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AOSSM gratefully acknowledges Stryker for an education grant in support of the Final Program and mobile website.
### Thursday, July 7

**Instructional Courses**
6:45am – 8:15am

**Exhibits**
7:30am – 12:30pm

**General Session**
8:30am – 3:45pm

#### 8:35am – 10:45am
**MORNING GENERAL SESSION**
Broadmoor Hall A

**SHOULDER INSTABILITY OUTCOMES**
Assessment of Bi-polar Lesions, How To Manage The Hill-Sachs

**Surgical Decision Making:** Anterior Shoulder Instability

**PATELLA FEMORAL**
Troubleshooting MPFL – Getting it Right the First Time

**MENISCUS**
Summary of Meniscus with ACL

10:45am – 11:30am

**Break**

#### 11:30am – 12:30pm
**CONCURRENT SESSION A**
Broadmoor Hall A

**ACl**
A Biologic Approach to ACL Repair

**Panel Discussion:** Management of Failed ACL

#### 11:30am – 12:30pm
**CONCURRENT SESSION B**
International Center North

**OVERHEAD ATHLETE**
The Science of Return to Sport

**Panel Discussion:** Adolescent Elbow

#### 11:30am – 12:30pm
**CONCURRENT SESSION C**
International Center South

**THE BUSINESS OF SPORTS MEDICINE**
Optimizing Exposure for Your Practice: Web-based Marketing and Social Media

Maximizing Ancillary Revenue Opportunities for Your Practice

ASC in the Changing Healthcare Environment: Why You Should Own One

From Private Practice to an Integrated Health System: Playing to Your Strengths

Balancing it All: Maximizing Productivity and Efficiency while Enabling the Team

2:00pm – 3:55pm

**AFTERNOON GENERAL SESSION**
Broadmoor Hall A

**FOOT AND ANKLE**
Foot/Ankle Injuries in the NFL

Injury Patterns and Prevention in Professional Soccer

**HIP ARTHROSCOPY OUTCOMES**
FAI and the High-Level Athlete

How Do You Judge Outcomes of Hip Arthroscopy

### Friday, July 8

**Instructional Courses**
6:45am – 8:15am

**Exhibits**
7:30am – 12:30pm

**General Session**
8:30am – 12:30pm

**NEW:** Round Table Case-Based Discussions
1:00pm – 2:00pm

#### 8:30am – 10:45am
**MORNING GENERAL SESSION**
Broadmoor Hall A

**TEAM PHYSICIAN OUTCOMES**
Stress Fractures

Return-to-Play Assessment: Can We Quantify?

**OREF Presentation**
Hall of Fame Award Presentation

**Presidential Address**
Special Acknowledgement of Irv Bomberger

**Business Meeting**
10:45am – 11:30am

**Break**

#### 11:30am – 12:30pm
**CONCURRENT SESSION A**
Broadmoor Hall A

**PREVENTION OF INJURIES**
STOP Sports Injuries Program

FIFA 11+

#### 11:30am – 12:30pm
**CONCURRENT SESSION B**
International Center North

**SIDELINE EVALUATION AND MANAGEMENT OF ACUTE HAND AND WRIST INJURIES**
Acute Wrist Injuries

Acute Finger Injuries

Acute Hand Injuries

**Panel Discussion:** Sideline Guidelines

#### 11:30am – 12:30pm
**CONCURRENT SESSION C**
International Center South

**TEAM PHYSICIAN CONTROVERSIES / MMA INJURIES**
Spine Boarding: Helmet On or Off?

Issues for the Traveling Team Physician

**Panel Discussion:** Mixed Martial Arts Injuries

1:00pm – 2:00pm

**NEW:** Round Table Case-Based Discussions*

Articular Cartilage Lesions

Revision ACL

Patella Femoral Instability

Revision Shoulder Instability

Large Rotator Cuff Tear

Hip Pathology

Young Sports Medicine

Team Physician

PCL

Meniscus Repair

*Additional registration fee
### SATURDAY, JULY 9

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<td>Instructional Courses</td>
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<tr>
<td>7:30am – 12:30pm</td>
<td>Exhibits</td>
</tr>
<tr>
<td>8:30am – 5:00pm</td>
<td>General Session</td>
</tr>
<tr>
<td>12:30pm – 2:00pm</td>
<td>Guided Poster Tours</td>
</tr>
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#### MORNING GENERAL SESSION

- **8:45am – 10:50am**  
  **ACLR OUTCOMES**  
  - **LIVE Surgical Demonstration:** Pediatric ACLR Tunnels  
  - **Post – Traumatic OA ACLR**  
  - **Panel Discussion:** How to Improve ACLR Outcomes  
  - **President Guest Speaker – Sam Rutigliano**  
  - **Robert E. Leach Sports Medicine Leadership Award**  
  - 10:50am – 11:30am  
  - **Break**  
  - 11:30am – 12:30pm  
  - **CONCURRENT SESSION A**  
    - **Broadmoor Hall A**  
    - **HIP**  
      - Hip Instability  
    - **LIVE Surgical Demonstration:** Hip Arthroscopy

- **11:30am – 12:30pm**  
  **CONCURRENT SESSION B**  
  - **International Center North**  
    - **ROTATOR CUFF – PART 1**  
      - What I’ve Learned about Posterior Instability  
      - Arthroscopic Shoulder Instability: Optimizing for Success  
      - Successful Latarjet

- **11:30am – 12:30pm**  
  **CONCURRENT SESSION C**  
  - **International Center South**  
    - **POLICY AND EDUCATION**  
      - Policies that Will Affect You Within the Near Future  
      - Alternative Payment Models – Bundled Payments  
      - Role of Advocacy in Healthcare Change  
      - Board Certification Update from The American Board of Orthopaedic Surgery  
      - 12:30pm – 2:00pm  
      - **Guided Poster Tours**

- **2:00pm – 5:00pm**  
  **AFTERNOON GENERAL SESSION**  
  - **Broadmoor Hall A**  
    - **ROTATOR CUFF OUTCOMES – PART 2**  
      - **LIVE Surgical Demonstration:** Arthroscopic Treatment of the Biceps Tendon – Suprapec and Subpec  
    - **Panel Discussion:** Management of Large Rotator Cuff Tears in Non-Arthritic Patients (video-based)  
    - **KNEE ARTICULAR CARTILAGE**  
      - New Frontiers  
    - **LIVE Surgical Demonstration:** Chondral Focal Defects

#### SUNDAY, JULY 10

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<th>Time</th>
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<td>8:30am – 11:30am</td>
<td>Instructional Courses</td>
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<tr>
<td>8:45am – 8:15am</td>
<td>General Session</td>
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#### MORNING GENERAL SESSION

- **Update on Biologics In Sports Medicine**  
- **Traveling Fellows Presentations**  
- **OUTCOME MEASURES SYMPOSIUM**  
  - **Value and Meaning of Patient Outcomes**  
  - **The Value of ACL Registries; Important Results from the Scandinavian Registries**  
- **Panel Discussion:** Collection and Use of Outcomes Measures in Clinical Practice  
- **INJURY EPIDEMIOLOGY AND PREVENTION**  
  - **Update on Prevention of External Heat Illness**  
  - **Measuring Return-to-Play Performance**

#### PRESIDENTIAL GUEST SPEAKER

**Sam Rutigliano**

*Character is a Matter of Choice*  
**Saturday, July 9 | 10:05am – 10:35am**

Sam Rutigliano is the former NFL coach of the Cleveland Browns (1978 – 1984). He received the honor of NFL Coach of Year in 1980 and compiled a 47 – 50 record with the Browns. After his career with the Browns, he served as an analyst for NBC Sports and ESPN for three years. In 1988, he became Head Coach at Liberty University, and retired in 1999. After that, Mr. Rutigliano went on to be an assistant coach for NFL Europe. Beginning in 2005, he became a Browns analyst in Cleveland for NBC, and also for SportsTime Ohio. In 2011, he moved to ABC TV to become a Browns analyst.

One of Rutigliano’s greatest accomplishments was developing the “Inner Circle,” an anonymous substance abuse support group for Cleveland Browns players. In 2007, Rutigliano was given the National Control on Alcoholism and Drug Dependence’s Bronze Key Award for his work with Inner Circle.

AOSSM gratefully acknowledges Breg for an educational grant in support of the Presidential Guest Speaker.
Looking for the latest on the AOSSM Annual Meeting?

Bookmark our mobile website at http://apps.sportsmed.org/Meetings/AM2016/Index.html

- Navigate the Annual Meeting’s educational activities and social events
- View abstracts, outlines, instructional courses, and disclosures
- Review posters
- Find exhibitors

Tweeting about the Annual Meeting? Include hashtag #AOSSM2016 in your Tweets and join the conversation!

AOSSM gratefully acknowledges Stryker for an educational grant in support of the Annual Meeting mobile website.
6:45am – 8:15am  Instructional Courses
7:30am – 12:30pm  Exhibits
8:30am – 3:45pm  General Session

8:30am – 8:35am  Welcome
Allen F. Anderson MD
Tennessee Orthopaedic Alliance, Nashville, TN
Kurt P. Spindler MD
Cleveland Clinic, Cleveland, OH

General Session – Shoulder Instability Outcomes
Broadmoor Hall A

8:35am – 9:45am  Moderators:
Stephen F. Brockmeier MD
University of Virginia, Charlottesville, VA
John M. Tokish MD
Steadman Hawkins Clinic of the Carolinas, Greenville, SC

Paper 100: Biomechanical Comparison of Acute Hill-Sachs Reduction and Remplissage to Treat Complex Anterior Instability: The Potential Benefits of Anatomic Reconstruction
Joshua S. Dines MD1, Grant Garcia MD1,
Michelle H. McGarry MS2, Thay Q. Lee PhD2,
Ryan Degen MD2
1Hospital for Special Surgery, New York, NY
2VA HealthCare System & University of California, Irvine, Long Beach, CA

8:40am – 8:45am  Paper 101: Outcomes of the Remplissage Procedure and Its Effects on Return to Sports: Average Five-Year Follow-Up
Joseph N. Liu MD1, Grant Garcia MD1,
Hao-Hua Wu BA2, G. Russell Huffman MD, MPH2,
John D. Kelly MD2
1Hospital for Special Surgery, New York, NY
2University of Pennsylvania, Philadelphia, PA

8:45am – 8:55am  Assessment of Bi-Polar Lesions, Management of Hill-Sachs
Matthew T. Provencher MD
The Steadman Clinic, Vail, CO

8:55am – 9:05am  Question and Answer

9:05am – 9:10am  Paper 102: A Simple Population-Based Finite Element Model Eliminates the Need for Patient-Specific Models to Predict Instability of the Shoulder
Morgan H. Jones MD1, Piyush Walia Deng1,
Stephen D. Fening PhD2, Anthony Miniaci MD1
1Cleveland Clinic, Cleveland, OH
2Case Western Reserve University, Cleveland, OH

Tyler J. Marshall MD1, Jose F. Vega1,
Marcelo BP Siqueira MD2, Jonathan David Gelber MD2,
Robert Cagle MD2, Paul M. Saluian MD2
1Alabama Orthopedic Spine and Sports Medicine Associates, Birmingham, AL
2Cleveland Clinic, Cleveland, OH

Carolyn M. Hettrich MD, MPH1, Joseph Buckwalter MD, PhD1,
Brian R. Wolf MD, MS1, Matthew Bollier MD1,
Shoulder Group MOON2, Natalie Glass PhD1
1University of Iowa Hospitals and Clinics, Iowa City, IA
2Vanderbilt University, Nashville, TN

9:20am – 9:35am  Surgical Decision Making: Anterior Shoulder Instability
Robert A. Arciero MD
University of Connecticut Health Center, Farmington, CT

9:35am – 9:45am  Question and Answer

General Session – Patella Femoral
Broadmoor Hall A

9:45am – 10:15am  Moderators:
Elizabeth A. Arendt MD
University of Minnesota, Minneapolis, MN
David DeJour MD
Lyon-Ortho-Clinic, Lyon, France

Fellow Research Award—Paper 105: Anisometry of Medial Patellofemoral Ligament Reconstruction in the Setting of Patella Alta and Increased Tibial Tubercle–Trochlear Groove (TT-TG) Distance
Lauren H. Redler MD1, Kathleen N. Meyers MS1,
Jacqueline Munch MD2, Elizabeth R. Dennis MD2,
Joseph Nguyen MPH1, Beth E. Shubin Stein MD1
1Hospital for Special Surgery, New York, NY
2Oregon Health & Science University, Portland, OR

9:45am – 9:50am  Paper 105: Anisometry of Medial Patellofemoral Ligament Reconstruction in the Setting of Patella Alta and Increased Tibial Tubercle–Trochlear Groove (TT-TG) Distance
Lauren H. Redler MD1, Kathleen N. Meyers MS1,
Jacqueline Munch MD2, Elizabeth R. Dennis MD2,
Joseph Nguyen MPH1, Beth E. Shubin Stein MD1
1Hospital for Special Surgery, New York, NY
2Oregon Health & Science University, Portland, OR

9:50am – 9:55am  Paper 106: A Novel Injectable Approach for Osgood-Schlatter Disease: A Prospective Randomized Double-Blind Study
Junsuke Nakase MD, PhD1, Hitoaki Numata MD1,
Takeishi Oshima1, Yasushi Takata MD1,
Hiroyuki Tsuchiya MD, PhD1
1Kanazawa University Hospital, Kanazawa, Japan

Presenters are in bold.
9:55am – 10:00am  **Paper 107: Tibial Tubercle Osteotomy for Anterior Knee Pain: Mid-Term Result and Analysis of Prognostic Factors**  Davide Bonasia1, Federica Rosso MD2, Umberto Cottino MD2, Giorgio Governale MD3, Valeria Cherubini MD3, Federico Dettoni MD3, Matteo Bruzzone MD1, Roberto Rossi MD1 1AO Mauriziano Umberto I, Torino, Italy 2University of Torino, Torino, Italy

10:00am – 10:15am  **Troubleshooting MPFL – Getting it Right the First Time**  David R. Diduch MD  University of Virginia, Charlottesville, VA

10:15am – 10:45am  **General Session – Meniscus**  
**Moderators:**  
Matthew J. Matava MD  Washington University Orthopedics, Chesterfield, MO  
Richard D. Parker MD  Cleveland Clinic Foundation, Cleveland, OH

10:15am – 10:20am  **Paper 108: Clinical Outcomes of Medial Meniscus Posterior Root Tears: High Rates of Subsequent Surgery and Worsening Arthritis at Five-Year Follow-Up**  Aaron John Krych MD1, Patrick J. Reardon BS1, Ayoosh Pareek BS1, Logan Peter1, Diane L. Dahm MD1, Bruce A. Levy MD1, Michael J. Stuart MD1 1Mayo Clinic, Rochester, MN

10:20am – 10:25am  **Paper 109: Arthroscopic Repair of Posterior Meniscal Root Tears: Comparing Outcomes of Medial and Lateral Root Repairs**  Lauren Matheny MPH1, Samuel G. Moulton BA1, Chase S. Dean MD1, Robert F. LaPrade MD, PhD2 1Steadman Philippon Research Institute, Vail, CO 2The Steadman Clinic, Vail, CO

10:25am – 10:30am  **Paper 110: Do Age and Weightbearing Films Affect Lateral Joint Space and Fibular Height Measurements in Patients with Discoid Lateral Meniscus?**  Matthew D. Milewski MD1, Ryan Korchak MD2, Andrew J. Duarte BA2, Joseph Marchese MD3, James Lee Pace MD4, Alexander M. Broom BA4, Matthew Solomito PhD5 1Connecticut Children’s Medical Center, Farmington, CT 2Maimonides Medical Center, New York, NY 3University of Connecticut, Farmington, CT 4Children’s Hospital Los Angeles, Los Angeles, CA

10:30am – 10:40am  **Summary of Meniscus with ACL**  Annunziato Amendola MD  Duke Sports Science Institute, Durham, NC

10:40am – 10:45am  **Question and Answer**

10:45am – 11:30am  **Break**

### Concurrent Session A – ACL
**Broadmoor Hall A**

**11:30am – 12:00pm**  
**Moderators:**  
Darren L. Johnson MD  University of Kentucky Sports Medicine, Lexington, KY  
Robert G. Marx MD, MSc, FRCSC  Hospital for Special Surgery, New York, NY

**A Biologic Approach to ACL Repair**  
Martha M. Murray MD  
Boston Children’s Hospital, Boston, MA

**11:40am – 11:45am**  
**Paper 111: Sex, Age, and Graft Size as Predictors of ACL Re-tear: A Multivariate Logistic Regression of a Cohort of 503 Athletes**  
Duong Nguyen MD, FRSC, MSc, FAOS, CIME1 1William Osler Health System / McMaster University, Toronto, ON, Canada

**11:45am – 11:50am**  
**Paper 112: Rehabilitation Predictors of Clinical Outcome following Revision ACL Reconstruction**  
Rick W. Wright MD1  
1Washington University, St. Louis, MO

**11:50am – 11:55am**  
**Excellence Award – Paper 113: Anatomic Anterolateral Ligament Reconstruction of the Knee Leads to Overconstraint at Any Fixation Angle**  
Jason Schon BS1, Alex Brady MSc1, Gilbert Moatshe MD1, Raphael Cruz MD1, Jorge Chahla MD1, Grant Dornan MSc1, Travis L. Turnbull PhD1, Lars Engebretsen MD, PhD2 1Steadman Philippon Research Institute, Vail, CO 2Oslo University Hospital-Ullevaal, Oslo, Norway

**11:55am – 12:00pm**  
**Question and Answer**

**12:00pm – 12:20pm**  
**Management of Failed ACL Panel**  
**Moderator:**  
Darren L. Johnson MD  University of Kentucky Sports Medicine, Lexington, KY

**Single State Revision ACL Surgery: Technical Tips and Tricks to Avoid Staged Surgery**  
**Panelist:**  
Robert A. Arciero MD  
University of Connecticut, Farmington, CT

**Management of Meniscal Pathology/Deficiency in the Setting of Failed ACL Surgery: What Must I Know**  
**Panelist:**  
Matthew J. Matava MD  
Washington University Orthopedics, Chesterfield, MO

**12:05pm – 12:10pm**  
**Question and Answer**  

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**Thursday, July 7, 2016**

**AOSSM 2016 Annual Meeting**

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**Presenters are in bold.**
11:30am – 11:35am  Paper 114: Open vs. Arthroscopic Tennis Elbow Release: Randomized Controlled Trial  
Jeff Leiter MSc, PhD¹, Tod Clark MD¹, Sheila McRae PhD¹, James Dubberley MD¹, Peter B. MacDonald MD, FRCS¹  
¹Pan Am Clinic, Winnipeg, MB, Canada

11:35am – 11:40am  Paper 115: Vascularity Visualized by Doppler Sonography as a Predictor of Healing Potential of the OCD of the Humeral Capitellum  
Yoshikazu Kida MD¹, Toru Morihara MD², Yoshihiro Kotoura MD², Tsuyoshi Sukena MD², Ryuhei Furukawa MD², Yukichi Kabuto MD², Okihito Onishi MD², Masataka Minami MD², Takashi Tsujihara MD², Tatsuya Hojo MD², Hiroyoshi Fujiwara MD², Toshikazu Kubo MD²  
¹Fukuchiyama City Hospital, Kyoto, Japan  
²Kyoto Prefectural University of Medicine, Kyoto, Japan

11:40am – 11:45am  Paper 116: MRI Predictors of Failure in Non-Operative Management of Ulnar Collateral Ligament Injuries in Professional Baseball Pitchers  
Thomas Sean Lynch MD², Salvatore Frangiamore MD, MS¹, Michael Derek Vaughn MD¹, Lonnie Soloff ATC¹, Mark S. Schickendantz MD¹  
¹The Cleveland Clinic Sports Health Ctr., Cleveland, OH  
²Columbia Orthopaedics, New York, NY

11:45am – 11:50am  Paper 117: The Prevalence and Clinical Characteristics of Medial Epicondyle Apophysitis in Juvenile Baseball Player – Ultrasonographic Assessment of 2,926 Cases  
Kenichi Otoshi MD, PhD¹  
¹Fukushima Medical University, Fukushima, Japan

11:50am – 12:00pm  NATA Exchange Lecture: The Science of Return to Sport  
Thomas W. Kaminski PhD  
University of Delaware, Newark, DE

12:00pm – 12:20pm  The Adolescent Elbow: A Rapid Fire Case-Based Discussion  
This panel discussion will be simulcast on Periscope.  
Moderator: Christopher S. Ahmad MD  
Columbia University, New York, NY  
Panelists: James R. Andrews MD  
Andrews Research and Education Foundation, Gulf Breeze, FL  
Paul M. Saluan MD  
Cleveland Clinic Foundation Cleveland, OH  
John E. Conway MD  
Orthopedic Specialty Associates, Texas Health Physicians Group, Fort Worth, TX

12:20pm – 12:30pm  Question & Answer

Concurrent Session C – The Business of Sports Medicine  
International Center South

11:30am – 11:35am  Introduction  
Nikhil N. Verma MD  
Rush University Medical Center, Midwest Orthopaedics, Chicago, IL

11:35am – 11:43am  Optimizing Exposure for Your Practice: Web-based Marketing and Social Media  
Kristen Mapstone  
eMedical Media, Dallas, TX

11:43am – 11:51am  Maximizing Ancillary Revenue Opportunities for Your Practice  
Charles A. Bush-Joseph MD  
Rush University Medical Center, Midwest Orthopaedics, Chicago, IL

11:51am – 11:59am  ASC in the Changing Healthcare Environment: Why You Should Own One  
Dan Tasset, Chairman  
Nueterra Capital, Leawood, KS

Presenters are in bold.
### Thursday, July 7, 2016

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<tr>
<td>11:59am – 12:07pm</td>
<td><strong>From Private Practice to an Integrated Health System: Playing to Your Strengths</strong>&lt;br&gt;Mark S. Schickendantz MD&lt;br&gt;Cleveland Clinic Sports Health, Cleveland, OH</td>
</tr>
<tr>
<td>12:07pm – 12:15pm</td>
<td><strong>Balancing It All: Maximizing Productivity and Efficiency while Enabling the Team</strong>&lt;br&gt;Brian J. Cole MD, MBA&lt;br&gt;Rush University Medical Center, Midwest Orthopaedics, Chicago, IL</td>
</tr>
<tr>
<td>12:15pm – 12:30pm</td>
<td><strong>Question &amp; Answer</strong></td>
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<tr>
<td>12:45pm – 2:15pm</td>
<td><strong>AOSSM Medical Publishing Workshop</strong></td>
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<td>2:00pm – 2:50pm</td>
<td><strong>Moderators:</strong> Eric Giza MD&lt;br&gt;UC Davis Medical Group, Sacramento, CA&lt;br&gt;Kirk Anthony McCullough MD&lt;br&gt;Orthopaedic and Sports Medicine Clinic of Kansas City, Leawood, KS</td>
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<td>2:00pm – 2:05pm</td>
<td><strong>Herodicus Award – Paper 118:</strong>&lt;br&gt;Practice Patterns in the Care of Acute Achilles Tendon Ruptures: Is There an Association with Level I Evidence?&lt;br&gt;Ujash Sheth MD¹, David Wasserstein MD², Rahim Moineddin PhD³, Richard Jenkinson MD, MSc, FRSCS, Hans Kreder MD, MSc, FRCS, Susan Jaglal PhD¹&lt;br&gt;¹University of Toronto, Toronto, ON, Canada&lt;br&gt;²Sunnybrook Health Sciences Centre, Toronto, ON, Canada</td>
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<tr>
<td>2:05pm – 2:10pm</td>
<td><strong>Paper 119:</strong>&lt;br&gt;Treatment of Low-Energy Lisfranc Joint Injuries in a Young Athletic Population: Primary Arthrodesis Compared with Open Reduction and Internal Fixation&lt;br&gt;Grant Cochran MD¹, Christopher Renninger¹, Trevor Tompane², Joseph Bellamy¹, Kevin Kuhn¹&lt;br&gt;¹Naval Medical Center San Diego, San Diego, CA&lt;br&gt;²Emory University, Atlanta, GA</td>
</tr>
<tr>
<td>2:10pm – 2:15pm</td>
<td><strong>Paper 121:</strong>&lt;br&gt;Repair of Ankle Syndesmosis: A Biomechanical Analysis of Three Current Repair Techniques&lt;br&gt;Jonathan D. Backus MD², Thomas O. Clanton MD², Scott R. Whitlow MD², Brady T. Williams BS¹, Daniel J. Liechti MD¹, Grant J. Dornan¹, Adriana Saroki BS¹, Travis Lee Turnbull PhD¹, Robert LaPrade MD, PhD¹&lt;br&gt;¹Steadman Philippon Research Institute, Vail, CO&lt;br&gt;²The Steadman Clinic, Vail, CO</td>
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<td>2:15pm – 2:25pm</td>
<td><strong>Question and Answer</strong></td>
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<tr>
<td>2:25pm – 2:45pm</td>
<td><strong>Studies on Injury Prevention</strong>&lt;br&gt;Foot and Ankle Injuries in the NFL&lt;br&gt;Kirk Anthony McCullough MD&lt;br&gt;Orthopaedic and Sports Medicine Clinic of Kansas City, Leawood, KS&lt;br&gt;Injury Patterns and Prevention in Professional Soccer&lt;br&gt;Eric Giza MD&lt;br&gt;UC Davis Medical Group, Sacramento, CA</td>
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<tr>
<td>2:45pm – 2:50pm</td>
<td><strong>Question and Answer</strong></td>
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AOSSM gratefully acknowledges **Flexion Therapeutics** for an educational grant in support of the Thursday General Session.

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<tr>
<td>2:50pm – 3:55pm</td>
<td><strong>Moderators:</strong> Asheesh Bedi MD&lt;br&gt;University of Michigan, Ann Arbor, MI&lt;br&gt;Bryan T. Kelly MD&lt;br&gt;Hospital for Special Surgery, New York, NY</td>
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<td>2:50pm – 2:55pm</td>
<td><strong>Paper 122:</strong>&lt;br&gt;Recreational Athletes Return to Sport at a Comparable Rate to Elite Athletes Following Hip Arthroscopy for Femoroacetabular Impingement&lt;br&gt;Alexander E. Weber MD¹, Benjamin Kuhns MS¹, Gregory Cvetanovich MD¹, David Levy MD¹, Shane Jay Nho MD, MS¹&lt;br&gt;¹Rush University Medical Center, Midwest Orthopaedics, Chicago, IL</td>
</tr>
<tr>
<td>2:55pm – 3:00pm</td>
<td><strong>Paper 123:</strong>&lt;br&gt;Predictors of Length of Career Following Hip Arthroscopy for Femoroacetabular Impingement in Professional Hockey Players&lt;br&gt;Travis Menge MD¹, Karen K. Briggs MPH, MBA¹, Marc J. Philippon MD¹&lt;br&gt;¹Steadman Philippon Research Institute, Vail, CO</td>
</tr>
<tr>
<td>3:00pm – 3:05pm</td>
<td><strong>Paper 124:</strong>&lt;br&gt;The Fate of the Contralateral Hip in Femoroacetabular Impingement: Rates and Predictors of Short-term Symptom Development&lt;br&gt;Jeffrey J. Nepple MD¹, Craig Lour MD¹, John C. Clohisy MD¹&lt;br&gt;¹Washington University, St. Louis, MO</td>
</tr>
<tr>
<td>3:05pm – 3:20pm</td>
<td><strong>FAI and the High-Level Athlete</strong>&lt;br&gt;Bryan T. Kelly MD&lt;br&gt;Hospital for Special Surgery, New York, NY</td>
</tr>
</tbody>
</table>
THURSDAY, JULY 7, 2016

John P. Begly MD1, Brian Capogna MD1, Michael K. Ryan MD1, Thomas Youm MD2
1New York University Langone Hospital for Joint Diseases, New York, NY
2RVC Orthopaedics PC, New York, NY

3:25pm – 3:30pm  Paper 126: Survivorship of Primary Hip Arthroscopy in New York State:
A Population-Based Study
Danyal H. Nawabi MD1, Ryan Degen MD1, Ting Pan MPH1, Anil S. Ranawat MD1, Bryan T. Kelly MD1, Stephen Lyman PhD1
1Hospital for Special Surgery, New York, NY

3:30pm – 3:45pm  How Do You Judge Outcomes of Hip Arthroscopy?
Richard ‘Chad’ Mather III, MD
Duke University Medical Center, Durham, NC

3:45pm – 3:55pm  Question and Answer

4:00pm – 5:00pm NIH Reviewer Information Session

FRIDAY, JULY 8, 2016

6:45am – 8:15am  Instructional Courses
7:30am – 12:30pm  Exhibits
8:30am – 12:30pm  General Session
1:00pm – 2:00pm  NEW: Round Table Case-Based Discussions

8:30am – 9:25am  General Session—Team Physician Outcomes
Broadmoor Hall A

8:30am – 8:40am  Stress Fractures
Christopher C. Kaeding MD
The Ohio State University, Columbus, OH

8:40am – 8:45am  Paper 127: Comparison of Femoral Neck Stress Fractures in Pediatric vs. Young Adult Athletes
Benton E. Heyworth MD1, Bridget Quinn MD1, Lauren Ehrlichman MD1, Sarah Bixby MD1, Kathryn Ackerman MD, MPH1, Yi-Meng Yen MD1, Matthew John Boyle MD1, Young-Jo Kim MD1, Michael B. Millis MD1
1Boston Children’s Hospital, Boston, MA

8:45am – 8:50am  Paper 128: Return to Play After Shoulder Instability Surgery in NCAA Division I Intercollegiate Football Athletes
Richard J. Robins MD1, Jimmy Hoshang Daruwalla MD2, John W. Xerogeanes MD3, Patrick E. Greis MD3
1US Air Force Academy, Colorado Springs, CO
2Emory University, Atlanta, GA
3University of Utah Orthopaedic Center, Salt Lake City, UT

8:50am – 8:55am  Paper 129: Pectoralis Major Tendon Repair: Clinical Outcomes, Return to Sport, and Incidence of Second Surgery
Frank A. Cordasco MD, MS1, Ryan Degen MD1, Gregory Thomas Mahony BA1, Nicholas Tsouris1
1Hospital for Special Surgery, New York, NY

Conference Agenda (Cont.)

Presenters are in bold.
FRIDAY, JULY 8, 2016

Concurrent Session A—Prevention of Injuries
Broadmoor Hall A

11:30am – 12:30pm **Moderators:**
- Seth C. Gamradt MD
- University of Southern California, Los Angeles, CA
- Robin Vereeke West MD
- University of Pittsburgh Medical Center, Pittsburgh, PA

**Paper 130:** Hamstring Injuries in Major and Minor League Baseball: Are They Preventable?
James Zachazewski DPT, MS
Holly J. Silvers MPT
Bernard Li PT
Lynn Snyder-Mackler PhD
Stephanie Insler BA
Christopher S. Ahmad MD
Bert R. Mandelbaum MD
1Santa Monica Sports Medicine Foundation, Los Angeles, CA
2Massachusetts General Hospital, Boston, MA
3Los Angeles Angels of Anaheim, Anaheim, CA
4University of Delaware, Newark, DE
5Columbia University, New York, NY
6Santa Monica Orthopaedic and Sports Medicine, Santa Monica, CA

11:30am – 11:40am **STOP Sports Injuries Program**
James R. Andrews MD
Andrews Research and Education Foundation, Gulf Breeze, FL

11:40am – 11:45am **STOP Sports Injuries Award—Paper 132:** Incidence, Mechanisms, and Severity of Game-Related High School Football Injuries Across Artificial Turf Systems of Various Infill Weight
Michael Clinton Meyers PhD
1Idaho State University, Pocatello, ID

11:45am – 11:50am **Paper 133:** A Wearable Neuromuscular Device Reduces ACL Injury Risk in Female Soccer Athletes
Michael John Decker PhD
1University of Denver, Denver, CO

11:50am – 11:55am **Paper 134:** Expected Time to Return to Athletic Participation Following Stress Fracture in Division I Collegiate Athletes
Marissa Jamieson MD
1The Ohio State University, Columbus, OH

11:55am – 12:10pm **Question and Answer**

12:10pm – 12:20pm **FIFA 11+**
Bert R. Mandelbaum MD
Santa Monica Orthopaedic & Sports Medicine Group, Santa Monica, CA

12:20pm – 12:30pm **Question and Answer**

### AOSSM Executive Director Retiring

Irv Bomberger, AOSSM Executive Director for the past 20 years, will be retiring at the end of July. His remarkable tenure has fostered extraordinary growth for the Society. The membership will benefit from his integrity, visionary leadership and institutional memory for decades to come. Please stop down in the Resource Center in the Exhibit Hall to sign a book of congratulations for Irv. We wish him well in his future endeavors.
Concurrent Session B
Sideline Evaluation and Management of Acute Hand and Wrist Injuries
International Center North

11:30am – 12:30pm
**Moderators:**
- Thomas Sean Lynch MD
  Columbia Orthopaedics, New York, NY
- Douglas R. Weikert MD
  Vanderbilt Orthopaedics, Nashville, TN

11:30am – 11:40am
**Wrist Injuries**
- Thomas R. Hunt III, MD
  Baylor College of Medicine, Houston, TX

11:40am – 11:50am
**Finger Injuries**
- Michael W. Grafe MD
  Redwood Orthopaedic Surgery Associates, Santa Rosa, CA

11:50am – 12:00pm
**Hand Injuries**
- Douglas R. Weikert MD
  Vanderbilt Orthopaedics, Nashville, TN

12:00pm – 12:10pm
**Question and Answer**

12:10pm – 12:30pm
**Rapid Fire Case Discussions**

Concurrent Session C
Team Physician Controversies / MMA Injuries
International Center South

11:30am – 12:30pm
**Moderators:**
- Cory M. Edgar MD
  University of Connecticut, Farmington, CT
- Eric C. McCarty MD
  CU Sports Medicine University of Colorado, Boulder, CO

11:30am – 11:40am
**Spine Boarding: Helmet On or Off?**
- Robert H. Brophy IV, MD
  Washington University, St. Louis, MO

11:40am – 11:50am
**AMSSM Exchange Lecture:**
- Issues for the Traveling Team Physician
  Chad Asplund MD
  The Ohio State University, Columbus, OH

11:50am – 12:20pm
**Mixed Martial Arts: An Explosion in the United States**
- History and Overview of MMA in the United States
  Moderator: John A. Bergfeld MD
  Cleveland Clinic, Cleveland, OH

12:05pm – 12:12pm
**Rapid Weight-cutting Problems and Recognition of the Concussed Athlete without a KO**
- Jonathan D. Gelber MD
  Empire State Orthopedics, Bronx, NY

12:12pm – 12:20pm
**Association of Ringside Physicians:**
- What is Being Done to Make this Sport Safer?
  Problems, Issues and Concerns, Ringside Physician Accreditation
- Joseph J. Estwanik MD
  Metrolina Orthopaedic & Sports Medicine Clinic, Charlotte, NC

12:20pm – 12:30pm
**Question and Answer**
FRIDAY, JULY 8, 2016

1:00pm – 2:00pm  
**RT7 Young Sports Medicine**  
*Moderators:* Jefferson C. Brand MD  
Heartland Orthopedic Specialists, Alexandria, MN  
Thomas M. DeBerardino MD  
University of Connecticut Health Center, Farmington, CT

1:00pm – 2:00pm  
**RT8 Team Physician**  
*Moderators:* Walter R. Lowe MD  
University of Texas Medical School at Houston, Houston, TX  
Steven E. Flores MD  
University of Texas HSC Houston, Houston, TX

1:00pm – 2:00pm  
**RT9 PCL**  
*Moderators:* Christopher D. Harner MD  
University of Texas, Houston, TX  
Michael G. Baraga MD  
UHealth Sports Medicine, Miami, FL

1:00pm – 2:00pm  
**RT10 Mensicus Repair**  
*Moderators:* Steven B. Cohen MD  
Rothman Institute, Media, PA  
Geoffrey S. Baer MD, PhD  
University of Wisconsin Hospitals & Clinics, Madison, WI

*Additional fee required.

AOSSM gratefully acknowledges Smith & Nephew for an educational grant in support of the Case-Based, Round Table Discussions.

SATURDAY, JULY 9, 2016

6:45am – 8:15am  
**Instructional Courses**

7:30am – 12:30pm  
**Exhibits**

8:30am – 5:00pm  
**General Session**

12:30pm – 2:00pm  
**Guided Poster Tours**

**General Session – ACLR Outcomes**  
Broadmoor Hall A

8:30am – 10:00am  
**Moderators:**  
David R. McAllister MD  
UCLA Department of Orthopaedic Surgery, Los Angeles, CA  
Eric Jason Strauss MD  
New York Hospital for Joint Diseases, New York, NY

**Paper 135: Knee Hyperextension as a Predictor of Failure in Revision ACL Reconstruction: A Prospective Cohort Study**  
Daniel E. Cooper MD,  
Warren R. Dunn MD, MPH,  
Rick W. Wright MD,  
Amanda Haas MA,  
Laura J. Huston MS

1The Carrell Clinic, Dallas, TX  
2University of Wisconsin, Madison, WI  
3Washington University, St. Louis, MO  
4Vanderbilt Orthopaedic Institute, Nashville, TN

8:35am – 8:40am  
**Paper 136: Effect of Intraoperative Platelet-Rich Plasma Treatment on Post-Operative Donor Site Knee Pain in Patellar Tendon Autograft ACL Reconstruction: A Double-Blind Randomized Controlled Trial**  
Brian L. Walters MD,  
Sarah Hobart MD,  
David Porter MD,  
Malachy P. McHugh PhD,  
Benjamin B. Bedford MD,  
Stephen J. Nicholas MD,  
Kendall Harousseau PA-C

1American Sports Medicine Institute, Birmingham, AL  
2Lenox Hill Hospital North Shore LIJ, New York, NY  
3New York Orthopedics, New York, NY

8:40am – 8:45am  
**Paper 137: Multicenter Orthopaedic Outcome Network Early Anti-Inflammatory Treatment in Patients with Acute ACL Tear (MOON-AAA) Clinical Trial**  
Christian Lattermann MD,  
Mary Proffitt PhD,  
Laura J. Huston MS,  
Lee Gammon MD,  
Darren L. Johnson MD,  
Virginia B. Kraus MD, PhD,  
Kurt P. Spindler MD

1University of Kentucky Medical Ctr, Lexington, KY  
2Vanderbilt Orthopaedic Institute, Nashville, TN  
3Duke University, Durham, NC  
4Cleveland Clinic, Cleveland, OH
### General Session – ACLR Outcomes (cont.)

**Broadmoor Hall A**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenters</th>
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<tbody>
<tr>
<td>8:45am</td>
<td><strong>Paper 138:</strong> Magnetic Resonance Imaging of Cartilage Contact and Bound Water in ACL-Deficient and ACL-Reconstructed Knees</td>
<td>Geoffrey Scott Baer MD, PhD, Jarred Kaiser, Michael Vignos, Fang Liu, Colin Robert Smith, Richard Kijowski, Darryl Thelen</td>
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<tr>
<td>8:50am</td>
<td><strong>O’Donoghue Award—Paper 139:</strong> Early Changes in the Knee Joint Center of Rotation during Walking Following Anterior Cruciate Ligament Reconstruction Correlate with Later Changes in Patient-Reported Outcomes</td>
<td>Matthew Titchenal, Constance R. Chu, Jennifer C. Erhart-Hledik, Thomas P. Andriacchi</td>
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<tr>
<td>8:55am</td>
<td>Question and Answer</td>
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<tr>
<td>9:00am</td>
<td><strong>Live Surgical Demonstration:</strong> Pediatric ACLR Tunnels</td>
<td>Paul M. Saluam MD, Pediatric Orthopaedic Surgery, Los Angeles, CA</td>
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<tr>
<td>9:30am</td>
<td><strong>How to Improve ACLR Outcomes Panel</strong></td>
<td>David R. McAllister MD, UCLA Department of Orthopaedic Surgery, Los Angeles, CA</td>
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<tr>
<td>9:40am</td>
<td>Pre-op Rehab Effects on ACLR Outcomes</td>
<td>Lynn Snyder-Mackler PhD, University of Delaware, Newark, DE</td>
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<td>9:47am</td>
<td>Assessing the Outcome of ACL Surgery</td>
<td>Braden C. Fleming PhD, Brown University, Providence, RI</td>
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<tr>
<td>9:54am</td>
<td>ACLR Outcomes: Preventing Post-op Failures</td>
<td>Mark V. Paterno PhD, PT, ATC, Sports Medicine Biodynamics Ctr, Cincinnati, OH</td>
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### General Session – Special Presentations

**Broadmoor Hall A**

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<tr>
<th>Time</th>
<th>Session</th>
<th>Presenters</th>
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<tbody>
<tr>
<td>10:00am</td>
<td><strong>Introduction of Presidential Guest Speaker</strong></td>
<td>Allen F. Anderson MD, Tennessee Orthopaedic Alliance, Nashville, TN</td>
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### SATURDAY, JULY 9, 2016

**Concurrent Session A – Hip**

**Broadmoor Hall A**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Moderators</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:30am</td>
<td><strong>Paper 140:</strong> Pre-Operative Thresholds for Achieving Meaningful Clinical Improvement After Arthroscopic Treatment of Femoroacetabular Impingement</td>
<td>Benedict U. Nwachukwu MD, MBA, Kara G. Fields MS, Danyal H. Nawabi MD, Bryan T. Kelly MD, Anil S. Ranawat MD, Hospital for Special Surgery, New York, NY</td>
</tr>
<tr>
<td>11:35am</td>
<td>Hip Instability</td>
<td>Stephen Kenji Aoki MD, University of Utah, Salt Lake City, UT</td>
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<tr>
<td>11:45am</td>
<td>Question and Answer</td>
<td></td>
</tr>
<tr>
<td>11:50am</td>
<td><strong>Live Surgical Demonstration:</strong> Hip Arthroscopy</td>
<td>Struan H. Coleman MD, Duke University Medical Center, Durham, NC</td>
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<tr>
<td>12:20pm</td>
<td>Question and Answer</td>
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**Concurrent Session B – Rotator Cuff Part 1**

**International Center North**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Moderators</th>
</tr>
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<tbody>
<tr>
<td>11:30am</td>
<td><strong>Paper 141:</strong> Minimally Important Differences and Change Across Time in Patients Treated Surgically and Non-Surgically for Full-Thickness Rotator Cuff Tears</td>
<td>Bruce S. Miller MD, MS, Christopher Robbins, Joel Joseph Gagnier ND, PhD, University of Michigan, Ann Arbor, MI</td>
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<tr>
<td>11:35am</td>
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**Conference Agenda (cont.)**

Presenters are in **bold**.
Concurrent Session C – Policy and Education
International Center South

11:30am – 12:30pm  Moderators:
Carolyn M. Hettrich MD, MPH
University of Iowa, Iowa City, IA
Rick D. Wilkerson DO
Northwest Iowa Bone, Joint & Sports Surgeons, Spencer, IA

11:30am – 11:40am  Policies that Will Affect You Within the Near Future
Frederick M. Azar MD
University of Tennessee – Campbell Clinic, Memphis, TN

11:40am – 11:50am  Alternative Payment Model – Bundled Payments
Thomas Friermood MD
Panorama Orthopedics & Spine Center, Golden, CO

11:50am – 12:05pm  Role of Advocacy in Healthcare Change
Carolyn M. Hettrich MD, MPH
University of Iowa, Iowa City, IA

12:05pm – 12:15pm  Question and Answer

12:15pm – 12:25pm  Board Certification Update from the American Board of Orthopaedic Surgery
David Martin MD
Wake Forest University, Winston Salem, NC

12:25pm – 12:30pm  Question and Answer

Guided Poster Tours
International Center Foyer

12:30pm – 1:15pm  Tour I
1:15pm – 2:00pm  Tour II
For more details, see pages 33 – 36

General Session – Rotator Cuff Part 2
Broadmoor Hall A

2:00pm – 3:35pm  Paper 143: Repair Integrity and Clinical Outcomes Following Arthroscopic Rotator Cuff Repair: A Prospective, Randomized Trial of Early and Delayed Motion Protocols
Ariel A. Williams MD1, Mark P. Cote RPT1, Jessica Megan DiVenere BS1, Stephen Austin Klinge MD1, Robert A. Arciero MD1, Augustus D. Mazzocca MD, MS1
1 University of Connecticut Health Center, Farmington, CT

2:05pm – 2:10pm  Paper 144: Prospective Randomized Study of Arthroscopic Proximal vs. Open Subpectoral Biceps Tenodesis: Is One Better?
Yousef Shishani MD1, Reuben Gobezie MD1, Janice Flocken MS1
1 The Cleveland Shoulder Institute, Cleveland, OH

2:10pm – 2:15pm  Paper 145: Patient-Reported Outcomes for Rotator Cuff Disease – Which PRO Should You Use?
Eric Chugh Makhni MD, MBA1, Jason Taizo Hamamoto BS1, John Higgins BS1, Taylor Patterson1, Anthony A. Romeo MD1, Nikhil N. Verma MD1
1 Rush University Medical Center, Midwest Orthopaedics, Chicago, IL

2:15pm – 2:20pm  Question and Answer

2:20pm – 2:50pm  Live Surgical Demonstration: Arthroscopic Surgical Treatment of the Biceps Tendon – Suprapec and Subpec
Moderator: William N. Levine MD
Columbia-Presbyterian Medical Center, New York, NY

Procedure: Stephen F. Brockmeier MD
UVA – Orthopaedics, Charlottesville, VA

2:50pm – 3:00pm  Question and Answer
### General Session – Rotator Cuff Part 2 (cont.)

**3:00pm – 3:25pm**

**Management of Large Rotator Cuff Tears in Non-Arthritic Patients**  
*Moderator:* Augustus D. Mazzocca MD, MS  
*Panelists:*
- Asa Bedi MD, University of Michigan, Ann Arbor, MI
- Felix H. Savoie MD, Tulane University School of Medicine, New Orleans, LA
- Stephen S. Burkhart MD, San Antonio Orthopedic Group, San Antonio, TX
- Warren Dunn MD, MPH, University of Wisconsin, Madison, WI
- William N. Levine MD, Columbia-Presbyterian Medical Center, New York, NY

**Panelists:**
- Steven Cooney, University of Connecticut Health Center, Farmington, CT
- Brian Cole MD, MBA, Rush University Medical Center, Chicago, IL
- Andrew Witkowsky MD, New York Orthopaedic Hospital, New York, NY
- Victor Friedli, University of Colorado, Boulder, CO

**3:05pm – 3:10pm**

**Partial Marginal Convergence**  
*Panelist:* Felix H. Savoie MD, Tulane University School of Medicine, New Orleans, LA

**3:10pm – 3:15pm**

**Superior Capsule Reconstruction: A Game Changer**  
*Panelist:* Stephen S. Burkhart MD, San Antonio Orthopedic Group, San Antonio, TX

**3:15pm – 3:20pm**

**Non-Operative Management**  
*Panelist:* Warren Dunn MD, MPH, University of Wisconsin, Madison, WI

**3:20pm – 3:25pm**

**Tendon Transfer**  
*Panelist:* William N. Levine MD, Columbia-Presbyterian Medical Center, New York, NY

**3:25pm – 3:35pm**

**Question and Answer**

### General Session – Knee Articular Cartilage

**3:35pm – 5:00pm**

**Moderators:**
- Andreas H. Gomoll MD, Brigham and Women’s Hospital, Chestnut Hill, MA
- Christian Lattermann MD, University of Kentucky Medical Ctr, Lexington, KY

**3:35pm – 3:40pm**

**New Frontiers**  
*Panelists:*
- Brian J. Cole MD, MBA, Rush University Medical Center, Midwest Orthopaedics, Chicago, IL
- Andrew Witkowsky MD, New York Orthopaedic Hospital, New York, NY
- Victor Friedli, University of Colorado, Boulder, CO

**3:40pm – 3:45pm**

**Question and Answer**

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**Paper 146: Return to Sport and Recreational Activity Following Osteochondral Allograft Transplantation in the Knee**
- William Bugbee MD, Evan Scott Nielsen MD
- Julie C. McCauley MPHC
- Pamela Pulido BSN
- Scripps Clinic, La Jolla, CA

**Paper 147: Non-Operative Treatment Outcomes of Stable Juvenile Osteochondritis Dissecans Lesions of the Knee**
- Frances Tepolt MD
- Benton E. Heyworth MD
- Mininder S. Kocher MD, MPH
- Boston Children’s Hospital, Boston, MA

**Paper 148: Risk Factors at Time of Primary ACL Reconstruction that Contribute to Significant Chondral Surface Change at Time of Revision ACL Reconstruction: A Prospective Study from the MOON and MARS Cohorts**
- Christopher C. Kaeding MD, MARS Group
- The Ohio State University Sports Medicine Center, Columbus, OH
- Washington University, St. Louis, MO

**4:20pm – 4:50pm**

**Live Surgical Demonstration: Chondral Focal Defects**  
*Moderator:* Brian J. Cole MD, MBA, Rush University Medical Center, Midwest Orthopaedics, Chicago, IL  
*Procedure:* Mark D. Miller MD, University of Virginia, Charlottesville, VA
Sunday, July 10, 2016

**General Session**

**Broadmoor Hall A**

8:30am – 9:25am  **Moderator:**
Brian R. Wolf MD, MS
UI Sports Medicine, Iowa City, IA

8:30am – 8:40am  **Update on Biologics in Sports Medicine**
Steven P. Arnoczky, DVM,
Michigan State University, East Lansing, MI

8:40am – 8:45am  **Cabaud Award – Paper 149: Platelet Rich Plasma Activates Pro-Inflammatory Signaling Pathways and Induces Oxidative Stress in Tendon Fibroblasts**
Joshua L. Hudgens MD,
Christopher Mendias PhD, ATC,
Kristoffer B. Sugg MD, Jeremy A. Grekin MS,
Jonathan P. Gumucio BS, Asheesh M. Bedi MD
1University of Michigan, Ann Arbor, MI

8:45am – 8:55am  **Question and Answer**

8:55am – 9:15am  **AOSSM to ESSKA Traveling Fellowship**
Robert Alexander Creighton MD
University of North Carolina, Chapel Hill, NC

**APKASS to AOSSM Traveling Fellowship**
Brian R. Wolf MD, MS
UI Sports Medicine, Iowa City, IA

9:15am – 9:25am  **Question and Answer**

**General Session – Outcome Measures Symposium**

**Broadmoor Hall A**

9:25am – 10:20am  **Moderators:**
Allen F. Anderson MD
Tennessee Orthopaedic Alliance, Nashville, TN
James J. Irrgang PhD, PT, ATC
University of Pittsburgh Medical Center, Pittsburgh, PA

9:25am – 9:35am  **Value and Meaning of Patient Outcomes**
James J. Irrgang PhD, PT, ATC
University of Pittsburgh Medical Center, Pittsburgh, PA

9:35am – 9:45am  **The Value of ACL Registries; Important Results from the Scandinavian Registries**
Jon Karlsson MD, PhD
Sahlgrenska University Hospital Molndal, Floda, Sweden

9:45am – 10:00am  **Panel Discussion: Collection and Use of Outcomes Measures in Clinical Practice**
Morgan H. Jones MD
Cleveland Clinic, Cleveland, OH
MaCalus Vinson Hogan MD
University of Pittsburgh Medical Center, Pittsburgh, PA
Stephen Lyman PhD
Hospital for Special Surgery, New York, NY

10:00am – 10:20am  **Question and Answer**
10:20am – 11:30am Moderators:
C. Dain Allred MD
US Air Force Academy, Colorado Springs, CO
James L. Carey MD, MPH
University of Pennsylvania, Philadelphia, PA

Francis O’Connor MD
Uniformed Services University, Bethesda, MD

10:35am – 10:50am Measuring Return-to-Play Performance
Brian J. Sennett MD
Penn Sports Medicine Center, Philadelphia, PA

Alan L. Zhang MD1, David C. Sing BS1, Caitlin Marie Rugg MD1, Brian T. Feeley MD1, Carlin Senter MD1
1University of California, San Francisco, San Francisco, CA

10:55am – 11:00am Paper 151: Recovery of Psychological Readiness May Differ Between Genders Following ACL Reconstruction in Adolescent Athletes
Matthew David Milewski MD1, Regina Kostyun MSEd1, Julie P. Iannicelli MS, ATC2, Kyle J. Kostyun MS, ATC3, Matthew Solomito BSBE1, Carl W. Nissen MD1
1Hospital for Special Surgery, New York, NY
2Rutgers University, Newark, NJ
3University of Connecticut, Farmington, CT

11:00am – 11:05am Paper 152: Quality of Movement for Athletes Six Months Post–ACL Reconstruction
Polly deMille1, Joseph Nguyen MPH1, Allison Brown PT, PhD2, Huong Do MA1, Elizabeth Selvaggio1, Theresa Chiaia PT1
1Hospital for Special Surgery, New York, NY
2Rutgers University, Newark, NJ

11:05am – 11:10am Paper 153: Vertical Jump Test as a Functional Test after Anterior Cruciate Ligament Reconstruction
Jin Goo Kim MD, PhD1, Sang Bum Kim MD1, Kyu-Sung Chung MD2, Jeong Ku Ha3
1KonKuk University Medical Center, Seoul, Korea
2KEPCO Medical Center, Seoul, Korea
3Seoul Paik Hospital, Seoul, Korea

Hiroshi Tanaka MS1, Toyohiko Hayashi PhD2, Hiroaki Inui MD, PhD1, Hiroki Ninomiya MD1, Tomoyuki Muto MD, PhD1, Katsuya Nobuhara PhD1
1Nobuhara Hospital and Institute of Biomechanics, Tatsuno, Japan
2Niigata University, Niigata, Japan

11:15am – 11:30am Question and Answer
Meeting adjourns
AOSSM gratefully acknowledges the following companies for their support of the AOSSM 2016 Annual Meeting:

- Arthrex
- Bioventus
- Breg
- Daiichi Sankyo Inc.
- DePuy Synthes Mitek Sports Medicine
- DJO Global
- Ferring Pharmaceuticals
- Flexion Therapeutics
- Smith & Nephew
- Stryker
- Modernizing Medicine
- Orteq Sports Medicine
- Össur
- Smith & Nephew
- Stryker
- Tissue Regenix Orthopedics
- Topical Gear
- Zimmer Biomet

Presenters are in bold.
Instructional Courses are offered Thursday, July 7, 2016 through Sunday, July 10, 2016 from 6:45am – 8:15am. Locations are included in this program as well as on tickets received at the time of registration. Admittance in instructional courses is by ticket only. Some instructional courses may have limited capacity, and space is assigned as registrations are received. The instructional course fee is $70. One must register and pay the fee in order to attend. Handouts for the courses can be found by logging into www.sportsmed.org then go to the “MY AOSSM” tab. Materials are under the “Meetings” tab by clicking the “Resources” link next to 2016 Annual Meeting.

Participants can purchase online access to all of the instructional course handouts for $70 at www.sportsmed.org or at the Registration Desk.

NO REFUNDS FOR INSTRUCTIONAL COURSES WILL BE ISSUED.

Continuing Medical Education Credits
The American Orthopaedic Society for Sports Medicine (AOSSM) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Instructional Courses: AOSSM designates this live activity for a maximum of 1.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.
IC101

COLORADO HALL E

CASE-BASED

**Complex Knee Surgery**

Mark D. Miller MD, Darren L. Johnson MD, Robert G. Marx MD, MSc, FRCSC

Three presenters share complex knee cases, including multiple ligament injuries, revision ACL reconstruction, and pediatric knee injuries, in an alternating fashion. At periodic intervals the presenter will stop and ask the other faculty and the audience to weigh in on treatment choices. Different treatment options and critical decision-making options are discussed.

**Objectives:**

- Discuss the rationale for timing, surgical options, and acute and chronic management of multiple ligament knee injuries
- Describe operative treatment options for pediatric knee injuries
- Detail key factors that contribute to ACL graft failure and how to avoid repeating these mistakes in revision ACL surgery
- Discuss post-operative management options in the treatment of complex knee injuries

AOSSM gratefully acknowledges Smith & Nephew for an educational grant in support of this instructional course.

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IC102

COLORADO HALL A

**The Specificity of the ACL Injury in the Young Athlete: Prevention, Surgical Care, and Return to Sport**

Bert R. Mandelbaum MD, Robert H. Brophy IV, MD, Christopher S. Ahmad MD, Mininder S. Kocher MD, MPH

Understanding the mechanisms of injury and prevention of an ACL injury in the pediatric adolescent is a challenge. Once injured it requires a multidisciplinary team that can decipher the mechanism of injury, develop pre-rehabilitation along with a specific type of surgical procedure related to the particular athlete, and a post-operative and return-to-sport program that is reflective of gender and level of participation. The purpose of this instructional course lecture is to address the progressive detail and level of specificity in this population to optimize care and result.

**Objectives:**

- Assess how ACL injury and re-injury in the 14- to 18-year-old athlete is significantly high and increases with level of participation and types of sport participation
- Discuss ACL injury biomechanics and how there are specific mechanisms of injury in this age group that are biomechanically and neuromuscularly based
- Discuss opportunities for modulation and prevention
- Describe surgical nuances and options in this age group that are very specific and vary with respect to degree of physeal closure, gender, age, type of sport participation, and long-term goals
- Discuss return-to-sports issues and criteria of post-operative programs, including understanding of initial mechanisms of injury, rehabilitation, preventative approaches, and specific return-to-sport progressions and criteria for success and re-injury prevention

AOSSM gratefully acknowledges DePuy Synthes Mitek Sports Medicine for an educational grant in support of this instructional course.
Foot and Ankle Issues Facing the Sports Medicine Surgeon
John Jasko MD, Robert C. Schenck MD, Annunziato Amendola MD, Kevin Willits MD, FRCS

Surveillance data from high school, college, and professional sports reveal injuries of the foot and ankle are some of the most common injuries occurring during practice and competition. While often categorized as “just a sprain,” these injuries can often cause significant limitations of performance and rank second only to knee injuries as a cause of missed games or matches. The goal of this course is to dissect common injuries of the foot and ankle frequently encountered by the sports medicine physician. We will discuss the mechanism of injury, diagnosis, treatment, and return-to-play guidelines of Achilles tendon injury, ankle sprains and syndesmosis injuries, and 5th MT and navicular fractures. We will outline the relevant anatomy, surgical and nonsurgical treatment options, current data, and controversies. Also new this year, we will discuss tendon transfers for peroneal nerve injury secondary to knee dislocation.

Objectives:
- Discuss the diagnosis and treatment of foot and ankle injuries
- Discuss how to counsel players, coaches on implications for return to play and performance
- Describe how to best counsel and treat patients with peroneal nerve injury and foot drop after knee dislocation

Fix the Cuff: How to Reverse Reversomania
Stephen S. Burkhart MD, John D. Kelly IV, MD, Alison P. Toth MD

This course will elaborate on the growing and perhaps inappropriate use of reverse shoulder arthroplasty (RSA). Indications for repair, the value of partial cuff repair, and the critical role of the subscapularis will be emphasized. The role of graft augmentation and superior capsule reconstruction will also be highlighted.

Objectives:
- Identify the skyrocketing role of RSA and discuss its legitimate applications
- Explain the importance of the role of partial repair and the critical role of the subscapularis in attaining a balanced force couple
- Discuss the role of graft and biologic augmentation as a means of compensating for tissue deficiency
- Explain the role of superior capsule reconstruction as an alternative to RSA in cases of massive retracted tears

Articular Cartilage Repair in Athletes: Current Concepts and Case Reviews
Riley J. Williams III, MD, Deryk G. Jones MD, Aaron J. Krych MD, C. Benjamin Ma MD

This course will update attendees on the current state of knee articular cartilage repair in the United States. Moreover, athletic return to sport as an endpoint will be the focus of this course. Clinical indications, surgical techniques, postoperative rehabilitation strategies, and functional outcomes, as these relate to knee cartilage repair methods, will be presented. This is a case-based course designed to encourage interaction and discussion between the faculty and audience.

Objectives:
- Describe the current standards of care in the treatment of articular cartilage defect of the knee using a case-based teaching approach
- Discuss the appropriate use of imaging studies in the preoperative and postoperative management of patients with articular cartilage defects of the knee
- Explain which surgical and rehabilitation strategies work best for a return to athletics
- Describe the relative advantages and disadvantages of each cartilage repair approach described. A review of the peer-reviewed literature will serve as the basis of the discussion relevant to expected surgical outcomes and indications

AOSSM gratefully acknowledges DePuy Synthes Mitek Sports Medicine for an educational grant in support of this instructional course.
IC106  Colorado Hall C  CASE-BASED

Shoulder Instability: Dilemmas in the Elite and In-Season Athlete
C. Dain Allred MD, Lance E. LeClere MD, LT MC, USNR, Jonathan F. Dickens MD, Steven J. Svoboda MD

This course will focus on shoulder instability in the athlete. Cases will be taken from NCAA athletes at the US Air Force Academy, the US Naval Academy, and the US Military Academy. Emphasis will be placed on decision-making in the in-season athlete with shoulder instability. Cases will also illustrate teaching points and generate discussion regarding recurrent instability, ALPSA lesions, pan-labral injuries, glenoid bone loss, and Hill-Sachs lesions. Case solutions will include illustrations of arthroscopic and open surgical techniques for soft tissue and bony reconstructions. Strategies for non-operative and post-operative rehabilitation of shoulder instability will be presented.

Objectives:
- Discuss and understand the appropriate treatment of shoulder instability in in-season athletes
- Discuss treatment algorithms for athletes with shoulder instability, including first-time dislocations, recurrent instability, and instability with bone loss
- Describe the state-of-the-art surgical techniques for shoulder instability, including arthroscopic and open procedures. Current rehabilitation strategies will also be discussed

IC107  Colorado Hall D  CASE-BASED

Unicompartmental Knee Arthritis in the Athletic Patient—Return to Sport: A Case-Based Approach
Kevin D. Plancher MD, C. Thomas Vangsness MD, Jack Farr II, MD, Thomas M. DeBerardino MD

Unicompartmental knee arthritis is a challenging disease entity in the athletic patient to successfully return patients to sporting activities. Experts will present four cases and discuss the best operative treatment regimens, including the utilization of stem cells, cartilage implantation, malalignment, and unicompoundy arthroplasty for patients with unicompartmental knee arthritis to manage expectations and outcomes. The course will discuss the indications, contraindications, advances in technology and surgical techniques, postoperative rehabilitation regimens, and complications as a result of surgical intervention to enhance the knowledge of the participant and to enable them to treat the athletic, arthritic knee successfully.

Objectives:
- Discuss the indications for operative management of unicompartmental arthritis in the active patient
- Discuss the advantages and disadvantages of surgical treatment outcomes and discuss surgical tips and tricks to yield successful outcomes
- Discuss potential complications of surgical treatment options
- Analyze and discuss the current literature surrounding the different treatment options for the athletic, arthritic knee to assist surgeons in making evidence-based decisions when treating their patients and how to avoid and address complications when they arise

AOSSM gratefully acknowledges Tissue Regenix Orthopedics for an educational grant in support of this instructional course.
Management of PCL Injuries: A Case-Based Approach
Volker Musahl MD, Asheesh Bedi MD, Christopher D. Harner MD
PCL injuries in athletes are not uncommon. Management of PCL injuries presents a unique challenge. This course will review acute and chronic PCL injuries and discuss management in a case-based format. Physical examination and advanced imaging will be presented. The decision on non-operative vs. surgical management will be described in a case-based format. The role for arthroscopic approaches, open surgeries, and osteotomy will be discussed. Special focus will be given to surgical techniques and surgical management.

Objectives:
- Describe the non-operative vs. surgical management of PCL injuries
- Discuss the issues related to surgical techniques of PCL reconstruction, specifically tunnel- and inlay-based reconstructions as well as the role of osteotomy
- Explain surgical technique acute and chronic PCL injuries

AOSSM gratefully acknowledges Smith & Nephew for an educational grant in support of this instructional course.

The Baseball Athlete: From the Hips to the Fingertips
Thomas S. Lynch MD, Mark S. Schickendantz MD, Thomas J. Graham MD
Shoulder and elbow injuries in baseball are often publicized in the mass media; however, little attention is given to the hip and the hand. They play an important role in the baseball athlete and are often at risk for injury. The purpose of this instructional course is to aid physicians who take care of this athlete population to appropriately manage their injuries and get them back on the field. Clinical cases will be reviewed by the speakers, all of whom are currently involved in the care of professional athletes.

Objectives:
- Describe what every baseball doctor should know regarding hips
- Discuss what is normal and what is not in a thrower, when to fix a SLAP and when to tenodese, and whether GIRD really is a problem
- Describe why there are so many Tommy John surgeries occurring and a practical approach to reducing this epidemic in your community
- Describe why batting and throwing cause so many injuries to fingers and how to fix them

Failed Cartilage Repair: Why and What’s the Next Step?
Andreas H. Gomoll MD, Jack Farr II, MD, Brian J. Cole MD, MBA, Christian Lattermann MD
Cartilage repair is becoming increasingly common, and multiple new treatment options are available. Even with good understanding of indications and techniques for primary procedures, failure of cartilage repair occurs in approximately 20% of patients. This course will review the failure mechanisms of primary cartilage repair and discuss the indications, techniques, and outcomes of revision procedures.

Objectives:
- Identify potential failure mechanisms
- Determine which patient is a candidate for revision
- Formulate a treatment plan, including concurrent procedures
- Describe the role of the many currently available cartilage repair procedures in a revision setting

AOSSM gratefully acknowledges Orteq Sports Medicine for an educational grant in support of this instructional course.
IC203  Colorado Hall B

Controversies in Rotator Cuff Surgery
William N. Levine MD, Nikhil N. Verma MD, Neal S. ElAttrache MD, Charles Mitchell Jobin MD

The goals of this course are to encourage the registrants to interact in a lively, case-based style with minimal didactics and significant interaction with the faculty. Controversial topics, including approaches for rotator cuff repair (e.g., number of rows, transosseous vs. double-row suture bridge), decision-making on management of the biceps tendon and labrum, and biologic enhancement for cuff repair, will be addressed.

Objectives:
- Review current trends in rotator cuff surgery and highlight controversies
- Review current trends in biologic enhancement for rotator cuff surgery
- Review current trends with management of the biceps tendon during rotator cuff surgery
- Review current trends with management of the labrum during rotator cuff surgery

IC204  Colorado Hall C

The Use of Osteotomy in the Management of Complex Knee Disorders
Scott A. Rodeo MD, Thomas L. Wickiewicz MD, Thomas M. DeBerardino MD, Annunziato Amendola MD

This course will review indications for various types of osteotomy around the knee, specific types of tibial and femoral osteotomy, and pre-operative planning. Cases will be presented that illustrate the use of osteotomy in conjunction with ligament reconstruction, cartilage resurfacing, and meniscus transplantation. Cases will also include special circumstances such as tibial osteotomy to change tibial slope and femoral rotational osteotomy and trochlear osteotomy for patellar instability.

Objectives:
- Review indications and techniques for tibial osteotomy and femoral osteotomy. Major teaching points will be illustrated with case examples
- Discuss use of osteotomy in conjunction with surgery for knee instability, cartilage resurfacing, and meniscus transplantation. Representative cases will be shown
- Discuss the use of osteotomy in the treatment of patellofemoral instability and patellofemoral arthrosis
- Discuss complications specific to various types of osteotomy

IC205  Colorado Hall A

Recurrent Patellar Instability: How and When to Fix It and How to Avoid Complications
Beth E. Shubin Stein MD, Sabrina M. Strickland MD, Robin Vereeke West MD

Through a mix of literature, personal experience, and illustrative cases, attendees will fine tune their treatment algorithm for recurrent patellar instability. Surgical techniques and specific pearls will be discussed to gain confidence in treating these challenging problems. Specific topics that will be covered: 1) MPFL reconstruction: How and when to do it and how to avoid disasters. 2) The tibial tubercle: When and how much to move it and what happens when it doesn’t work. 3) Resulting cartilage injury: The black hole. What to do when instability is no longer the only problem. Other sub-topics to be covered include how treatment changes in the setting of a skeletally immature patient as well as rehabilitation and return to play.

Objectives:
- Identify those patients who are candidates for isolated MPFL reconstruction vs. those patients who would benefit from a tibial tubercle transfer in addition to the MPFL
- Recognize and treat common complications relating to patellar instability surgery
- Identify and treat cartilage defects resulting from patellar instability
- Describe appropriate post-operative rehab guidelines and return-to-play parameters
Strategies to Diagnose and Address Rotational Laxity of the Knee: A Case-Based Approach

Alan M. Getgood MD, FRCS (Tr&Orth), Volker Musahl MD, Andrew Pearle MD, Robert F. LaPrade MD, PhD, Asheesh Bedi MD

The patient with the high-grade rotationally unstable ACL-deficient knee is a challenge that we all face in our practice. There may be a number of causes as to why this high-grade rotational laxity is present, which will be discussed during this course. The aim of this course is to break the high-grade rotationally unstable knee into its component parts, giving surgeons a clear and concise pragmatic approach of how to address this difficult problem. Talks will be delivered with case examples throughout to illustrate the key principals. The following important topics will be addressed: examination and diagnosis of clinical deficiencies and how these relate to investigations; performance of a straight-forward, reproducible ACL reconstruction based on current evidence; and assessment of the deficient pathological structures and how to tackle them surgically, including: meniscus medial side lateral side. By the end of this course, participants will be provided with a systematic approach to treating the grossly unstable ACL-deficient knee that will be easy to adopt irrespective of practice setting.

Objectives:
- Interpret the examination of the grossly rotationally unstable ACL-deficient knee, relating the clinical findings to biomechanical deficiencies and diagnostic tests
- Perform a reproducible ACL reconstruction with current concepts based on up-to-date evidence
- Recognize and diagnose specific meniscal lesions, including posterior root tears and ‘ramp’ lesions of the posteromedial meniscus. Repair techniques will be demonstrated
- Diagnose and appropriately surgically address medial- and lateral-sided injuries

AOSSM gratefully acknowledges Smith & Nephew for an educational grant in support of this instructional course.

Controversies in Hip Arthroscopy: A Case-Based Approach

Aaron John Krych MD, Bruce A. Levy MD, Marc J. Philippon MD, Benjamin G. Domb MD

Hip arthroscopy has become a key technique in the care of active patients with femoroacetabular impingement and pre-arthritic extra-articular and intra-articular conditions of the hip. As such, a basic understanding of the fundamentals of hip arthroscopy is critical to achieving successful outcomes and avoiding complications. In this course, a systematic case-based approach to patient selection, imaging assessment, skillful surgical planning, and intraoperative execution will be emphasized, including treatment of proximal femoral and acetabular deformity, labral tears, and capsular management. The role for open or combined surgical approaches will also be discussed, and some gender- and sport-specific considerations reviewed.

Objectives:
- Gain a systematic approach to evaluating the active patient with hip pain: history, physical exam, and imaging
- Recognize and select appropriate patients for hip arthroscopy procedures
- Discuss the detailed preoperative planning and successful intraoperative execution of planned bony resection on the acetabular and femoral sides, labral repair, and capsular management
- Describe pearls and pitfalls of how to avoid complications during hip arthroscopy procedures

AOSSM gratefully acknowledges Smith & Nephew for an educational grant in support of this instructional course.
IC208 Colorado Hall D

**CASE-BASED**

**Challenging Cases in Shoulder Instability: Decision Making and Technical Solutions**

John M. Tokish MD, Richard J. Hawkins MD, FRCSC, Jeffrey S. Abrams MD, Robert A. Arciero MD

A case-based approach to the critical questions and answers in shoulder instability with an emphasis on technical solutions.

**Objectives:**
- Describe the advantages and disadvantages to the different surgical approaches of shoulder instability
- Apply the available literature to case scenarios that can translate into improvements in clinical care
- Discuss the technical aspects of surgical procedures directed toward stabilization of the shoulder and the role of revision surgery in anterior instability

AOSSM gratefully acknowledges DePuy Synthes Mitek Sports Medicine for an educational grant in support of this instructional course.

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IC301 **International Center North**

**Biological Treatments for Orthopaedic Injuries**

Cecilia Pascual-Garrido MD, Jorge Chahla MD, Robert F. LaPrade MD, PhD, Johnny Huard PhD

This course will provide an update of the biologic treatments in the field of orthopaedics. Significant advances in biologics have been accompanied by parallel challenges, including: indications, implications of FDA regulation, and the complexity of translating basic sciences into clinical practice. The use of minimally manipulated progenitor cells, regeneration and augmentation in soft tissue repair, and the future of novel scaffolds and bioprinting in the field of orthopaedics will be discussed. Discussion of where we are now and what we need to do to improve biologic treatments will be discussed, as well.

**Objectives:**
- Explain the challenges of translating basic science into clinical practice. Clinician and industrial perspective will be discussed. How do we need to work with the FDA to advance the clinical use of stem cells
- Describe the role of PRP and minimally manipulated progenitors cells as a therapy for orthopaedic injuries. Evaluating clinical outcomes from biological treatments
- Describe the role of biologics as an augmentation of soft tissue repair along with the new frontiers of cartilage, tendon, and muscle repair
- Discuss novel scaffolds and the future of bioprinting

AOSSM gratefully acknowledges Smith & Nephew for an educational grant in support of this instructional course.

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IC302 Colorado Hall A

**CASE-BASED**

**Simple to Complex – Innovative Solutions to Complex Problems**

Darren L. Johnson MD, Mark D. Miller MD, Matthew J. Matava MD

Using case-based examples, this course will cover each and every meniscal problem one encounters, from simple meniscectomy to complex isolated meniscal repair. Presenters will also cover how to treat meniscal injuries combined with other ligament problems within the knee.

**Objectives:**
- Explain how to diagnosis meniscal injury patterns using MRI and physical exam
- Describe meniscal anatomy on the tibial plateau in relation to the cruciate ligaments and how to approach all meniscal injuries in a safe anatomic zone
- Review pearls for performing simple meniscectomy and meniscal repair. All types of meniscal repair will be reviewed and outlined
- Discuss biological alternatives to assist with meniscal repair

AOSSM gratefully acknowledges Smith & Nephew for an educational grant in support of this instructional course.

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IC303

Challenges and Controversies in the Separated Shoulder
John M. Tokish MD, Richard J. Hawkins MD, FRCSC, Peter B. MacDonald MD, FRCSC, Stefan John Tolan MD
A state-of-the-art discussion on decision-making and technical challenges and solutions in getting the separated shoulder “right.” Discussion will focus on who and when to operate and how to get this “operation waiting to fail” to be a reproducible success.

Objectives:
- Identify the technical challenges and best solutions in patients with separated shoulders
- Identify the type and timing of surgical intervention

AOSSM gratefully acknowledges Smith & Nephew for an educational grant in support of this instructional course.

IC304

Surgical Considerations in Revision ACL Reconstruction
Michael J. Alaia MD, Freddie H. Fu MD, Robert A. Arciero MD, Guillem Gonzalez-Lomas MD
This course reviews practical information and technical tips for surgeons who perform revision anterior cruciate ligament (ACL) reconstruction. The case presentations highlight decision-making skills and solutions to common challenging problems.

Objectives:
- Discuss preparation and indications for a revision ACL reconstruction as well as trying to determine cause of failure of initial ACL reconstruction
- Discuss and address concomitant pathology to reduce failure rate (i.e., multiligamentous instability, malalignment, and meniscal insufficiency)
- Review technical tips for surgeons: “How to approach the revision ACL on the day of surgery”

IC305

From Cradle to Grave: How to Deal with a Symptomatic Patellofemoral Joint
Christian Lattermann MD, David DeJour MD, Daniel W. Green MD, Elizabeth A. Arendt MD
This course is designed to answer the preeminent questions regarding operative and non-operative treatment of patellofemoral instability and pain. Specifically, proximal alignment procedures have become extraordinarily popular and can yield excellent outcomes; however, more in-depth concepts have to be understood by the treating physician to assure best treatment results. The aim of this course is to introduce these additional concepts in an easy and understandable fashion using a case-based approach. Current treatment concepts for acute and chronic patella dislocations, instability, and early to late osteoarthritis in children and adults will be thoroughly covered. Careful evaluation of the current evidence base will guide the discussion and presentation of techniques and concepts presented. The attendee will leave this course with a comprehensive toolbox of safe and evidence-based concepts to treat difficult patellofemoral problems in children and adults.

Objectives:
- Discuss non-operative evaluation and treatment concepts and show the value and limits of non-operative treatment options
- Discuss clinical findings and imaging to correctly evaluate and diagnose patellofemoral instabilities after acute and chronic patella dislocations and their treatment options. This will provide the participant with a firm basis to understand and treat these difficult patient populations
- Discuss patella instability in the young and very young. Syndromic and congenital patella alta, acute and chronic dislocations, and their available treatment options as well as principals of guided growth for genu valgum associated with patellofemoral instability
- Discuss treatment options for early and advanced isolated patellofemoral arthritis. Concepts of biological as well as non-biological treatment of PFOA will be discussed from minimally invasive options such as debridement or facetectomy to more invasive options such as cell-based and allograft treatment and PF arthroplasty. This case-based segment will be focused on principles rather than specific technical aspects of individual procedures

AOSSM gratefully acknowledges Smith & Nephew for an educational grant in support of this instructional course.
IC306  
**CASE-BASED**  
**Shoulder Arthritis in the Aging Athlete: Management Strategies for 2016**  
Lawrence V. Gulotta MD, Frank A. Petrigliano MD, Seth C. Gamradt MD, Stephen F. Brockmeier MD  
As the population ages and continues to be active, degenerative conditions such as shoulder arthritis will continue to rise. A significant portion of these patients will be treated by sports medicine specialists. The purpose of this course is to outline the management options for the aging athlete with shoulder arthritis. The talks will be case-based when applicable and will address the work-up, techniques, rehabilitation, and expectations on return to sports.  
**Objectives:**  
- Discuss viable non-arthroplasty options for the management of shoulder arthritis  
- Discuss the indications and expected results for partial resurfacing of the shoulder  
- Discuss the indications for total shoulder replacement, technical considerations when performed on athletes, and their expected return to sports following the procedure  
- Discuss the role for reverse shoulder arthroplasty, techniques that may improve functional outcomes, and expectations on return to sports.

IC307  
**CASE-BASED**  
**Treatment of Biceps Pathology: From Shoulder to Elbow**  
E. Lyle Cain MD, Stephen S. Burkhart MD, Michael D. Maloney MD, Lee D. Kaplan MD  
This course will present current understanding of the biceps complex, including anatomy, biomechanics, and function, and treatment. Lectures will include evaluation and treatment of the entire structure from the proximal attachment in the shoulder (labral origin—SLAP), through proximal tendon pathology, and ending with treatment of distal biceps tendon tears. The last part of the course will include case presentations with audience participation and faculty discussion.  
**Objectives:**  
- Describe the anatomy, biomechanics, and function of the biceps muscle-tendon complex  
- Evaluate and treat injuries of the proximal biceps/labral complex  
- Evaluate and treat injuries of the proximal biceps tendon, including biceps tendinitis and instability  
- Evaluate and treat injuries of the distal biceps tendon at the elbow

IC308  
**CASE-BASED**  
**Osteochondritis Dissecans and Chondral Injuries of the Knee, Elbow, and Ankle: Treatment in Adolescent Athletes**  
Matthew D. Milewski MD, Kevin G. Shea MD, John Polousky MD, Carl W. Nissen MD  
Articular cartilage injuries in pediatric and adolescent athletes provide challenges to the sports medicine provider in both the acute setting and due to their potential long-term consequences. This course is designed to use evidence-based medicine in a case-based review to examine diagnostic and treatment strategies for articular cartilage injuries in young athletes. Knee, elbow, and ankle pathology will be discussed. This course will be focused on discussing the treatment of these injuries specifically in adolescent and skeletally immature athletes. A focus will include but not be limited to a discussion of the treatment of osteochondritis dissecans (OCD) in each of these anatomic areas with the experience and research from the Research on Osteochondritis Dissecans of the Knee (ROCK) group highlighted. This course is designed to give all sports medicine providers evidence-based treatment strategies for articular cartilage injuries in the young athlete and to get these athletes back to their activities and to minimize future degenerative issues.  
**Objectives:**  
- Describe the potential etiologies, pathoanatomy, and diagnostic criteria of articular cartilage injuries, particularly knee osteochondritis dissecans  
- Discuss the implications and different treatment options for patellar instability in the setting of articular cartilage injuries about the knee  
- Describe the potential etiologies and natural history of capitellar osteochondral injuries along with treatment options particularly in the setting of young overhead athletes  
- Describe the potential etiologies and treatment options for talar osteochondral and OCD lesions and the implications of ankle instability in the setting of young athletes.
**IC401  Colorado Hall C**

**Improved Patient Care through Lawsuit Protection and Prevention**

Larry Oxenham, Michael J. Rogal MD, JD, FACS

This course teaches proven and effective strategies to prevent and protect against lawsuits, allowing physicians the peace of mind necessary to focus on improved patient care. You will learn lawsuit protection strategies most advisors are unaware of. Sources of lawsuits physicians are exposed to and how to protect against them: failure / delay to diagnose, failure / delay to refer, negligence by staff / employees, premise liability, etc. Additional topics covered include how physicians can protect 100% of their professional and personal assets from lawsuits; how physicians should structure their practice; how physicians can protect their practice, property, and personal assets in the event of a judgment in excess of liability insurance or an exclusion in a policy; how to avoid the most common asset protection mistakes made by physicians and their advisors, such as putting assets into a spouse’s name; how physicians can avoid the serious problems that can result from operating as a sole proprietor; and how physicians can minimize vicarious liability for the acts of other professionals and staff.

**Objectives:**

- Discuss how to focus on improved patient care rather than lawsuit defense
- Describe how to structure your practice for lawsuit protection and prevention
- Discuss how to reduce liability insurance costs

**IC402  Colorado Hall B**

**The Baseball Thrower: What Can Non-Surgeons Teach Us?**

Michael T. Freehill MD, Thomas F. Walter, Jeff Strahm ATC, Matt Hobbs, Kevin E. Wilk PT, DPT, Christopher S. Ahmad MD

This course will be a very unique experience diving deeper into the baseball thrower. Orthopaedic surgeons from all communities and all levels would benefit from learning the non-surgeon’s perspective of the throwing athlete. Two of the most common thrower pathologies will be reviewed (one elbow and one shoulder), and treatment, timing issues, and road blocks will be discussed. Further topics will include throwing protocols and critical knowledge we should have available for our patients but the shortcomings of what we actually have proven scientifically as well as expert physical therapy discussion for these common diagnoses – both in the non-operative and operative setting and what to expect with realistic timetable expectations as well as common questions from a Division 1A head coach – what they want to know, what you can give them, and how to all stay on the same page.

**Objectives:**

- Discuss what coaches are using for pitchers’ arm strengthening and maintenance
- Discuss the implications of throwing arm pathology and timing of surgery as it pertains to a college scholarship
- Describe the personalization of rehabilitation for a thrower as it pertains to specific throwing arm injury and degree of treatment
- Discuss pitching mechanics and the aid of coaches, and ATCs, with prescribing a focused treatment plan

AOSSM gratefully acknowledges DePuy Synthes Mitek Sports Medicine for an educational grant in support of this instructional course.
Management of Concussion and Spine Injury in Athletes: A Multi-Disciplinary Approach

Darren Campbell MD, C. Dain Allred MD, Laura Baugh MD, Brian T. Ragel MD, FAANS

This course will focus on concussion and spine injury in the athlete. The teaching and discussion will be case-based; representative cases will come from the US Air Force Academy concussion clinic. Each case illustrates a unique, challenging dynamic in concussion and spine injury diagnosis and management. Emphasis will be placed on differentiating patterns of clinical presentation of concussion such as primary visual or vestibular dysfunction. Principles for developing an active, patient-specific treatment plan will be discussed. Cases allow for teaching points covering return-to-play and return-to-learn guidelines and protocols. The faculty will also include neurology, neurosurgery, and primary care sports medicine.

Objectives:

- Define concussion in athletes and the diagnostic criteria for concussion as well as the use of vestibulo-ocular testing and advanced neurocognitive examination.
- Explain how to differentiate patterns of clinical presentation in concussion such as primary vestibular or visual dysfunction along with understanding the roles and importance of a multi-disciplinary team in the effective management of concussion.
- Describe the effects of prior concussion, history of migraine, gender, and other factors when managing concussion in athletes.
- Discuss the use of the primary medications used in the treatment of concussion.
- Describe the use of a multi-disciplinary team approach to an active, patient-specific treatment plan. This includes separate return-to-learn and return-to-play guidelines and protocols.
- Describe the guidelines for the management of spinal injury in athletes. Criteria outlining no contraindication, relative contraindication, and absolute contraindication will be discussed as it relates to return to play.
GUIDED POSTER TOURS

Take a guided tour of posters and interact directly with the authors. Expert moderators will lead attendees on tours that include question and answer sessions with the authors.

Tours will be held concurrently on Saturday and will take place in the International Center Foyer and Center Aisle from 12:30pm – 2:00pm

To attend a tour, please proceed to the first poster listed in each section below.

AOSSM gratefully acknowledges The Aircast Foundation for an educational grant in support of the Guided Poster Tours.

SHOULDER I
12:30pm – 1:15pm

**Moderator:** Joseph H. Guettler MD

6 Teres Minor Hypertrophy is a Common and Negative Predictor of Outcomes after Rotator Cuff Repair

8 Survivorship after Arthroscopic Management of Glenohumeral Osteoarthritis with a Minimum Five-Year Follow-up

13 Rotator Cuff Tear Shape Characterization: A Prospective Comparison of Two-Dimensional Imaging and Three-Dimensional Magnetic Resonance Reconstructions

47 Predictors of Outcomes after Arthroscopic Double-Row Rotator Cuff Repair in 155 Cases: A Propensity Score Weighted Analysis of Knotted vs. Knotless Self-Reinforcing Repair Techniques at a Minimum of Two Years

57 Perivascular Stem Cells Diminish Muscle Atrophy and Retain Viability in a Rotator Cuff Tear Model

58 The Effect of Purified Multi-Potent Human Bone Marrow–Derived Mesenchymal Stem Cells on Rotator Cuff Tendon Healing in an Athymic Rat: Is Regenerative Healing Possible?

59 PDGFRα+ Progenitor Cells Contribute to Muscle Fibroadipogenesis Following Massive Rotator Cuff Tears in a Mouse Model

SHOULDER II
1:15pm – 2:00pm

**Moderator:** Kevin D. Plancher MD

1 Two-Year Outcomes following Arthroscopic Treatment for Snapping Scapula Syndrome

2 Arthroscopic Treatment for Shoulder Instability with Glenoid Bone Loss Using Distal Tibia Allograft Augmentation – Short-Term Results

3 Hemiarthroplasty vs. Total Shoulder Arthroplasty for Shoulder Osteoarthritis: A Matched Comparison of Return to Sports

10 Minimum Two-Year Outcomes after Resection Arthroplasty of the Sternoclavicular Joint

14 Characterization of Posterior Glenoid Bone Loss

16 Analysis of Glenoid Inter-Anchor Distance with an All-Suture Anchor System

50 Engaging Hill-Sachs Defects: Diagnosis in Cadaveric Shoulders
**GUIDED POSTER TOURS (CONTD.)**

**ELBOW**

12:30pm – 1:15pm

**Moderator:**
Steven B. Cohen MD

1. Risk of Fragments in Ulnar Collateral Ligament Injuries of Baseball Players
2. Early Postoperative Magnetic Resonance Imaging Findings After Autologous Osteochondral Plug Grafts for Osteochondritis Dissecans of the Humeral Capitellum
3. Systematic Review and Meta-analysis of Osteochondral Autograft Transplantation vs. Debridement in the Treatment of Osteochondritis Dissecans of the Capitellum
4. Should We Limit Innings Pitched Following Ulnar Collateral Ligament Reconstruction in Major League Baseball Pitchers?
5. Cumulative Incidence of Osteochondritis Dissecans of the Capitellum in Child and Adolescent Baseball Players
6. Experience Rate of Elbow Pain and Morphological Abnormality of Humeral Medial Epicondyle among Youth Baseball Players
7. MRI Abnormalities are Common in Little League Player’s Elbows: A Longitudinal Study

**KNEE I**

1:15pm – 2:00pm

**Moderator:**
Jaskarndip Chahal MD

1. Predictors of Lateral Compartment Joint Space Difference at a Minimum of Two Years After ACL Reconstruction: Data from the Moon Onsite Cohort
2. Effect of ACL Graft Type on Side-Step Cutting in Young Athletes
3. Mass Screening of Youth Athletes for High-Risk Landing Patterns using a Portable and Inexpensive Motion Sensor Device
4. Outcomes of Autologous Chondrocyte Implantation in the Knee following Failed Microfracture
5. Body Mass Index, Modulated by Lateral Posterior Tibial Slope, Predicts ACL Injury Risk
6. Subsequent Surgery after Revision Anterior Cruciate Ligament Reconstruction: Rates and Risk Factors from a Multicenter Cohort
7. NFL Combine Athletic Performance After ACL Reconstruction
KNEE II
12:30pm – 1:15pm

Moderator: Stephen F. Brockmeier MD

21 Deficits in Sagittal and Frontal Plane Mechanics during Drop Jump in Young Athletes with Recent Anterior Cruciate Ligament Reconstruction

23 Patient Perception of Reimbursement for Arthroscopic Meniscectomy and ACL Reconstruction

34 Physeal Disruption During ACL Reconstruction in Skeletally Immature Patients: Does Independent Femoral Tunnel Drilling Place the Physis at Greater Risk?

48 Pharmacological Inhibition of Myostatin Protects Against Atrophy and Weakness after ACL Tear

49 Biomarker Changes in ACL-Deficient Knees Compared with Contralaterals

54 The Synergistic Role of the Lateral Meniscus Posterior Root and the ALL in Providing Anterolateral Rotational Stability of the Knee

62 Transtibial vs. Anteromedial Portal ACL Reconstruction: Can a Hybrid Approach Achieve the Best of Both?

KNEE III
1:15pm – 2:00pm

Moderator: Morgan H. Jones MD

18 Use of the Knee Injury and Osteoarthritis Outcomes Survey (KOOS) in a Normal US Population

29 Responsiveness Comparison of the EQ-5D, PROMIS Global Health, and VR-12 Questionnaires in Knee Arthroscopy

36 Cell-Seeded Autologous Chondrocyte Implantation (cs-ACI) – A Simplified Implantation Technique with Maintained Clinical Outcomes.

37 Does Ligamentous Laxity Protect Against Chondral Injury in Patients with Patellofemoral Instability?

41 Retrospective Cohort Study of 207 Cases of Osteochondritis Dissecans of the Knee: Risk Factors and Outcomes Associated with Surgical Treatment

42 Successful Return to Sport Following Distal Femoral Varus Osteotomy

44 Cartilage Thickness and Surface Roughness Patterns in Healthy and Osteoarthritis Knees: Novel 3D Analysis of Subjects from the Osteoarthritis Initiative
GUIDED POSTER TOURS (Cont.)

THROW / MISC
12:30pm – 1:15pm

Moderator:
Brian J. Cole MD

12 The Effect of Excessive Glenhumeral Internal Rotation Deficit on Subacromial Joint Space and Forward Scapular Posture among Baseball Pitchers

20 The Youth Throwing Score: Validating Injury Assessment in Young Baseball Players

24 Can a Smartphone Replace the Operative Note?

40 Development and Validation of Cognitive Rehearsal as a Training Strategy for Arthroscopic Surgery

53 Customized Platelet-Rich Plasma for Skeletal Muscle Injuries

60 The Use of Platelet-Rich and Platelet-Poor Plasma to Enhance Differentiation of Skeletal Myoblasts: Implications for the Use of Autologous Blood Products for Muscle Regeneration

63 Sustained Release of Bone Morphogenetic Protein 2 via Coacervate Improves Muscle-Derived Cartilage Regeneration in MIA-Induced Osteoarthritis

HIP / FOOT & ANKLE
1:15pm – 2:00pm

Moderator:
James J. Irgang PhD, PT, ATC

25 Improved Squat and Gait Biomechanics Six Months Post–Arthroscopic Surgery for Femoroacetabular Impingement

31 Dynamic Loading Assessment at the Fifth Metatarsal in Elite Athletes with a History of Jones Fracture

38 Treatment of Achilles Tendinopathy with Autologous Adipose-Derived Stromal Vascular Fraction: Results of a Randomized Prospective Clinical Trial

43 Mechanical Risk Factors for Stress Fracture in Elite Runners

52 Quantitative MRI Evaluation of Articular Cartilage Using T2 Mapping Following Hip Arthroscopy for Femoroacetabular Impingement

55 3D Computed Tomography (CT) Comparison of the Pre-injury and Post-repair Syndesmosis to Assess Anatomic Reduction

56 Differences in Acetabular Rim Thickness in Patients with Unilateral Symptomatic Pincer-Type Femoroacetabular Impingement
**POSTERS**

1. **Two-Year Outcomes following Arthroscopic Treatment for Snapping Scapula Syndrome**  
   Travis Menge MD,1, Marilee P. Horan MPH,1, Justin Mitchell MD,1, Dimitri S. Tahal MSc,1, Peter J. Millett MD, MSc2  
   1Steadman Philippon Research Institute Program, Vail, CO  
   2Steadman Clinic, Vail, CO

2. **Arthroscopic Treatment for Shoulder Instability with Glenoid Bone Loss Using Distal Tibia Allograft Augmentation – Short-Term Results**  
   Ivan Wong MD1, Eyal Amar MD1, Catherine M. Coady MD1, Daryl B. Dilman MD1, Ben Smith MD2  
   1Dalhousie University and the Division of Orthopaedic Surgery, Queen Elizabeth Health Sciences Center, Capital District Health Authority, Halifax, NS, Canada  
   2Joseph Brant Memorial Hospital, Burlington, ON, Canada

3. **Hemiarthroplasty vs. Total Shoulder Arthroplasty for Shoulder Osteoarthritis: A Matched Comparison of Return to Sports**  
   Alec Sinatro BS1, Joseph N. Liu MD1, Gregory Thomas Mahony BA1, Hao-Hua Wu BA1, Russell F. Warren MD1, David M. Dines MD1, Edward V. Craig MD1, Lawrence Vincent Gulotta MD1, Grant Garcia MD1  
   1Hospital for Special Surgery, New York, NY  
   2University of Pennsylvania, Philadelphia, PA  
   3Tria Orthopaedic Ctr., Minneapolis, MN

4. **Risk of Fragments in Ulnar Collateral Ligament Injuries of Baseball Players**  
   Kozo Furushima MD, PhD1, Yoshiyasu Itoh MD, PhD1, Yasuhiro Mitsui MD, PhD1, Hiroshi Kusano MD1  
   1Keiyu Orthopaedic Hospital, Tatebayashi, Gunma, Japan

5. **Early Postoperative Magnetic Resonance Imaging Findings After Autologous Osteochondral Plug Grafts for Osteochondritis Dissecans of the Humeral Capitellum**  
   Masahiro Maruyama MD1, Masatoshi Takahara MD, PhD2, Mikio Harada MD, PhD2, Hiroshi Satake MD, PhD1, Tomohiro Uno MD1, Michiaki Takagi MD, PhD1  
   1Yamagata University, Yamagata, Japan  
   2Center for Hand, Elbow, and Sports Medicine, Izumi Orthopaedic Hospital, Sendai, Japan

6. **Teres Minor Hypertrophy is a Common and Negative Predictor of Outcomes After Rotator Cuff Repair**  
   John M. Tokish MD1, Charles A. Thigpen PT, PhD, ATC2, Michael J. Kissenberth MD1, Quinn Hunt2, Stefan John Tolan MD1, S. Dane Swinehart3, Christina Shelley4, Richard J. Hawkins MD, FRCS5  
   1Steadman Hawkins Clinic of the Carolinas, Greenville, SC  
   2Proaxis Therapy, Greenville, SC  
   3Proaxis Therapy, Greenville, SC  
   4Proaxis Therapy, Greenville, SC  
   5University of South Carolina-Greenville, Greenville, SC

7. **Systematic Review and Meta-analysis of Osteochondral Autograft Transplantation vs. Debridement in the Treatment of Osteochondritis Dessecans of the Capitellum**  
   Seth Bowman MD1, Jacob Braunsstein MD1, Justin Rabinowitz MD1, William R. Barfield PhD, FACSM1, Bobby Chhabra MD1, Marc Scott Haro MD1  
   1Medical University of South Carolina, Charleston, SC  
   2University of Virginia, Charlottesville, VA

8. **Survivorship after Arthroscopic Management of Glenohumeral Osteoarthritis with a Minimum Five-Year Follow-up**  
   Justin Mitchell MD1, Marilee P. Horan MPH1, Travis Menge MD1, Dimitri S. Tahal MSc1, Peter J. Millett MD, MSc2  
   1Steadman Philippon Research Institute, Vail, CO  
   2Steadman Clinic, Vail, CO

9. **Minimum Two-Year Outcomes after Resection Arthroplasty of the Sternoclavicular Joint**  
   Jan Christoph Katthagen MD1, Dimitri S. Tahal MSc1, Travis Menge MD1, Marilee P. Horan MPH1, Peter J. Millett MD, MSc2  
   1Steadman Philippon Research Institute, Vail, CO  
   2Steadman Clinic, Vail, CO

10. **The Effect of Excessive Glenhumeral Internal Rotation Deficit on Subacromial Joint Space and Forward Scapular Posture among Baseball Pitchers**  
    Kevin G. Laudner PhD1, Regan Wong2, Jim Latal1, Keith Meister MD2  
    1Illinois State University, Normal, IL  
    2TMI Sports Medicine, Arlington, TX

11. **Rotator Cuff Tear Shape Characterization: A Prospective Comparison of Two-Dimensional Imaging and Three-Dimensional Magnetic Resonance Reconstructions**  
    David Steven Goodwin MD1, Daniel James Kaplan BA2, David Fralinger1, Soterios Gyftopoulos2, Robert J. Meislin MD3, Laith M. Jazrawi MD1  
    1New York University Hospital for Joint Diseases, New York, NY  
    2New York University Medical Center, New York, NY  
    3New York University Langone Center for Musculoskeletal Care, New York, NY
14  Characterization of Posterior Glenoid Bone Loss
Adam Blair Yanke MD1, Rachel M. Frank MD1,
Jason J. Shin MD2, Geoffrey S. Van Thiel MD, MBA3,
Nikhil N. Verma MD4, Brian J. Cole MD, MBA4,
Anthony A. Romeo MD1, Matthew T. Provencher MD4
1Rush University Medical Center, Midwest Orthopaedics, Chicago, IL
2University of Saskatchewan, Saskatoon, SK, Canada
3Rockford Orthopedic Associates, Rockford, IL
4Massachusetts General Hospital, Boston, MA

15  Should We Limit Innings Pitched Following Ulnar Collateral Ligament Reconstruction in Major League Baseball Pitchers?
Brandon J. Erickson MD1, Gregory Cvetanovich MD1,
Bernard R. Bach MD1, Charles A. Bush-Joseph MD1,
Nikhil N. Verma MD1, Anthony A. Romeo MD1
1Rush University Medical Center, Midwest Orthopaedics, Chicago, IL

16  Analysis of Glenoid Inter-Anchor Distance with an All-Suture Anchor System
Jonathan Kramer MD1, Sean Robinson MD1,
Pascual Dutton MD1, Ephraim Dickinson MD2,
John Paul Rodriguez MD3, William Camisa4,
Jeremi M. Leasure MS5, William H. Montgomery MD1
1San Francisco Orthopedic Residency Program, San Francisco, CA
2OrthoCarolina Sports Medicine Center, Charlotte, NC
3Andrews Research and Education Foundation Program, Gulf Breeze, FL
4The Taylor Labs, San Francisco, CA

17  Cumulative Incidence of Osteochondritis Dissecans of the Capitellum in Child and Adolescent Baseball Players
Toshiyuki Iwame2, Naoto Suzue1,
Tetsuya Matsuura MD1, Koichi Sairyo1
1Tokushima University, Tokushima, Japan
2Tokushima Prefectural Central Hospital, Tokushima, Japan

18  Use of the Knee Injury and Osteoarthritis Outcomes Survey (KOOS) in a Normal US Population
Robby Singh Sikka MD1, Tyler Williamson1,
Marc Tompkins MD1, Bradley J. Nelson MD2
1Tria Orthopaedic Center, Minneapolis, MN
2University of Minnesota, Minneapolis, MN

19  Predictors of Lateral Compartment Joint Space Difference at a Minimum of Two Years After ACL Reconstruction: Data from the MOON Onsite Cohort
Morgan H. Jones MD1, Emily Reinke PhD2, Jeffrey Duryea PhD3,
Braden C. Fleming PhD4, Nancy Obuchowski PhD1,
Carl S. Winalska MD1, Kurt P. Spindler MD1
1Cleveland Clinic, Cleveland, OH
2Vanderbilt University, Nashville, TN
3Harvard University, Boston, MA
4Bioengineering Labs, Providence, RI

20  The Youth Throwing Score: Validating Injury Assessment in Young Baseball Players
Christopher S. Ahmad MD1, Ajay S. Padaki BS1,
Manish Suresh Noticewala MD1, Eric Chugh Makhni MD2,
Charles Aaron Popkin MD1
1Columbia University, New York, NY
2Rush University Medical Center, Midwest Orthopaedics, Chicago, IL

21  Deficits in Sagittal and Frontal Plane Mechanics during Drop Jump in Young Athletes with Recent Anterior Cruciate Ligament Reconstruction
James Lee Pace MD1, Christopher Brophy1, Nicole Mueske1,
Mia Katzel DPT1, Bitte S. Healy MSPT1, Tishya Wren PhD1
1Children’s Hospital Los Angeles, Los Angeles, CA

22  Effect of ACL Graft Type on Side-Step Cutting in Young Athletes
James Lee Pace MD1, Nicole Mueske MS1,
Ricardo A. Padilla MS1, Mia Katzel DPT1, Bitte S. Healy MSPT1,
Tishya Wren PhD1
1Children’s Hospital Los Angeles, Los Angeles, CA

23  Patient Perception of Reimbursement for Arthroscopic Meniscectomy and ACL Reconstruction
Kelechi Okoroha MD1, Robert A. Keller MD1,
Nathan E. Marshall MD1, John-Michael Guest3,
Jonathan Lynch MD2, Terrence R. Lock MD1, Brian K. Rill MD1
1Henry Ford Hospital, Detroit, MI
2Wayne State University, Detroit, MI

24  Can a Smartphone Replace the Operative Note?
Joseph Featherall BS1, Sameer Oak BS1, Jose F. Vega BS, MA1,
Greg Strnad MS1, Kurt P. Spindler MD1
1Cleveland Clinic, Cleveland, OH

25  Improved Squat and Gait Biomechanics Six Months Post-Arthroscopic Surgery for Femoroacetabular Impingement
Gregory Cvetanovich MD1, Gary Jordan Farkas BS1,
Kumar Rajan1, Alejandro Espinoza PhD1, Shane Jay Nho MD, MS1
1Rush University Medical Center, Midwest Orthopaedics, Chicago, IL
26  Mass Screening of Youth Athletes for High-Risk Landing Patterns using a Portable and Inexpensive Motion Sensor Device
Seth Lawrence Sherman MD1, Trevor R. Gulbrandsen BS2, Scott M. Miller BS3, Trent Guess PhD4, Bradley W. Willis PT5, Kyle M. Blecha ATC6, Zhiyu Huo BS7, Marjorie Skubic PhD8, Aaron D. Gray MD1
1University of Missouri, Columbia, MO

28  Experience Rate of Elbow Pain and Morphological Abnormality of Humeral Medial Epicondyle among Youth Baseball Players
Yoshihiro Kotoura MD1, Toru Morihara MD2, Yoshihiko Kida MD3, Tsuyoshi Sukenari2, Ryuhei Furukawa MD2, Yukichi Kubo MD4, Masataka Minami MD2, Okhiro Onishi MD2, Takashi Tsujihara MD5, Tatsuya Hojo MD6, Hiroyoshi Fujimura MD7, Toshikazu Kubo MD2
1Nantan General Hospital, Kyoto, Japan
2Kyoto Prefectural University of Medicine, Kyoto, Japan
3Fukuchiyama City Hospital, Kyoto, Japan
4Doshisha University, Kyoto, Japan

29  Responsiveness Comparison of the EQ-5D, PROMIS Global Health, and VR-12 Questionnaires in Knee Arthroscopy
Sameer Oak BS1, Greg Strnad MS1, James Bena MS1, Lutul D. Farrow MD1, Morgan H. Jones MD1, Kurt P. Spindler MD1
1Cleveland Clinic, Cleveland, OH

31  Dynamic Loading Assessment at the Fifth Metatarsal in Elite Athletes with a History of Jones Fracture
Kenneth Hunt MD1, Yannick Goeb2
1University of Colorado, Aurora, CO
2Stanford University, Redwood City, CA

34  Physeal Disruption During ACL Reconstruction in Skeletally Immature Patients: Does Independent Femoral Tunnel Drilling Place the Physis at Greater Risk?
Aristides Ignacio Cruz MD1, Nikita Lakomkin2, Peter D. Fabricant MD, MPH3, John Todd R. Lawrence MD, PhD4, Tori Morihara MD5, Tatsuya Hojo MD6, Hiroyoshi Fujimura MD7, Toshikazu Kubo MD2
1Hasbro Children's Hospital, Providence, RI
2Vanderbilt University Medical Center, Nashville, TN
3Boston Children's Hospital, Boston, MA
4Children’s Hospital of Philadelphia, Philadelphia, PA

35  Outcomes of Autologous Chondrocyte Implantation in the Knee following Failed Microfracture
Andrew Joseph Riff MD1, Adam Blair Yanke MD1, Annemarie K. Tilton BS1, Brian J. Cole MD, MBA1
1Rush University Medical Center, Midwest Orthopaedics, Chicago, IL

36  Cell-Seeded Autologous Chondrocyte Implantation (cs-ACL) – A Simplified Implantation Technique with Maintained Clinical Outcomes
Luiz Felipe Morlin Ambra MD1, Amy Phan BS1, Marissa Mastrocola BS1, Andreas H. Gomoll MD1
1Brigham and Women's Hospital, Chestnut Hill, MA
2Federal University of São Paulo, São Paulo, Brazil

37  Does Ligamentous Laxity Protect Against Chondral Injury in Patients with Patellofemoral Instability?
Lauren H. Redler MD1, Gabrielle M. Mayer BA1, Irene L. Kalbian BA1, Joseph Nguyen MPH1, Beth E. Shubin Stein MD2, Sabrina M. Strickland MD1
1Hospital for Special Surgery, New York, NY

38  Treatment of Achilles Tendinopathy with Autologous Adipose-Derived Stromal Vascular Fraction: Results of a Randomized Prospective Clinical Trial
Laura de Girolamo PhD1, Miriam Grassi1, Marco Viganò1, Carlotta Perucca Orfei1, Umberto Affieri Montrosio1, Federico Usellii MD1
1Galeazzi Orthopaedic Institute, Milan, Italy

39  Body Mass Index, Modulated by Lateral Posterior Tibial Slope, Predicts ACL Injury Risk
Katherine M. Bojicic BS1, Melanie L. Beaulieu MSc1, Daniel Imaizumi Krieger1, James A. Ashton-Miller PhD1, Edward M. Wojtys MD1
1University of Michigan, MedSport, Ann Arbor, MI

40  Development and Validation of Cognitive Rehearsal as a Training Strategy for Arthroscopic Surgery
David Kovacevic MD1, Justin Lane Hodgins MD1, Dylan T. Lowe1, Janice He MD1, Charles Aaron Popkin MD1, Thomas Sean Lynch MD1, Christopher S. Ahmad MD1
1Columbia University, New York, NY

41  Retrospective Cohort Study of 207 Cases of Osteochondritis Dissecans of the Knee: Risk Factors and Outcomes Associated with Surgical Treatment
Daniel W. Green MD1, John Arbucci1, Jason Silberman1, Eva Ludrowksi1, Tyler J. Uppstrom BA1, Joseph Nguyen MPH1, Maria Tuca MD1
1Hospital for Special Surgery, New York, NY

42  Successful Return to Sport Following Distal Femoral Varus Osteotomy
Pramod Babu Voleti MD1, Ryan Degen MD1, Danielle Tetreault BA1, Aaron John Krych MD2, Riley J. Williams MD1
1Hospital for Special Surgery, New York, NY
2Mayo Clinic, Rochester, MN
43 Mechanical Risk Factors for Stress Fracture in Elite Runners
Kenneth Hunt MD1, Nathan Wilcox-Fogel2, Rishi Trikha3, Adam Tenforde MD3
1University of Colorado, Aurora, CO
2Stanford University, Redwood City, CA
3Harvard University, Boston, MA

44 Cartilage Thickness and Surface Roughness Patterns in Healthy and Osteoarthritic Knees: Novel 3D Analysis of Subjects from the Osteoarthritis Initiative
Tristan Maerz PhD1, Michael Daniel Newton BS1, Jeffrey D. Osborne MD2, Karissa Marie Bassett Gawronksi3, Kevin Baker PhD1, Kyle Anderson MD1
1Beaumont Health System, Royal Oak, MI

45 Subsequent Surgery After Revision Anterior Cruciate Ligament Reconstruction: Rates and Risk Factors from a Multicenter Cohort
David Ding MD1, MARS Group2
1University of California San Francisco School of Medicine, San Francisco, CA
2Kerlan-Jobe Orthopaedic Clinic Program, Los Angeles, CA

46 NFL Combine Athletic Performance After ACL Reconstruction
Nathan E. Marshall MD1
1Henry Ford Hospital, Detroit, MI

47 Predictors of Outcomes After Arthroscopic Double-Row Rotator Cuff Repair in 155 Cases: A Propensity Score Weighted Analysis of Knotted vs. Knotless Self-Reinforcing Repair Techniques at a Minimum of Two Years
Peter J. Millett MD, MSc1, Christopher Espinoza-Ervin MD2, Marilee P. Horan MPH1, Charles P. Ho MD, PhD2, Ryan J. Warth MD2, Grant Dorman MSc3, Jan Christoph Katthagen MD3
1Steadman Clinic, Vail, CO
2McBride Orthopadic Hospital, Oklahoma City, OK
3Steadman Philippon Research Institute, Vail, CO

48 Pharmacological Inhibition of Myostatin Protects Against Atrophy and Weakness after ACL Tear
Caroline Nicole Wolfe MD1, Jonathan P. Gumucio BS2, Jeremy Grekin MS2, Roger Karl Khouri BS2, Asheesh Bedi MD2, Christopher Mendias PhD, ATC3
1University of Michigan Health System, Ann Arbor, MI
2University of Michigan, Ann Arbor, MI

49 Biomarker Changes in ACL-Deficient Knees Compared with Contralaterals
Eric Jason Strauss MD1, Daniel James Kaplan2, Laith M. Jazrawi MD3
1New York University Hospital for Joint Diseases, New York, NY
2New York University Medical Center, New York, NY

50 Engaging Hill-Sachs Defects: Diagnosis in Cadaveric Shoulders
David Burns MD1, Jaskarnip Chahal MD, FRCS1, Shahram Shahrakhi MD, FRACS1, Patrick Henry MD, FRCS1, David Wasserstein MD, FRCS1, Cari Whyne PhD2, John S. Theodoropoulos MD, FRCS1, Darrell Ogilvie-Harris MD, FRCS1, Tim Dwyer MBBS, FRCS, FRACS, PhD(c)3
1University of Toronto, Toronto, ON, Canada
2Sunnybrook Research Institute, Toronto, ON, Canada

51 MRI Abnormalities are Common in Little League Players’ Elbows: A Longitudinal Study
Andrew T. Pennock MD1, Joanna Helena Roocroft MA1, Tracey P. Bastrom MA1, Peter Kruk MD1
1Rady Children’s Hospital, San Diego, CA

52 Quantitative MRI Evaluation of Articular Cartilage Using T2 Mapping Following Hip Arthroscopy for Femoroacetabular Impingement
Stephanie W. Mayer MD1, Naomi Wagner BS2, Kara G. Fields MS3, Catherine Wentzel MD2, Alissa Burge MD2, Hollis G. Potter MD2, Stephen Lyman PhD4, Bryan T. Kelly MD2
1Childrens Hospital Colorado, Aurora, CO
2Hospital for Special Surgery, New York, NY

53 Customized Platelet-Rich Plasma for Skeletal Muscle Injuries
Justin James Hicks1, Hongshuai Li MD, PhD2, Marc J. Philippon MD2, Shepard R. Hurwitz MD3, Johnny Huard PhD4, MacAlus Vinson Hogan MD1
1University of Pittsburgh Medical Center, Pittsburgh, PA
2Steadman Clinic, Vail, CO
3University of North Carolina, Chapel Hill, NC
4Steadman Philippon Research Institute, Vail, CO

54 The Synergistic Role of the Lateral Meniscus Posterior Root and the ALL in Providing Anterolateral Rotational Stability of the Knee
Alan M. Getgood MD, FRCS (Tr&Orth)1, Timothy Lording MBBS, FRACS2, Gillian Corbo1, Tim A. Burkhart PhD, EIT, Reg Kin1
1Fowler Kennedy Sport Medicine Clinic, London, ON, Canada
2Melbourne Orthopaedic Group, Melbourne, Australia
55 3D Computed Tomography (CT) Comparison of the Pre-injury and Post-repair Syndesmosis to Assess Anatomic Reduction
Travis L. Turnbull PhD, Jason Schön BS, Brady T. Williams BS, Melanie Venderley, Grant Dornan, Jonathan D. Backus MD, Robert F. LaPrade MD, PhD, Thomas O. Clanton MD
1Steadman Philippon Research Institute, Vail, CO
2The Steadman Clinic, Vail, CO

56 Differences in Acetabular Rim Thickness in Patients with Unilateral Symptomatic Pincer-Type Femoroacetabular Impingement
Alexander E. Weber MD, Benjamin Kuhns MS, Gregory Cvetanovich MD, Nozomu Inoue MD, PhD, Shane Jay Nho MD, MS
1Rush University Medical Center, Midwest Orthopaedics, Chicago, IL

57 Perivascular Stem Cells Diminish Muscle Atrophy and Retain Viability in a Rotator Cuff Tear Model
Claire Eliasberg BA, Andrew Jensen MD, MBE, Ayelet Dar PhD, Tomasz J. Kowalski MD, PhD, Iain Murray MD, Adam Z. Khan BS, Kyle Natsuhara MD, Cameron Garagozlo, David R. McAllister MD, Frank A. Petrigliano MD
1University of California, Los Angeles, Los Angeles, CA
2University of Edinburgh, Edinburgh, United Kingdom

58 The Effect of Purified Multi-Potent Human Bone Marrow-Derived Mesenchymal Stem Cells on Rotator Cuff Tendon Healing in an Athymic Rat: Is Regenerative Healing Possible?
Ryan Degen MD, Andrew Carbone BS, Camila Carballo, Jianchun Zong, Tony Chen PhD, Lilly Ying VS, Amir Lebaschi MD, Xiang-Hua Deng MD, Scott A. Rodeo MD
1Hospital for Special Surgery, New York, NY

59 PDGFRα+ Progenitor Cells Contribute to Muscle Fibroadipogensis Following Massive Rotator Cuff Tears in a Mouse Model
Andrew Jensen MD, MBE, Ayelet Dar PhD, Claire Eliasberg, Benjamin Kelley, Sai Devana, David R. McAllister MD, Frank A. Petrigliano MD
1University of California, Los Angeles, Los Angeles, CA

60 The Use of Platelet-Rich and Platelet-Poor Plasma to Enhance Differentiation of Skeletal Myoblasts: Implications for the Use of Autologous Blood Products for Muscle Regeneration
Jason L. Dragoo MD
1Stanford University Medical Center, Redwood City, CA

62 Transtibial vs. Anteromedial Portal ACL Reconstruction: Can a Hybrid Approach Achieve the Best of Both?
Jonathan Kelsie Jennings MD, Daniel Leas MD, Richard Dennis Peindl PhD, Nahir A. Habet MS, James E. Fleischli MD, Donald D’Allessandro MD, Dana P. Piasecki MD
1OrthoCarolina, Charlotte, NC
2Carolinas HealthCare System, Charlotte, NC

63 Sustained Release of Bone Morphogenetic Protein 2 via Coacervate Improves Muscle-Derived Stem Cell—Mediated Cartilage Regeneration in MIA-Induced Osteoarthritis
Justin James Hicks, Jorge Luis Rocha BA, Hongshuai Li MD PhD, Johnny Huard PhD, Yadong Wang PhD, MaCalus Vinson Hogan MD
1University of Pittsburgh Medical Center, Pittsburgh, PA
2Steadman Philippon Research Institute, Vail, CO
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WORKSHOPS
Welcome & Introductions
Kevin E. Wilk PT, DPT, FAPTA

Surgical Management of Hamstring Injury
Benjamin B. Bedford MD
Rehabilitation of Hamstring Injury: Can We Prevent Reoccurrence?
Timothy F. Tyler PT

Key Concepts in the Surgical Repair of the Rotator Cuff Repair
W. Ben Kibler MD
Key Rehabilitation Concepts Following Rotator Cuff Repair
Todd S. Ellenbecker PT

Key Concepts in ACL Rehabilitation – What the Surgeon Needs to Know
Darren L. Johnson MD
Prevention of Post-operative Complications Following ACL Surgery
Terry R. Malone PhD, PT

The Dehydrated Amnion Membrane in Sports Medicine
Angelo J. Colosimo MD
Rehabilitation of Athletes After Amnion Membrane Injection
Robert E. Mangine MEd, PT, ATC

Eric C. McCarty MD
George J. Davies MEd, PT

Workshop Adjourns
AOSSM MEDICAL PUBLISHING GROUP REVIEWERS’ WORKSHOP

THURSDAY, JULY 7, 2016
12:45pm – 2:15pm

Program Planners
Bruce Reider MD
Robert H. Brophy IV, MD
James L. Carey MD, MPH

Location
International Center North

Program Cost
All meeting attendees are eligible to participate. Complimentary for AJSM, Sports Health, and OJSM reviewers; $50.00 for non-reviewers.
Register online for this workshop or at the Registration Desk. Boxed lunch is included.

Program Description
James L. Carey MD, MPH
University of Pennsylvania
Philadelphia, PA
Statistics in Orthopaedic Sports Medicine Research

Dr. Carey will discuss some basic and advanced statistical methods used in orthopaedic sports medicine research. Special emphasis will be placed on choosing the appropriate statistical tests based on the type of data and study design. Some specific statistical issues that will be reviewed include the use (and misuse) of agreement, reliability, odds ratios, risk ratios, relative risk reduction, absolute risk reduction, risk prediction, and screening strategies. Examples taken directly from the orthopaedic sports medicine literature will be used to highlight key principles.

Robert H. Brophy IV, MD
Washington University
St. Louis, MO
How to Evaluate Economic Analysis Studies

With the growing emphasis on evidence-based medicine and value-based care, it is increasingly important to understand how to evaluate economic analyses in the medical literature. Today, and even more so in the near future, these studies will be used by healthcare decision makers to guide payment decisions regarding care. The goals of the presentation are to review the types of economic analyses and how they have been used in healthcare in general as well as in orthopaedic surgery and sports medicine in particular. Participants will have a better understanding of how to read, review, and design these types of studies.

Workshop Objectives
Upon completion of this live educational activity, participants will be able to:
q Properly identify advanced statistical methods used in orthopaedic sports medicine research
q Review types of economic analyses and how they are used in healthcare and particularly in sports medicine

Target Audience
This workshop is designed for practicing orthopaedic surgeons, physicians, and allied health professionals in the field of sports medicine or related fields of practice who would like to improve their ability to critically evaluate the orthopaedic sports medicine literature.

Program Information
AOSSM attests that the people responsible for the development of this live educational activity did so independently and were not influenced by commercial supporters.

Accreditation and AMA Credit Statements
The American Orthopaedic Society for Sports Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. The American Orthopaedic Society for Sports Medicine designates this live educational activity for a maximum of 1.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Continuing Education for Athletic Trainers
The American Orthopaedic Society for Sports Medicine (AOSSM) is recognized by the Board of Certification, Inc. to offer continuing education for Certified Athletic Trainers.
NIH REVIEWER INFORMATION SESSION
THURSDAY, JULY 7, 2016

4:00pm – 5:00pm

Location
Donald Ross Room

Serving on an NIH study section and reviewing grant applications can enhance your professional development and be beneficial to your career while providing valuable clinical perspective and expertise to NIH study sections. This session will explore the structure of NIH grant reviews and offer helpful advice for approaching reviews as a member of an NIH study section through presentations from members with experience reviewing grants for the NIH. This session also details AOSSM’s Bart Mann Award for the Advancement of Sports Medicine, which is given to five AOSSM members who serve as first-time grant application reviewers on an NIH study section.

Fee
Complimentary

NEW ROUND TABLE, CASE-BASED DISCUSSIONS
FRIDAY, JULY 8, 2016

1:00pm – 2:00pm

Location
International Center Pavilion / Patio (outdoor)

Round table, case-based discussions will include a moderator who will present the case and up to 8 attendees who will debate the case. The cases will be relevant to current clinical practice and require that dilemmas be solved and decisions made, have at least one teaching point, and include controversies or a conflict in management. The moderator will ask open-ended questions and, as in clinical practice, the case will unfold gradually with new information and interaction among the participants.

- RT1 Articular Cartilage Lesion
- RT2 Revision ACL
- RT3 Patella Femoral Instability
- RT4 Revision Shoulder Instability
- RT5 Large Rotator Cuff Tears
- RT6 Hip Pathology
- RT7 Young Sports Medicine
- RT8 Team Physician
- RT9 PCL
- RT10 Meniscus Repair

Each round table topic is limited to 8-10 people.

These are sold out. Check at the Registration Desk for any last minute availability.

Fee
$40 per person

AOSSM gratefully acknowledges Smith & Nephew for an educational grant in support of the Round Table, Case-Based Discussions.
AOSSM Research Grants & Awards

AOSSM Steven P. Arnoczky Young Investigator Grant
Pre-Review Submission Deadline: August 15, 2016
Final Applications Deadline: December 1, 2016
Provides an award up to $50,000, aimed at providing “seed money” for pilot or small-scale projects. The principal investigator must be an early career orthopaedic surgeon, fellow, or resident with interests in sports medicine research.

AOSSM Sandy Kirkley Clinical Outcomes Grant
Pre-Review Submission Deadline: August 15, 2016
Final Applications Deadline: December 1, 2016
Provides $20,000 in funding specifically for a clinical outcome research project. Applicants are not restricted to newer investigators.

To help applicants strengthen their submissions for the Young Investigator and Sandy Kirkley Clinical Outcomes Grants, the AOSSM Research Committee will pre-review and critique applications prior to the final application deadline. This pre-review is STRONGLY RECOMMENDED but not required.

AOSSM/Sanofi Osteoarthritis Grant
Submission Deadline: January 1, 2017
Funds investigations related to early osteoarthritis (OA) and/or prevention of OA progression. The grant will be for $50,000 to support either a clinical research study or a lab/basic science project. Proposed studies need not relate specifically to sports injuries and should also have broad applicability to OA in the general population.

AOSSM gratefully acknowledges SANOFI for their support of this grant.

Bart Mann Award for the Advancement of Sports Medicine Research
Submission Deadline: Rolling
This newly created $5,000 award, in honor of AOSSM’s first Director of Research, will be given to up to five AOSSM members to support service to the profession, as well as their professional development, as reviewers on the NIH Study Section for sports medicine and orthopaedics.

An informal NIH Reviewer Information Session will take place on Thursday, July 7, 2016 from 4:00 pm – 5:00 pm in the Donald Ross Room of the The Broadmoor to discuss how serving on an NIH study section and reviewing grant applications can be beneficial to your career.

AOSSM Research Awards
Submission Deadline: November 1, 2016
Recognizes outstanding research in orthopaedic sports medicine. Awards are made in three categories:
- Basic science studies
- Clinical research
- Either basic science or clinical research conducted by an individual under 40 years old
Applications must be full manuscripts and cannot have been presented, published, or accepted for presentation or publication prior to submission.

For more information visit: www.sportsmed.org

AOSSM gratefully acknowledges The Aircast Foundation for their support of 2017 AOSSM research.
BROADMOOR HALL A
General Session
Concurrent Session A

BROADMOOR HALL B
Exhibit Hall

INTERNATIONAL CENTER NORTH
Concurrent Session C
Instructional Courses

INTERNATIONAL CENTER SOUTH
Concurrent Session B
Instructional Courses

INTERNATIONAL CENTER CENTER AISLE
Posters

COLORADO HALL
Instructional Courses

OUTDOOR PATIO
Round Table Case-Based Discussions

COLORADO HALL A
Industry Symposia 5 Fidia Pharma USA, Inc.

COLORADO HALL B
Industry Symposia 6 Stryker
**Committee Meetings / Receptions**

All Meetings are held at the Broadmoor.

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<tr>
<th>Committee</th>
<th>Location</th>
<th>Time</th>
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<td><strong>Wednesday, July 6</strong></td>
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<tr>
<td>Board of Directors</td>
<td>El Pomar</td>
<td>7:30am – 3:30pm</td>
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<tr>
<td><strong>Thursday, July 7</strong></td>
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<tr>
<td>Corporate Relations Committee</td>
<td>Remington</td>
<td>6:45am – 7:45am</td>
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<tr>
<td>Committee on Legislative and Regulatory Advocacy</td>
<td>Remington</td>
<td>12:30pm – 1:30pm</td>
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<tr>
<td>AOSSM MPG Reviewers’ Workshop</td>
<td>International Center North</td>
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<tr>
<td>Technology Committee</td>
<td>Schreyvogel</td>
<td>12:30pm – 1:30pm</td>
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<tr>
<td>AJSM Editorial Board</td>
<td>International Center North</td>
<td>2:15pm – 3:45pm</td>
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<tr>
<td>NIH Reviewers Session</td>
<td>Donald Ross Room</td>
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<td>Program Committee</td>
<td>Remington</td>
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<td><strong>Friday, July 8</strong></td>
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<tr>
<td>Enduring Education Committee</td>
<td>Schreyvogel</td>
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<tr>
<td>Sunrise Summit</td>
<td>Crystal</td>
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<tr>
<td>Traveling Fellowship Committee</td>
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<td>Team Physician Committee</td>
<td>El Pomar</td>
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<tr>
<td>Publications Committee</td>
<td>Donald Ross Room</td>
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<tr>
<td>Medical Publishing Board of Trustees</td>
<td>El Pomar</td>
<td>12:30pm – 2:30pm</td>
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<tr>
<td>Research Committee</td>
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<td>Fellowship Committee</td>
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<td>Public Relations Committee</td>
<td>Donald Ross Room</td>
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<tr>
<td>Education Committee</td>
<td>Schreyvogel</td>
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<tr>
<td>Council of Delegates</td>
<td>Colorado Hall D</td>
<td>2:30pm – 4:30pm</td>
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<tr>
<td>STOP Outreach Committee</td>
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<td>2:30pm – 3:30pm</td>
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<tr>
<td>Traveling Fellows Reception</td>
<td>Lakeside Terrace</td>
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<td><strong>Saturday, July 9</strong></td>
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<tr>
<td>Accreditation Task Force</td>
<td>Remington</td>
<td>7:00am – 8:00am</td>
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<tr>
<td>Fellowship Program Directors</td>
<td>Colorado Hall D</td>
<td>12:30pm – 2:00pm</td>
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<td><strong>Sunday, July 10</strong></td>
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<tr>
<td>Board of Directors</td>
<td>El Pomar</td>
<td>6:30am – 9:00am</td>
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</tbody>
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GENERAL INFORMATION

2016 PROGRAM COMMITTEE
Kurt P. Spindler MD (Chair)
David R. Diduch MD
Augustus D. Mazzocca MD, MS
Beth E. Shubin Stein MD
Nikhil N. Verma MD
Brain R. Wolf MD, MS

2016 ABSTRACT REVIEWERS
Asheesh Bedi MD
Stephen F. Brockmeier MD
Brian D. Busconi MD
Braden C. Fleming PhD
Christian Lattermann MD
C. Benjamin Ma MD
Shane Jay Nho MD, MS
Richard D. Parker MD
Mark S. Schickendantz MD
Eric Jason Strauss MD
John M. Tokish MD
Rick W. Wright MD

2015 — 2016 BOARD OF DIRECTORS
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Member-at-Large
Joseph H. Guettler MD
Council of Delegates Chair
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Non-Voting Members
Bruce Reider MD
Executive Director
Irv Bomberger

OTHER AOSSM LEADERSHIP
Communications Chair
Brett D. Owens MD
Education Chair
Steven B. Cohen MD
Research Chair
Robert F. LaPrade MD, PhD

DESCRIPTION
This live activity is designed to identify areas of recent research in the field of orthopaedic sports medicine relevant to practicing physicians, surgeons, and allied health professionals. This information is provided through scientific paper presentations, hot topics, updates, question and answer sessions, surgical video demonstrations, spotlights on surgical techniques, symposia, current concepts, overviews, clinical insights, case-based discussions, and/or debates.

MEETING OBJECTIVES
Upon completion of this educational activity, learners should be able to:
- Implement an effective evaluation algorithm, based on recent research, for musculoskeletal and medical sports medicine conditions
- Assess and apply surgical and non-surgical treatment recommendations and rehabilitation protocols for the management of musculoskeletal and medical conditions germane to the practice of orthopaedic sports medicine
- Integrate prevention strategies with healthcare team(s) to improve musculoskeletal and medical health in their patient population

TARGET AUDIENCE
This program is designed for orthopaedic surgeons, physicians, and allied health professionals in the field of sports medicine or related fields of practice.

INDEPENDENCE
AOSSM attests that the people responsible for the development of this educational activity did so independently and were not influenced by commercial supporters.

PREREQUISITES
A basic understanding of the mechanics of sports injuries, as well as a familiarity with the pertinent anatomy and physiology of the upper and lower extremities and the spine, is suggested.

2016 Abstract Reviewers
Asheesh Bedi MD
Stephen F. Brockmeier MD
Brian D. Busconi MD
Braden C. Fleming PhD
Christian Lattermann MD
C. Benjamin Ma MD
Shane Jay Nho MD, MS
Richard D. Parker MD
Mark S. Schickendantz MD
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Irv Bomberger

Other Aossm Leadership
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Brett D. Owens MD
Education Chair
Steven B. Cohen MD
Research Chair
Robert F. LaPrade MD, PhD
GENERAL INFORMATION

REGISTRATION

Every AOSSM Meeting attendee needs to present photo identification to pick up registration materials.

**Hours**

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<td>Wednesday, July 6</td>
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<td>Thursday, July 7</td>
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<td>Friday, July 8</td>
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<td>Saturday, July 9</td>
<td>6:15am – 5:00pm</td>
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<td>Sunday, July 10</td>
<td>6:15am – 11:30am</td>
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**Late / On-Site Registration**

On-site registration is available for an additional charge of $100 plus the pre-registration fee.

**Refund Policy**

No refunds will be issued for registration fees, instructional courses, or social events.

**Wireless Service**

Wireless service is available Wednesday – Sunday throughout the meeting space, including the Exhibit Hall under the network Broadmoor Meeting and the password AOSSM.

**Attire**

Meeting attire is casual, including all social events. Consider dressing in layers to accommodate all temperatures.

**Shuttle Service**

Complimentary shuttle service is provided between Cheyenne Mountain Resort, The Antler’s and The Broadmoor. Pick up and drop off is at The Broadmoor Events Center where all meetings and exhibits are being held.

The shuttle operates each day starting at approximately 6am. Ending times vary with evening activities.

The shuttle schedule will be posted at the Broadmoor Events Center as well as distributed to each attendee staying at Cheyenne Mountain Resort or The Antler’s Hotel. A complete schedule is also posted at www.sportsmed.org.

**Hotel Parking**

Valet parking is available to all overnight guests. The charge is $27 per night. Valet parking is complimentary for day visitors.

**Parking Garage**

Self-parking for a 24-hour period is $22 per night, with in and out privileges. Day charges are $10 per day.

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GENERAL SESSION

The General Session will be held in Broadmoor Hall A.

CONCURRENT SESSIONS

The Concurrent Sessions will be held in Broadmoor Hall A, International Center North, and International Center South.

CHARGING STATION

A Charging Station will be available in the Foyer of Broadmoor Hall.

AOSSM gratefully acknowledges **Daiichi Sankyo, Inc.** for an educational grant in support of the charging station.

CYBER CAFE

Computer terminals with Internet connection are available near the Registration Desk for attendee use.

AOSSM gratefully acknowledges **Össur** for an educational grant in support of the Cyber Cafe.

EXHIBITS

Exhibits will be located in Broadmoor Hall B. A complete listing of commercial exhibitors, including exhibit hours, is printed in this Final Program and in the Exhibitor Directory. Continental breakfast and coffee breaks will be held in the Exhibit Hall. Admission to the Exhibit Hall requires a badge. Children under 16 are not permitted into the Exhibit Hall. The AOSSM attendee raffle will be located in the Exhibit Hall.

INSTRUCTIONAL COURSES

Instructional Courses are offered Thursday through Sunday from 6:45am – 8:15am. Attendance in instructional courses is by ticket only and the fee is $70 per course. One must register and pay the fee in order to attend. This fee is applicable to ALL registrants. Some instructional courses may have limited capacity, and space is assigned as registrations are received. Participants can purchase online access to all of the instructional course handouts for $70 at www.sportsmed.org or at the Registration Desk. Individual course handouts are accessible by going to www.sportsmed.org, logging in and then clicking the “MY AOSSM” tab. Materials are under the “Meetings” tab and the link for the 2016 Annual Meeting.

NO REFUNDS FOR INSTRUCTIONAL COURSES WILL BE ISSUED.
ONLINE MEETING SUBSCRIPTION - 2016/17

Revisit the general session presentations from the 2016 Annual Meeting and 2017 Specialty Day at your convenience! For only $200, you receive online access to the slides synced with the audio of the speakers’ presentations. Review presentations, hear missed talks, and reference sessions at any time. To purchase your online meeting subscription visit www.sportsmed.org or the Registration Desk.

AAPA

AAPA accepts certificates of participation for educational activities certified for AMA PRA Category 1 Credit™ from organizations accredited by ACCME or a recognized state medical society.

DISCLAIMER

The material presented in this continuing medical education program is being made available by the AOSSM for educational purposes only. This material is not intended to represent the only methods or procedures appropriate for the medical situation discussed, but rather it is intended to present an approach, view, statement, or opinion of the faculty, which may be helpful to others who face similar situations. Neither the content (whether written or oral) of any course, seminar, or other presentation in the program, nor the use of a specific product in conjunction therewith, nor the exhibition of any materials by any parties coincident with the program should be construed as indicating endorsement or approval of the views presented, the products used, or the materials exhibited by the AOSSM or its Committees, Commissions, or Affiliates. The AOSSM makes no statements, representations, or warranties (whether written or oral) regarding the Food and Drug Administration (FDA) status of any product used or referred to in conjunction with any course, seminar, or other presentation being made available as part of this course. Faculty members shall have sole responsibility to inform attendees of the FDA status of each product that is used in conjunction with any course, seminar, or presentation and whether such use of the product is in compliance with FDA regulations.

DISCLOSURE STATEMENT

In accordance with the guidelines of the ACCME, it is the policy of the AOSSM that faculty and planners disclose to the learners all financial relationships during the past twelve months with any commercial interest (any entity producing, marketing, re-selling, or distributing healthcare goods and services consumed by, or used on, patients). Any and all disclosures will be provided in the final program that is distributed at the meeting. In accordance with AOSSM policy, faculty participation is predicated upon timely submission and review of AOSSM disclosures. Non-compliance results in faculty being stricken from the program.

AMERICANS WITH DISABILITIES ACT

The AOSSM wishes to take those steps to ensure that no individual with a disability is excluded, denied services, segregated, or otherwise treated differently than other individuals because of the absence of auxiliary aids and services. If you require any of the auxiliary aids or services identified in the Americans with Disabilities Act in order to attend this program, please contact AOSSM prior to arrival at info@aoss.org.

CONTINUING MEDICAL EDUCATION CREDITS

The American Orthopaedic Society for Sports Medicine (AOSSM) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Scientific Sessions: AOSSM designates this live activity for a maximum of 16.25 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Instructional Courses: AOSSM designates this live activity for a maximum of 1.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Round Table, Case-Based Discussions: AOSSM designates this live activity for a maximum of 1.0 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

CLAIM CME CREDITS

Your CME certificate will be available a few weeks after the meeting. You can claim your CME by logging into your “MY AOSSM” account under the CME tab.

QUESTIONS

Email AOSSM at info@aoss.org.
SOCIAL FUNCTIONS
SOCIAL FUNCTIONS

THURSDAY, JULY 7, 2016

Welcome Reception
Location: West Lawn
6:30pm – 8:00pm
Join us outdoors on The West Lawn at The Broadmoor for this year’s Welcome Reception. Everyone and their families are welcome to attend.

Fee: No Charge

AOSSM gratefully acknowledges Topical Gear for their support of the Welcome Reception.

FRIDAY, JULY 8, 2016

Garden of the Gods & Jeep Tour
1:30pm – 4:00pm
This tour is sold out. If you have a ticket, meet the transportation at the West Building at The Broadmoor Hotel. Drop off will be at the same location. Bottled water is included.

SATURDAY, JULY 9, 2016

AOSSM Wild West Fest
Location: Pool Lawn
7:00pm – 10:00pm
Grab your cowboy boots and jeans, gather up the herd, and enjoy an evening featuring some of the best entertainment in Colorado. You’ll be amazed by Loop Rawlins, master trick roper, and Doc Eaton, the clever and engaging magician. A number of interactive western games will be available and appropriate for all ages, including a mechanical bull, mining sluice, and the Quick Draw Saloon Shoot Out. Don’t miss the horses and cattle that will be on hand for viewing, petting, and feeding. In addition, you’ll encounter some birds of prey and socialized ambassador wolves. A dinner buffet will be served while enjoying the sounds of a local DJ. On site registration is available. Your badge will serve as your ticket to enter the party. Only one badge required per family.

Fee: No Charge.

AOSSM gratefully acknowledges DJO Global for their support of the Annual Meeting.
AWARDS
The Thomas A. Brady Award is given annually to an orthopaedic surgeon who has been dedicated to excellence in sports medicine at the local level, with local athletes, since 1999.

Dr. Brady is the father of sports medicine in central Indianapolis. He began his work in sports medicine in 1944, working as team physician for the Third Air Force Football Team. In 1968, he presented a plan to the Indiana State Medical Association to organize a sports medicine committee. The plan was approved and Dr. Brady served as the first chairman. In the 1980s, he set up a walk-in clinic in the basement of Methodist Hospital to treat high school athletes. On Friday nights he would attend two or three football games, traveling around the city to make sure that these athletes had good medical care.

Upon his retirement in the late 1980s, Dr. Brady was orthopaedic consultant to 16 public, 5 catholic, and 1 private high school in Indianapolis, as well as the athletic teams at DePauw University and Indiana Central College.

Dr. Brady passed away in 2011.

The Cabaud Memorial Award is given annually to the best manuscript that pertains to hard or soft tissue biology, in vitro research, laboratory or “bench-type” research, or in vivo animal research.

This award was established in 1986 to honor the life and contributions of Henry Edward (“Ed”) Cabaud III, MD. Dr. Cabaud graduated from the University of Southern California School of Medicine, after which he served as a US Army Battalion Surgeon in Germany. He received the Outstanding Resident Award from Letterman Army Medical Center and later joined the staff at Letterman Army Institute of Research. In 1984 he was awarded the US Armed Forces Meritorious Service Medal for research. He also received the Merck Sharp & Dohme Award for research on the repair and replacement of ligaments and tendons with prosthetic devices. He became an Associate Professor of Orthopaedics at the University of California at San Francisco, a Fellow of the American Academy of Orthopaedic Surgeons, and was a member of AOSSM.

Dr. Cabaud died of cancer in 1985 at the age of 40. He was known as a gifted surgeon, brilliant researcher, and devoted family member. He had a legion of accomplishments for one so young and touched the lives of many through his varied activities.

The Cabaud Memorial Award is given annually to the best manuscript submitted that pertains to hard or soft tissue biology, in vitro research, laboratory or “bench-type” research, or in vivo animal research.

The Hughston Award is given annually for the most outstanding paper appearing in The American Journal of Sports Medicine (AJSM) in the prior year to the award. Jack C. Hughston MD, the founder of AJSM, is one of the pioneers in sports medicine. Early on he recognized the need for immediate diagnosis and surgical correction of ligamentous injuries about the knee in order to achieve optimum results. He performed numerous cadaver and clinical studies to develop the concept of anatomical repair of injured structures in the knee and developed a classification system based upon his clinical observations and studies.

Dr. Hughston served as President of AOSSM from 1974 – 75, Editor of AJSM from 1972 – 1990, and Chairman of AJSM from 1990 – 2001. He also received the Mr. Sports Medicine Award from AOSSM in 1976.

Dr. Hughston was instrumental in organizing other physicians throughout the country to form the AOSSM. In the late 1970s he developed what became AJSM, which evolved into the pre-eminent journal for orthopaedic sports medicine in the world. For these two achievements alone he will be forever recognized as one of those having a true dedication to the field of sports medicine.

This award, established in 1973, is given annually to an individual who has provided outstanding service in the orthopaedic community and made numerous contributions to the specialty of sports medicine.

Robert E. Leach MD served as Chairman of the AJSM Board of Trustees for 10 years and was also the Editor of AJSM from 1991 – 2001. Dr. Leach served AOSSM as President from 1983 – 1984. He also received numerous other awards and honors from the Society, including The George Rovere Award for Excellence in 1995, the Kennedy Lectureship in 1998, the Presidential Guest Speaker in 1992, and entrance into the AOSSM Hall of Fame in 2002. In 1988 Dr. Leach was named Mr. Sports Medicine, the award which now bears his name.
AWARDS

O’DONOGHUE SPORTS INJURY RESEARCH AWARD

2016 Recipient

Early Changes in the Knee Joint Center of Rotation during Walking Following Anterior Cruciate Ligament Reconstruction Correlate with Later Changes in Patient-Reported Outcomes

Matthew Titchenal MS, Constance R. Chu MD, Jennifer C. Erhart-Hiedlik, Thomas P. Andriacchi

Don H. O’Donoghue MD has been called the Father of Sports Medicine in the United States. His early work on knee injuries led to the development of the subspecialty and started the interest in the care of athletes.

Dr. O’Donoghue was born in Iowa in 1901 and received his medical degree from the University of Iowa. He was the first orthopaedic resident at the University of Oklahoma in 1929 and stayed on to work as a pediatric orthopaedist in his early years. Dr. O’Donoghue was Professor and Chairman of the Department of Orthopaedics at the University of Oklahoma, a position he held until 1974. In 1962, he published the first book in the United States on sports medicine, with three subsequent printings into the 1980s.

Dr. O’Donoghue chaired the American Academy of Orthopaedic Surgeons’ Committee on Sports Medicine. In 1972, he and 25 other orthopaedists formed the AOSSM, and Dr. O’Donoghue became its first president. His legacy is the foresight he had to recognize the importance of a specific approach to define athletic injuries by careful, systematic evaluation and then to treat them by anatomic repair or reconstruction. His pioneering work in the anatomy and biology laboratories led him to an understanding of the healing properties of ligaments and the mechanics of the knee. Dr. O’Donoghue theorized that anatomic repair of the ligamentous injury might give better results than non-surgical treatments and he recognized the importance of this area of orthopaedic knowledge.

The O’Donoghue Sports Injury Research Award is given annually to the best overall paper that deals with clinical-based research or human in vivo research.

GEORGE D. ROVERE AWARD

2016 Recipient

Jo A. Hannafin MD, PhD

The Rovere Award is given annually to an individual AOSSM member to recognize his or her contribution to sports medicine education over the years and is selected by the AOSSM Education Committee.

It commemorates George D. Rovere MD, Chair of the AOSSM Education Committee, who died in 1988. As Education Chair, Dr. Rovere inaugurated the Society’s Instructional Course program, introduced at the 1985 AOSSM Annual Meeting, and was a leader in the AOSSM Conference on Strength Training and the Prepubescent.

At the time of his death, Dr. Rovere was head of the Section of Orthopaedics at Bowman Gray School of Medicine at Wake Forest University, serving as team physician to all the university’s athletic teams. In addition, he was an orthopaedic consultant to the Carolina Thunderbirds ice hockey team, as well as numerous area high school teams.

T. DAVID SISK AWARDS FOR RESEARCH EXCELLENCE

2016 Recipient: Best International Paper

Impaired Femoral Vascular Compliance and Endothelial Dysfunction in 30 Healthy Male Soccer Players: Competitive Sports and Local Detrimental Effects

Gabriele Cioni MD, PhD, Andrea Berni MD, PhD, Gian Franco Gensini MD, Rosanna Abbate MD, Maria Boddi MD, PhD

The T. David Sisk Research Awards were established in 2010 to honor the best papers submitted to Sports Health in clinical, laboratory, and international research. The winners receive a $2,500 cash prize and a plaque.

Dr. Sisk was a strong proponent of Sports Health: A Multidisciplinary Approach and served as the Chairman of the AOSSM Medical Publishing Board of Trustees at the time when the creation of the new journal was proposed. He enthusiastically fostered the journal throughout its initial development and set the journal’s course for its current success. Dr. Sisk was a former AOSSM President, Hall of Fame inductee, and active member in the sports medicine community throughout his esteemed career. He died of cancer in July of 2009 but his legacy of teaching and collaboration continues to live on.

ORTHOPAEDIC JOURNAL OF SPORTS MEDICINE AWARDS

2016 Recipient: Best Original Research Paper

Site-Specific Targeting of Platelet-Rich Plasma via Superparamagnetic Nanoparticles

Tara Talaie BS, Stephen J.P. Pratt BS, Camilo Vanegas BS, Su Xu PhD, R. Frank Henn III, MD, Paul Yarowsky PhD, Richard M. Lovering PhD, PT

2016 Recipient: Best Review Paper

Is Operative Treatment of Achilles Tendon Ruptures Superior to Nonoperative Treatment? A Systematic Review of Overlapping Meta-Analyses

Brandon J. Erickson MD, Randy Mascarenhas MD, FRSC, Bryan M. Saltzman MD, David Walton MD, Simon Lee MD, Brian J. Cole MD, Bernard R. Bach Jr., MD

AOSSM and the Editorial Board representatives from its partner organizations established this award in 2015 to recognize the top review paper and original research paper published in the Orthopaedic Journal of Sports Medicine in the previous year. The winners receive a plaque.
STOP SPORTS INJURIES AWARD

2016 Recipient
Incidence, Mechanisms and Severity of Game-Related High School Football Injuries Across Artificial Turf Systems of Various Infill Weight
Gregory Clinton Meyer PhD

This award, established in November of 2015, recognizes outstanding research presented at the Annual Meeting related to youth sports injury prevention, treatment, or rehabilitation. The STOP Sports Injuries campaign (www.stopsportsinjuries.org) began in 2010 to help education and create resources to prevent athletic overuse and trauma injuries in kids. The winner is selected by the STOP Sports Injuries Outreach Committee and receives a $1,000 award and plaque.

FELLOW RESEARCH AWARD

2016 Recipient: Clinical Science
Anisometry of Medial Patellofemoral Ligament Reconstruction in the Setting of Patella Alta and Increased Tibial Tubercle-Trochlear Groove (TT-TG) Distance
Lauren H. Redler MD, Kathleen N. Meyers MS, Jacqueline Munch MD, Elizabeth R. Dennis MD, Joseph Nguyen MPH, Beth E. Shubin Stein MD

The Fellow Research Award, formerly The Aircast Award, was first presented in 1998. The Fellowship Committee determines the recipients. The award is given to the best papers in clinical science and basic science submitted by a sports medicine fellow for the AOSSM Annual Meeting. Each recipient receives $1,500 and an award plaque.

EXCELLENCE IN RESEARCH AWARD

2016 Recipient
Anatomic Anterolateral Ligament Reconstruction of the Knee Leads to Overconstraint at any Fixation Angle
Jason M. Schon BS, Gilbert Moatshe MD, Alex W. Brady MSc, Raphael Serra Cruz MD, Jorge Chahla MD, Grant J. Doman MSc, Travis Lee Turnbull PhD, Lars Engebretsen MD, PhD

This award is given to the best paper submitted in any category to the Awards Committee with a primary author under the age of 40 at the time of the Annual Meeting. The award consists of a $2,000 honorarium, award certificate, presentation of the paper at the AOSSM Annual Meeting, and consideration of publication in The American Journal of Sports Medicine (AJSM).

SYSTEMATIC REVIEW AWARD

2016 Recipient
Risk of Secondary Injury in Younger Athletes After Anterior Cruciate Ligament Reconstruction: A Systematic Review and Meta-analysis
Amelia J. Wiggins DO, Ravi K. Grandhi MD, Daniel K. Schneider MD, Denver Stanfield MD, Kate E. Webster PhD, Gregory D. Myer PhD, CSCS

The Systematic Review award is given to the best systematic review paper submitted to AJSM during a calendar year. All systematic review papers are considered, and the award is determined by the editors of AJSM. This award was established to encourage submission of high-quality systematic review papers, which add to the current knowledge of sports medicine. The winners of the Systematic Review Award receive $5,000 and a plaque.

HERODICUS AWARD

2016 Recipient
Practice Patterns in the Care of Acute Achilles Tendon Ruptures: Is There an Association with Level I Evidence?
Ujash Sheth MD, David Wasserstein MD, Rahim Moineddin PhD, Richard Jenkinson MD, MSc, FRCSC, Hans Kreder MD, MSc, FRCSC, Susan Jaglal PhD

The Herodicus Award is given annually by the Herodicus Society. It is awarded to the best resident paper accepted for the AOSSM Annual Meeting Program.

HALL OF FAME AWARDS

2016 Recipients
Freddie H. Fu MD
K. Donald Shelbourne MD

In 2001, AOSSM established the Hall of Fame to honor 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. Nominations for the Hall of Fame are submitted by AOSSM members and then selected by the Hall of Fame committee. Recipients receive an award plaque, special presentation at the AOSSM Annual Meeting, and picture on the AOSSM Hall of Fame display at the Annual Meeting.

* Bold names indicate fellow or resident award recipient.
FDA STATEMENT
Some drugs or medical devices demonstrated at the Annual Meeting have not been cleared by the US Food and Drug Administration (FDA) or have been cleared by the FDA for specific purposes only. The FDA has stated that it is the responsibility of the physician to determine the FDA clearance status of each drug or medical device he or she wishes to use in clinical practice.

AOSSM policy provides that “off-label” uses of a drug or medical device may be described in AOSSM’s CME activities so long as the “off-label” use of the drug or medical device is also specifically disclosed (i.e., it must be the described purpose).

Any drug or medical device is being used “off-label” if the described use is not set forth on the product’s approval label.

EXHIBITOR INFORMATION

Exhibit Hours
Thursday – Saturday  7:30am – 12:30pm

Continental Breakfast in the Exhibit Hall
Thursday – Saturday  6:15am – 8:00am

Beverage Break in the Exhibit Hall
Thursday and Friday  10:45am – 11:30am
Saturday  10:50am – 11:30am

AOSSM RAFFLE BIN IN THE EXHIBIT HALL
(For Attendees Only)
Remember to enter this year’s Raffle drawing, to be held at 12:00pm, Thursday, Friday, and Saturday.
Prize includes a $250 Amex gift card.
Please take some time to visit our exhibitors. Revenues generated through exhibitors significantly offset your registration fees!
The products displayed in the technical exhibits area and the uses suggested by the manufacturer do not represent an endorsement nor imply that the products have been evaluated or approved by AOSSM. For your convenience, the technical exhibiting companies are listed alphabetically and the product/services they offer are identified by the following codes:

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INDUSTRY SYMPOSIA/
INDUSTRY THEATERS
Join your colleagues for a 90-minute, lunch-time learning session where you can become more familiar with the latest products, services, and newest findings. Lunch will be provided, and pre-registration is encouraged. The afternoon scientific session resumes at 2:00pm.

The following symposia are not presented, endorsed, or otherwise sanctioned by the American Orthopedic Society for Sports Medicine and NO CME CREDIT WILL BE AWARDED for participation. The view and techniques presented are not necessarily those of AOSSM or its members. AOSSM assumes no responsibility or liability for the use or misuse of any information, materials, or techniques described, and it makes no warranty, guarantee, or representation as to the absolute validity or sufficiency of any information provided.

**IS 1**
**Broadmoor Hall C**
**Zimmer Biomet**
**The Subchondroplasty® Procedure featuring AccuFill® Bone Substitute Material**
Steven B. Cohen MD

The Subchondroplasty® Procedure lunch symposium will provide scientific and clinical details about this state-of-the-art technology and its use as a treatment option for subchondral bone defects. The Subchondroplasty® (SCP®) Procedure is a fluoroscopic, minimally-invasive procedure that targets and fills subchondral bone defects with a hard-setting bone substitute material that is replaced with new bone during the healing process.

**IS 2**
**Broadmoor Hall D**
**DJO Global**
**Definitive Treatment for Chronic Tendonosis: Percutaneous Ultrasonic Tenotomy**
Bernard F. Morrey MD

A clinical presentation together with a hands-on demonstration will provide attendees information on the Tenex Health TX System designed to treat patients suffering from chronic tendonosis and fasciosis. The minimally invasive procedure is completed in an outpatient setting offering patients a safe solution and opportunity to return to activity quickly. The TX System has successfully treated over 35,000 patients with tendonosis in the shoulder, elbow, knee, foot, and ankle.

**IS 3**
**Broadmoor Hall E**
**AlloSource**
**ProChondrix® Cartilage Restoration Matrix – Early Clinical and Pre-Clinical Results**
Vishal Mehta MD, Laurie Goodrich DVM, PhD, ACVS Diplomate

Cartilage Repair the Way Nature Intended—ProChondrix® is a natural treatment option for your most active patients suffering from articular cartilage defects. AlloSource invites you to learn more from our experts about ProChondrix®, a cellular 3D fresh cartilage matrix that provides live functional cells and other biological components necessary for the natural regeneration of hyaline cartilage tissue. When it comes to healing, nature’s way is always the best.

**IS 4**
**Broadmoor Hall F**
**Smith & Nephew**
**A New Era in Adjustable Fixation**
J. Lee Pace MD, Nirav Amin MD

A discussion on the use of the new ULTRABUTTON Adjustable Fixation Device using different graft types and surgical approaches. A review of next generation adjustable technology, case examples and practical technique tips and pearls.

**IS 5**
**Colorado Hall A**
**Fidia Pharma USA Inc.**
**Hymovis: A Breakthrough in Viscoelastic Technology**
Clarence L. Shields Jr., MD, Francesco Benazzo MD, Lawrence Bonassar PhD

Hymovis® is a next-generation hyaluronic intra-articular (IA) therapy indicated for the treatment of pain in osteoarthritis (OA) of the knee. Hymovis® was intentionally bioengineered using a proprietary process to increase its lubrication and shock absorption properties. The formulation allows the molecule to recover its original structure, even after repetitive mechanical stress. Due to reversible hydrophobic interactions, the non-crosslinked Hymovis has increased elasticity, viscosity and residence time in the joint. Hymovis® has a unique cycle of only two intra-articular injections, given a week apart. The development, optimal lubricating characteristics and global clinical data with Hymovis® will be presented.

**IS 6**
**Colorado Hall B**
**Stryker**
**The Value of Hip Arthroscopy**
Jamie Genuario MD, Richard C. Mather III, MD, Shane Jay Nho MD, MS

Please join Stryker and our distinguished panelists for an engaging discussion on the value of hip arthroscopy. We will focus on the patient value in labral reconstruction and capsule management as well as the societal value in substantial economic impact.
INDUSTRY THEATER SESSIONS

The theater is located inside the Exhibit Hall. 30-minute theater sessions starting on the 1/2 hour provide you with up-to-date information from industry about the products, equipment, and services they offer via demonstrations or presentations in the Exhibit Hall. Theaters will take place between 8:30am – 12:00pm. No registration required, just drop in.

THURSDAY, JULY 7, 2016

IT 3
9:30am – 10:00am
Orteq Sports Medicine
Novel Concepts for Cartilage Repair: Why Resect if you Can Replace the Meniscus?
Rene Verdonk MD, PhD

IT 4
10:30am – 11:00am
Smith & Nephew
Advances in the All-Suture Repair: Techniques and Technology
Nikhil Verma MD
This session will cover contemporary arthroscopic instability repair Techniques using all suture anchor fixation. Techniques will include use of accessory portals and inferior glenoid access.

FRIDAY, JULY 8, 2016

IT 8
8:30am – 9:00am
Smith & Nephew
Cyclic and Load to Failure of All-Suture Anchors in Synthetic Acetabular and Glenoid Cancellous Bone
Marc R. Safran MD
The purpose of this study was to evaluate the cyclic displacement, maximum load to failure, and the failure mode of multiple all-suture anchors (ASA) in various densities of sawbones cancellous bone substitute simulating the range of cancellous bone properties found in the glenoid and acetabulum.

IT 10
10:30am – 11:00am
Smith & Nephew
Knee COBLATION: Current Concepts and Evidence
Faculty to be announced.
An in depth discussion on the use of COBLATION technology in Knee Arthroscopy, including a brief history of the science behind the technology, surgical techniques and a glimpse into the future of the space, all while keeping a focus on the clinical evidence surrounding the use of this technology for knee procedures.

IT 11
11:30am – 12:00pm
Halyard Health (Formerly I-Flow)
Continuous Indwelling Interscalene Blocks in Shoulder Surgery
Paul J. Favorito MD
Pain management following surgical procedures such as shoulder arthroplasty, fractures, manipulations or arthroscopic capsular releases is an important aspect in the enhancement of the surgical patients’ experience. The use of continuous interscalene blocks may improve not only the quality of post-operative recovery, but may have an added benefit by improving the operational and financial performance of the surgical center. The goal of the therapeutic management of pain with these regional techniques is to improve functional recovery, enable same day discharge, and allow for avoidance or reduction of opioids in the management of pain. We will also discuss various patient types including those that have opioid allergies or intolerance and the potential benefits of regional techniques in the opioid naive patient.
Make Youth Sports Safety Your Priority

Join our team and share STOP Sports Injuries prevention tips in your community to help young athletes stay on the field and out of the operating room!

To learn more visit www.stopsportsinjuries.org and follow us on social media: Facebook.com/STOPSportsInjuries, @SportsSafety

Through our website, public service announcements and a multitude of sport specific resources, the STOP (Sports Trauma and Overuse Prevention) campaign educates athletes, parents, coaches and healthcare providers about the prevention and treatment of youth sports injuries, especially those related to overuse and trauma.
In accordance with the standards of the Accreditation Council for Continuing Medical Education (ACCME) it is the policy of The American Orthopaedic Society for Sports Medicine that faculty and planners disclose to the learners all financial relationships during the past twelve months with any commercial interest. A ‘commercial interest’ is any entity producing, marketing, re-selling, or distributing health care goods or services consumed by, or used on, patients.) Any and all disclosures are provided in this program that is distributed at the meeting to all program participants. In accordance with AOSSM policy, faculty participation in this educational activity will be predicated upon timely submission and review of AOSSM disclosure. Non-compliance will result in a faculty member being stricken from the program.

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Surgical Skills
Hip
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