2,231,375.00</td>
<td>$2,235,773.00</td>
<td>$2,235,773.06</td>
</tr>
<tr>
<td>Appreciation</td>
<td>$717,610.00</td>
<td>$711,845.00</td>
<td>$802,515.36</td>
</tr>
<tr>
<td>Market Value</td>
<td>$2,948,986.00</td>
<td>$2,947,618.00</td>
<td>$3,038,288.42</td>
</tr>
<tr>
<td>Carryover Balance</td>
<td>$138,421.00</td>
<td>$17,981.00</td>
<td>$31,755.00</td>
</tr>
<tr>
<td>Endowment Value</td>
<td>$3,087,407.00</td>
<td>$2,965,599.00</td>
<td>$3,070,043.42</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>90037</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corpus</td>
<td>$41,764.00</td>
<td>$41,764.00</td>
<td>$41,763.59</td>
</tr>
<tr>
<td>Appreciation</td>
<td>$30,550.00</td>
<td>$30,003.00</td>
<td>$32,184.04</td>
</tr>
<tr>
<td>Market Value</td>
<td>$72,313.00</td>
<td>$71,766.00</td>
<td>$73,947.63</td>
</tr>
<tr>
<td>Carryover Balance</td>
<td>$14,808.00</td>
<td>$3,439.00</td>
<td>$16,691.00</td>
</tr>
<tr>
<td>Endowment Value</td>
<td>$87,122.00</td>
<td>$75,206.00</td>
<td>$90,638.63</td>
</tr>
</tbody>
</table>

For more information, contact:
Dr. Brett Wright
864-653-1049
wright@clemson.edu