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NEWSLETTER OF THE AMERICAN ORTHOPAEDIC SOCIETY FOR SPORTS MEDICINE
FALL 2019, ISSUE 3

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Sports Medicine Update is a quarterly publication of the American Orthopaedic Society for Sports Medicine (AOSSM). AOSSM is a global leader in sports medicine education, research, communication, and fellowship, and is comprised of orthopaedic sports medicine specialists, including national and international sports medicine leaders. AOSSM works closely with many other sports medicine specialists and clinicians, including family physicians, emergency physicians, pediatricians, athletic trainers, and physical therapists, to improve the identification, prevention, treatment, and rehabilitation of sports injuries.

This newsletter is also available on the Society’s website at sportsmed.org.

To contact the Society: American Orthopaedic Society for Sports Medicine, 9400 W. Higgins Road, Suite 300, Rosemont, IL 60018, Phone: 847.292.4900, Fax: 847.292.4905.

AOSSM thanks Zimmer Biomet for their support of Sports Medicine Update.
FROM THE PRESIDENT

I have been involved in team sports my whole life. That experience has enabled me to see the value in teamwork and dedication. As a longtime member of the AOSSM, I am acutely aware of the importance this organization places on these attributes and how, together, we can realize true innovation and advancement.

My distinguished colleagues throughout AOSSM understand the need to keep pushing the limits of what we know—to discover new paths that revolutionize not only orthopaedic sports medicine, but also the Society itself. I am hopeful we can use our collective voice to be the change we want and need to see in healthcare, not only to get our patients the highest standard of care they require faster, but to also enable us to reflect this care in the most accurate and appropriate coding for such services.

It is with great pride and honor that I take on my newest role as AOSSM President. I assure you, I bring to this role my inherent instinct to step up our game to meet the ever-evolving needs of our members who ultimately are focused on keeping athletes young and old in the game of life. I also come with a sense of excitement for our organization. In order to serve AOSSM better and move it forward, your leadership team continually assesses our organization from top to bottom. Our goal is to ensure our operational structure fully supports our mission and rises to the challenges of a professional society of 3,800 members and growing.

To paraphrase a well-known saying, where there is not improvement there is decline. We see this everyday in our professional settings. Teams, organizations, athletes, and patients must constantly push the boundaries and transform to stay competitive, relevant, and healthy. We pledge to do the same.

Our goal is to embrace transformation as an opportunity to take serious stock of where we are at this time, and take charge of where we are headed. In this regard, we plan to devote time to strategic thinking, and invest in some avenues to benefit AOSSM membership.

Throughout the remainder of this year and into 2020, AOSSM will harness our existing resources into new technologies and delivery systems. Most notably, our enhanced Learning Management System (LMS) will combine our extraordinary online-based educational offerings into one dynamic, easy-to-navigate platform. Complementing LMS, our video library will continue to add instructional segments featuring the latest in procedures and research.

One transformative area you have already seen in action relates to the change in our fiscal year. The Board of Directors unanimously voted to align AOSSM’s fiscal year to the calendar year (January–December). With this change, the Board of Directors consulted with industry experts and financial managers to determine how best to approach our dues renewal process for 2019 and 2020. The recommendation was to have a one-time, 17-month renewal. This allows us to maintain the financial health of our organization, align to the new fiscal year schedule, and continue to provide uninterrupted programs and member benefits. Upon submitting your 17-month dues payment this year, your membership is automatically renewed for all of 2020.

In early 2020, AOSSM will turn its focus to a Member Needs-Assessment Survey. This type of survey is an invaluable tool to member-based organizations such as AOSSM. The results can help identify the most important needs of our community and guide future action. Together with the Board of Directors and professional team, we will use the results of the survey to build the strategic initiatives that will lead us into our organization’s half-century mark.

Coming off the heels of our highest attended Annual Meeting, we look forward to shattering attendance records in the Emerald City of Seattle, at our 2020 Annual Meeting July 9–12.

Speaking of shattering records, I am especially excited to announce a very special partnership with Kenneth Langone and Stanley Druckenmiller. These business icons and philanthropists were introduced to AOSSM by Immediate Past President Neal S. ElAttrache, MD. They were featured at the 2019 AOSSM Annual Meeting as presidential guest.
James P. Bradley, MD

speakers where they shared their unique perspectives on “Making a Difference for Our Next Generation through Wellness, Health, and Education.”

Langone and Druckenmiller are so impressed with the passion, knowledge, expertise, and spirit of community among AOSSM members that they have expressed their willingness to generously support an AOSSM fundraising campaign by providing two-to-one, unrestricted matching gifts up to $1 million for donations made by individual AOSSM members.

Watch for additional information as AOSSM launches an energetic member fundraising initiative starting this year through June 2020 to meet, and hopefully exceed, the goals of this campaign. The funds raised will be used to improve the quality of care and quality of life for patients of all ages and abilities by dramatically enhancing AOSSM education, research and STOP Program initiatives.

It goes without saying that we cannot accomplish these goals in isolation and will be seeking your input in the coming months on various aspects of this organization. For the continued health of this organization, your active participation is essential and welcomed.

Please contact me or any members of the Board of Directors with suggestions. I look forward to engaging with all of you in serving AOSSM.
TEAM PHYSICIAN CORNER

MOUNTAIN BIKING INJURIES

GRANT L. JONES, MD
SPORTS MEDICINE RESEARCH INSTITUTE
THE OHIO STATE UNIVERSITY
MOUNTAIN BIKING (MTB) or “off road biking” started in the 1970s in North America and gained mainstream popularity in the 1990s. In the 1980s and 1990s, mountain bikes accounted for 60% of total bike sales. Due to its popularity, it became an Olympic sport in 1996 and then a full-time Olympic sport in 2000.

Although there was a 35% decrease in MTB riders from 8.6 million in 1998 to 5.6 million in 2007, there has been a recent return to MTB with an increase in riders from 6.75 million in 2006 to 8.32 million in 2015. There is a wide age range of riders (8 to 80 years of age), but a majority of the riders are in their 20s and 30s with a male predominance.

Mountain biking comprises a wide range of disciplines from recreational riding to organized riding. There are several types of competitive mountain biking including cross-country (2-hour races as in the Olympics), short-track cross-country, ultra-endurance (100K to 100 mile races), downhill, 4-cross (4 riders in an all-out “brawl” to the finish line), “The Duel” (2 riders in a “brawl” to the finish line), and observed trials (technical contests where handling of the mountain bike is graded and distances are short).

**Injury Rates**

Unfortunately, due to the nature of the sport, injuries are prevalent, with up to 85% of all mountain bikers incurring at least one injury. Furthermore, 50% of recreational bikers and 90% of professional MTB riders have sustained at least one major severe injury. In addition to traumatic injuries, 45% to 90% of riders report overuse injuries. MTB has one of the highest over injury rate of Olympic sports with 21% of mountain bikers sustaining an acute or overuse injury and 50% of those costing one training or race day in the 2012 Summer Olympics. In viewing gender differences, females tend to have a higher injury rate and higher rate of hospitalization per injury requiring an emergency room visit (6.1% versus 4.5% in males) with one theory being that women tend to be lighter and more apt to fall over their handlebars, resulting in more serious injury.

In terms of the different disciplines, there is a much higher injury rate in downhill than cross country racers. Fortunately, though, the overall injury rate has declined with a 56% decrease from 1994 to 2007.
Mechanism of Injury
Not surprisingly, falls are the most common mechanism of injury. Furthermore, falls over the handlebars cause the most serious injuries resulting in hospitalizations and a greater number of shoulder and clavicle injuries and traumatic brain injuries (TBI). Surprisingly, though, being hit by an object actually caused the greatest proportion of hospitalizations in recreation MTB, particularly in the 8- to 13-year-old age group, where rides are often both on and off the road, increasing the risk of being hit by a motor vehicle.

Types of Injuries
In terms of MTB injuries requiring trauma center admission, orthopaedic injuries (46.5%) are the most common followed by head (12.2%), chest (10.3%), facial (10.2%), abdominal (5.4%), genitourinary (2.2%), and neck injuries (1%). Seven percent to 15% of acute injuries in competitive MTB riders are fractures. Furthermore, MTB fractures accounted for 7.4% of all sports related fractures in one study with 92% of the fractures occurring in males and 93% involving the upper extremities. In an investigation of MTB emergency room visits in the U.S. from 1994–2007, the most common injuries were upper extremity fractures (10.6%) and shoulder fractures (8.3%). Lower-extremity trauma accounted for 19.6% of the injuries and was more common in females.

Upper-Extremity Injuries
Upper-extremity injuries most commonly involve the shoulder joint/clavicle region and include clavicle fractures, acromioclavicular joint injuries, and fractures/dislocations of the glenohumeral joint. But, they can also involve the elbow joint (dislocations) and the hand and wrist (distal radius, scaphoid, and metacarpal fractures).

Lower-Extremity Injuries
Lower extremity injuries are also commonly seen in MTB (19.6%), and are more common in females than males. These injuries are commonly caused by contact with low objects and undergrowth or contact with gears or chains when the foot slips off non-clip-in pedals. More serious injuries can occur when the biker fails to disengage from clip-in pedals during a fall, which results in a lateral compression force to the hip and femur, producing femoral head and neck fractures as well as pelvic and acetabular fractures. Overuse injuries are also common in riders and include patellofemoral pain syndrome, patellar tendinopathy, and iliotibial band syndrome. These conditions are often related to improper saddle height, cleat position, and training volume.

Spine Injuries
Spine injuries accounted for 12% of MTB injuries seen in one regional trauma center with cervical injuries being the most common, and 4% of all spinal injuries in another regional trauma center.

Proper equipment is paramount for prevention. Helmet use is high in mountain biking as both competitive mountain biking races and recreational bike trails require helmet use. However, use by the 14- to 18-year-old population is not as consistent, so it is important to promote helmet use in this age group.
were secondary to mountain biking.6 MTB spine injuries are often catastrophic with 46% of vertebral fractures having concomitant cord injury and 30.5% of spine injuries requiring surgery.10 The most common mechanism for cervical injury is going over the handle bars and landing on one’s helmet.3 Furthermore, injuries have been associated with mechanical bike dysfunction, high downhill speed, technical terrain, and poor judgment.4

Oromaxillofacial Injuries
In a study on oromaxillofacial injuries in MTB, 55% involved fractures with 15.2% being Le Fort fractures.9 Soft tissue injuries (23%) and dental trauma (22%) accounted for the remaining injuries.9 In a survey of alpine European MTB riders, 5.7% of the athletes had sustained dental trauma at some point in their careers.14 However, despite the known risk of dental injury, only 4.4% of these bikers used mouthguards.14 Also, in this survey, only 6.3% of the riders were aware of tooth rescue kits, which can preserve cementoblasts and increase the success of tooth implantation.14

Head Trauma
The rate of traumatic brain injuries (5% to 12%) is, fortunately, relatively low compared to other injuries, which may be secondary to the high degree of helmet use in mountain bikers (80% to 90%).10, 16 However, the rate of TBIs in 14- to 19-year-old age riders has been shown to be double that of bikers under 14 years old and greater than 20 years old, which may be due to the lower rate of helmet use in adolescents and greater risk taking in this group.16 Despite the relatively low rate of head trauma, serious injuries such as skull fractures, intracranial hemorrhage, and cerebral/cerebellar/brain stem contusions have been reported.3

Genital/Saddle Area Injuries
Direct friction between the bicycle seat and genital area and repetitive vibrations and shocks during mountain biking can result in chafing, urethritis, subcutaneous perineal nodules, and perineal folliculitis and furuncles, the latter of which can become infected secondary to obstructed sweat glands and result in “saddle sores.”3 In addition, 50% to 91% of male road cyclists develop some degree of genital area numbness and 13% to 24% complain of erectile dysfunction, secondary to prolonged compression of the pudendal nerve and compromised blood flow to the penis.4 Risk factors include poorly fitted bike, saddle type, increased riding distance, prolonged seated position without standing, and high body weight.4 Fortunately, for mountain bikers, there is a lower incidence of numbness and erectile dysfunction because of the more upright posture in MTB which places higher loads on the buttocks compared to road cyclists.14 Finally, 96% of mountain bikers have shown to have scrotal content abnormalities on ultrasound with 49% of those riders having tenderness or discomfort compared to a 16% rate of ultrasound abnormalities in controls.8 The most common scrotal finding was a scrotolith, which is a benign calcified mass.9 One the other hand, there was only one case of testicular microlithiasis, which has been reported to be a sign of testicular cancer, so mountain biking does not seem to increase one’s risk of testicular cancer.8 These scrotal abnormalities are most likely due to repetitive microtrauma/vibrations by the seat on the scrotum.8

Prevention
The World Mountain Bike Festival and Conference met in 2004, and the mountain bike community accepted the responsibility for the increasing risk of serious mountain biking injuries seen at that time, instituted safety as a part of their culture, and made recommendations regarding safety, which may have helped contribute to the decreased rate of injuries seen from 1994–2007.10, 16 Mountain bikers, in particular younger
ones, should attend an educational course led by a certified mountain bike instructor or attend a skill training camp.10

10 Understanding how injuries occur and proper technique can help minimize injury as many injuries are secondary to errors in judgement.10 In addition, skill acquisition should occur in bike-parks before going on the trails.10

Secondly, proper equipment is paramount for prevention. Fortunately, helmet use is high (80%–90%) overall in the mountain biking population as both competitive mountain biking races and recreational bike trails require helmet use.16 However, its use by the 14- to 18-year-old population is not as consistent, so it is important to promote helmet use in this age group.16 Unfortunately, mouthguard use and having a tooth rescue kit is not as prevalent, but should be encouraged with the relatively high incidence of dental injuries.19 Handle bar attachments or upright handles are not recommended due to their association with thoracoabdominal injuries,12, 15 and handle bars should be large diameter and have rubber grips over the metal ends to help limit concentrated blunt force trauma to the abdomen.3

To minimize groin and pelvic trauma, an appropriate saddle or seat and padded shorts should be utilized.4 Adjusting the saddle angle to either horizontal or upward in front and having an appropriate saddle height can reduce trauma to the perineal region.8 Similarly, newer shock absorbent saddles and full suspension bikes may aid in minimizing saddle vibration and microtrauma.8 Saddle height is also important in contributing to overuse knee injuries.4 A low saddle height results in greater knee flexion and increased risk of patellofemoral pain whereas a high saddle height causes less knee flexion and greater risk of hamstring injuries.4 Finally, padded gloves, proper handle bar length (not too narrow), and appropriate reach length to the handlebars may help prevent ulnar and median neuropathies.4

Participation in strength-building and coordination programs have been suggested before engaging in MTB as upper body and core strength is important in the rider’s ability to stabilize his or her bike and avoid trauma.3 Environmental management is important as well. Trails are now rated according to the level of difficulty, and riders should ride courses corresponding to their ability.3 Finally, courses should be designed to balance performance enhancement with adequate safety.3

**Conclusion**

Although mountain biking is a high-risk sport for injury, it also has many physiologic benefits and can be enjoyable and safe if riders understand and practice appropriate preventive measures.

**REFERENCES**


AOSSM Presents Trevor Lentz with STOP Sports Injuries Honor

Congratulations to Trevor A. Lentz, PT, PhD, MPH, who received the STOP Sports Injuries award for his paper, “Development of a Concise Lower Extremity Physical Performance Test Set for Return to Sport Decision-Making in Pediatric Populations,” during the 2019 Annual Meeting in Boston. This award, established in November 2015, recognizes outstanding research presented at the Annual Meeting related to youth sports injury prevention, treatment, or rehabilitation, and is voted on by the STOP Sports Injuries Outreach Committee.

As the Society and STOP Sports Injuries committee review abstracts submitted for the 2020 Annual Meeting in Seattle, they will evaluate for potential recipients for the next STOP Sports Injuries recognition. The review team considers submissions accepted for presentation that cover youth sports injury topics.

Why Sports Safety Matters to You

Are you an advocate for preventing injuries in young athletes? Share why keeping kids in the game is important to you—just download and print out our “Sports Safety Matters” sheet, write in your answer, and have someone take a photo of your response. Be sure to post on social media with the #SportsSafety hashtag.


COME GROW WITH US

Did you know more than 1,100 organizations currently collaborate with STOP Sports Injuries? The program was founded on the idea that grassroots efforts could help spread awareness and information about preventing overuse and trauma injuries in young athletes. This number includes more than 800 sports medicine practices, which hold local events and share our injury prevention information with patients. If you have not already signed up, be sure to visit STOPSportsInjuries.org and click “Get Involved” to learn more.

Welcome to Our New Collaborating Organizations!

Thank you to the newest STOP Sports Injuries collaborating organizations for their commitment to keeping young athletes safe. Interested in having your practice or institution listed in the next SMU? Head over to STOPSportsInjuries.org and click “Join Our Team” to submit an application!

Child Safety Organization
CoachSafety Foundation

Medical Institutions
St. Jude’s Children’s Hospital
TeamOrtho

Sports & Recreation Organizations
Lackawanna College
Hendersonville Parks and Recreation
Sport Sciences Research Institute of Iran

Sports Medicine Practices
New England Orthopedic Surgeons
Sun City Orthopaedic and Hand Surgery Specialists
Chiroecture Spine and Sports

Physical Therapists
Dr. Gustavo Sarmiento Bianco
Ascension Borgess Hospital
Evolve Physical Therapy and Sports Rehabilitation
Houston Skate & Sports Orthotics Center

Professional Health Organization
Embrace Mobility Therapy Services
Renew Your Membership
Don’t let any of your membership benefits expire, like subscriptions to AJSM and Sports Health: A Multidisciplinary Approach, and reduced rates for upcoming courses, including the 2020 Annual Meeting in Seattle. It only takes a few minutes to renew your AOSSM membership. Simply login at sportsmed.org and click on your MyAOSSM tab to pay. Questions? Contact the Society office at 847.292.4900 or email Jeff Boyle at jeff@aossm.org.

Update Your Profile Today
Have you recently moved, or changed any of your contact information such as your email address or phone number? Have you recently switched positions? Keeping your membership profile information up-to-date helps AOSSM better share the latest in sports medicine news and educational information with you. Take a few moments to review and update your information by logging in to your profile page at sportsmed.org. While you’re there, take the opportunity to upload your photo as well! This could help increase your visibility to patients seeking care.

Thank you in advance for helping us improve our outreach efforts!

Join an AOSSM Committee
As an AOSSM member we rely on your expertise and talents for us to continue to be the global leader in orthopaedic sports medicine. AOSSM has multiple committees that have space for you to share your opinions and help shape our organization from research to publications to self-assessment exam question preparation. Put your name in the hat for a committee and help make a difference with AOSSM. View complete details and committee openings at sportsmed.org. Deadline for applications is February 14, 2020.

Nominate Your Mentor for the Hall of Fame
Do you have a mentor or know of another outstanding member of the orthopaedic sports medicine community who should be part of the AOSSM Hall of Fame? The Hall of Fame honors members of the orthopaedic sports medicine community who have contributed significantly to the specialty and set themselves apart. Being inducted into the Hall of Fame is one of the highest honors given to a Society member. Visit sportsmed.org to submit a nomination before February 7, 2020. Questions? Contact Danielle Kalinowski at danielle@aossm.org.

Got News We Could Use? Sports Medicine Update Wants to Hear from You!
Have you received a prestigious award recently? A new academic appointment? Been named a team physician? AOSSM wants to hear from you! Sports Medicine Update welcomes all members’ news items. Send information to Christina Tomaso at christina@aossm.org. High resolution (300 dpi) photos are always welcomed.
The Traveling Fellowship Committee is currently seeking members to volunteer to host the Traveling Fellows for next year’s North American tour June 17–July 12. Each year, the Society hosts three young and promising orthopaedic sports medicine specialists and one senior surgeon who acts as a Godparent for the tour. During their three-week tour, the fellows visit five North American sports medicine centers and take part in the AOSSM Annual Meeting.

The typical visit blends time spent in scientific endeavors, a tour of the host facility, social functions, recreation, and most importantly, observation in the OR. Hosts are encouraged to use their creativity to plan a unique and exciting experience. The Traveling Fellowship Committee also encourages members to “group host” with several institutions in one area sharing the hosting duties and costs, thus adding to the diversity of the tour.

To learn more and submit your application to host the Traveling Fellows in 2020, visit sportsmed.org. Applications are due by December 1, 2019. Hosts will be notified of their selection and dates by January 15, 2020.

Contact the Society office at 847.292.4900 with questions or email Jeff Boyle at jeff@aossm.org.

AOSSM gratefully acknowledges DJO for an educational grant in support of the Traveling Fellowship program.

2018 Impact Factors Announced!

The 2018 Impact Factors were released in June, and all three AOSSM journals landed within the top one-third of journals within the orthopaedics and sports sciences categories. AJSM received the top Impact Factor in orthopaedics for the third year in a row with its highest-ever Impact Factor of 6.093 (5-year Impact Factor: 7.006), and Sports Health maintained its impressive debut from last year, with a ranking of 2.649. OJSM received its first-ever Impact Factor this year and debuted within both the orthopaedics and sports sciences categories at a 2.589.

Congratulations to the teams behind both journals for these achievements, and thank you to our authors, readers, and subscribers for making this possible!
In Memoriam: John Feagin, MD
BY DEAN TAYLOR, MD

**DR. FEAGIN** died peacefully on September 1, 2019, at the age of 85 at his home in Jackson Hole, Wyoming, amid friends and family. Born on May 9, 1934, he was the son of the late Col. John A. Feagin, Sr. and Katherine Terrell Feagin.

Dr. Feagin was a 1955 graduate of the United States Military Academy at West Point. Following two years as an Army artillery officer, he was offered admission to the Duke University School of Medicine by Dean Wilbur Davison. He was the first West Point graduate to attend medical school while on active duty, and the first West Point graduate to graduate from the Duke University School of Medicine. At Duke, he met Martha Bagley. They married in 1959, and they had three children: Randle in 1960, Rob in 1965, and Nancy in 1966.

Following graduation from Duke in 1961, Dr. Feagin completed a surgery internship at Tripler Army Medical Center in Hawaii, followed by an orthopaedic surgery residency at Walter Reed Army Medical Center in Washington, D.C. He served as an orthopaedic surgeon in Vietnam 1966–67 with the 85th Evacuation Hospital in Qui Nhon.

Dr. Feagin returned to West Point and served as an orthopaedic surgeon at Keller Army Hospital and team physician for the Army athletic teams from 1967–72. He then completed a fellowship in hip replacement surgery in England with Sir John Charnley at Wrightington Hospital. Following his fellowship, Dr. Feagin was assigned to the orthopaedic teaching staff at Letterman Army Medical Center from 1973 to 1978. He retired from the Army as a Colonel in 1979 after a final assignment at West Point as the Commander of Keller Army Hospital. Dr. Feagin once said, “During my 24 years in the military, I learned that one could be both a professional soldier and a physician . . . that these roles do not have to conflict. I use, appreciate, and value the qualities and virtues that I have learned from my service every day of my life.”

Dr. Feagin practiced orthopaedic surgery in Jackson, Wyoming, from 1979 to 1989. He enjoyed being exposed to the unique brand of Jackson athlete—skiers, climbers, cowboys, etc. Dr. Feagin was also able to continue to develop his career as teacher and mentor. He brought many fellows and medical colleagues to Jackson. He and his partners were actively involved in caring for and traveling with the U.S. Ski Team and working for several Olympic Games. In addition, he earned his pilot’s license and loved flying to rural clinics around Wyoming.

Dr. Feagin returned to Duke in 1989 as Associate Professor of Surgery and team physician for Duke Athletics. Notably, Dr. Feagin reunited with Head Men’s Basketball Coach Mike Krzyzewski, who had been a basketball player at West Point when Dr. Feagin was team physician. He retired from clinical practice in 1999 and remained on the Duke faculty as Associate Professor Emeritus of Orthopaedic Surgery.

In retirement, Dr. Feagin continued to do what he loved—fly and teach. His solo transatlantic flight in his four-seat, single-engine Cessna 172 was topped only by his successful solo transatlantic return in the same plane. His lifelong love of teaching continued as he volunteered his time to instruct and enrich the lives of medical students, residents, fellows, and faculty at Duke, West Point, and the Steadman Clinic in Vail, Colorado, where he lived until returning to Jackson Hole in 2015.

John’s friendship and camaraderie with Dr. Richard Steadman brought him to Vail in 2003. He spent much of the next 12 years of ‘retirement’ mentoring fellows in Vail. John, and his wife of 10 years, Martha Head, were active supporters of Vail, and took pride in helping Vail grow while still preserving its character and history.

Dr. Feagin was a leader locally, nationally, and internationally. He was one of the earliest members of the Society of Military Orthopaedic Surgeons (SOMOS), one of the oldest Orthopaedic subspeciality societies in the United States. Through SOMOS and his mentoring efforts, Colonel Feagin served as an inspiration for scores of military surgeons.

In addition to SOMOS, Dr. Feagin had a tremendous love for the AOSSM and its members. Not only was he the 1985–86 President, he was also a founding member of the society which represents now over 3,000 sports medicine professionals internationally. With Professor Werner Mueller, he founded the AOSSM Sports Medicine Traveling Fellowship Program and was the godfather for the first AOSSM traveling fellowship to Europe. His traveling fellows were Bill Garrett, Lonnie Paulos, and AJSM Editor Bruce Reider.

Dr. Feagin was a member of the United States Military Academy Board of Trustees. His contributions and leadership were recognized through numerous awards including the United
“Do the right thing, at the right time, for the right reason.”

John Feagin’s mantra on leadership

States Military Academy’s Distinguished Graduate Award, and induction in to the Army Sports Hall of Fame and the AOSSM Hall of Fame. The U.S. Army Joint and Soft Tissue Trauma Fellowship created by Dr. Jack Ryan at West Point in 1987, was re-named The John A. Feagin, Jr. Sports Medicine Fellowship in 2004 in honor of Dr. Feagin’s continuing contributions to military and sports medicine orthopaedics. In addition, he was also awarded the AOSSM Mr. Sports Medicine Award, and the AOSSM George Rovere Award for contributions to sports medicine education.

Dr. Feagin humbly influenced an entire generation of orthopaedic surgeons worldwide in ways that transformed the understanding and treatment of knee injuries. He was a founding member of both the Anterior Cruciate Ligament Study Group and the International Knee Documentation Committee. His book, The Crucial Ligaments, remains the standard text on ligamentous injuries of the knee.

Of all his contributions, Dr. Feagin’s greatest were to those he mentored. He made every new acquaintance an immediate friend, and his love and generosity led to countless friendships throughout the world. Dr. Matt Provencher captured his presence well: “Dr. Feagin’s dynamic and ever-positive smile and nature lit up a room. He treated everyone as a friend and with the utmost of respect.”

Dr. Feagin was an exemplar of patient-centered, selfless leadership and his legacy lives on through the thousands of people he influenced for the better throughout his life.

John Feagin paved the way for so many in military medicine, orthopaedics, and sports medicine, probably no one more than me. John had paved the way for me and so many West Point graduates who chose medicine as a career. For me, meeting John was particularly special. Dr. Feagin was the hospital commander when I was a cadet at West Point. I am sure behind the scenes without me knowing it, he helped me become a medical student at Duke, so I was anxious to meet and thank him. When I first met John in 1986, before I could get a word out, he sincerely exclaimed, “I finally get to me the famous Dean Taylor!” He made me feel like I was the most important person in the world that day. I have come to find out through the years that he was able to evoke those feelings in countless people on their first connections with John. That ability to connect immediately with people was one of his great gifts.

While connecting with others was an obvious John Feagin attribute, the value of selfless service was the most important thing that John taught me. Over time, John became a mentor, colleague, confidant, friend, and partner. He joined the Duke faculty in 1989 when I was a resident. He was tremendously influential in guiding the launch of the Magellan Orthopaedic Society almost 25 years ago. He repeatedly worked with our fellows at West Point when I was there from 1995 to 2005. After returning to Duke, I suggested that we start a leadership program in his honor. John was all in. Together we worked to build a program that has provided over 200 medical students, residents, and fellows an in-depth leadership development experience. Through it all, I have watched as John gave selflessly of his time, his resources, and his expertise, and I have seen the resulting joy that surrounded him because of that selflessness. His selfless example lives on in me, and in many others he influenced, as we emulate his commitment to others.

Another of John’s strongest attributes was his gratitude. He remained forever grateful to his family for sharing his life’s journey, and for his friends, colleagues, and extended family for tolerating his peripatetic course. He always tried to live the West Point Cadet Prayer: “Encourage us in our endeavor to live above the common level of life. Make us to choose the harder right instead of the easier wrong. . . . And grant us new ties of friendship and new opportunities of service.” In the words of the West Point Alma Mater, “May it be said, ‘Well done; Be thou at peace.’”

I am honored to provide this tribute to American Orthopaedic Society for Sports Medicine (AOSSM) Past-President, Dr. John Autrey Feagin, Jr. By doing so, I hope that others will be inspired to carry on a legacy of service and leadership in Dr. Feagin’s example.

Acknowledgments: I am grateful for the many people who contributed to this tribute: Randle Feagin, Rob Feagin, Nancy Feagin, Martha Feagin, John Jeter, Katherine Jeter, Christian Guier, Matthew Provencher, Raissa Wohlgemuth, and Arthur Kelton. I acknowledge using some of their oral remembrances and published obituaries.
ABOS Credentials Committee—What Do They Do?

BY DAVID F. MARTIN, MD, EXECUTIVE MEDICAL DIRECTOR, AMERICAN BOARD OF ORTHOPAEDIC SURGERY

At the American Board of Orthopaedic Surgery (ABOS), the ABOS Credentials Committee is our biggest committee, with 13 members—12 active orthopaedic surgeons who are directors on our Board and one public member. Two of these committee members have an Orthopaedic Sports Medicine Subspecialty Certificate. The Credentials Committee serves a crucial role in the evaluation of orthopaedic surgeons in the initial and continuing ABOS Board Certification processes.

All Candidates applying for initial ABOS Board Certification and all Diplomates applying for Continuing ABOS Certification (Recertification) go through the ABOS credentialing process. The Committee reviews applications, case lists, and peer review for each Candidate or Diplomate.

As part of the application process, Candidates submit a Case List. The Case Lists are first reviewed with a computer algorithm based on CPT codes. The algorithm primarily looks at complications and identifies case outliers. Candidates may be flagged for too many complications, or too few. We know that certain procedures have higher rates of complications, and those cases are taken into account by the algorithm. A few years ago, we improved how complications are reported on the Case List, making it easier to enter complications and standardizing how they are graded. There’s also a place for a brief comment regarding each complication so that Candidates can further explain what happened. Surgeons who are “outliers” based on this Case List evaluation will be contacted by the ABOS to better understand their practice and allow the Credentials Committee to make an informed decision concerning their eligibility to become or remain Board Certified.

The ABOS Peer Review process is also an essential part of Maintenance of Certification. As orthopaedic surgeons, we know which local surgeons are superb—those who we would want our family to see. On the application, Candidates are required to list practice partners and ABOS Diplomates who practice nearby. In addition, the ABOS will often use zip codes to contact additional orthopaedic surgeons practicing locally. When a peer reviewer gives a low score, that individual is contacted confidentially and additional information is obtained. We often get questions about whether a surgeon at a rival practice will give a fair, honest score. Overall, we have found that peer reviewers are honest and professional. Providing candid and fair peer review is an important part of being a surgeon at a rival practice will give a fair, honest score. Overall, we have found that peer reviewers are honest and professional. Providing candid and fair peer review is an important part of being an ABOS Diplomate.

The Credentials Committee can also intervene mid-cycle. Diplomates are reviewed by the Credentials Committee if they have had irregular circumstances occur such as a lapse or restriction in their medical license, a loss of hospital privileges, a concerning practice pattern, substance abuse, or criminal activity, among other situations.

When issues occur within the ABOS credentialing process, a decision must be made by the Committee regarding the Candidate’s or Diplomate’s suitability to sit for the Certification or Recertification Examination. Examples of actions that the committee may take under these circumstances include:

- Allowing the applicant to sit for the examination
- Denial of the applicant to sit for the examination
- The requirement for the recertification applicant to take a specific examination—such as the Oral Recertification Examination
- Deferral of the Candidate or Diplomate to sit for the examination in order to obtain additional information
- Site Visit of the Candidate’s or Diplomate’s practice
- Revocation of ABOS Certification in accordance with the Rules and Procedures of the ABOS

A Site Visit consists of two Diplomates visiting the site of the Candidate or Diplomate’s practice and collecting information through interviews, inspection, and a mock oral examination. Each year, most Candidates and Diplomates are approved to sit for the assessment pathway for which they have applied. Candidates and Diplomates who receive adverse actions taken by the Credentials Committee can participate in an appeals process. Revocation of ABOS Board Certification is the most serious course of action, and that decision is not taken lightly, but can be important for the safety of our patients. The ABOS takes its credentialing process very seriously and believes that a proper credentialing program is essential to the core mission of the ABOS: protecting the public.

Orthopaedic Sports Medicine Application Open

The application is now available for the 2020 American Board of Orthopaedic Surgery Orthopaedic Sports Medicine Examination. You can find it by going to abos.org, logging in, and clicking on the “Sports” tab. The finalized application and case list, along with the application fee are due by 4:00 p.m. ET on February 1, 2020. For more information, visit www.abos.org/subspecialties/orthopaedic-sports-medicine.
AOSSM Announces Research Grant Winners

2019 Osteoarthritis Grant Winners
Camila B. Carballo, PT, PhD
Hospital for Special Surgery
Mechanical Loading Effects in OA Progression Following ACL Reconstruction: Assessment of Synovial Cells Activation

2019 AOSSM/Aircast Return to Play Clinical Research Grant
Mark V. Paterno, PT, PhD
Cincinnati Children’s Hospital Medical Center
Validation of an Evidence-Based Return to Sport Decision Tool After ACL Reconstruction

2019 AOSSM/JRF Ortho Allograft Basic Science Research Grant
Shuichi Mizuno, PhD
Brigham and Women’s Hospital
Novel Storage Procedure to Maintain Cell Viability and Integrity of Osteochondral Allograft with Hydrostatic Pressure

2019 Steven P. Arnoczky Young Investigator Grant Winner
Drew Lansdown, MD
UCSF
The Relationship Between ACL Graft Quantitative Imaging Characteristics and Subjective and Functional Outcomes After ACL Reconstruction

2019 Sandy Kirkley Clinical Outcome Research Grant Winners
Andrew J. Sheean, MD
San Antonio Military Medical Center
Blood Flow Restriction (BFR) for Post-Operative Rehabilitation Following Anterior Cruciate Ligament (ACL) Reconstruction with Quadriceps Tendon Autograft: A Randomized Controlled Trial

2020 AOSSM RESEARCH GRANT OPPORTUNITIES

Grant deadlines are around the corner and several new opportunities are available. Visit sportsmed.org/research for complete details. Be sure to review the guidelines and instructions for each grant as they have been updated. Questions? Contact Kevin Boyer, AOSSM Research Director, at kevin@aossm.org. Grant winners will be selected by the AOSSM Research Committee at the 2020 Annual Meeting in Seattle.

Sandy Kirkley Clinical Outcomes Research Grant
Pre-review is strongly encouraged but not required for this grant opportunity.
Grant Amount: up to $20,000
Pre-Review Deadline: January 5, 2020, 11:59 p.m. PST
Final Deadline: April 1, 2020, 11:59 p.m. PST
Project Period: 12–24 months, starting no earlier than August 2020 and completed by August 2022

Steven P. Arnoczky Young Investigator Grant
NEW for 2020: Grants awarded in basic science category and clinical research category. All interested applicants are REQUIRED to submit a pre-review to be eligible for this grant opportunity.
Grant Amount: up to $40,000
Pre-Review Deadline: January 5, 2020, 11:59 p.m. PST
Final Deadline: April 1, 2020, 11:59 p.m. PST
Project Period: 12–24 months, starting no earlier than August 2020 and completed by August 2022

AOSSM/JRF Ortho Basic Science Allograft Grant
Grant Amount: up to $50,000
Application Deadline: April 1, 2020, 11:59 p.m. PST
Project Period: 12–24 months, starting no earlier than August 2020 and completed by August 2022
New Course Covers Soccer Medicine

Nearly 200 physicians, athletic trainers, and allied health professionals gathered in Miami, Florida, September 20–21 for AOSSM’s 2019 State of the Art Soccer Medicine: An Update from Kids to the MLS course.

Soccer is the most popular sport in the world. Increased competition and pressure at earlier ages demonstrate the need for cutting edge instruction to support injury treatment and prevention.

This new course covered the entire field from all corners of the globe. Co-chairs Christopher Ahmad, MD, Lawrence Lemak, MD, and Bert Mandelbaum, MD, and their expert faculty presented a comprehensive program on soccer medicine that addresses today’s issues in medical and surgical treatment, the how-tos of performance science, analytics, and strength and conditioning.

Today, parents and coaches rely on the comprehensive medical team and training staff to treat injuries and give advice on safely returning to play. This one-of-a-kind learning experience provided solutions for the management of the soccer athlete’s health in the short- and long-term to protect the player on and off the field. Sessions went beyond medical and surgical treatments and included topics related to advanced performance technology, injury prevention, and talks associated with treatments specific to age, competitive level, and gender.

AOSSM Fellows Course Sets the Bar High for the 2019–2020 Fellowship Training Year

The 2019 AOSSM Fellows Course: Kickoff to Your Orthopaedic Sports Medicine Training Year took place on July 26–27, 2019 at the OLC in Rosemont, Illinois. A total of 119 incoming fellows were in attendance, representing 47 orthopaedic sports medicine fellowship programs.

Co-chairs Stephen F. Brockmeier, MD, Lutul D. Farrow, MD, and Volker Musahl, MD, led the development of this year’s new format offering concurrent lab and didactic sessions on Saturday. This successfully allowed for all fellow attendees to participate in the lab.

The two-day course provided an overview of what the fellows will see in the upcoming year in the form of lectures, small group spine boarding demonstrations, and hands-on lab sessions. More than 20 faculty presented key topics, such as sideline emergencies, spine injuries, common orthopaedic injuries, most common medical conditions, and imaging/arthroscopy of the knee, shoulder, and elbow.

The presentation and panel highlights included key objectives as a team physician, case discussions, and finding a job after fellowship. The hands-on lab portion of the course covered labral repair/SLAP, rotator cuff repair, meniscal repair, and ACL reconstruction.

Thank you to Athletico and Rosemont Public Safety for lending the spine boarding and football equipment. This course was also made possible with the generous support and commitment of our AOSSM corporate partners, including:
**2019 Orthopaedic Sports Medicine Review Course Offers Best-in-Class Learning**

The AOSSM/AAOS Orthopaedic Sports Medicine Review Course took place August 9–11, 2019 at the Renaissance Chicago Hotel in Chicago. This premier annual event for orthopaedic sports medicine surgeons, general orthopaedic surgeons, primary care sports medicine physicians, and orthopaedic surgery fellows provided a comprehensive review of all orthopaedic sports medicine and general sports medicine topics. This one-of-a-kind course provided an unparalleled overview of generally accepted standards-of-care in sports medicine. Registrants received complimentary access to the AOSSM 2019 Self-Assessment Exam, along with recordings of the lectures.

*AOSM gratefully acknowledges Arthrex for an educational grant in support of this activity.*

**Register Now for the SOMOS 15th Annual EWI**

AOSSM is again excited to collaborate with SOMOS, OTA, and ASSH to present Extreme War Injuries (EWI) XV on January 20–22, 2020. This event features a readiness and return to duty program track that is synonymous with return to play in sports medicine.

Distinguished AOSSM members are scheduled for presentations, question and answer sessions, and small group breakouts. Additionally, the symposium seeks to strengthen existing collaborations with the military, promote cutting edge research, and ultimately improve the care of civilian and military patients participating in all levels of activity.

*Register today at somos.memberclicks.net/ewi-xv to participate in this exciting event!*
RECORD ATTENDANCE AT 2019 ANNUAL MEETING IN BOSTON

AOSSM celebrated its 47th Annual Meeting July 11–14 in Boston by welcoming a record shattering number of attendees to this high-profile event. Nearly 2,300 people filled the Hynes Convention Center during the four-day meeting, including 1,693 sports medicine professionals and 593 industry partners.
This record-setting meeting is a strong indication that the orthopaedic sports specialty profession has strong momentum, and our best-in-class education program continues to be a significant draw for orthopaedic health care professionals around the country and the world,” said AOSSM 2018–19 President Neal S. ElAttrache, MD.

Featuring four live surgeries, 28 instructional courses, 94 posters, and 104 research presentations, this year’s Annual Meeting covered topics ranging from surgical innovation and pain management to athlete safety and return to sport protocols.

The Annual Meeting kicked off with the Innovation Symposium on Wednesday, July 10. Moderated by Dr. Robert F. LaPrade, MD, PhD, this event featured didactic presentations and in-depth discussions of the most promising and high-impact technologies entering the world of sports medicine today.

Official meeting activities opened on Thursday, July 11. The day’s general session “Meniscus and Cartilage—The Cutting Edge for 2019” took a direct look into the intricacies of procedures and treatments surrounding meniscus repair in various stages. Following this session, all were welcomed into the Exhibit Hall to meet with industry leaders and attend the first of the meeting’s Product Theater offerings.

The afternoon brought attendees a variety of learning opportunities in concurrent session format including the first of four live surgeries on “Shoulder Labral Repair, All the Way Around the Glenoid and Elbow UCL Reconstruction”.

Another new, and very well-received, feature at this year’s meeting was the Sports Health Symposium, moderated by Sports Health: A Multidisciplinary Approach Editor-in-Chief Ed Wojtys, MD. Titled “Criteria for ACL, Shoulder, and Concussion Injuries”, the symposium was a collaborative effort among AOSSM,
NATA, AASPT, and AMSSM. Orthopaedic surgeons, athletic trainers, physical therapists, and primary care allied health professionals discussed return to play after ACL and shoulder injuries from a multidisciplinary approach, along with a focused discussion on the latest concussion treatment and prevention protocols.

The second day of the meeting began with in-depth content on the latest in knee procedures and moved into the important topic of medical and sports advocacy for athletes. AOSSM was fortunate to have Madison Kocian, 2016 Olympic Gold Medal gymnast, share her story and perspective on athlete advocacy with Moderators Mary Lloyd Ireland, MD, Jo Hannafin, MD, and Peter Indelicato, MD.

Friday continued with Dr. ElAttrache’s insightful presidential address which highlighted AOSSM’s organizational strengths and growth areas, as defined through the main pillars of the Society: education, research, publications, and fellowship. Dr. ElAttrache cited AOSSM’s continued work in the legislative arena, with wins in various initiatives such as the Sports Medicine Licensure Clarity Act, as well as the Society’s expanding sphere of influence, including collaborations with professional, collegiate, and high school programs, as well as with international societies.

The meeting’s greatest buzz came in the form of this year’s Presidential Honored Athlete and Keynote Speaker, Tom Brady, quarterback of the New England Patriots. During his talk, moderated by famed sportscaster Jim Gray, the six-time Super Bowl champion shared his approach to health and wellness through preparation, performance, and recovery. Brady provided a candid look into how he prepares for each season, and the importance he places on striving to always reach his greatest potential, not only for himself, but for his family and teammates.

The energy continued into the final day of the meeting. Covering key topics for many attendees, the morning general session “Professionalism and Excellence as a Team Physician” provided insights and strategies on excelling on the field.

Continuing with the theme of “Lessons in Leadership,” Stanley Drunkenmiller and Ken Langone, inspirational leaders in business and world-class philanthropists, spoke with attendees about the impact we all have on the world around us. Their talk, “Making a Difference for Our Next Generation Through Wellness, Health, and Education” resonated with the crowd of passionate healthcare professionals.

Sessions wrapped up with 2019–2020 President James P. Bradley, University of Pittsburgh School of Medicine, sharing his plans and vision for the year to come, which will be capped off by the 48th Annual Meeting in Seattle, July 9–12, 2020.

**2019 MEETING MATERIALS**

Annual Meeting materials, including abstracts, outlines, and posters can be viewed by those who attended the meeting by logging into sportsmed.org and clicking on your MyAOSSM page, then on Meeting Materials. Instructional course handouts for the specific courses attended also can be found in this location.
Sports Health Symposium Makes Strong Debut

New this year, the Sports Health Symposium drew strong attendance during the 2019 Annual Meeting. Designed to bring together allied health professionals, athletic trainers, physical therapists, orthopaedic surgeons, and primary care sports physicians—much like the concept behind the journal itself—the symposium cultivated an afternoon full of education from experts in the fields of return to play after ACL and shoulder injuries, along with a focused discussion on the latest concussion treatment and prevention protocols. The multidisciplinary team-based approach at the core of this symposium is a key component to providing high-quality athlete care. Collaboration in the name of sports medicine will continue to benefit not only the clinician, but the athlete and athletic community. Keep on the lookout for details on the 2020 symposium, set to be released early next year.

Fenway Park Experience Caps Off the Highest Attended Annual Meeting

Colleagues, friends, and families wrapped up this year’s Annual Meeting experience by enjoying a beautiful Saturday night at Boston’s iconic Fenway Park. Attendees enjoyed a pre-game private reception in the ballpark followed by the game between the Red Sox and Los Angeles Dodgers.

AOSSM member, Dr. Joy Long, and her family certainly won’t forget the experience any time soon. Dr. Long’s two young children were chosen as honorary batboy and batgirl for the game. Being their first MLB game, Dr. Long joked that the bar has been set pretty high for any future games they attend. She and her family thank AOSSM for an amazing experience and a wonderful event.

Log in to the AOSSM website at sportsmed.org to claim your CME credit. Click on the MyAOSSM tab and then CME. If you have questions, please contact the Society office at 847.292.4900.
AOSSM Awards Presented at Annual Meeting

For complete details and descriptions of each award, please visit sportsmed.org.

2019 AJSM Hughston Award
Operative Repair of Medial Patellofemoral Ligament Injury Versus Knee Brace in Children With an Acute First-Time Traumatic Patellar Dislocation: A Randomized Controlled Trial
Marie Askenger, MD, PhD, Eva Bengtsson Moström, MD, PhD, Wilhelmia, Ekström, MD, PhD, Elizabeth A. Arendt, MD, Anna Hellsten, RPT, Christina Mikkelsen, RPT, PhD, and Per-Mats Janarv, MD, PhD

2019 AJSM Systematic Review Award
Meta-analysis of the Risk of Infections After Anterior Cruciate Ligament Reconstruction by Graft Type
Anchal Bansal, BA, Joseph D. Lamplot, MD, James VandenBerg, BA, and Robert H. Brophy, MD

2019 Sports Health T. David Sisk Award for Best International Paper
Validation of a Composite Test for Assessment of Readiness for Return to Sports After Anterior Cruciate Ligament Reconstruction: The K-STARTS Test
William G. Blakeney, MBBS, MSc, MS, FRACS, Hervé Ouanezar, MD, Isabelle Rogowski, PhD, Gregory Vigne, PhD, Meven Le Guen, Jean-Marie Fayard, MD, Mathieu Thaunat, MD, Pierre Chambat, MD, and Bertrand Sonnery-Cottet, MD

2019 Sports Health T. David Sisk Award for Best Review Paper
Glenohumeral Internal Rotation Deficit and Risk of Upper Extremity Injury in Overhead Athletes: A Meta-Analysis and Systematic Review
Robert A. Keller, MD, Anthony F. De Giacomo, MD, Julie A. Newman, MD, Orr Limpisvasti, MD, and James E. Tibone, MD

2019 Sports Health T. David Sisk Award for Best Original Research
Effect of a 6-Week Weighted Baseball Throwing Program on Pitch Velocity, Pitching Arm Biomechanics, Passive Range of Motion, and Injury Rates
Michael M. Reinold, PT, DPT, SCS, ATC, CSCS, Leonard C. Macrina, MSPT, SCS, CSCS, Glenn Fleisig, PhD, Kyle Aune, MPH, and James R. Andrews, MD

2019 OISM William A. Grana Award for Best Original Research
Quadriceps Strength Deficits After a Femoral Nerve Block for Anterior Cruciate Ligament Reconstruction: A Prospective, Single-Blinded, Randomized Trial
Robert P. Runner, MD, Stephanie A. Boden, MD, William S. Godfrey, MD, Ajay Premkumar, MD, Heather Samady, MD, Michael B. Gottschalk, MD, and John W. Xerogeanes, MD

2019 OISM Douglas W. Brown Award for Best Review Paper
Fixed- Versus Adjustable-Loop Femoral Cortical Suspension Devices for Anterior Cruciate Ligament Reconstruction: A Systematic Review and Meta-analysis of Biomechanical Studies
Darby A. Houck, BA, Matthew J. Kraeutler, MD, Eric C. McCarty, MD, and Jonathan T. Bravman, MD

Fellow Research Award: Basic Science
Characterization of Growth Factors, Cytokines and Chemokines in Bone Marrow Concentrate and Platelet Rich Plasma: A Prospective Analysis
Connor G. Ziegler, MD, Rachel Van Sloun, Sabrina Gonzalez, Kaitlyn E. Whitney, Nicholas N. DePhillipio, Mitchell Kennedy, BS, Grant Dornan, MSc, Thos A. Evans, MD, Johnny Huard, PhD and Robert F. LaPrade MD, PhD

Fellow Research Award: Clinical Science
Lateral Extra-Articular Tenodesis Does Not Affect Rotatory Knee Instability in Anatomic ACL Reconstruction
Andrew J. Sheean, MD, Jayson Lian, Sean J. Meredith, MD, Robert Tisherman, MD, Andrew D. Lynch, PhD, PT, Volker Musahl, MD, and Bryson P. Lesniak, MD

Excellence in Research Award
Characterization of Growth Factors, Cytokines and Chemokines in Bone Marrow Concentrate and Platelet Rich Plasma: A Prospective Analysis
Connor G. Ziegler, MD, Rachel Van Sloun, BA, Sabrina Gonzalez, BS, Kaitlyn E. Whitney, BS, Nicholas N. DePhillipio, MS, ATC, Mitchell I. Kennedy, BS, Grant J. Dornan, MSc, Thos A. Evans, MD, Johnny Huard, PhD, Robert F. LaPrade, MD, PhD

Herodicus Award
Total Recall Bias: The Accuracy of Retrospectively Collected Patient Reported Outcomes Scores
Matthew J. Gotlieb, MD; Samuel Baron, BA; Matthew Kingery BA; Joseph McCafferty, BA; Laith M. Jazrawi, MD; Robert J. Meislin, MD

Cabaud Memorial Award
Improvement of Cartilage Repair with Biologically Regulated Marrow Stimulation by Blocking TGF-β1 in A Rabbit Osteochondral Defect Model
Hajime Utsunomiya, MD, PhD, Xueqin Gao, PhD, Zhenhan Deng, Haizeng Cheng, Gilberto Nakama, MD, Alex C Sciubetta, Sudheer K. Ravuri, PhD, Julia L. Goldman, DVM, Walter R. Lowe, MD, William G. Rodkey, DVM, Marc J. Philippon, MD, Tamara Alliston, PhD, Johnny Huard, PhD

O’Donoghue Sports Injury Research Award
Lateral Extra-Articular Tenodesis Reduces Failure of Hamstring Tendon Autograft ACL Reconstruction—Two Year Outcomes from the STABILITY Study Randomized Clinical Trial
Alan Getgood, MD, Diane Bryant MSc, PhD, Robert Litchfield, MD, Robert McCormack, MD, Mark Heard, MD, Peter MacDonald, MD, Tim Spalding, Peter Verdonk, MD, PhD, Devin Peterson, MD, Davide Bardana, MD, Alexander Rezansoff, MD, and the STABILITY Study Group

George D. Rovere Award
Dean C. Taylor, MD

STOP Sports Injuries Award
Trevor A. Lentz, PT, PhD, MPH

Thomas A. Brady Award
Michael Axe, MD

2019 Hall of Fame Inductees
Christopher Harner, MD
William Garrett, MD, PhD (posthumously)
Peter Indelicato, MD
UPCOMING MEETINGS

Advanced Team Physician Course  
December 12–14, 2019  
Las Vegas, Nevada

21st Annual AAOS/AOSSM/AANA Sports Medicine Course  
Register at aaos.org  
February 23–27, 2020  
Park City, Utah

Specialty Day  
Register at aaos.org  
March 28, 2020  
Orlando, Florida

Surgical Skills—Orthobiologics in the Real World  
April 17–18, 2020  
OLC Education and Conference Center  
Rosemont, Illinois

Surgical Skills—Hip Course  
May 29–30, 2020  
OLC Education and Conference Center  
Rosemont, Illinois

2020 Annual Meeting  
July 9–12, 2020  
Seattle, Washington

Learn more and register at sportsmed.org.
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Integrated Scaffold-Anchor Technology
Designed to address both the biological & mechanical issues of rotator cuff repair

Unique Interpositional Scaffold
Deployed at the tendon-bone interface where tendon-bone integration needs to occur

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JuggerKnot® Soft Anchor

Quattro® X Suture Anchor

Quattro® GT Suture Passer

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Purchase the Available AOSSM Self-Assessment Examinations

Do you need additional CME and/or MOC SAE credits by the end of 2019? The AOSSM Self-Assessment Examinations (SAE) help you assess and improve your sports medicine knowledge, build your decision-making and diagnostic skills, and offer CME and MOC SAE credits!

Three Self-Assessment Examinations*
Each of the available versions (2017 SAE, 2018 SAE, and 2019 SAE) contains 125 peer-reviewed questions, including feedback and references. For each examination, you may earn up to 12 AMA PRA Category 1 Credits™ and up to 12 ABOS MOC SAE Credits. The cost per exam is $150/members and $175/non-members. Order now at sportsmed.org/selfassessment! Questions? Contact Meredith Herzog, meredith@aossm.org.

Exam Features
- Reset and re-take the exam multiple times to reinforce learning—only the first attempt is recorded
- Downloadable exam and answer key

*AOSSM is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.
*AOSSM designates this enduring material for a maximum of 12.0 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

AOSSM gratefully acknowledges Arthrex for an educational grant in support of the Self-Assessment Exams.