Specialty Day Program

Create a unique experience customized to your specialization and educational needs.

Saturday, March 16

AAOS 2019 Annual Meeting
March 12 – 16, Las Vegas, Nevada
Exhibit Dates: March 13 – 15
Dear Colleagues:

On behalf of the AAOS’ Board of Specialty Societies (BOS), we are excited to host the 31st annual Specialty Day on Saturday, March 16, 2019 in Las Vegas.

Specialty Day provides a venue for BOS represented orthopaedic specialty societies to present educational programming. A considerable amount of physician volunteer and staff time has been spent assessing the cutting-edge technology and medical advancements in order to provide these high quality educational programs.

Participants of Specialty Day will not only learn about the latest developments in ensuring superior patient care, but they will also exchange information and interact with one another.

We encourage you to thoroughly review this preliminary program to identify the programs you wish to attend. The following organizations have included their preliminary programs, including titles and presenters in the pages that follow.

• American Orthopaedic Foot & Ankle Society
• American Shoulder and Elbow Surgeons
• American Society for Surgery of the Hand/American Association for Hand Surgery
• Arthroscopy Association of North America/American Orthopaedic Society of Sports Medicine
• Federation of Spine Associations
  - American Spinal Injury Association
  - Cervical Spine Research Society
  - North American Spine Society
  - Scoliosis Research Society
• Limb Lengthening and Reconstruction Society
• Musculoskeletal Infection Society
• Musculoskeletal Tumor Society
• Orthopaedic Trauma Association
• The Hip Society/American Association of Hip and Knee Surgeons
• The Knee Society/American Association of Hip and Knee Surgeons

Please note that topics and presentation times are subject to change, so please contact each society for its final program.

To ensure Specialty Day meets your needs, please send any comments and suggestions you may have about Specialty Day to BOS@aaos.org.

We look forward to learning with you at the 2019 Specialty Day in Las Vegas.

Sincerely,

Amy L. Ladd, MD
Chair, Board of Specialty Societies
3 Simple and Secure Ways to Register
AAOS Annual Meeting registration is required to participate in Specialty Day.

**ONLINE (Preferred)**
Visit [aaos.org/mymeeting](http://aaos.org/mymeeting)
Use our express registration page (fast, quick, easy)

- **Members** use your AAOS username and password
- **Non-members** use your AAOS username and password.
- **First time non-members** request approval to attend at [aaos.org/register](http://aaos.org/register)
- **International attendees** can request an invitation letter to submit during the visa application process at [aaos.org/invite](http://aaos.org/invite)

**MAIL**
Complete the registration form at [aaos.org/mymeeting](http://aaos.org/mymeeting) and mail with payment to:
AAOS 2019 Annual Meeting
C/O Convention Data Services
7 Technology Park Dr, Bourne, MA 02532

**FAX**
Complete the registration form at [aaos.org/mymeeting](http://aaos.org/mymeeting) and fax with payment to (508)743-3600

When your registration is complete you will receive an email confirmation. You can continue to add courses to your registration account through the meeting.

**Cancellation Policy**
**Registration Change or Cancellation Deadline: January 31, 2019**
To cancel your registration, selected courses, track package, or specialty day session, please submit your written request to AAOSMeeting@xpressreg.net. After this date, course exchanges or additions will need to be done on-site and are charged the on-site course fee.

**NEW! BADGES AND TICKETS WILL NOT BE MAILED.**
Attendees must present an electronic or printed copy of their registration confirmation at the Check-In counters located in Hall G of the Venetian/Sands Expo.

**Hotel Satellite Check-in is available on Monday and Tuesday at the following hotels:**
- Venetian Lobby
- Aria Tour Bus Lobby
- Palazzo Lobby
For additional details please visit [aaos.org/register](http://aaos.org/register)

**NEW! Family Badge - Members Only**
One complimentary family badge per member. Defined as spouse, significant other, or immediate family member who is not an active orthopaedic professional. Members can pre-register for a family badge during online registration or obtain a badge on-site.

**Disclaimer**
The material presented during the Specialty Day meetings is for educational purposes only. This material is not intended to represent the only, nor necessarily the best methods or procedures appropriate for the medical situations discussed, but rather, are intended to present an approach, view, statement, or opinion of the faculty, which may be helpful to others who face similar situations.

The AAOS disclaims any and all liability for injury or other damages resulting to any individual attending a Specialty Day meeting and for all claims which may arise out of the use of the techniques demonstrated therein by such individuals, whether these claims shall be asserted by a physician or any other person.

**FDA**
All drugs or medical devices used in the United States are administered in accordance with the Food and Drug Administration (FDA) regulations. These regulations vary depending on the risks associated with the drug or medical device, the similarity of the drug or medical device to products already on the market, and the quality and scope of clinical data available.

Some drugs or medical devices demonstrated in Specialty Day meetings or described in related print or electronic publications have FDA clearance for use for specific purposes or for use only in restricted research settings. 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, and to use the products with appropriate patient consent and in compliance with applicable law.

**Reproduction**
No reproductions of any kind, including audiotapes, videotapes, and still photography may be made of presentations at Specialty Day without written pre-approval from the AAOS and the relevant specialty society. We reserve the rights to such materials, and any reproduction without proper authorization is strictly prohibited. Persons violating this policy may have their badge confiscated and be escorted from the meeting. No unapproved surveys, handouts, or literature may be distributed at the meeting.
## REGISTRATION FEES

**SPECIALTY DAY FEES**  
Saturday, March 16, 2019  
Plan your education and register now at [aaos.org/mymeeting](http://aaos.org/mymeeting)

### American Orthopaedic Foot & Ankle Society (AOFAS)
Fee includes lunch  
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### American Shoulder and Elbow Surgeons (ASES)
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### American Society for Surgery of the Hand/American Association of Hand Surgery (ASSH/AAHS)
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### Arthroscopy Association of North America/American Orthopaedic Society for Sports Medicine (AANA/AOSSM)
**SELECT ONLY ONE CATEGORY**  
Arthroscopy Association of North America and American Orthopaedic Society for Sports Medicine present a combined full-day scientific program. Fee includes a box lunch.  
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### Federation of Spine Associations (FOSA)
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### Limb Lengthening and Reconstruction Society (LLRS)
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### Musculoskeletal Tumor Society (MSTS)
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### Orthopaedic Trauma Association (OTA)
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### The Hip Society/The Knee Society/AAHKS
**SELECT ONLY ONE CATEGORY**  
The Hip Society and The Knee Society, in partnership with AAHKS, present two concurrent full-day scientific programs in adjacent rooms. A single registration allows participation in both programs.  
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SPECIALTY DAY

Saturday, March 16, 2019
Venetian/Sands Expo
Room 4101
7:00 am – 4:45 pm

American Orthopaedic Foot & Ankle Society


General Information
Description
This meeting is designed to identify areas of recent research in the field of orthopaedic foot and ankle surgery relevant to practicing physicians, surgeons, and allied health professionals. The information will be transmitted through scientific paper presentations, question and answer sessions, surgical technique videos, and symposia presentations.

Statement of Need
A need for this educational activity has been determined based on previous course evaluations, the AOFAS CME curriculum and on current issues and topics provided by AOFAS membership and leadership.

Target Audience
This program should prove valuable to any orthopaedic surgeon, physician, or allied health professional in the field of orthopaedic foot and ankle surgery.

Educational Objectives
At the conclusion of this meeting, learners should be able to:

- Evaluate current data reflecting clinical trends, emerging surgical techniques, pre- and postoperative procedures, and technological innovations in orthopaedic foot and ankle patient care.
- Identify ways to analyze, manage, and avoid complications of foot and ankle problems.
- Describe and apply strategies to improve patient outcomes.

Questions
For more information, contact:
AOFAS
9400 W. Higgins Road, Suite 220
Rosemont, IL 60018
Phone 847-698-4654
Email info@aofas.org

Accreditation
This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American Orthopaedic Foot & Ankle Society (AOFAS) and the Orthopaedic Trauma Association. AOFAS is accredited by the ACCME to provide continuing medical education for physicians.

Credit Hours
The American Orthopaedic Foot & Ankle Society (AOFAS) designates this live activity for a maximum of 8.25 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Disclosure
The AOFAS requires all instructors, planners and other individuals in a position to control or influence the content of an educational activity to disclose all relevant financial relationships or affiliations during the past 12 months with any commercial interest (any entity producing, marketing, re-selling, or distributing health care goods and services consumed by, or used on patients). All identified conflicts of interest must be resolved and the education content vetted by the AOFAS for fair balance, scientific objectivity and appropriateness. The AOFAS also requires faculty to disclose when off-label/unapproved uses of a product are discussed in a CME activity. The AOFAS attests that the persons responsible for the development of this educational activity did so independently and were not influenced by commercial supporters. All financial disclosures will be provided to meeting attendees in the final program materials.

Disclaimer
The material presented in this continuing medical education activity has been made available by the American Orthopaedic Foot & Ankle Society (AOFAS) for educational purposes only. Methods, techniques and procedures demonstrated and views and opinions expressed by speakers, presenters and faculty are on their own, and do not necessarily represent those of the AOFAS nor does presentation on the program represent or constitute endorsement or promotion by the AOFAS. The AOFAS expressly disclaims any warranties or guaranties, expressed or implied, and shall not be liable for damages of any kind in connection with the material, methods, information, techniques, opinions or procedures expressed, presented or demonstrated. AOFAS may photograph or record you as you participate in this meeting and related activities.

Program Committee Leadership
Steven L. Haddad, MD, Program Chair

6:55 am – 7:00 am Welcome
Steven L. Haddad, MD, Program Chair

7:00 am – 8:00 am Symposium I: Forefoot
Moderator: Lew C. Schon, MD

7:00 am – 7:10 am Be All Ends All Bunion Correction: Can We Distill It To A Single Procedure?
Rebecca A. Cerrato, MD

7:10 am – 7:20 am Unusual Factors in Recurrence: Intercuneiform Diastasis and Other Bedtime Stories
James R. Holmes, MD

7:20 am – 7:30 am Have We Forgotten About the DMAA?
Caio A. Nery, MD

7:30 am – 8:00 am Discussion

8:00 am – 9:00 am Symposium 2: Flatfoot
Moderator: Thomas H. Lee, MD

8:00 am – 8:10 am Is The Lateral Column Lengthening Dead?
Jonathan T. Deland, MD

8:10 am – 8:20 am Overcorrection in the Flatfoot: Too Much Cotton, Too Much Sliding Calcaneus, Not Enough Cowbell
Caio A. Nery, MD

8:20 am – 8:30 am Hypermobility and Flatfoot: Challenging Reconstructions, Avoiding Recurrence
Jeffrey E. Johnson, MD

8:30 am – 9:00 am Discussion
9:00 am – 10:00 am  
**Paper Session 1: What a Pain**

**Moderator: Jeremy J. McCormick, MD**

9:00 am – 9:07 am 
Opioid Consumption Rate After Foot and Ankle Surgery

*Peter Kvarda, MD; Noortje Hagemeijer, MD, Msc; Gregory R. Waryasz, MD; Daniel Guss, MD, MBA; Christopher W. DiGiovanni, MD; A. Holly Johnson, MD*

9:07 am – 9:14 am 
Correlation Between Self-Reported Pain Tolerance and Opioid Pain Medication Use after Foot and Ankle Surgery

*Laura E. Sokil, BS; Elizabeth L. McDonald, BA; Ryan G. Rogero, BS; Daniel J. Fuchs, MD; Steven M. Raikin, MD; Brian S. Winters, MD; David I. Pedowitz, MD, MS; Joseph N. Daniel, DO; Rachel J. Shakked Birns, MD*

9:14 am – 9:21 am 
Conventional Ankle Sprain Treatment is Associated with Alarmingly High Rates of Persistent Opioid Use

*Fred T. Finney, MD, Timothy D. Gossett, MD; Hsou Mei Hu, PhD; Jennifer F. Waljee, MD; Chad M. Brummett, MD; David M. Walton, MD; Paul G. Talusman, MD; James R. Holmes, MD*

9:21 am – 9:28 am 
Postoperative Pain Management After Foot and Ankle Surgery Without and With Gabapentin: A Prospective Investigation

*Jamal Ahmad, MD*

9:28 am – 10:00 am  
**Discussion**

10:00 am – 10:30 am  
**Presidential Address and Updates**

10:00 am – 10:10 am 
Presidential Address

*J. Chris Coetzee, MD*

10:10 am – 10:15 am 
Foundation Update

*Scott J. Ellis, MD*

10:15 am – 10:20 am 
Award Presentation

*Steven L. Haddad, MD*

10:20 am – 10:35 am  
**Break**

10:35 am – 11:30 am  
**Symposium 3: Cavus Foot**

**Moderator: Mark E. Easley, MD**

10:35 am – 10:45 am 
What is the Real Utility of Tendon Transfers in Cavovarus?

*Keith L. Wagner, MD*

10:45 am – 10:55 am 
Progressive Cavovarus: Are Traditional Procedures Limiting?

*Paul T. Fortin, MD*

10:55 am – 11:05 am 
Change in Gait Pre- and Post- Correction: Are We Really Offloading the 5th Metatarsal?

*William C. McGarvey, MD*

11:05 am – 11:30 am  
**Discussion**

11:30 am – 12:30 pm  
**Paper Session 2: TBD**

**Moderator: Bruce J. Sangeorzan, MD**

11:30 am – 11:37 am 
Distribution of High-Volume Ankle Arthroplasty Surgeons in United States Metropolitan Areas: Data from the 2012-15 Medicare Provider Utilization and Payment Release

*Brandon Stein, MD; Jeremy Somerson, MD; Cory Janney, MD; Vinod K. Panchbhavi, MD, FACS*

11:37 am – 11:44 am 
The Use of Three-Dimensional (3D) Biometric Measurements to Predict Additional Alignment Procedures in Total Ankle Replacement

*Cesar de Cesar Netto, MD, PhD; Lauren E. Roberts, MD; Ashraf M. Fansa, MBBCh; Meghan Newcomer, OPA-C; Guiltherme H. Saito, MD; Jonathan T. Deland, MD; Scott J. Ellis, MD; Constantine A. Demetracopoulos, MD*

11:44 am – 11:51 am 
A Comparison of Cyst Formation and Management in Mobile-Bearing and Fixed-Bearing Total Ankle Arthroplasty

*James Lachman, MD; Michel A. Taylor, MD, MSc, BSc; Elizabeth Cody, MD; Daniel J. Scott, MD, MBA; James A. Nunley, MD; James K. DeOrio, MD; Mark E. Easley, MD*

11:51 am – 11:58 am 
Restoration of Talar Height using a Modular Revision Prosthesis after Failed Total Ankle Arthroplasty

*Brian D. Steginsky, DO; Steven L. Haddad, MD*

11:58 am – 12:30 pm  
**Discussion**

12:30 pm – 1:20 pm  
**Lunch and Business Meeting**

12:30 pm – 12:45 pm  
Announcements and Interim Business Meeting

*J. Chris Coetzee, MD*

12:45 pm – 1:20 pm  
**Box lunch**

1:20 pm – 2:20 pm  
**Symposium 4: Ankle Arthritis**

**Moderator: Emilio Wagner, MD**

1:20 pm – 1:30 pm 
Ankle Arthritis in Your 20’s: The Sad Future

*Scott J. Ellis, MD*

1:30 pm – 1:40 pm 
The Deleterious Effects of Injection and Osteotomy: Simple Isn’t So Simple

*W. Hodges Davis, MD*

1:40 pm – 1:50 pm 
Osteotomy to Avoid Arthroplasty: C’mon, Man

*Alexej Barg, MD*

1:50 pm – 2:20 pm  
**Discussion**
Combined Specialty Day Meeting
American Orthopaedic Foot & Ankle Society / Orthopaedic Trauma Association
Room 4101

2:30 pm – 4:45 pm


Moderators: Brian C. Toolan, MD (AOFAS) and Michael J. Gardner, MD (OTA)

2:30 pm – 2:40 pm
The Only Thing that Really Matters is the Lateral Column: Ignoring the Deltoid
Michael J. Gardner, MD

2:40 pm – 2:50 pm
The Only Thing That Really Matters is the Deltoid, The Consequences of a Limited Field of View
Eric M. Bluman, MD, PhD

2:50 pm – 2:57 pm
OTA Paper: Posterior Malleolar Fixation Reduces the Need for Syndesmotic Screw Fixation in Rotational Ankle Injuries
Omar Behery, MD; Rajkishen Narayanan, MS; Abdullah Qatu, BS; Sanjit Konda, MD; Nirmal Tejwani, MD; Kenneth Egol, MD

2:57 pm – 3:04 pm
AOFAS Paper: Does the Presence or Absence of a Fibular Fracture Predict Future Morbidity?
Henry Boateng, MD, MSc; Chinenyew Nwachuku, MD; Kempland C. Walley, BSc; Justin W. Walker; Rhett MacNeill, MD; Paul Tornetta, MD; Spence Reid, MD

3:04 pm – 3:30 pm
Discussion and Cases

Session 2: The Cases: Hindfoot Trauma: I Hate Puzzles

Moderators: David Thordarson, MD (AOFAS) and James R. Ficke, MD, FACS (OTA)

3:30 pm – 3:40 pm
Trauma Case
James R. Ficke, MD, FACS and Joseph R. Hsu, MD

3:40 pm – 3:50 pm
Foot & Ankle Case
Brian M. Weatherford, MD and Mark A. Glazebrook, MD, MSc, PhD

3:50 pm – 4:15 pm
Discussion

4:15 pm – 4:45 pm
Session 3: The Debate: The Midfoot: Fix It or Fuse It. Are These Joints Essentially Nonessential?

Moderators: Donald R. Bohay, MD, FACS (AOFAS) and Clifford B. Jones, MD (OTA)

Fuse It:
J. Chris Coetzee, MD (AOFAS)
Clifford B. Jones, MD (OTA)

Fix It:
G. Andrew Murphy, MD (AOFAS)
Anna N. Miller, MD, FACS (OTA)

4:45 pm
Closing Remarks / Adjourn
General Information

Educational Objectives
- Review basic science and orthopaedic problems relative to the shoulder and elbow.
- Examine the indications, techniques, and results of various surgical procedures.
- Describe the management of common orthopaedic problems relative to the shoulder and elbow.
- Permit expert panelists to put into perspective new technologies.

Questions
American Shoulder and Elbow Surgeons
9400 W. Higgins Road, Suite 500
Rosemont, IL 60018
Phone: 847/698-1629 | Fax: 847/268-9499
Email: ases@aaos.org

Credit Hours
This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American Academy of Orthopaedic Surgeons and the American Shoulder and Elbow Surgeons. The American Academy of Orthopaedic Surgeons is accredited by the ACCME to provide continuing medical education for physicians.

The American Academy of Orthopaedic Surgeons designates this live activity for a maximum of 6 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Disclaimer
The material presented at the 2019 Specialty Day Meeting has been made available by the American Shoulder and Elbow Surgeons for educational purposes only. This material is not intended to represent the only, nor necessarily best, method or procedure appropriate for the medical situations discussed, but rather is intended to present an approach, view, statement or opinion of the faculty, which may be helpful to others who face similar situations.

ASES disclaims any and all liability for injury or other damages resulting to any individuals attending the 2019 Specialty Day Meeting and for all claims which may arise out of the use of the techniques demonstrated therein by such individuals, whether these claims shall be asserted by a physician or by any other party.

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Anthony A. Romeo, MD, President, 2017-2018
Joseph A. Abboud, MD, Program Co-Chair
Nikhil N. Verma, MD, Program Co-Chair

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<thead>
<tr>
<th>Time</th>
<th>Session/Activity</th>
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<tr>
<td>8:00 am – 8:55 am</td>
<td>Symposium I: Massive Cuff Case-Based Learning: 57-Year-Old with Massive Tear and 70 Degrees Elevation</td>
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<tr>
<td>8:00 am – 8:07 am</td>
<td>Psuedoparalysis: Apples and Oranges</td>
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<td>8:07 am – 8:14 am</td>
<td>Technology over Reason: Partial Repair is All We Need</td>
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<tr>
<td>8:14 am – 8:21 am</td>
<td>Transfer the Lat vs Trap!</td>
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<tr>
<td>8:21 am – 8:28 am</td>
<td>SCR: Sort of Cuff Repair</td>
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<tr>
<td>8:28 am – 8:35 am</td>
<td>Reverse? Really!</td>
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<td>8:35 am – 9:55 am</td>
<td>Panel Discussion and Questions</td>
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<tr>
<td>8:55 am – 9:15 am</td>
<td>Paper Session I: Rotator Cuff</td>
</tr>
<tr>
<td>Paper #1 8:55 am – 9:00 am</td>
<td>When Should We Repair Partial-Thickness Rotator Cuff Tears? Outcome Comparison Between Immediate Surgical Repair vs. Delayed Repair After 6-Month Period of Nonsurgical Treatment</td>
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<tr>
<td>Paper #2 9:00 am – 9:05 am</td>
<td>Postoperative Recovery Comparisons of Latissimus Dorsi Transfer to Lower Trapezius Transfer for the Treatment of Massive Rotator Cuff Tears</td>
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<tr>
<td>Paper #3 9:05 am – 9:10 am</td>
<td>Outcome of Arthroscopically Assisted Lower Trapezius Transfer to Reconstruct Massive Irreparable Posterior-Superior Rotator Cuff Tears</td>
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<tr>
<td>9:10 am – 9:15 am</td>
<td>Discussion</td>
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<tr>
<td>9:15 am – 9:30 am</td>
<td>Break</td>
</tr>
</tbody>
</table>
9:30 am – 10:15 am Symposium II: Instability Case-Based Learning: 22-Year-Old with Sub-Critical Bone Defect and Recurrent Instability After Arthroscopic Stabilization

Moderators: Asheesh Bedi, MD, and Stephen A. Parada, MD


9:37 am – 9:44 am Back to the Future: Open Capsular Shift! Brian R. Wolf, MD, MS

9:44 am – 9:51 am The Answer is Obvious: Latarjet Nikhil N. Verma, MD

9:51 am – 9:58 am Technique Spotlight: Distal Tibia Allograft for Glenoid Reconstruction Anthony A. Romeo, MD

9:58 am – 10:15 am Panel Discussion and Questions Asheesh Bedi, MD

10:15 am – 10:35 am Paper Session II: Instability

Moderators: April D. Armstrong, MD, FRCSC, and Vani J. Sabesan, MD

Paper #4
10:15 am – 10:20 am Latarjet Procedure Versus Iliac-Crest Bone Graft Transfer for Treatment of Anterior Shoulder Instability with Glenoid Bone Loss: A Prospective Randomized Trial Philipp Moroder, MD

Paper #5
10:20 am – 10:25 am Clinical and Radiological Outcomes After Arthroscopic Bankart Repair Using the All-Suture Anchors: Comparison with The Biodegradable Suture Anchors Sang-Jin Shin, MD

Paper #6
10:25 am – 10:30 am Effect of the Location of the Split of the Subscapularis on Range of Motion, Stability, and Contact Pressure in the Glenohumeral Joint Following Latarjet or Trillat Procedures Geoffroy Nourissat, MD

10:30 am – 10:35 am Discussion

10:35 am – 11:00 am How-To Videos I: Shoulder

Moderators: William N. Levine, MD, and Robert Z. Tashjian, MD

10:35 am – 10:41 am Massive Cuff: Tips for Mobilization Ian K.Y. Lo, MD

10:41 am – 10:47 am Arthroscopic Latissimus Transfer Jean Kany, MD

10:47 am – 10:53 am Arthroscopic Glenoid Bone Graft Ivan Ho-Bun Wong, MD

10:53 am – 11:00 am Discussion

11:00 am – 11:45 am Symposium III: Reverse Arthroplasty: Expert Perspective on Critical Design Variables

Moderators: Matthew D. Saltzman, MD, and Thomas W. Wright, MD

11:00 am – 11:07 am Lateral Glenoid Offset Is the Key Mark A. Frankle, MD

11:07 am – 11:14 am Glenoid Position is Paramount Gregory P. Nicholson, MD


11:21 am – 11:28 am Putting It All Together: Pre-Operative Planning Is the Key T. Bradley Edwards, MD

11:28 am – 11:45 am Panel Discussion and Questions Matthew D. Saltzman, MD

11:45 am – 12:05 pm Paper Session III: Arthroplasty

Moderators: Justin W. Griffin, MD, and Gerald R. Williams, Jr., MD

Paper #7
11:45 am – 11:50 am Lateralization and Attachment Site Affect Subscapularis Biomechanics After Reverse Shoulder Arthroplasty Lawrence V. Gulotta, MD

Paper #8
11:50 am – 11:55 am Outcomes of Total Shoulder Arthroplasty for Instability Arthropathy with a Prior Coracoid Transfer Procedure: A Retrospective Review and Comparative Cohort Michael J. Bender, MD

Paper #9
11:55 am – 12:00 pm One and Two-Year Clinical Outcomes for a Standard All-Polyethylene Glenoid Component with a Fluted Central Peg: Analysis of 1270 Individual Patients from 11 Different Centers Jeremy S. Somerson, MD

12:00 pm – 12:05 pm Discussion

12:05 pm – 12:10 pm NEER AWARD PRESENTATION Anthony A. Romeo, MD, President, 2017-2018

12:10 pm – 12:50 pm Lunch
12:50 pm – 1:25 pm  Symposium IV: Elbow Fractures: Bread and Butter Treatment Approaches

**Moderators:** Guido Marra, MD, and Joaquin Sanchez-Sotelo, MD, PhD

12:50 pm – 12:57 pm  Radial Head Fracture: When to Repair and When to Replace
Mark E. Baratz, MD

12:57 pm – 1:04 pm  Terrible Triad: How I Fix This
Matthew L. Ramsey, MD

1:04 pm – 1:11 pm  Capitellum OCD: From Scope to Open
Felix H. Savoie, III, MD

1:11 pm – 1:18 pm  Olecranon Fractures: From Simple to Complex
Anand M. Murthi, MD

1:18 pm – 1:25 pm  Panel Discussion and Questions

1:25 pm – 1:45 pm  Paper Session IV: Elbow

**Moderators:** E. Scott Paxton, MD, and Matthew L. Ramsey, MD

Paper #10 1:25 pm – 1:30 pm  Joint Contact Changes with Under-Sized Prosthetic Radial Heads
Shawn W. O’Driscoll, PhD, MD

Paper #11 1:30 pm – 1:35 pm  Prevention of Post-Traumatic Elbow Stiffness Using Botulinum Toxin
Henrik Constantin Baecker, MD

Paper #12 1:35 pm – 1:40 pm  Counterforce Bracing of Lateral Epicondylitis: A Prospective, Randomised, Double Blinded, Placebo Controlled Clinical Trial
Martin Krosiak, MBBS, MS

1:40 pm – 1:45 pm  Discussion

1:45 pm – 2:10 pm  How-To Videos II: Complex Shoulder

**Moderators:** Michael T. Freehill, MD, and Justin W. Griffin, MD

1:45 pm – 1:51 pm  Lat Transfer with Reverse
Robert Z. Tashjian, MD

1:51 pm – 1:57 pm  Peri-Prosthetic Humeral Fracture
Scott P. Steinmann, MD

1:57 pm – 2:03 pm  SC Joint Reconstruction
Edwin E. Spencer, Jr., MD

2:03 pm – 2:10 pm  Discussion

2:10 pm – 2:45 pm  Symposium V: AC Joint, Biceps and Everything Else!

**Moderators:** Michael T. Freehill, MD, and Justin W. Griffin, MD

2:10 pm – 2:17 pm  AC Joint Reconstruction: Don’t Forget the AC Ligaments
Peter J. Millett, MD

2:17 pm – 2:24 pm  Long Head Biceps: Where Should I Tenodese?
Peter N. Chalmers, MD

2:24 pm – 2:31 pm  Subscap Reconstruction: Pec or Lat?
Bassem T. Elhassan, MD

2:31 pm – 2:38 pm  Recalcitrant Scapular Dyskinesis: When and How I Fix
W. Benjamin Kibler, MD

2:38 pm – 2:45 pm  Panel Discussion and Questions

2:45 pm – 3:05 pm  Paper Session V: Miscellaneous

**Moderators:** Grant E. Garrigues, MD, and Adam J. Seidt, MD

Paper #13 2:45 pm – 2:50 pm  The Determination of Interobserver and Intraobserver Reliability of a Magnetic Resonance Imaging Based Classification System for Ulnar Collateral Ligament Injury
Prem N. Ramkumar, MD, MBA

Paper #14 2:50 pm – 2:55 pm  Preoperative Evaluation of Spinoglenoid Ganglion Cyst with MRI, EMG and Isokinetic Muscle Test: Does Size Matter?
Joo Han Oh, MD

Paper #15 2:55 pm – 3:00 pm  Development and Validation of a Risk Calculator for Prolonged Opioid Use After Shoulder Surgery
David Kovacevic, MD

3:00 pm – 3:05 pm  Discussion

3:05 pm Meeting Adjourns
Description:
With the fast-paced changes occurring in orthopaedics, anyone treating hand and upper extremity problems needs to know what treatments work best for their patients. This symposium offers time-tested techniques and evidence-based solutions for dealing with a myriad of acute injuries and chronic pathology affecting the upper extremity, including fractures and soft tissue injuries, peripheral nerve problems, and arthritis about the hand and wrist.

Learning Objectives:
The objective of this course is to provide the most current yet practical approach to the most common conditions facing practicing hand surgeons.

Upon completion of the course the learner will be confident in approaching everything from trauma including boney and soft tissue injury to managing arthritis of the hand and wrist.

In addition the course will offer an update on “what every hand surgeon should know about less commonly encountered conditions such as pediatric trauma and vascular disorders

Credit Hours
*8.5 AMA PRA Category 1 Credits™*

David S. Ruch, MD, Program Co-Chair
David R. Steinberg, MD, Program Co-Chair

**Session I – Extensor and Flexor Tendon Injuries**

Moderator: Donald H. Lee, MD

7:30 am – 7:35 am
Introductions
David S. Ruch, MD, David R. Steinberg, MD, L. Scott Levin, MD, and Brian D. Adams, MD

7:35 am – 7:45 am
How WALANT is Changing Hand Surgery
Ryan Garcia, MD

7:45 am – 7:55 am
Mallet Fingers: When I Recommend Surgery
John D. Lubahn, MD, FACS

7:55 am – 8:05 am
Sagittal Band Injuries “How I Approach Acute and Chronic Injury”
Ghazi M. Rayan, MD

8:05 am – 8:15 am
My Approach to Zone 1 and Zone 2 Flexor Tendon Injuries: How I Do It and Why!
Fraser J. Leversedge, MD

8:15 am – 8:25 am
When Do I Decide That a 2-Stage Repair is Going to be Successful and When Do I Salvage?
John G. Seiler, MD

8:25 am – 8:35 am
What Are My Top Three Options for Coverage of Soft Tissue Defects in the Hand?
Marc J. Richard, MD

8:35 am – 8:45 am
The Approach to Vascular Disease of the Hand: What Every Hand Surgeon Should Know
William C. Pederson, MD, FACS

8:45 am – 8:55 am
Mass Wisdom and Q&A

8:55 am – 9:10 am
**BREAK**

9:10 am – 11:20 am
**Session II – Nerve Injuries**

Moderator: Jaimie T. Shores, MD

9:10 am – 9:20 am
Carpal Tunnel Syndrome: Should We Start or Stop Doing Endoscopic Releases?
Robert J. Strauch, MD

9:20 am – 9:30 am
I Have a Patient with Cubital Tunnel Syndrome: What the Evidence Tells Me to Do
Neal C. Chen, MD

9:30 am – 9:40 am
What Are My Indications for Radial Tunnel Release?
Jennifer Moriatis Wolf, MD

9:40 am – 9:50 am
Spontaneous AIN and PIN Palsy: Should They be Managed Differently?
Peter M. Murray, MD

9:50 am – 10:00 am
When Do I Perform a Direct Nerve Repair and Tips to Getting It Right
John G. Seiler, MD

10:00 am – 10:10 am
When is an Allograft Indicated? Is Auto graft Used Anymore?
David M. Brogan, MD, MSc

10:10 am – 10:20 am
Nerve Transfers for Brachial Plexus Injuries
Amy M. Moore, MD

10:20 am – 10:30 am
Update on Improving Results of Primary Nerve Repair – Have We Gotten Better?
Warren C. Hammert, MD

10:30 am – 10:40 am
Role of Supercharging a Nerve Repair
Jonathan E. Isaacs, MD

10:40 am – 10:50 am
What is the Role for Targeted Muscle Reanimation?
R. Glenn Gaston, MD

10:50 am – 11:10 am
Key Note Address: What is the Role of Hand Transplant Now and in the Future?
L. Scott Levin, MD, FACS and Jaimie T. Shores, MD
11:10 am – 11:20 am  Mass Wisdom and Q&A

11:20 am – 12:20 pm  LUNCH

12:20 pm – 2:10 pm  Session III – Fractures

Moderator: John V. Ingari, MD

12:20 pm – 12:30 pm  Acute PIP Fractures: When Do I Open and When Do I Ex Fix?
Randip R. Bindra, FRCS, MCh Orth

12:30 pm – 12:40 pm  Hemi Hamate Grafts: When are They Indicated and When are They Not?
Peter J. Stern, MD

12:40 pm – 12:50 pm  Proximal Phalanx Fractures: How I Achieve a Good Result
Douglas P. Hanel, MD

12:50 pm – 1:00 pm  Metacarpal Neck Fractures: When are Pins Not Enough?
Marc J. Richard, MD

1:00 pm – 1:10 pm  Metacarpal Shaft Fractures: When I Pin and When I Plate
Mihir J. Desai, MD

1:10 pm – 1:20 pm  Scaphoid Fractures: What has Changed in 20 Years
T. Greg Sommerkamp, MD

1:20 pm – 1:30 pm  How to Approach and Graft and Heal a Scaphoid Nonunion Without a Vascularized Graft
Brian D. Adams, MD

1:30 pm – 1:40 pm  Distal Radius Fractures: The Evidence Supports Pins, so Why Plate?
Brandon E. Earp, MD

1:40 pm – 1:50 pm  Distal Radius Fractures: When is a Volar Plate Not Enough?
Jesse B. Jupiter, MD

1:50 pm – 2:00 pm  Pediatric Hand Fractures: Avoid Getting Burned
Peter M. Waters, MD

2:00 pm – 2:10 pm  Mass Wisdom and Q&A

2:10 pm – 3:00 pm  Session IV – DRUJ Injury and Arthritis

Moderator: Nikolas H. Kazmers, MD, MSE

2:10 pm – 2:20 pm  Acute TFCC Injuries: How I Fix Them and Rehab Protocol
Jeffrey Yao, MD

2:20 pm – 2:30 pm  Chronic TFCC Tears: When Does a Repair Become a Reconstruction?
David M. Brogan, MD, MSc

2:30 pm – 2:40 pm  DRUJ Arthritis: Does Darrach vs. Sauve Kapandje vs. Arthroplasty? How I Choose
Mark E. Baratz, MD

2:40 pm – 2:50 pm  Salvage of the DRUJ: A Time for Prosthesis and a Time for a One Bone Forearm
Douglas P. Hanel, MD

2:50 pm – 3:00 pm  Mass Wisdom and Q&A

3:00 pm – 3:15 pm  BREAK

3:15 pm – 5:25 pm  Session V – Wrist Instability and Arthritis

Moderator: David J. Bozentka, MD

3:15 pm – 3:25 pm  What Works for Acute SL Tears?
Michael J. Sandow, BMBS, FRACS, FAOrthA

3:25 pm – 3:35 pm  What Works for Chronic SL Tears?
Andrea Atzei, MD

3:35 pm – 3:45 pm  How I Approach Midcarpal Instability
Alexander Y. Shin, MD

3:45 pm – 3:55 pm  Is There Anything Short of a Fusion That Will Work for an LT with VISI?
Marco Rizzo, MD

3:55 pm – 4:05 pm  CMC Arthritis: Do I Still do an LRTI?
Sanjeev Kakar, MD, FAOAl

4:05 pm – 4:15 pm  Anchor, Suture, or Tendon - Do They Work Long Term?
Amy L. Ladd, MD

4:15 pm – 4:25 pm  CMC Arthroplasty: Is There an Advantage to Replacement?
Daniel A. Osei, MD

4:25 pm – 4:35 pm  My CMC Procedure Failed! What Should I Do?
Loukia K. Papatheodorou, MD

4:35 pm – 4:45 pm  What is the Role of Arthroscopy in Wrist Arthritis?
A. Lee Osterman, MD

4:45 pm – 4:55 pm  I Have a SLAC Wrist: How Do I Want I Treated?
A. Lee Osterman, MD

4:55 pm – 5:05 pm  Who is the Candidate for a Replacement?
Marco Rizzo, MD

5:05 pm – 5:15 pm  Mass Wisdom and Q&A

5:15 pm – 5:25 pm  Closing Comments and Adjournment

Plan your education and register today at aaos.org/my meeting
General Information

Description
Despite continuous advances, musculoskeletal disorders and injuries are on the rise. While some areas require further research to improve outcomes, other areas have established best-practice patterns, but struggle with implementation. Orthopaedic Surgeons are a critical part of the team leading the way to address these issues.

Education is key to improvements in musculoskeletal care. The AANA/AOSSM Specialty Day 2019 program will feature didactic presentations that provide opportunities to share important research findings and serve as a review of core musculoskeletal topics, highlighting the latest advances and reinforce time-tested tools aimed at preventing and addressing musculoskeletal care while providing face-to-face networking opportunities.

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 and who may desire to improve their arthroscopic knowledge, competence, performance, and patient outcomes.

Program
The Arthroscopy Association of North America (AANA) and American Orthopaedic Society for Sports Medicine (AOSSM) attest that the people responsible for the development of this educational activity did so independently and were not influenced by commercial supporters.

Educational 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 through an arthroscopic surgery lens.
- Assess and apply surgical and non-surgical treatment recommendations and rehabilitation protocols for the diagnosis and clinical management of joint disorders in athletes.
- Review and implement new minimally invasive techniques for the management of shoulder, knee, and hip pathology.

Accreditation
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. The AOSSM designates this live activity for a maximum of 7.50 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Continuing Education Credit 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.

This program is eligible for a maximum of 7.50 Category A hours/CEUs. ATs should claim only those hours actually spent in the educational program.

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 begin stricken from the program.

Disclaimer
The material presented in this continuing medical education program is being made available by ANNA and 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 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 AOSSM or its Committees, Commission or Affiliates. 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.

Program Committee Leadership
Kevin F. Bonner, MD; AANA Education Chair
Matthew T. Provencher, MD; AOSSM Program Chair

Welcome
Louis F. McIntyre, MD
AANA President
Neal S. ElAttrache, MD
AOSSM President

Session I: Shoulder Instability/Labrum

Moderators:
Jo A. Hannafin, MD, PhD
Brian R. Waterman, MD

Minority Patients Have a Higher Number of Shoulder Dislocations and More Frequent Cartilage Lesions: Data from the MOON – Shoulder Instability Group
Carolyn M. Hettrich, MD, MPH, Anthony J. Zacharias, MD, Shannon Ortiz, Kevin J. Cronin, MD, Shoulder Group MOON, Brian R. Wolf, MD, MS, Cale A. Jacobs, PhD, Kentucky Clinic, Lexington, KY, University of Kentucky, Lexington, KY, University of Iowa, Iowa City, IA, University of Iowa Hospitals and Clinics, Iowa City, IA.
Paper 02
7:10 am – 7:15 am Arthroscopic Soft Tissue Stabilization for Traumatic Anterior Shoulder Instability in Elite Collision Athletes
Shota Hoshika, MD, Hiyo Yuki Sugaya, MD, Norimasa Takahashi, MD, Keisuke Matsuki, MD, PhD, Morihito Tokai, MD, Yusuke Ueda, MD, Hiroshi Ge Hamada.
Sports Medicine & Joint Center, Funabashi Orthopaedic Hospital, Funabashi, Japan.

8:47 am – 8:55 am Questions and Answers
8:55 am – 9:01 am Break
9:01 am – 10:00 am Session III: Rotator Cuff
Moderators:
Joseph C. Tauro, MD
Samuel A. Taylor, MD

Paper 03
9:01 am – 9:06 am Radiostereometric Analysis of Subpectoral vs. Suprapectoral Biceps Tenodesis with Interference Screw Fixation
Richard N. Puzzitiello1, Avinesh Agarwalla1, Joseph N. Liu, MD2, Gregory L. Cvetanovich, MD2, Anirudh K. Gowd1, Brian J. Cole, MD, MBA2, Anthony A. Romeo, MD2, Nikhil N. Verma, MD2, Brian Forsythe, MD2.
1Midwest Orthopaedics at Rush University Medical Center, Chicago, IL, USA, 2 Rush University Medical Center, Chicago, IL, USA, 3Midwest Orthopaedics at Rush, Chicago, IL, USA.

9:06 am – 9:11 am Questions and Answers
9:11 am – 9:16 am My Five Arthroscopic Cuff Repair Tips to Make Your Life Simple
Kevin F. Bonner, MD
9:22 am – 9:28 am How I Do it: Large to Massive Cuff Tear – How to Get this Right
Felix H. Savoie, MD
9:34 am – 9:40 am How I Do it: Biologics for the Cuff – What’s the Highest-Level Evidence Say?
Alison P. Toth, MD
9:40 am – 9:45 am Questions and Answers

8:15 am – 8:55 am Session II: Shoulder Biceps/ Scapula/AC Joint
Moderators:
Jonathan A. Godin, MD, MBA
Dean C. Taylor, MD

9:11 am – 9:16 am Questions and Answers
9:16 am – 9:22 am My Five Arthroscopic Cuff Repair Tips to Make Your Life Simple
Kevin F. Bonner, MD
9:22 am – 9:28 am How I Do it: Large to Massive Cuff Tear – How to Get this Right
Felix H. Savoie, MD
9:28 am – 9:34 am How I Do it: Biologics for the Cuff – What’s the Highest-Level Evidence Say?
Alison P. Toth, MD
9:34 am – 9:40 am How I Do it: My Tricks for a Superior Capsular Reconstruction
Stephen B. Burkhart, MD
9:40 am – 9:45 am Questions and Answers
9:45 am – 10:00 am Case: A 51-year-old with a Failed Large-to-Massive Cuff Tear

**Moderator:** Robert T. Burks, MD

**Panelists:** Jeffrey S. Abrams, MD; Stephen S. Burkhart, MD; Jorge Chahla, MD, PhD; Kevin D. Plancher, MD; Felix H. Savoie, MD; Alison P. Toth, MD

10:00 am – 11:20 am **Session IV: Knee and Sports**

**Moderators:** Sandeep Mannava, MD, PhD
Kurt P. Spindler, MD

Paper 05
10:00 am – 10:05 am The Associations of Early Sport Specialization and Training Volume with Injury Rates in NCAA Division I Athletes

**Seth Ahlquist, BS**, Brian Michael Cash, MD, Sharon L. Hame, MD.

1David Geffen School of Medicine at UCLA, Los Angeles, CA, USA, 2UCLA Department of Orthopaedic Surgery, Santa Monica, CA, USA, 3UCLA Dept. of Ortho. Surgery, Los Angeles, CA, USA.

Paper 06
10:05 am – 10:10 am Blood Flow Restriction Therapy Preserves Whole Limb Bone and Muscle Following ACL Reconstruction

**Bradley Lambert, PhD**, Corbin A. Hedt, DPT, Robert A. Jack, MD, Michael Moreno, PhD, Domsenica Delgado, BS, Joshua David Harris, MD, Patrick C. McCulloch, MD.

1Houston Methodist Hospital, Houston, TX, USA, 2Texas A&M University, Houston, TX, USA, 3Houston Methodist Hospital - Houston, TX, USA.

Paper 07
10:10 am – 10:15 am Bridge-enhanced ACL Repair: Two-year Results of the First in Human Study

**Martha M. Murray, MD**, Leslie Kalishi, Braden C. Fleming, PhD, Brett Flutie, Laura Thurber, Christina Freiberger, Rachael Henderson, Gabriel Perrone, Benedikt Proffen, MD, Dennis E. Kramer, MD, Yi-Meng Yen, MD, Lyle J. Micheli, MD.

1Boston Children's Hospital, Boston, MA, USA, 2Bioengineering Labs, Providence, RI, USA.

10:15 am – 10:20 am Questions and Answers

10:20 am – 10:26 am Can We Truly Prevent an ACL Tear?

**Timothy E. Hewett, PhD, FACSM**

10:26 am – 10:32 am What Autograft is Best for YOUR Patient – and How I Choose.

**Lars Engebretsen, MD, PhD**

10:32 am – 10:46 am DEBATE: Do Your ACL Reconstruction MY WAY!

10:32 am – 10:39 am Retrograde Drilling ACL Reconstruction

**Robin Vereeke West, MD**

10:39 am – 10:46 am Medial Portal ACL Reconstruction – Easy and Reproducible

**Asheesh Bedi, MD**

10:46 am – 10:52 am How I Do it: Quadriiceps Tendon Reconstruction

**Charles A. Bush-Joseph, MD**

10:52 am – 10:58 am How I Do it: PCL Reconstruction – How I Make It Reproducible

**Bruce A. Levy, MD**

10:58 am – 11:04 am Questions and Answers

11:04 am – 11:20 am The Case: I Did an ACLR Two Years Ago, but Now has Recurrent Instability after Stepping Off a Curb

**Moderator:** Laith M. Jazrawi, MD

**Panelists:** Asheesh Bedi, MD; Charles A. Bush-Joseph, MD; Lars Engebretsen, MD, PhD; Timothy E. Hewett, PhD, FACSM; Bruce A. Levy, MD; Robin Vereeke West, MD

11:20 am – 11:55 am **Kennedy Lecture**

11:20 am – 11:25 am Introduction of Kennedy Lecture

**Neal S. ElAttrache, MD, President AOSSM**

11:25 am – 11:55 am Kennedy Lecture

**Annunziato Amendola, MD**

Duke Sports Science Institute

11:55 am – 12:05 pm Lunch Break

A box lunch is included with your registration fee.

12:05 pm – 12:36 pm **Session V: Knee Ligament/Patella Instability**

**Moderators:** Julie A. Dodds, MD
Bert R. Mandelbaum, MD

12:05 pm – 12:11 pm Uncovering the Dark Side of the Knee – Dealing with PLC Injuries

**Robert F. LaPrade, MD, PhD**

12:11 pm – 12:17 pm ACL Augmentation: ALL (Anterolateral Ligament) or the ITB (Iliotibial Band) – Science or Science Fiction?

**Alan M. Getgood, MD, FRCS (Tr&Orth)**

12:17 pm – 12:20 pm Patella Instability with Dysplasia: My Surgical Algorithm

**Elizabeth A. Arendt, MD**

12:20 pm – 12:26 pm MPFL vs MQTFL: What I Do and Why

**Andrew J. Cosgarea, MD**

12:26 pm – 12:36 pm Questions and Answers

12:36 pm – 12:46 pm Break
<table>
<thead>
<tr>
<th>Time</th>
<th>Session VI: Knee Cartilage, Meniscus and Biologics</th>
<th>Time</th>
<th>Session VII: Hip</th>
</tr>
</thead>
</table>
| 12:46 pm     | **Moderators:**  
               Robert E. Hunter, MD  
               William Ciccone, MD   | 1:55 pm – 2:05 pm | Questions and Answers  
                                                                            |              | Pearls for Taking Care of High School, College, Professional Athletes and Weekend Warriors – My Lessons Learned  
                                                                            |              | Walter R. Lowe, MD  
                                                                            | 2:05 pm – 2:11 pm | Nutraceuticals, Powders and Wine – What Works to Keep Me in the Game  
                                                                            |              | Eric C. McCarty, MD  
                                                                            | 2:11 pm – 2:17 pm | 2:20 pm – 3:15 pm  
                                                                            |              | **Session VII: Hip**  
                                                                            |              | Moderators:  
                                                                            |              | Christopher M. Larson, MD  
                                                                            |              | Shane Jay Nho, MD, MS  
                                                                            | 2:20 pm – 2:25 pm | Paper 10  
                                                                            |              | Prospective Randomized Comparison of Capsule Management Techniques During Hip Arthroscopy  
                                                                            |              | Kostas John Economopoulos, MD, Christopher Y. Kweon, MD  
                                                                            | 2:25 pm – 2:30 pm | Paper 11  
                                                                            |              | Predictors of Persistent Postoperative Pain at Minimum Two Years after Arthroscopic Treatment of Femoroacetabular Impingement  
                                                                            |              | Austin V. Stone, MD, PhD, Philip Malloy, William H. Neal, Edward Beck, Brian Robert Waterman, MD, Charles A. Bush-Joseph, Shane Jay Nho, MD, MS  
                                                                            | 2:30 pm – 2:35 pm | Questions and Answers  
                                                                            |              | My Hip Hurts – What Are the Top Five Hip Conditions We See and How to Diagnose  
                                                                            |              | Richard C. Mather, III, MD  
                                                                            | 2:35 pm – 2:41 pm | When to Pull the Trigger on FAI Operative Treatment and How to Do It  
                                                                            |              | JW Thomas Byrd, MD  
                                                                            | 2:41 pm – 2:47 pm | How to Set-up and Do Hip Arthroscopy – Five Simple Steps  
                                                                            |              | Benjamin G. Domb, MD  
                                                                            | 2:47 pm – 2:53 pm | Labrum Repair – All My Tricks  
                                                                            |              | Bryan T. Kelly, MD  
                                                                            | 2:53 pm – 2:59 pm | Labrum Reconstruction – How I Do It  
                                                                            |              | Marc J. Philippon, MD  
                                                                            | 2:59 pm – 3:05 pm | Questions and Answers  
                                                                            | 3:05 pm – 3:15 pm | Adjourn – See you in Orlando!  
                                                                            | 3:15 pm       | March 28, 2020  

**Paper 08**
12:46 pm – 12:51 pm  
Accuracy and Reliability of the Visual Assessment of Patellar Tracking  
Matthew Best, MD1, Miho Jean Tanaka, MD1, Shadpour Demehri, MD1, Andrew J. Cosgarea, MD2.  
1:Johns Hopkins University, Baltimore, MD, USA, 2:Johns Hopkins Sports Medical Center, Lutherville, MD, USA.

**Paper 09**
12:51 pm – 12:56 pm  
Return to Sport and Patient Satisfaction Following Concomitant High Tibial Osteotomy and Osteochondral Allograft Transplantation  
Joseph N. Liu, MD1, David R. Christian, BS1, Avinesh Agrawalla, BS1, Grant H. Garcia, MD1, Michael L. Redondo, MA, BS1, Adam Blair Yanke, MD, PhD2.  
1:Rush University Medical Center, Chicago, IL, USA, 2:Midwest Orthopaedics at Rush, Chicago, IL, USA.

12:56 pm – 1:01 pm  
Questions and Answers

1:01 pm – 1:07 pm  
Meniscus and Cartilage Injuries on MRI – What You Need to Know  
Hollis G. Potter, MD

1:07 pm – 1:13 pm  
Root Tears: How to Do This Reliably and in Whom?  
Nicholas A. Sgaglione, MD

1:13 pm – 1:19 pm  
Fixing Meniscus Tears You Didn’t Think Could Heal  
Louis F. McIntyre, MD

1:19 pm – 1:25 pm  
Surgical Decision Making for Symptomatic Defects  
Brian J. Cole, MD, MBA

1:25 pm – 1:37 pm  
DEBATE: I am Going to Tell You What is BEST for Cartilage Surgery!  

1:25 pm – 1:31 pm  
Surface Cartilage Treatments are the Way to Go  
Craig H. Bennett, MD

1:31 pm – 1:37 pm  
Osteochondral Grafts are Most Reliable  
William Bugbee, MD

1:37 pm – 1:43 pm  
Osteochondral Allografts from the Condyle to the Patella: My Technical Pearls  
James P. Bradley, MD

1:43 pm – 1:49 pm  
When Do You Need an Osteotomy and How to Do It?  
Aaron J. Krych, MD

1:49 pm – 1:55 pm  
Biologics for the Knee – From Early OA to Tissue Repair – What to Do?  
Scott A. Rodeo, MD

**Paper 10**
2:20 pm – 2:25 pm  
Prospective Randomized Comparison of Capsule Management Techniques During Hip Arthroscopy  
Kostas John Economopoulos, MD, Christopher Y. Kweon, MD  
1:The Orthopaedic Clinic Association, Phoenix, AZ, USA, 2:University of Washington, Seattle, WA, USA.

2:25 pm – 2:30 pm  
My Hip Hurts – What Are the Top Five Hip Conditions We See and How to Diagnose  
Richard C. Mather, III, MD

2:30 pm – 2:35 pm  
When to Pull the Trigger on FAI Operative Treatment and How to Do It  
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Bryan T. Kelly, MD

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Labrum Reconstruction – How I Do It  
Marc J. Philippon, MD

2:53 pm – 2:59 pm  
Questions and Answers

2:59 pm – 3:05 pm  
Adjourn – See you in Orlando!  
March 28, 2020
Federation of Spine Associations
American Spinal Injury Association
Cervical Spine Research Society
North American Spine Society
Scoliosis Research Society

Saturday, March 16, 2019
Venetian/Sands Expo
Room 3401
8:00 am – 4:49 pm

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American Academy of Orthopaedic Surgeons and the Federation of Spine Associations. The American Academy of Orthopaedic Surgeons is accredited by the ACCME to provide continuing medical education for physicians.

General Information
Description
The FOSA Specialty Day offers a unique forum from our four premier spine societies, ASIA, CSRS, NASS, and SRS, to exchange ideas regarding basic science and clinical problems of the spine. Hot topics and clinically relevant information in spine surgery, along with the latest advances in spine care, and current concepts in the diagnosis and management of spinal disorders, will be presented by a faculty of experts. This year’s program is no exception featuring an interactive educational format which includes lectures, case-based presentations, and lively debate.

Program Chairs
ASIA: Jacob M. Buchowski, MD and Addisu Mesfin, MD
CSRS: Michael C. Gerling, MD
NASS: John G. Finkenberg, MD and Zoher Ghogawala, MD, FACS
SRS: Douglas C. Burton, MD and Suken A. Shah, MD

Educational Objectives
• To present a common forum for the four spine societies (American Spinal Injury Association, Cervical Spine Research Society, North American Spine Society and Scoliosis Research Society) to exchange ideas regarding basic science and clinical problems of the spine.
• To discuss current concepts in diagnosis and management of spinal disorders in the form of case presentations, debate, roundtable discussions, free papers, and instructional presentations.
• To update the review of clinical and surgical results as well as complications.

Accreditation
Credit Hours
7.0 AMA PRA Category 1 Credits™.

8:00 am – 8:05 am Welcome and Report of the President
Douglas C. Burton, MD, President

8:05 am – 9:50 am Section I – Scoliosis Research Society
Moderators: Ronald A. Lehman, Jr., MD and Suken A. Shah, MD

8:05 am – 8:08 am Introduction
Ronald A. Lehman, Jr., MD and Suken A. Shah, MD

8:08 am – 8:14 am Non Operative Treatment for Pediatric Scoliosis: An Update
Suken A. Shah, MD

8:14 am – 8:22 am Operative Treatment for Pediatric Scoliosis: Current Concepts and Innovations
Burt Yaszay, MD

8:22 am – 8:40 am Pediatric Deformity Roundtable: Case Presentations of Key Principles
Paul D. Sponseller, MD; Matthew Oetgen, MD, MBA

8:40 am – 8:48 am When Does an Adult Degenerative Spine Case Become a Deformity Case?
Todd J. Albert, MD

8:48 am – 8:56 am Highlights of Preoperative Planning for Complex Adult Spinal Deformity
Rajiv K. Sethi, MD

8:56 am – 9:16 am Debate on the Decision Tree and Technique of Sagittal Plane Reconstruction in Adult Spinal Deformity (With Particular Attention to the Interbody Space)
• 1. Posterior Only Deformity Correction with PCO & TLIF
Han Jo Kim, MD
• 2. Lateral Reconstruction with LIF & OLIF
Neel Anand, MD
• 3. Anterior Interbody Reconstruction – MIS or Open
Gregory J. Mundis, MD
• 4. Debate Summary, Key Points and My Preferred Technique
Douglas C. Burton, MD

Ronald A. Lehman, Jr., MD

9:25 am – 9:50 am Adult Spinal Deformity Case Presentations (With Emphasis on Prevention/Management of Complications)
Todd J. Albert, MD; Neel Anand, MD; Han Jo Kim, MD; Eric O. Klineberg, MD; Gregory J. Mundis, MD

9:50 am – 10:15 am Break

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Federation of Spine Associations
<table>
<thead>
<tr>
<th>Time</th>
<th>Section II – Cervical Spine Research Society</th>
</tr>
</thead>
</table>
| 10:15 am – 11:40 am | Moderator: Michael C. Gerling, MD  
10:15 am – 11:40 am | CSRS “ON-CALL”  
10:15 am – 10:20 am | Introduction  
Michael C. Gerling, MD  
10:20 am – 10:30 am | Introduction to Common Presentations and Work Up of Symptomatic Cervical Lesions  
Peter G. Whang, MD  
10:30 am – 10:45 am | Treatment of Metastatic Cervical Tumors  
Timothy A. Moore, MD  
10:45 am – 11:00 am | Treatment of Primary Cervical Tumors  
Peter G. Passias, MD  
11:00 am – 11:15 am | Cervical Epidural Abscess and Infection  
Brandon D. Lawrence, MD  
11:15 am – 11:30 am | Optimization and the Compromised Patient with Acute Myelopathy  
Robert A. Hart, MD  
11:30 am – 11:40 am | Panel Discussion  
11:40 am – 1:00 pm | Lunch  
1:00 pm – 2:45 pm | Section III – North American Spine Society  
Moderators: John G. Finkenberg, MD and Zoher Ghogawala, MD, FACS  
1:00 pm – 1:15 pm | Effect of Spinal Decompression on Back Pain in Lumbar Spinal Stenosis: Canadian Spine Outcomes Research Network Registry  
Alexandra Soroceanu, MD  
1:15 pm – 1:20 pm | Discussion  
1:20 pm – 1:35 pm | Anterior Reconstruction Provides Better Outcomes When Correcting Mild Flexible Cervical Deformity  
Robert K. Eastlack, MD  
1:35 pm – 1:40 pm | Discussion  
1:40 pm – 1:55 pm | Spino-pelvic Compensatory Mechanisms for Reduced Hip Motion (ROM) in the Setting of Hip Osteoarthritis  
Aaron J. Buckland, MD  
Intravenous and Oral Tranexamic Acid are Equivalent at Reducing Blood Loss in Thoracolumbar Spinal Fusion: A Prospective Randomized Trial  
Charles Yu, MD  
1:55 pm – 2:00 pm | Discussion  
2:00 pm – 2:15 pm | Patients Comparison of MIS and Open TLIF in the Treatment of Single Level Lumbar Degenerative Diseases with a Minimum of 6-Years Follow-up  
Ding-Jun Hao, MD  
2:15 pm – 2:20 pm | Discussion  
2:20 pm – 2:35 pm | Preoperative Multimodal Analgesia to Decrease Narcotic Consumption in Elective Spinal Fusion Patients  
Max R. Haffner, MD  
2:35 pm – 2:45 pm | Discussion  
2:45 pm – 3:05 pm | Break  
3:05 pm – 4:49 pm | Section IV – American Spinal Injury Association  
Moderators: Jacob M. Buchowski, MD and Addisu Mesfin, MD  
3:05 pm – 3:10 pm | Introduction  
3:10 pm – 3:25 pm | Update on Novel Therapeutics and Clinical Trials on Spinal Cord Injury  
Michael G. Fehlings, MD  
Spinal Cord Syndromes  
3:25 pm – 3:35 pm | Update on the Management of Central Cord Syndrome  
Chadi Tannoury, MD  
3:35 pm – 3:45 pm | Discussion  
3:45 pm – 3:52 pm | Diagnosing Cauda Equina Syndrome Versus Conus Medularis Syndrome  
Emmanuel N. Menga, MD  
3:52 pm – 4:00 pm | Brown Sequard Syndrome and Penetrating Trauma  
Joseph P. Gjolaj, MD  
4:00 pm – 4:05 pm | Discussion  
Spinal Cord Injury in the Hyperostotic Spine  
4:05 pm – 4:13 pm | Management of Cervical Spine Cord Injury in the Stiff Spine  
Kristen E. Radcliff, MD  
Thoracolumbar Spinal Cord Injury in the Ankylosed Spine  
4:13 pm – 4:23 pm | Open Stabilization and Decompression  
Addisu Mesfin, MD  
4:23 pm – 4:28 pm | Discussion  
4:28 pm – 4:36 pm | Immediate Post-Operative Management of the Spinal Cord Injury Patient  
DVT Prophylaxis: When to Initiate and for How Long?  
Ahmad Nassr, MD  
4:36 pm – 4:44 pm | MAP Goals: Duration and Side Effects  
Hamid Hassanzadeh, MD  
4:44 pm – 4:49 pm | Discussion  
4:49 pm | Adjourn  
Douglas C. Burton, MD |
# General Information

**Description**
The 2019 LLRS Specialty Day will focus on difficult problems in a limb reconstruction from birth through adulthood with invited guests from POSNA and Australia. The best papers from the summer LLRS meeting will be highlighted as well as important advances in limb reconstruction including osseous–integrated prosthesis and motorized intramedullary nails for limb lengthening.

**Educational Objectives**
- Explore management strategies for traumatic and congenital conditions about the ankle, knee, and hip as they present in childhood through adulthood;
- Examine emerging techniques in the reconstruction of the amputated leg and complex arthrodesis;
- Discuss current challenges and possible solutions in transitional medicine as the complex child becomes an adult; and
- Understand transitional medicine as the complex child becomes an adult.

**Accreditation**
**Credit Hours**
Credit Hours 7.75 AMA PRA Category 1 Credits™.

## Program Committee Leadership
**L. Reid Nichols, MD**, Program Chair  
**Stephen M. Quinnan, MD**, Program Co-chair

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 am – 8:05 am</td>
<td>Welcome and Introduction of Guest Nation: Australia</td>
<td>L. Reid Nichols, MD and Stephen M. Quinnan, MD</td>
</tr>
</tbody>
</table>
| 8:05 am – 9:45 am | Session I: Lower Extremity | **Moderator: Douglas N. Beaman, MD**  
Clubfoot – Management from School Age through Adulthood  
Pediatrics – Steven L. Frick, MD  
Adult – Austin T. Fragemen, MD  
Australian Guest – Minoo Patel, MBBS, MS, FRACS, PhD |
| 8:35 am – 9:05 am | Post Traumatic Ankle Injuries: When is a Child an Adult? | Pediatrics – Joseph Rosenblatt, DO  
Adult – William Terrell, MD  
Australian Guest – Kevin Tetsworth, MD |
| 9:05 am – 9:35 am | Osteogenesis Imperfecta (Leg) | Pediatrics – Richard W. Kruse, DO  
Adult – J. Spence Reid, MD  
Australian Guest – David Little, MD |
| 9:35 am – 9:45 am | Discussion |  
9:45 am – 10:00 am | Refreshment Break |
| 10:00 am – 11:10 am | Session II: Best Papers from LLRS 27th Annual Meeting 2018 | **Moderator: Joseph R. Hsu, MD**  
10:00 am – 10:15 am | Short and Intermediate Term Function after Distraction Osteogenesis for Bone Reconstruction in the Upper and Lower Extremity – Molly Friel Klima |
| 10:15 am – 10:30 am | Mitigating Pathologic Fibrosis following Volumetric Muscle Loss in a Porcine Model – Jessica C. Rivera, MD |
| 10:30 am – 10:45 am | Hip Dysplasia – Reduction of Proximal Migration Before Arthroplasty Using a Fully Implantable Motorized Distraction Nail – Professor Rainer Baumgart |
| 10:45 am – 11:00 am | Gait Analysis in Children with Proximal Femoral Focal Deficiency – Lorena Floccari, MD |
| 11:00 am – 11:10 am | Discussion |
| 11:10 am – 12:10 pm | Guest Presentation | **Moderator: John G. Birch, MD**  
The Limb Length and Deformity Correction Omnivore-You Can Learn From Everyone! – Mark T. Dahl, MD |
| 12:00 pm – 12:10 pm | Discussion/Questions |
| 12:10 pm – 1:00 pm | Lunch on Own |
| 12:10 pm – 12:55 pm | Optional LLRS Research Breakout Session | **Moderator: Joseph R. Hsu, MD and Jessica C. Rivera, MD**  
1:00 pm – 1:50 pm | Session III: What's New? | **Moderator: Kevin W. Louie, MD**  
1:00 pm – 1:15 pm | Reconstruction of the Amputated Leg – Kevin Tetsworth, MD |
| 1:15 pm – 1:30 pm | Complex Arthrodesis – S. Robert Rozbruch, MD |
| 1:30 pm – 1:45 pm | Rotational Malalignment of the Extensor Mechanism and Congenital Lower Extremity Abnormalities – Sheanna Maine, BSc, BMBS |
| 1:45 pm – 1:50 pm | Discussion |
### Session IV: Knee

**Moderator:** Harold J.P. van Bosse, MD

<table>
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<tr>
<th>Time</th>
<th>Event</th>
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</table>
| 1:50 pm – 2:20 pm | Tibia Vara  
Pediatrics – Sanjeev Sabharwal, MD, MPH  
Adult – Stephen M. Quinnan, MD  
Australian Guest – Minoo Patel, MBBS, MS, FRACS, PhD |
| 2:20 pm – 2:50 pm | Managing Knee Contractures: Congenital and Posttraumatic  
Pediatrics – David S. Feldman, MD  
Adult – S. Robert Rozbruch, MD  
Australian Guest – Kevin Tetsworth, MD |
| 2:50 pm – 3:00 pm | Discussion |
| 3:00 pm – 3:10 pm | Refreshment Break |

### Guest Presentation

**Moderator:** L. Reid Nichols, MD

<table>
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<tr>
<th>Time</th>
<th>Event</th>
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</thead>
</table>
| 3:10 pm – 3:45 pm | Transitional Medicine: When a Complex Child becomes an Adult  
Freeman Miller, MD |
| 3:45 pm – 3:55 pm | Discussion |

### Section V: Hip

**Moderator:** Christopher A. Iobst, MD

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
</table>
| 3:55 pm – 4:25 pm | Managing Proximal Femur AVN  
Pediatrics – David Podezswa, MD  
Adult – Ronald Delanois, MD  
Australian Guest – Oliver Birke, MD |
| 4:25 pm – 4:55 pm | Congenital Femoral Deficiency  
Pediatrics – Jill C. Flanagan, MD  
Adult – Dror Paley, MD  
Australian Guest – Oliver Birke, MD |
| 4:55 pm – 5:05 pm | Discussion |
| 5:05 pm – 5:15 pm | Closing Remarks and Adjourn |

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**Top 3 Reasons to Attend**

1. **Experience unbiased and authoritative education**
   - 95% of attendees rate ICLs as most important

2. **Expand your network of mentors and colleagues**
   - 45% of attendees want to make connections

3. **Discover the latest products and technology under one roof**
   - 98% of attendees achieve their goals in the exhibit hall

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**AAOS 2019 Annual Meeting**
March 12 – 16, Las Vegas, Nevada
### Accreditation

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American Academy of Orthopaedic Surgeons and the Musculoskeletal Infection Society.

The American Academy of Orthopaedic Surgeons is accredited by the ACCME to provide continuing medical education for physicians.

The American Academy of Orthopaedic Surgeons designates this live activity for a maximum of **4.5 AMA PRA Category 1 Credits™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

### Objectives

Upon completion of this activity, physicians will be able to:

- Describe the mechanisms of biofilm formation and current techniques for inhibition.
- Understand the risk of musculoskeletal infections in tumor prosthesis and potential opportunities for management.
- Comprehend current techniques for diagnosis and treatment for vertebral osteomyelitis.

### Schedule

<table>
<thead>
<tr>
<th>Time</th>
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<tr>
<td>8:00 am – 8:05 am</td>
<td>Welcome, Disclosures – Carlos A. Higuera-Rueda, MD, Program Chair</td>
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<tr>
<td>8:05 am – 9:15 am</td>
<td>Session I Best Research Presentations – Clinical Practice: Prevention, Diagnosis and Treatment of PJI</td>
</tr>
<tr>
<td>8:05 am – 8:13 am</td>
<td>Perioperative Antibiotic Prophylaxis in Total Joint Arthroplasty: A Single Dose is as effective as Multiple Doses – Timothy L. Tan, MD</td>
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<tr>
<td>8:14 am – 8:22 am</td>
<td>Single vs Multiple Doses of Prophylactic Antibiotics in Orthopaedic Surgery: A Meta-Analysis – Sean Ryan, MD</td>
</tr>
<tr>
<td>8:23 am – 8:31 am</td>
<td>Intraoperative Prophylactic Techniques for the Prevention of Periprosthetic Joint Infection in Primary Total Joint Arthroplasty: A Systematic Review and Meta-Analysis – Kyle Cichos, MD</td>
</tr>
<tr>
<td>8:32 am – 8:40 am</td>
<td>Discussion</td>
</tr>
<tr>
<td>8:41 am – 8:49 am</td>
<td>An Enhanced Understanding of Culture-negative Periprosthetic Joint Infection with Next Generation Sequencing – Karan Goswani, MD</td>
</tr>
<tr>
<td>8:50 am – 8:58 am</td>
<td>Diagnostic Accuracy of the Alpha-defensin for Periprosthetic Joint Infection in Patients with Inflammatory Diseases – Carlos A. Higuera-Rueda, MD</td>
</tr>
<tr>
<td>8:59 am – 9:07 am</td>
<td>Changing Trends, Risk Factors, and Treatment Challenges in Staphylococcus aureus Septic Arthritis – Kenneth L. Urish, MD, PhD</td>
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<tr>
<td>9:08 am – 9:15 am</td>
<td>Discussion</td>
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<tr>
<td>9:15 am – 10:00 am</td>
<td>Session II Symposium: Vertebral Osteomyelitis – New Trends on Diagnostic and Treatment</td>
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<tr>
<td>9:15 am – 10:00 am</td>
<td>Polymyxin and Bacitracin in the Irrigation Solution: There is no role for this practice – Javad Parvizi, MD</td>
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<tr>
<td>9:15 am – 10:00 am</td>
<td>The Osteocyte as a Target Cell and Disease Nidus in Periprosthetic Joint Infection – Professor Gerald J. Atkins</td>
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<tr>
<td>10:00 am – 10:10 am</td>
<td>Break</td>
</tr>
<tr>
<td>10:10 am – 11:10 am</td>
<td>Session III Best Research Presentations – Basic Science – From Origins of Infection to Potential Prevention and Treatments</td>
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<tr>
<td>10:10 am – 10:18 am</td>
<td>Zoledronic acid increases bacterial burden and infection rate in a validated mouse model of implant infection – Zachary Burke, MD</td>
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<tr>
<td>10:19 am – 10:27 am</td>
<td>In vivo bioluminescence imaging in a rabbit model of orthopedic implant-associated infection to monitor efficacy of an antibiotic-releasing coating – John M. Thompson, MD</td>
</tr>
<tr>
<td>10:28 am – 10:36 am</td>
<td>Toward Translational Treatments for the Infected Implant: A Novel Mouse Model of Revision Arthroplasty for PJI – Zachary Burke, MD</td>
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<tr>
<td>10:37 am – 10:45 am</td>
<td>Discussion</td>
</tr>
<tr>
<td>10:46 am – 10:54 am</td>
<td>In vivo bioluminescence imaging in a rabbit model of orthopedic implant-associated infection to monitor efficacy of an antibiotic-releasing coating – John M. Thompson, MD</td>
</tr>
<tr>
<td>10:55 am – 11:03 am</td>
<td>Toward Translational Treatments for the Infected Implant: A Novel Mouse Model of Revision Arthroplasty for PJI – Zachary Burke, MD</td>
</tr>
<tr>
<td>11:04 am – 11:10 am</td>
<td>Discussion</td>
</tr>
</tbody>
</table>
11:10 am – 11:45 am  **Session IV Symposium: Strategies to Prevent and Treat Infections in Tumor Prosthesis**

Moderator: Carlos A. Higuera-Rueda, MD  
Speakers: Barry Brause, MD, Richard O’Donnell, MD

11:45 am – 12:45 pm  **Session V Understanding Biofilm – An Update on Formation, Prevention and Treatment**

Moderator: Alex McLaren, MD  
Speakers: Paul Stoodley, PhD, Kohei Nishitani, MD, PhD

12:45 pm  Adjourn. Lunch on Own, Free Afternoon to attend other Specialty Day meetings

---

**Focus on Your Orthopaedic Resources**

The Exhibit Hall is your go-to resource for surgical and diagnostic solutions.

**Nowhere else can you:**
- See new products and technology from more than 650 companies
- Connect with industry experts from major orthopaedic and device manufacturers
- Compare products and plan purchases for your hospital or practice

**Extend your education in the Exhibit Hall**

**Presentations take place Wednesday through Friday**

**NEW! Innovation Theater** exposes you to live demonstrations of innovative products, services, and solutions showcased by medical and technology professionals.

**Ask an Expert** offers you an opportunity to present your case challenges to receive expert diagnosis and recommendations.

**Technology Theater** presents you with expert lead tech-focused sessions of the latest applications beneficial to you and your team.

**Exhibit Schedule**

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday, March 13</td>
<td>9:00 AM – 5:00 PM</td>
</tr>
<tr>
<td>Thursday, March 14</td>
<td>9:00 AM – 5:00 PM</td>
</tr>
<tr>
<td>Friday, March 15</td>
<td>9:00 AM – 3:00 PM</td>
</tr>
</tbody>
</table>

2+ hours of dedicated exhibit time each day

Plan your Exhibit Hall experience before you arrive at [aaos.org/exhibits](http://aaos.org/exhibits).

**AAOS 2019 Annual Meeting**

March 12 – 16, Las Vegas, Nevada

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Muscloskeletal Infection Society
SPECIALTY DAY

Musculoskeletal Tumor Society
Toolbox for Your Practice in Orthopaedic Oncology

Saturday, March 16, 2019
Venetian/Sands Expo
Room 3304
8:00 am – 3:30 pm

General Information

Description
The focus of the upcoming Specialty Day Meeting will be on tools to help physicians and allied health professionals in their practice caring for patients with musculoskeletal tumors. Through guest speakers from the business world, expert panel discussions, scientific presentations of cutting edge basic science research and surgical techniques, attendees will have the opportunity to learn and actively participate in areas of practice development.

Educational Objectives
Upon completion of the session, attendees should be able to:

• Understand several treatment options for challenging patient, tumor and reconstruction options in Orthopaedic Oncology.
• Assess the progress of MSTS-sponsored research projects.
• Be aware of new tools under development to assess margins intraoperatively in tumor resection surgery.
• Cultivate career planning expertise to become a good mentee and develop into a good mentor.
• Recognize signs of physician burn out and develop skills to avoid it.
• Develop an understanding of technological advances that can have an impact on a musculoskeletal oncology practice.

Accreditation
This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American Academy of Orthopaedic Surgeons and the Musculoskeletal Tumor Society. The American Academy of Orthopaedic Surgeons is accredited by the ACCME to provide continuing medical education for physicians.

Credit Hours
The American Academy of Orthopaedic Surgeons designates this live activity for a maximum of 6 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Program Committee Leadership
Megan E. Anderson, MD, Program Chair
Pietro Ruggieri, MD, PhD, Vice Chair
Nicholas Bernthal, MD, Member-at-Large
David M. King, MD, Member-at-Large

8:00 am – 8:05 am Welcome
R. Lor Randall, MD, FACS, MSTS
President
Megan E. Anderson, MD, Program Chair

8:05 am – 8:45 am Session I: MSTS Guest Speaker
Look for the Light: Applying Space Engineering Techniques to Osteosarcoma Genomics
Theresa Beech

8:35 am – 8:45 am Discussion/Questions

8:45 am – 9:50 am Session II: Challenging Case: Ask an International Expert

Moderators: Nicholas M. Bernthal, MD and Peter Ferguson, MD
Panel Participants:
Miguel A. Ayerza, MD, (Argentina)
Peter Steadman, MB, BS, FRACS (Ortho) (Australia)
Jay S. Wunder, MD, Msc, FRCSC (Canada)
Andrea Angelini, MD, PhD (Italy)
Hiroyuki Tsuchiya, MD, PhD (Japan)
Keith V. Hosking, MB, ChB, FCS, (SA),
Lee M. Jeys, MB, ChB, MSc, FRCS (UK)
Francis J. Hornicek, MD, PhD (USA)

9:50 am - 10:00 am Tribute to Henry J. Mankin, MD
Mark C. Gebhardt, MD

10:00 am – 10:30 am Morning Break

10:30 am – 12:00 pm Session III: Research Forum

Moderators: Emily E. Carmody, MD and Odion T. Binitie, MD

10:30 am – 11:00 am Update from MSTS Grant Projects
2017 MSTS/OREF – Adam S. Levin, MD
2016 MSTS/OREF – Lukas M. Nyström, MD
2016 MSTS/MTF – Thomas J. Scharschmidt, MD

11:00 am – 11:15 am Discussion/Questions

11:15 am – 11:45 am Panel: Assessment of Margins in Orthopaedic Oncology
Brian E. Brigman, MD, PhD
Ginger E. Holt, MD, Eric R. Henderson, MD and Kurt Weiss, MD

11:45 am – 12:00 pm Discussion/Questions

12:00 pm – 1:00 pm Lunch – MSTS Members Only Business Meeting

1:00 pm – 2:00 pm Session IV: Career Tools

Moderators: David M. King, MD and Rosanna L. Wustrack, MD

1:00 pm – 1:20 pm Mentorship: From Mentee to Mentor
Kristy L. Weber, MD

1:20 pm – 1:40 pm Provider Health - Preventing Burnout
Peter J. Buecker, MD

1:40 pm – 2:00 pm Panel Discussion/Questions
2:00 pm – 3:20 pm  Session V: Advances in Technology That Can Impact Your Practice

Moderators: Pietro Ruggieri, MD, PhD and Tessa Balach, MD

2:00 pm – 2:20 pm  3D Printing Technology and Oncologic Endoprostheses
Daniel Kotrych, MD, PhD

2:20 pm – 2:40 pm  Immunology and the Treatment of Sarcomas
G. Douglas Letson, MD

2:40 pm – 3:00 pm  Distraction Osteogenesis and Bone Sarcomas
Daniel E. Prince, MD, MPH

3:00 pm – 3:20 pm  Discussion/Questions

3:20 pm – 3:30 pm  Closing Remarks

Focus on Your Learning

Top 10 Learning Opportunities

1. **Instructional Courses** allow you to master in-depth experience-based orthopaedic techniques from world-renowned surgeons.

2. **Case Presentation Courses** let you engage in table discussions of complex cases with peers and experts, review case data, and hear the final solution.

3. **Symposia** inspire your thinking as a panel of surgeons shares leading-edge research shaping changes in practice.

4. **Paper Presentations** enable you to explore new and exciting research and advances in orthopaedics.

5. **Ask an Expert** offers you an opportunity to present your case challenges to receive expert diagnosis and recommendations.

6. **Flash 5®: What’s Coming Down the Pike** exposes you to critical takeaways on hot topics during 5-minute presentations.

7. **Showdowns®** puts you in the driver’s seat as you watch surgeons debate topics and techniques; then YOU determine who wins.

8. **The Way I See It…®** lets you hear the faculty’s candid opinions on top-of-mind issues.

9. **Orthopaedic Video Theater** presents you with high quality and peer reviewed surgical technique videos.

10. **Posters** allow you to learn from visual presentations about the latest medical, clinical, or scientific research.

Create a unique experience customized to your needs and specialization

**AAOS 2019 Annual Meeting**
March 12 – 16, Las Vegas, Nevada
General Information

Description
The OTA Specialty Day features an energetic and entertaining agenda for trauma experts, generalists and international attendees focused on practical strategies for difficult clinical situations, best evidence for contemporary controversies, and highlights from the OTA annual scientific programs. The afternoon will feature a combined session with AOFAS.

Target Audience
This meeting is designed for orthopaedic surgeons and is beneficial to related allied health care professionals. OTA has created the program based on stated needs and interests expressed from previous Specialty Day attendee evaluations.

Educational Objectives
• Describe evidence-based recommendations for decision-making for common traumatic conditions
• Identify contemporary operative techniques to facilitate on-call management of challenging situations
• Apply best practices and recent research advances to your trauma or general practice.

Questions
Orthopaedic Trauma Association
9400 W. Higgins Rd., Suite 305, Rosemont, IL 60018
Phone: 847-698-1631  Email: ota@ota.org

Accreditation
The OTA session has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American Academy of Orthopaedic Surgeons (AAOS) and the Orthopaedic Trauma Association. AAOS is accredited by the ACCME to provide continuing medical education for physicians.

The combined afternoon session has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American Orthopaedic Foot & Ankle Society (AOFAS) and the Orthopaedic Trauma Association. AOFAS is accredited by the ACCME to provide continuing medical education for physicians.

Credit Hours
5.5 AMA PRA Category 1 Credits™: OTA Session
2.25 AMA PRA Category 1 Credits™: Combined afternoon session

Program Committee Leadership
David C. Teague, MD, Program Chair
Chad P. Coles, MD, Michael J. Gardner, MD, Clifford B. Jones, MD, Stephen A. Kottmeier, MD, Nirmal C. Tejwani, MD, FRCS

7:30 am – 8:25 am  Session I: Orthopaedic Trauma Hot Topics
Moderator: Nirmal C. Tejwani, MD

7:30 am – 7:45 am
Proximal Humerus Fractures (Brian vs Brian)
Brian Solberg, MD – Non-op
Brian Mullis, MD – Op

7:45 am – 8:00 am
Hip Fractures: Long vs Short
William Min, MD – Long
Philipp Leucht, MD – Short

8:00 am – 8:10 am
Mangled Extremity: Never Amputate at First Trip to OR
William J. Ertl, MD

8:10 am – 8:25 am
Nail or Plate: Distal Tibia
Daniel N. Segina, MD – Nail
Heather A. Vallier, MD – Plate

8:25 am – 9:20 am  Session II: Postoperative Complications: How to Get Out of this Mess
(Case Based “At Your Request”)

Moderators:
Stephen A. Kottmeier, MD
Clifford B. Jones, MD

8:25 am – 8:55 am
Resolve or Refer I
Moderator: Stephen A. Kottmeier, MD
Panelists:
Paul Tornetta, III, MD
J. Tracy Watson, MD

8:55 am – 9:20 am
Resolve or Refer II
Moderator: Clifford B. Jones, MD
Panelists:
Heather A. Vallier, MD
Philip R. Wolinsky, MD

9:20 am – 9:40 am  BREAK

9:40 am – 10:40 am  Session III: Fracture Timing and Open Fracture EBM
Moderator: Nirmal C. Tejwani, MD

9:40 am – 9:50 am
Open Fractures: 6 Hour Rule; Can It Wait Overnight?
Nirmal C. Tejwani, MD

9:50 am – 10:00 am
Talus Fractures: What is the Urgency?
Sean E. Nork, MD

10:05 am – 10:10 am  Q&A

10:10 am – 10:20 am
Femoral Neck Fractures in the 30 Year Old: Tonight?
Philip R. Wolinsky, MD

10:20 am – 10:30 am
Compartment Syndrome: Diagnosis; Timing; Delayed?
Eric Kubiak, MD

10:30 am – 10:40 am  Q&A
# Speciality Day

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:40 am – 11:40 am</td>
<td>Session IV: Best Practice Mini Topics</td>
<td><strong>Moderator:</strong> David C. Teague, MD</td>
</tr>
<tr>
<td>10:40 am – 10:55 am</td>
<td>Pain Management Guidelines—Opioid/Nonopioid Regimens</td>
<td>Thomas F. Higgins, MD</td>
</tr>
<tr>
<td>10:55 am – 11:10 am</td>
<td>DVT Prophylaxis in Lower Extremity Trauma</td>
<td>William T. Obremskey, MD</td>
</tr>
<tr>
<td>11:25 am – 11:40 am</td>
<td>Q&amp;A</td>
<td></td>
</tr>
<tr>
<td>11:40 am – 12:10 pm</td>
<td>Guest Speakers: What I Know Now</td>
<td><strong>Introduction:</strong> David C. Teague, MD Richard F. Kyle, MD Andrew R. Burgess, MD</td>
</tr>
<tr>
<td>12:10 pm – 1:10 pm</td>
<td>Lunch Break</td>
<td>OTA Members-Only Business Meeting</td>
</tr>
<tr>
<td>1:15 pm – 2:15 pm</td>
<td>Session V: Papers You Should Know About: 2018 OTA Annual Meeting Highlights</td>
<td><strong>Moderators:</strong> Michael J. Gardner, MD – 2018 Program Chair Stephen A. Kottnmeier, MD – 2018 Program Co-Chair</td>
</tr>
<tr>
<td>1:15 pm – 1:22 pm</td>
<td>Bovill Award Paper Presentation</td>
<td><strong>Introduction:</strong> David C. Teague, MD</td>
</tr>
<tr>
<td>1:22 pm – 1:27 pm</td>
<td>Discussion</td>
<td></td>
</tr>
<tr>
<td>1:27 pm – 2:15 pm</td>
<td>2018 OTA Annual Meeting Highlights</td>
<td><strong>Moderators:</strong> Michael J. Gardner, MD – 2018 Program Chair Stephen A. Kottnmeier, MD – 2018 Program Co-Chair</td>
</tr>
<tr>
<td>2:15 pm – 2:30 pm</td>
<td>Break/Walk to AOFAS Room 4101</td>
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## Combined Specialty Day Meeting

**American Orthopaedic Foot & Ankle Society/Orthopaedic Trauma Association**

**Room 4101**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:30 pm – 4:45 pm</td>
<td>Session 1: The Science: Rotational Ankle Fractures and the Syndesmosis: The Standard, The Latest, The Controversial</td>
<td><strong>Moderators:</strong> Brian C. Toolan, MD (AOFAS) and Michael J. Gardner, MD (OTA)</td>
</tr>
<tr>
<td>2:30 pm – 2:40 pm</td>
<td>The Only Thing that Really Matters is the Lateral Column: Ignoring the Deltoid</td>
<td>Michael J. Gardner, MD</td>
</tr>
<tr>
<td>2:40 pm – 2:50 pm</td>
<td>The Only Thing that Really Matters is the Deltoid: The Consequences of a Limited Field of View</td>
<td>Eric M. Bluman, MD, PhD</td>
</tr>
<tr>
<td>2:50 pm – 2:57 pm</td>
<td>OTA Paper: Posterior Malleolar Fixation Reduces the Need for Syndesmotic Screw Fixation in Rotational Ankle Injuries</td>
<td>Omar Behery, MD; Rajkesh Narayanan, MS; Abdullah Qatu, BS; Sanjit Konda, MD; Nirmal Tejwani, MD; Kenneth Egol, MD</td>
</tr>
<tr>
<td>2:57 pm – 3:04 pm</td>
<td>AOFAS Paper: Does the Presence or Absence of a Fibular Fracture Predict Future Morbidity?</td>
<td>Henry Boaetng, MD, MSc; Chinene Nwachuku, MD; Kempland C. Walley, BSc; Justin W. Walker; Rhett MacNeill, MD; Paul Tornetta, MD; J. Spence Reid, MD</td>
</tr>
<tr>
<td>3:04 pm – 3:30 pm</td>
<td>Discussion and Cases</td>
<td></td>
</tr>
<tr>
<td>3:30 pm – 4:15 pm</td>
<td>Session 2: The Cases: Hindfoot Trauma: I Hate Puzzles</td>
<td><strong>Moderators:</strong> David Thordarson, MD (AOFAS) and James R. Fickle, MD, FACS (OTA)</td>
</tr>
<tr>
<td>3:30 pm – 3:40 pm</td>
<td>Trauma Case</td>
<td>James R. Fickle, MD, FACS and Joseph R. Hsu, MD</td>
</tr>
<tr>
<td>3:40 pm – 3:50 pm</td>
<td>Foot &amp; Ankle Case</td>
<td>Brian M. Weatherford, MD and Mark A. Glazebrook, MD, MSc, PhD</td>
</tr>
<tr>
<td>3:50 pm – 4:15 pm</td>
<td>Discussion</td>
<td></td>
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<tr>
<td>4:15 pm – 4:45 pm</td>
<td>Session 3: The Debate: The Midfoot: Fix It or Fuse It. Are These Joints Essentially Nonessential?</td>
<td><strong>Moderators:</strong> Donald R. Bohay, MD, FACS (AOFAS) and Clifford B. Jones, MD (OTA)</td>
</tr>
<tr>
<td>4:15 pm – 4:40 pm</td>
<td>Fix It</td>
<td>J. Chris Coetzee, MD (AOFAS) Clifford B. Jones, MD (OTA)</td>
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<tr>
<td>4:45 pm</td>
<td>Closing Remarks / Adjourn</td>
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</table>
### General Information

#### Description
The program is designed to identify areas of recent research in the field of hip surgery relevant to practicing physicians, surgeons, and allied health professionals. This information will be delivered through scientific paper presentations, hot topic updates, case-based and video-based discussions, current concepts overview and special spotlight sessions.

#### Target Audience
The intended audience is orthopaedic surgeons, physicians, fellows, residents, and allied health professionals in the field of hip surgery or related fields of practice.

#### Course Objectives
- Review basic science and orthopaedic problems relative to the hip joint.
- Examine the indications, techniques, and results of various surgical procedures.
- Describe the management of hip arthroplasty related problems and complications.
- Gain further understanding in the areas of quality, economics and value as related to the US healthcare.

### Questions
The Hip Society
9400 West Higgins Road, Suite 500
Rosemont, IL 60018
Phone: 847/698-1638    Email: hip@aaos.org

### Accreditation
This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American Academy of Orthopaedic Surgeons and The Hip Society. The American Academy of Orthopaedic Surgeons is accredited by the ACCME to provide continuing education for physicians.

### Credit Hours
The American Academy of Orthopaedic Surgeons designates this live activity for a maximum of **7.5 AMA PRA Category 1 Credits™**. Physicians should claim only the credit commensurate with the extent of their participation.

### Disclaimer
The material presented at the 2019 Winter (Open) Meeting of The Hip Society and AAHKS has been made available by The Hip Society and AAHKS for educational purposes only. This material is not intended to represent the only, nor necessarily the best, method or procedure appropriate for the medical situations discussed, but rather is intended to present an approach, view, statement or opinion of the faculty, which may be helpful to others who face similar situations. The Hip Society and AAHKS disclaim any and all liability for injury or other damages resulting to any individuals attending the 2019 Winter (Open) Meeting and for all claims which may arise out of the use of the techniques demonstrated therein by such individuals, whether these claims shall be asserted by a physician or by any other party. No reproductions of any kind, including audio- and video-recordings, may be made of the presentations at the 2019 Winter (Open) Meeting. The Hip Society reserves all rights to such material, and commercial reproduction is specifically prohibited unless authorized by The Hip Society.

### Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Moderator/Presenter(s)</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:55 am – 8:00 am</td>
<td>Welcome / Opening Remarks</td>
<td>Douglas E. Padgett, MD, (New York, NY) President of The Hip Society</td>
<td>Room 2101</td>
</tr>
<tr>
<td>8:00 am – 8:30 am</td>
<td>DEBATE I: Surgical Approaches: Does It Matter?</td>
<td>Moderator: John J. Callaghan, MD (Iowa City, IA)</td>
<td>Room 2101</td>
</tr>
<tr>
<td>8:02 am – 8:12 am</td>
<td>Anterior Hip Approach</td>
<td>Wael K. Barsoum, MD (Weston, FL)</td>
<td>Room 2101</td>
</tr>
<tr>
<td>8:13 am – 8:23 am</td>
<td>Posterior Hip Approach</td>
<td>Robert T. Trousdale, MD (Rochester, MN)</td>
<td>Room 2101</td>
</tr>
<tr>
<td>8:23 am – 8:30 am</td>
<td>Discussion</td>
<td></td>
<td>Room 2101</td>
</tr>
<tr>
<td>8:30 am – 9:10 am</td>
<td>SESSION I: Decreasing Complications</td>
<td>Moderator: William A. Jiranek, MD (Durham, NC)</td>
<td>Room 2101</td>
</tr>
<tr>
<td>8:30 am – 8:36 am</td>
<td>Scope of Problem</td>
<td>David C. Ayers, MD (Worcester, MA)</td>
<td>Room 2101</td>
</tr>
<tr>
<td>8:37 am – 8:43 am</td>
<td>VTE Update</td>
<td>Paul F. Lachiewicz, MD (Chapel Hill, NC)</td>
<td>Room 2101</td>
</tr>
<tr>
<td>8:44 am – 8:50 am</td>
<td>Implant Loosening</td>
<td>Michael Tanzer, MD, FRCSC (Montreal, QC, Canada)</td>
<td>Room 2101</td>
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<tr>
<td>8:51 am – 8:57 am</td>
<td>Modifying Risk Factors</td>
<td>Richard Iorio, MD (Boston, MA)</td>
<td>Room 2101</td>
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<tr>
<td>8:57 am – 9:10 am</td>
<td>Discussion</td>
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<td>Room 2101</td>
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<tr>
<td>9:10 am – 10:00 am</td>
<td>SESSION II: Hip Instability</td>
<td>Moderator: William J. Maloney, III, MD (Redwood City, CA)</td>
<td>Room 2101</td>
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<tr>
<td>9:10 am – 9:16 am</td>
<td>Bearing: Role for “Standard” Head Sizes</td>
<td>Amar S. Ranawat, MD (New York, NY)</td>
<td>Room 2101</td>
</tr>
<tr>
<td>9:17 am – 9:23 am</td>
<td>Soft Tissue Procedures</td>
<td>Stephen J. Incavo, MD (Houston, TX)</td>
<td>Room 2101</td>
</tr>
<tr>
<td>9:24 am – 9:30 am</td>
<td>Bearing: Dual Mobility</td>
<td>Arlen D. Hanssen, MD (Rochester, MN)</td>
<td>Room 2101</td>
</tr>
<tr>
<td>9:31 am – 9:37 am</td>
<td>Bearing: Constrained Options</td>
<td>Thomas P. Sculco, MD (New York, NY)</td>
<td>Room 2101</td>
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<tr>
<td>9:38 am – 9:44 am</td>
<td>Acetabular Positioning</td>
<td>Robert L. Barrack, MD (St. Louis, MO)</td>
<td>Room 2101</td>
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<tr>
<td>9:44 am – 10:00 am</td>
<td>Discussion</td>
<td></td>
<td>Room 2101</td>
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<tr>
<td>10:00 am – 10:15 am</td>
<td>COFFEE BREAK</td>
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<td>Room 2101</td>
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<tr>
<td>Time</td>
<td>Session/Event</td>
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</tbody>
</table>
| 10:15 am – 11:15 am | SESSION III: Special Highlights  
- The Hip Society  
  - Moderator: Mathias P. G. Bostrom, MD (New York, NY)  
  - Recap of the 2018 Rothman-Ranawat Fellowship  
  - The Hip Society's Rothman-Ranawat Traveling Fellowship  
  - The 2018 Rothman-Ranawat Fellows: Benjamin M. Stronach, MD (Jackson, MS) & Elie S. Ghanem, MD (Birmingham, AL)  
  - Tribute to Richard H. Rothman, MD, PhD Douglas E. Padgett, MD (New York, NY)  
- Presidential Guest Speaker  
  - Jeremy L. Gilbert, Ph.D., FBSE  
  - Professor of Bioengineering  
  - Professor of Orthopaedics  
  - Medical University of South Carolina (Charleston, SC)  
  - Introduction of the 2019 Rothman-Ranawat Fellows: Adolph V. Lombardi, Jr., MD (New Albany, OH)  |
| 11:15 am – 11:55 am | DEBATE II: Outpatient THRs  
- Moderator: Joshua J. Jacobs, MD (Chicago, IL)  
- Pros: Keith R. Berend, MD (New Albany, OH)  
- Cons: Michael P. Bolognesi, MD (Durham, NC)  
- Reality and Economics: Kevin J. Bozic, MD (Austin, TX)  |
| 11:55 am – 1:00 pm | LUNCH  |
| 1:00 pm – 1:45 pm | SESSION IV: Lessons Learned from Difficult Cases  
- Moderator: Daniel J. Berry, MD (Rochester, MN)  
- Case 1: C. Anderson Engh, Jr., MD (Alexandria, VA)  
- Case 2  |
| 1:45 pm – 2:30 pm | SESSION V: Young Adult Hip  
- Moderator: Rafael J. Sierra, MD (Rochester, MN)  
- Contemporary Treatment of Femoroacetabular Impingement: John C. Clohisy, MD (St. Louis, MO)  
- Osteotomy: Michael B. Millis, MD (Boston, MA)  
- Resurfacing: Paul E. Beaule, MD, FRCSC (Ottawa, ON, Canada)  
- THR: Oleg A Safir, MD, MEd, FRCSC (Toronto, ON, Canada)  |
| 2:30 pm – 3:03 pm | SESSION VI-A: Revision THR Acetabular Issues  
- Moderator: Wayne G. Paprosky, MD (Winfield, IL)  
- Jumbo Cups: Scott M. Sporer, MD (Winfield, IL)  
- Wedges and Augments: Richard W. McCalden, MD (London, ON, Canada)  
- Custom Flanged Cups: Douglas A. Dennis, MD (Denver, CO)  
- Cup Cage: Allan E. Gross, MD, FRCSC, O. Ont. (Toronto, ON, Canada)  |
| 3:04 pm – 3:40 pm | SESSION VI-B: Revision THR Femur  
- Moderator: David G. Lewallen, MD (Rochester, MN)  
- Fluted Tapered Stems: Donald S. Garbuz, MD, MHSc, FRCSC (Vancouver, BC, Canada)  
- Managing Bone Loss: Gwo-Chin Lee, MD (Philadelphia, PA)  
- Peri-Prosthetic Fractures: Emil H. Schemitsch, MD (London, ON, Canada)  |
| 10:15 am – 10:25 am | The John Charnley Award  
- Cody C. Wyles, MD (Rochester, MN)  |
| 10:25 am – 10:35 am | The Otto Aufranc Award  
- Majd Tarabichi, MD (Chicago, IL)  |
| 10:35 am – 10:45 am | The Frank Stinchfield Award  
- Vinay K. Aggarwal, MD (Palo Alto, CA)  |
| 10:45 am – 10:50 am | The Hip Society Lifetime Achievement Award  
- Presented by: Douglas E. Padgett, MD to John J. Callaghan, MD  |
| 10:50 am – 10:55 am | Recap of the 2018 Rothman-Ranawat Fellowship  
- The Hip Society's Rothman-Ranawat Traveling Fellowship  
- The 2018 Rothman-Ranawat Fellows: Benjamin M. Stronach, MD (Jackson, MS) & Elie S. Ghanem, MD (Birmingham, AL)  |
| 10:55 am – 10:58 am | Tribute to Richard H. Rothman, MD, PhD Douglas E. Padgett, MD (New York, NY)  |
| 10:58 am – 11:00 am | Introduction of the 2019 Rothman-Ranawat Fellows: Adolph V. Lombardi, Jr., MD (New Albany, OH)  |
| 11:00 am – 11:15 am | Presidential Guest Speaker  
- Jeremy L. Gilbert, Ph.D., FBSE  
- Professor of Bioengineering  
- Professor of Orthopaedics  
- Medical University of South Carolina (Charleston, SC)  |
| 11:17 am – 11:27 am | Pros: Keith R. Berend, MD (New Albany, OH)  |
| 11:28 am – 11:38 am | Cons: Michael P. Bolognesi, MD (Durham, NC)  |
| 11:39 am – 11:45 am | Reality and Economics: Kevin J. Bozic, MD (Austin, TX)  |
| 11:45 am – 11:55 am | Discussion  |
| 11:55 am – 1:00 pm | LUNCH  |
| 1:00 pm – 1:06 pm | Case 1: C. Anderson Engh, Jr., MD (Alexandria, VA)  |
| 1:07 pm – 1:13 pm | Case 2  |
| 1:14 pm – 1:20 pm | Case 3: James I. Huddleston, III, MD (Redwood City, CA)  |
| 1:21 pm – 1:27 pm | Case 4: Jay R. Lieberman, MD (Los Angeles, CA)  |
| 1:27 pm – 1:45 pm | Discussion / Audience votes  |
| 1:45 pm – 2:30 pm | SESSION V: Young Adult Hip  
- Moderator: Rafael J. Sierra, MD (Rochester, MN)  
- Contemporary Treatment of Femoroacetabular Impingement: John C. Clohisy, MD (St. Louis, MO)  
- Osteotomy: Michael B. Millis, MD (Boston, MA)  
- Resurfacing: Paul E. Beaule, MD, FRCSC (Ottawa, ON, Canada)  
- THR: Oleg A Safir, MD, MEd, FRCSC (Toronto, ON, Canada)  |
| 2:30 pm – 3:03 pm | SESSION VI-A: Revision THR Acetabular Issues  
- Moderator: Wayne G. Paprosky, MD (Winfield, IL)  
- Jumbo Cups: Scott M. Sporer, MD (Winfield, IL)  
- Wedges and Augments: Richard W. McCalden, MD (London, ON, Canada)  
- Custom Flanged Cups: Douglas A. Dennis, MD (Denver, CO)  
- Cup Cage: Allan E. Gross, MD, FRCSC, O. Ont. (Toronto, ON, Canada)  |
| 3:04 pm – 3:40 pm | SESSION VI-B: Revision THR Femur  
- Moderator: David G. Lewallen, MD (Rochester, MN)  
- Fluted Tapered Stems: Donald S. Garbuz, MD, MHSc, FRCSC (Vancouver, BC, Canada)  
- Managing Bone Loss: Gwo-Chin Lee, MD (Philadelphia, PA)  
- Peri-Prosthetic Fractures: Emil H. Schemitsch, MD (London, ON, Canada)  |
| 3:42 pm – 3:48 pm | Discussion  |
| 3:48 pm – 4:00 pm |  |
3:40 pm – 3:55 pm  COFFEE BREAK

**Combined Specialty Day Meeting**
The Hip Society/The Knee Society/American Association of Hip and Knee Surgeons
Room 2201

3:55 pm – 5:35 pm

3:55 pm – 4:40 pm  COMBINED SESSION I: Pain Management

**Moderator:** John B. Meding, MD (Mooresville, IN)

3:55 pm – 4:01 pm  How Big is the Problem?
Bryan D. Springer, MD (Charlotte, NC)

4:02 pm – 4:08 pm  Pre-Intervention Management
Carlos J. Lavernia, MD (Coral Gables, FL)

4:09 pm – 4:15 pm  Opiate Sparing Analgesia
William J. Hozack, MD (Philadelphia, PA)

4:16 pm – 4:22 pm  Post-Operative Management
Craig J. Della Valle, MD (Chicago, IL)

4:23 pm – 4:40 pm  Discussion

4:40 pm – 4:45 pm  Highlights from the AAHKS 2018 Annual Meeting
Craig J. Della Valle, MD (Chicago, IL)

4:45 pm – 5:35 pm  COMBINED SESSION II: Prosthetic Joint Infections Update

**Moderator:** Kevin L. Garvin, MD (Omaha, NE)

4:45 pm – 5:01 pm  Prevention
Michael H. Huo, MD (Dallas, TX)

5:02 pm – 5:08 pm  Diagnosis
Steven J. MacDonald, MD, FRCSC (London, ON, Canada)

5:09 pm – 5:15 pm  Treatment
R. Michael Meneghini, MD (Fishers, IN)

5:16 pm – 5:21 pm  Costs
Thomas K. Fehring, MD (Charlotte, NC)

5:21 pm – 5:35 pm  Discussion

5:35 pm  Adjourn

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**The Hip Society and AAHKS Leadership**
Douglas E. Padgett, MD, (New York, NY)
President, The Hip Society
Mathias P.G. Bostrom, MD (New York, NY)
Chair, Education Committee, The Hip Society
Craig J. Della Valle, MD (Chicago, IL)
President, AAHKS
Bryan D. Springer, MD (Charlotte, NC)
Chair, Education and Communications Council, AAHKS
General Information
Description
The program is designed to identify areas of recent research in the field of knee surgery relevant to practicing physicians, surgeons, and allied health professionals. This information will be delivered through scientific paper presentations, hot topic updates, case-based and video-based discussions, current concepts overview and special spotlight sessions.

Target Audience
The intended audience is orthopaedic surgeons, physicians, fellows, residents, and allied health professionals in the field of knee surgery or related fields of practice.

Course Objectives
- Review basic science and orthopaedic problems relative to the knee joint.
- Examine the indications, techniques, and results of various surgical procedures.
- Describe the management of knee arthroplasty-related problems and complications.
- Gain further understanding in the areas of quality, economics, and value related to US healthcare.

Questions
The Knee Society
9400 West Higgins Road, Suite 500
Rosemont, IL 60018
Phone: 847/698-1632       Email: knee@aaos.org

Accreditation
This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American Academy of Orthopaedic Surgeons and The Knee Society. The American Academy of Orthopaedic Surgeons is accredited by the ACCME to provide continuing education for physicians.

Credit Hours
The American Academy of Orthopaedic Surgeons designates this live activity for a maximum of 7.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation.

Disclaimer
The material presented at the 2019 Specialty Day (Open) Meeting of The Knee Society and AAHKS has been made available by The Knee Society and AAHKS for educational purposes only. This material is not intended to represent the only, nor necessarily the best, method or procedure appropriate for the medical situations discussed, but rather is intended to present an approach, view, statement or opinion of the faculty, which may be helpful to others who face similar situations. The Knee Society and AAHKS disclaim any and all liability for injury or other damages resulting to any individuals attending the 2019 Specialty Day (Open) Meeting and for all claims which may arise out of the use of the techniques demonstrated therein by such individuals, whether these claims shall be asserted by a physician or by any other party.

No reproductions of any kind, including audio- and video-recordings, may be made of the presentations at the 2019 Specialty Day (Open) Meeting. The Knee Society reserves all rights to such material, and commercial reproduction is specifically prohibited unless authorized by The Knee Society.
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Presenter(s)</th>
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<tbody>
<tr>
<td>9:49 am – 9:54 am</td>
<td>Highlights from The Knee Society’s 2018 Members Meeting</td>
<td>Ryan M. Nunley, MD (St. Louis, MO)</td>
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<tr>
<td>9:55 am – 10:00 am</td>
<td>Highlights from the ORS 2019 Annual Meeting</td>
<td>Timothy M. Wright, PhD (New York, NY)</td>
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<tr>
<td>10:00 am – 10:15 am</td>
<td>COFFEE BREAK</td>
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<tr>
<td>10:15 am – 11:15 am</td>
<td>SESSION III: Patient Selection and Optimization</td>
<td>Moderator: Bryan D. Springer, MD (Charlotte, NC)</td>
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<tr>
<td>10:15 am – 10:21 am</td>
<td>Avoiding Dissatisfaction (Osteoarthritis Study Initiatives)</td>
<td>William A. Jiranek, MD (Durham, NC)</td>
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<tr>
<td>10:22 am – 10:28 am</td>
<td>Managing Medical Co-Morbidities: Modifiable and Non-Modifiable</td>
<td>Matthew S. Austin, MD (Philadelphia, PA)</td>
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<tr>
<td>10:29 am – 10:35 am</td>
<td>Managing the Non-Medical Co-Morbidities: Depression, Mental Illness, Coping and Resilience</td>
<td>James A. Browne, MD (Charlottesville, VA)</td>
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<tr>
<td>10:36 am – 10:45 am</td>
<td>Mini-Debate I: Is Obesity a Hard Stop?</td>
<td>Affirm – David F. Dalury, MD (Towson, MD)</td>
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<td>Oppose – Nicholas J. Giori, MD (Palo Alto, CA)</td>
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<td>Oppose – Michael J. Dunbar, MD, PhD (Halifax, NS, Canada)</td>
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<tr>
<td>11:15 am – 11:55 am</td>
<td>SESSION IV: The Painful TKA Diagnostic Dilemmas: Case Presentations and Panel Discussion</td>
<td>Moderator: Daniel J. Berry, MD (Rochester, MN)</td>
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<td>Panelists:</td>
<td>Christopher L. Peters, MD (Salt Lake City, UT)</td>
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<td>Douglas D.R. Naudie, MD, FRCSC (London, ON, Canada)</td>
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<td>Jean-Noel Argenson, MD (Marseille, France)</td>
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<td>Mark W. Pagnano, MD (Rochester, MN)</td>
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<td>Russel E. Windsor, MD (New York, NY)</td>
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<td>11:39 am – 11:45 am</td>
<td>Algorithm for the TKA with Occult Pain</td>
<td>Daniel J. Berry, MD (Rochester, MN)</td>
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<td>11:45 am – 11:55 am</td>
<td>Discussion</td>
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<td>11:55 am – 1:00 pm</td>
<td>LUNCH</td>
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<td>1:00 pm – 2:05 pm</td>
<td>SESSION V: Current Debates in TKA</td>
<td>Moderator: Michael A. Mont, MD (New York, NY)</td>
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<td>Mini-Debate I: Robotic UKA</td>
<td>Expensive and Unnecessary</td>
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<td>David W. Murray, MD, FRCS (Oxford, United Kingdom)</td>
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<td>Mini-Debate II: Antibiotic Cement in Primary TKA</td>
<td>It Is the Future of UKA</td>
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<td>Fares S. Haddad, MD (London, United Kingdom)</td>
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<td>Mini-Debate III: Metal Allergy in TKA</td>
<td>An Occasional Cause of Symptoms and Failure</td>
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<td>Joshua J. Jacobs, MD (Chicago, IL)</td>
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<td>It Doesn’t Even Exist</td>
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<td>Mark W. Pagnano, MD (Rochester, MN)</td>
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<tr>
<td>2:05 pm – 3:04 pm</td>
<td>SESSION VI: Revision Techniques</td>
<td>Moderator: John J. Callaghan, MD (Iowa City, IA)</td>
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<tr>
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<td>Fully Cemented Stems Technique: Rationale and Results</td>
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<td>Hybrid Fixation Technique and Results</td>
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<td>Femoral and Tibial Cones Technique and Results</td>
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<td>Indications and Technique for Distal Femoral Replacement</td>
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<td>One Stage Indication and Technique</td>
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| 2:35 pm – 2:40 pm | Articulating Spacer Indications and Technique<br>
|                   | Michael P. Bolognesi (Durham, NC)                                    |
| 2:41 pm – 2:46 pm | Knee Arthrodesis – Current Indications and Technique<br>
|                   | Thomas K. Fehring, MD (Charlotte, NC)                                |
| 2:47 pm – 3:04 pm | Discussion, Case Presentations                                       |
| 3:04 pm – 3:40 pm | SESSION VII: Lessons Learned from the Legends<br>
|                   | Moderator: Thomas P. Sculco, MD (New York, NY)                      |
| 3:04 pm – 3:10 pm | Case 1<br>
|                   | Robert E. Booth, Jr., MD (Philadelphia, PA)                         |
| 3:11 pm – 3:17 pm | Case 2<br>
|                   | Adolph V. Lombardi, Jr., MD (New Albany, OH)                        |
| 3:18 pm – 3:24 pm | Case 3<br>
|                   | Kelly G. Vince, MD, FRCSC (Whangarei, New Zealand)                  |
| 3:25 pm – 3:31 pm | Case 4<br>
|                   | Michael A. Mont, MD (New York, NY)                                  |
| 3:31 pm – 3:40 pm | Discussion, Audience Votes                                           |
| 3:40 pm – 3:55 pm | COFFEE BREAK                                                         |
| 3:55 pm – 4:40 pm | COMBINED SESSION I: Pain Management<br>
|                   | Moderator: John B. Meding, MD (Mooresville, IN)                    |
| 3:55 pm – 4:01 pm | How Big is the Problem?<br>
|                   | Bryan D. Springer, MD (Charlotte, NC)                               |
| 4:02 pm – 4:08 pm | Pre-Intervention Management<br>
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| 4:09 pm – 4:15 pm | Opiate Sparing Analgesia<br>
|                   | William J. Hozack, MD (Philadelphia, PA)                            |
| 4:16 pm – 4:22 pm | Post-Operative Management<br>
|                   | Craig J. Della Valle, MD (Chicago, IL)                              |
| 4:23 pm – 4:40 pm | Discussion                                                           |
| 4:40 pm – 4:45 pm | Highlights from the AAHKS 2018 Annual Meeting<br>
|                   | Craig J. Della Valle, MD (Chicago, IL)                              |
| 4:45 pm – 5:35 pm | COMBINED SESSION II: Prosthetic Joint Infections Update<br>
|                   | Moderator: Kevin L. Garvin, MD (Omaha, NE)                         |
| 4:45 pm – 5:01 pm | Prevention<br>
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|                   | Steven J. MacDonald, MD, FRCSC (London, ON, Canada)                |
| 5:09 pm – 5:15 pm | Treatment<br>
|                   | R. Michael Meneghini, MD (Fishers, IN)                              |
| 5:16 pm – 5:21 pm | Costs<br>
|                   | Thomas K. Fehring, MD (Charlotte, NC)                               |
| 5:21 pm – 5:35 pm | Discussion                                                           |
| 5:35 pm           | Adjourn                                                              |

**The Knee Society and AAHKS Leadership**

- Robert L. Barrack, MD (St. Louis, MO)
  President, The Knee Society
- Ryan M. Nunley, MD (St. Louis, MO)
  Chair, Education Committee, The Knee Society
- Craig J. Della Valle, MD (Chicago, IL)
  President, AAHKS
- Bryan D. Springer, MD (Charlotte, NC)
  Chair, Education and Communications Council, AAHKS
ANNUAL MEETING AT A GLANCE

AAOS Annual Meeting

Specialty Day is an integral part of the AAOS Annual Meeting. In addition to Specialty Day, the AAOS is delighted to be partnering with many orthopaedic specialty societies represented in the BOS to bring you co-branded Instructional Courses and Symposia presented at the 2019 Annual Meeting. The following societies are participating:

American Association for Hand Surgery
American Association of Hip and Knee Surgeons
American Orthopaedic Association
American Orthopaedic Foot and Ankle Society
American Orthopaedic Society for Sports Medicine
American Shoulder and Elbow Surgeons
American Society for Surgery of the Hand
Arthroscopy Association of North America
Cervical Spine Research Society
J. Robert Gladden Orthopaedic Society
Limb Lengthening and Reconstruction Society
Musculoskeletal Infection Society
Musculoskeletal Tumor Society
North American Spine Society
Orthopaedic Research Society
Orthopaedic Trauma Association
Pediatric Society of North America
Ruth Jackson Orthopaedic Society
Scoliosis Research Society
The Hip Society
The Knee Society

The Annual Meeting gives you exclusive access to:

- **1,000+ Posters** keeping you in the forefront of cutting-edge research globally
- **800+ Expert faculty** presenting the highest quality information about new and hot topics
- **650+ Industry Exhibits** providing you with resources and solutions to address your toughest cases
- **230+ ICLs** exposing you to in-depth learning that is vital to your ongoing success in practice
- **33 CME credits** allowing you to advance your career (beginning on Tuesday, March 12)
- **25 Symposia** giving you a balanced perspective on the most relevant topics in orthopaedics
- **Specialty Day**, offered by 14 Specialty Societies, featuring the latest updates in each field

**Important Dates**

**Early Bird Registration Deadline**
December 14, 2018

**Advance Registration Deadline**
January 31, 2019

**Cancellation Deadline**
January 31, 2019

**Housing Deadline**
February 19, 2019

**Meeting Dates**
Tuesday, March 12 – Saturday, March 16

**Specialty Day**
Saturday, March 16

**Contact Information**

Registration
(844)529-3707 – U.S. and Canada
(508)743-8504 – International
Email: AAOSMeeting@xpressreg.net

Housing Bureau – MCI USA
(800)931-6026 – U.S. and Canada
(972)349-5558 – International
Email: aaos@mceevents.com

**Meeting Location**
Venetian/Sands Expo
201 Sands Avenue • Las Vegas, Nevada 89169

**AAOS Website**

Annual Meeting General
aaos.org/mymeeting

Registration
aaos.org/register

Housing
aaos.org/housing

Education
aaos.org/ameducation

Specialty Day
aaos.org/specialtyday

Exhibits
aaos.org/exhibits
**Hotel Reservations**

Don’t let your first-choice hotel get away! Now is the time to secure a room at your favorite Las Vegas hotel. MCI USA, AAOS’ official housing provider, has secured the lowest rates at some of the best hotels Las Vegas has to offer.

*Be aware of fraudulent housing companies. Official AAOS housing for Las Vegas should only be accessed through the AAOS website – aaos.org/housing.*

AAOS rates are available only through the AAOS Housing Bureau, MCI USA. Reservations are made on a first come, first served basis. Hotels closest (within walking distance) to the Venetian/Sands Expo fill quickly and do not have shuttle service so consider this when you make your reservations. Physician attendees may not obtain housing through industry exhibitors.

<table>
<thead>
<tr>
<th></th>
<th>US and Canada</th>
<th>International Individuals and Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Online</strong></td>
<td>aaos.org/housing</td>
<td>aaos-igd.com</td>
</tr>
<tr>
<td><strong>Phone</strong></td>
<td>(800)931-6026</td>
<td>(305)865-4648</td>
</tr>
<tr>
<td><strong>Email</strong></td>
<td><a href="mailto:aaos@mcievents.com">aaos@mcievents.com</a></td>
<td><a href="mailto:aaos@internationalgroupsdepartment.com">aaos@internationalgroupsdepartment.com</a></td>
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<tr>
<td><strong>Hours</strong></td>
<td>8:00 AM to 5:00 PM Central Time</td>
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</table>

### Cancellations/Changes/Refunds

Hotel cancellation policies vary – dates range from 72 hours to 5 days prior to arrival. Check your MCI USA hotel confirmation or visit the hotel’s website for more information.

**Failure to check-in on your confirmed date of arrival results in the forfeiture of your deposit.**

- **Before February 19, 2019:** Can be made online or by calling MCI USA at (800)931-6026.
- **After February 25, 2019:** Cancel directly with the hotel. Forward the date, time, and hotel cancellation number to MCI USA (aaos@mcievents.com) and allow 4-6 weeks (after the meeting) for your refund to be processed.
- **During the Meeting:** Housing issues can be addressed at the AAOS Housing Desk located at the Venetian/Sands Expo starting Monday at 2:00 PM.

### Confirmations

A confirmation is emailed within 72 hours (if not immediately) of making a reservation. If you do not have an email address, the confirmation is mailed to the address provided. If you do not receive a confirmation within three business days, contact the Housing Bureau at aaos@mcievents.com or (800)931-6026 (US), (305)865-4648 (International).

### Deposits

A one-night room/tax deposit is required for each room reserved. Your deposit is charged immediately to your credit card. This deposit is applied to your final bill upon checkout. If your confirmation indicates that a deposit was not charged to your credit card, the hotel will charge you for your full stay at checkout.

**Transportation**

### Airlines

Call CorpTrav at (800)318-3846 or go to corptravonline.com to make your reservation online. A per reservation service fee of $15 (online) and $32 (telephone) is charged.

### Airport

The McCarran International Airport (mccarran.com) is located 2 miles (15-minutes) from the world-famous Las Vegas Strip and 15 miles from downtown.

### Airport Shuttle

Super Shuttle provides transportation from the airport to hotels and various other locations in Las Vegas for $10.00 (per person, one-way) or $20.00 (per person, round-trip). These fares include three (3) bags per person. Additional baggage may be subject to additional fees. Passengers can purchase tickets at the Airport Shuttle ticket booths located on the first level throughout the Baggage Claim area. Book online at shuttlelasvegas.com to receive a discounted rate of $10 (one-way) and $20 (round-trip).

### Hotel Shuttles

Run between the hotels and the Venetian/Sands Expo starting Tuesday, March 12, at 6:30 AM through Saturday, March 16 at 6:00 PM. There will be no service between 10:00 AM and 3:00 PM.

### Parking

Is available free of charge at the Venetian and Palazzo hotels as the Sands Expo does not have a parking lot.

### Rental Car

Reservations can be made via the AAOS housing and travel website, MCI USA, your travel agent, or directly with rental car companies. AAOS has negotiated special rates for rental cars during the meeting. Call the number below and mention the discount code listed.

- **Hertz** CV#02KS0024  (800)654-2240  hertz.com
- **Avis** AWD#J095822  (800)331-1600  avis.com

### Taxi Service

From the airport ranges from $17 to $35 (one-way) according to the location of your hotel.
Take a deep dive into your specialty by choosing an Education Track with a variety of targeted sessions covering the most current, relevant and scientific knowledge and practices. Each Track includes up to five instructional courses and is offered in a specialist or general path.

Choose from 10 specialty areas and then select the individual programs that align with your level of expertise. Education Tracks cover:

- Adult Reconstruction Hip
- Adult Reconstruction Knee
- Foot and Ankle
- Hand and Wrist
- Musculoskeletal Oncology
- Pediatrics
- Shoulder and Elbow
- Spine
- Sports Medicine
- Trauma

Make the best use of your time by choosing the Education Track that will propel your practice and heighten your mastery.

Receive one FREE ICL with purchase

Education Tracks fill up quickly reserve your seat today at aaos.org/annual.