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The Western Orthopaedic Association is grateful for the support of its educational grantors and exhibitors. Thank you for your participation and commitment to WOA.

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Dear Colleagues,

Welcome to Snowmass, Colorado. As President of the WOA this year, it is my honor to welcome you and your family to the beautiful valley of Snowmass for the 82nd Annual Meeting of the WOA. My wife Debbie and I are excited and grateful that you have chosen to spend a wonderful summer week with us in Snowmass, and we hope you enjoy both the stimulating academic meeting, and the fantastic outdoor mountain venue that awaits you and your family.

I would like to give a big thanks to Jeff Krygier, MD who, along with the Program Committee, has put together a tremendous program with symposia on the latest updates in joint replacement, trauma, sports, and foot and ankle, as well as the kick-off of a new series, “Survive the Night” hand call for the general orthopedist. The rapid fire sessions will provide a casual but upbeat venue for original research papers, while the resident program, led by Jennifer van Warmerdam, will help attending residents prepare for life in orthopedics.

Thursday night, we will kick off the meeting at the Outdoor Rodeo, which is sure to entertain the whole family. And remember, our closing Saturday night Gala is themed Denim and Diamonds, so feel free to dress up your jeans.

This year we have an incredible line-up of guest speakers. Dr. Wayne Sotile will deliver the Howard Steel Lecture on Thursday with an engaging talk on physician resilience and preventing burnout. On Friday, my Presidential Guest Speaker Nate Kaufman will challenge all of us with medical economics and the stubborn facts that might change your views. AAOS President David A. Halsey, MD will address the attendees on Friday with an Academy update, and our final special invitee, Mike McCaslin from the Ortho Forum, will lead a symposium on orthopedic business success.

The Board of Directors has worked tirelessly to make sure there is plenty of fun this year in Colorado. I hope you and your family enjoy the biking, hiking, jeeping, fly fishing, golfing, and touring available in Snowmass and Aspen. New this year for spouses, significant others, and families, we will have morning yoga each day, and a breakfast each morning. Dr. Sotile will speak at breakfast Thursday, the dogsled teams of Snowmass will be at breakfast Friday, and on Saturday we will have a community outreach team helping put hygiene kits together for local organizations.

Again, thank you for coming to Snowmass to enjoy the WOA Annual Meeting this year. I appreciate your engagement and participation throughout the week’s activities, and look forward to hosting a wonderful week of education and fun!

Regards,

Brian A. Jewett, MD
WOA President

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**Program Chair**  
Jeffrey E. Krygier, MD  
San Jose, CA  
Santa Clara Valley Medical Center

**President’s Guest Speaker**  
Nathan S. Kaufman  
San Diego, CA  
*Surviving the Brave New/Old World: Facts Are Stubborn Things!*  
Friday, 9:40 am

**Howard Steel Lecturer**  
Wayne M. Sotile, PhD  
Davidson, NC  
*Choosing Resilience: How Physicians & Medical Organizations Can Curb Burnout*

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Wednesday, August 1

12:00 pm – 5:00 pm  Board of Directors Meeting  Kitchen Snowmass Dining Room II
12:00 pm – 5:00 pm  Meeting Registration  Mt. Daly Ballroom Foyer
12:00 pm – 5:00 pm  Exhibit Setup  Mt. Daly Ballroom A, C, D & E
12:00 pm – 5:00 pm  Speaker Ready Area  1st Floor Registration

Thursday, August 2

5:45 am – 6:45 am  Scientific E-Poster Session  Cirque Boardroom, Cathedral Deck, Cathedral Peak & Castle Peak Auditorium
5:45 am – 1:40 pm  Speaker Ready Area  1st Floor Registration
6:00 am – 1:40 pm  Meeting Registration  Mt. Daly Ballroom Foyer
6:30 am – 1:40 pm  Technical Exhibits, Continental Breakfast, Coffee Breaks and Daily Drawing  Mt. Daly Ballroom A, C, D & E
6:45 am – 6:50 am  Welcome, Announcements and Meeting Overview  Mt. Daly Ballroom B
6:50 am – 7:00 am  First Business Meeting  Mt. Daly Ballroom B
7:00 am – 1:40 pm  Scientific Program  Mt. Daly Ballroom B (unless otherwise specified)
7:30 am  ✯ Yoga  Overlook Room  Price: Included in Registration Fee
7:30 am  ✯ Group Walk  Meet in Lobby  Price: Included in Registration Fee
7:50 am – 8:20 am  ✯ Focused Brunch Presentation  Mt. Daly Ballroom B  *CME Credit Not Available
7:50 am – 8:50 am  ✯ Concurrent Allied Health Session 1 - Hand  Alpine Springs
8:30 am – 10:00 am  ✯ Spouse/Guest/Children's Hospitality  Garden Terrace
8:30 am – 10:00 am  ✯ Group Walk  Meet in Lobby  Price: Included in Registration Fee
9:05 am – 9:25 am  Break – Please visit Exhibits  Mt. Daly Ballroom A, C, D & E

9:25 am – 10:20 am  ✯ Howard Steel Lecture  Mt. Daly Ballroom B
Choosing Resilience: How Physicians & Medical Organizations Can Curb Burnout  Wayne M. Sotile, PhD
10:20 am – 10:40 am  Break – Please visit Exhibits  Mt. Daly Ballroom A, C, D & E
11:30 am – 12:00 pm  ✯ Focused Lunch Presentation  Mt. Daly Ballroom B  *CME Credit Not Available
12:00 pm – 12:35 pm  ✯ OREF Update/WOF/Young Investigator Awards  Mt. Daly Ballroom B
12:00 pm – 1:00 pm  ✯ Concurrent Allied Health Session 2 - Trauma  Alpine Springs

9:45 am – 12:00 pm  Jeep Tour  Meet in Lobby at 12:50 pm
Panoramic views of the entire Roaring Fork Valley highlight this trip, as we head high up Aspen Mountain to an elevation of 12,000 feet. As soon as we leave the Gant, we begin our ascent, winding up roads that you may recognize as ski runs if you have visited us in the winter months. Once on top, we will traverse Richmond Ridge before descending the backside of Aspen Mountain. Along the way we will pass old silver mines rich in history. Once we get back on to Castle Creek Road, we will head to the ghost town of Ashcroft. This scenic ghost town was once larger than Aspen itself during the height of the mining boom. *Please eat prior to tour.  
Price: $105 per Adult (13 and older) / $95 per Child 8-12 (under 7 cannot ride their own bike) / $39 per child under 3 in Burley trailer
1:00 pm – 5:00 pm  ✯ Biking Tour Downhill from Maroon Bells  Meet in Lobby at 12:35 pm
The tour begins with a drive to the “most photographed peaks in North America” – the Maroon Bells and Maroon Lake. At Maroon Lake there will be time for photographs and to talk about the local wildlife. After everyone has limbered up, you will begin your 12-mile downhill descent on a paved road through the Maroon Valley. Along the way, you are welcome to stop and enjoy the spectacular views, and to photograph one of the most picturesque wilderness areas in Colorado. Your trip finishes in Aspen. We will stop for a refreshing snack along the way. The Maroon Bells road is closed to most vehicular traffic for the majority of the summer and affords a perfect opportunity to enjoy your downhill bike ride. Trip departs at 1:15 pm and returns by 5:15 pm. *Please eat prior to tour.
Price: $115 per Adult (13 and older) / $105 per Child 7-12 (under 7 cannot ride their own bike) / $39 per child under 3 in Burley trailer
14:40 pm – 2:40 pm  Scientific E-Poster Session  Cirque Boardroom, Cathedral Deck, Cathedral Peak & Castle Peak Auditorium
Presenters will be available to answer questions.
1:45 pm – 5:00 pm  ✯ Resident Symposium  Alpine Springs
2:40 pm – 4:00 pm  Multimedia Education Session  1st Floor Registration
Summary of Events
See Scientific Program for times for all CME Activities

4:45 pm – 5:30 pm
✦ New Member Reception  Overlook Room
All WOA new members are invited to attend this reception. The WOA Board, and other leadership, would like to take this opportunity to welcome you to the WOA.
Attire: Cowboy Boots and Jeans or Resort Casual

5:45 pm – 10:00 pm
✦ Welcome Dinner at the Rodeo
Meet at bus depot at 5:30 pm for transportation to the Rodeo
Have a boot stomping good time at Snowmass’s Rodeo -Saddle Bronc Riding, Bareback riding, Bull Riding, Team Roping, Barrel Races and more! All children can participate in the calf scramble. Sidle up to the bar and savor the best BBQ in Colorado.
Transportation from hotel provided.
Attire: Cowboy Boots and Jeans
Price: Included in Registration Fee or $100 per Unregistered Adult Guest, $50 per Unregistered Child (5-17 years)

9:45 pm – 10:45 pm
✦ Resident Reception  Overlook Room
All Residents are invited to attend this reception.
Attire: Cowboy Boots and Jeans or Resort Casual
Price: Included in Registration Fee

Friday, August 3

6:00 am – 7:00 am
Regional and AAOS Presidents’ Breakfast Meeting with State Presidents and Board of Councilors
Kitchen Snowmass Dining Room II

6:00 am – 7:00 am
Scientific E-Poster Session  Cirque Boardroom, Cathedral Deck, Cathedral Peak & Castle Peak Auditorium

6:00 am – 2:25 pm
Speaker Ready Area  1st Floor Registration

6:30 am – 2:25 pm
Meeting Registration  Mt. Daly Ballroom Foyer

6:45 am – 2:25 pm
Technical Exhibits, Continental Breakfast, Coffee Breaks and Daily Drawing  Mt. Daly Ballroom A, C, D & E

6:55 am – 7:00 am
Announcements  Mt. Daly Ballroom B

7:00 am – 2:25 pm
Scientific Program  Mt. Daly Ballroom B (unless otherwise specified)

7:30 am
✦ Yoga  Overlook Room
Price: Included in Registration Fee

7:30 am
✦ Group Walk  Meet in Lobby
Price: Included in Registration Fee

7:50 am – 8:20 am
✦ Focused Brunch Presentation  Mt. Daly Ballroom B
*CME Credit Not Available

8:25 am – 9:25 am
★ Concurrent Allied Health Session 3 – Radiology  Alpine Springs

8:30 am – 10:30 am
✦ Spouse/Guest/Children’s Hospitality  Garden Terrace
Meet & greet the sled dogs of Snowmass while enjoying a continental breakfast.
Price: Included in Registration Fee or $40 per Unregistered Adult Guest and $20 per Child (5-17 years)

9:05 am – 9:25 am
Break – Please visit Exhibits  Mt. Daly Ballroom A, C, D & E

9:25 am – 9:40 am
✦ AAOS Report  Mt. Daly Ballroom B
David Halsey, MD

9:40 am – 10:35 am
★ Presidential Guest Speaker  Mt. Daly Ballroom B
Succeeding in the Brave New/Old World: Facts Are Stubborn Things!
Nathan S. Kaufman

10:35 am – 10:55 am
Break – Please visit Exhibits  Mt. Daly Ballroom A, C, D & E

11:45 am – 12:15 pm
★ Focused Lunch Presentation  Mt. Daly Ballroom B
*CME Credit Not Available

12:15 pm – 1:20 pm
★ WOF Report & Western Orthopaedic Foundation Named Grant Awards  Mt. Daly Ballroom B

1:00 pm – 5:00 pm
★ Fly Fishing
Meet in Lobby at 12:20 pm for transportation
Fly Fishing for wild trout in the unspoiled waters of Western Colorado is an unforgettable experience not to be missed. The Aspen/Snowmass area, with the Roaring Fork and Frying Pan Rivers at its back door, is the center of the finest wild trout fishing in Western Colorado. Both rivers are designated as Gold Medal Rivers by the Colorado Department of Wildlife. Trip departs at 12:30 pm and returns by 5:00 pm.
*Eat during the Focused Lunch presentation.
Price: $290 per Angler (Includes equipment, flies, license, and gratuity)

1:00 pm – 5:30 pm
★ Golf Tournament at Snowmass Club
Meet in Lobby at 12:30 pm; 1:00 pm Tee Time
Award-winning architect Jim Engh designed the Snowmass Club Golf Course. The result is a course with majestic views, challenging landscapes, and sensitivity to the land and the sky above it. The fairways are sculpted, the greens are challenging, and the bunkers are downright frightening.
*Eat during the Focused Lunch presentation
Price: $165 per person (Includes transportation, greens fees, beverage cart, and prizes)

1:30 pm – 5:00 pm
★ Novice-Intermediate Hiking with Guide
Meet in Lobby at 1:20 pm
Get a close look at the natural environment while you enjoy scenic, secluded trails. The elevation gain is 600-1,300 vertical feet, round trip distance is 3-4 miles and trail time is about 2 ½ hours, including transportation. Includes refreshments.
*Eat during the Focused Lunch presentation
Price: $99 per adult (13+) / $89 per child (8-12) (Includes gratuity)

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**Summary of Events**

See Scientific Program for times for all CME Activities

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**Saturday, August 4**

- **5:40 am – 6:40 am**
  - **Scientific E-Poster Session**  
  Cirque Boardroom, Cathedral Deck, Cathedral Peak & Castle Peak Auditorium

- **5:40 am – 1:35 pm**
  - **Speaker Ready Area**  
  1st Floor Registration

- **5:45 am – 6:40 am**
  - **Board of Directors Meeting**  
  Kitchen Snowmass Dining Room II

- **6:15 am – 1:35 pm**
  - **Meeting Registration**  
  Mt. Daly Ballroom Foyer

- **6:45 am – 7:00 am**
  - **Technical Exhibits, Continental Breakfast, Coffee Breaks and Daily Drawing**  
  Mt. Daly Ballroom A, C, D & E

- **6:45 am – 1:35 pm**
  - **Meeting Registration**  
  Mt. Daly Ballroom Foyer

- **7:00 am – 1:35 pm**
  - **Scientific Program**  
  Mt. Daly Ballroom B (unless otherwise specified)

- **7:30 am**
  - **Yoga**  
  Overlook Room

- **7:30 am**
  - **Group Walk**  
  Meet in Lobby

- **8:30 am – 10:00 am**
  - **Spouse/Guest/Children's Hospitality**  
  Garden Terrace

  Enjoy a continental breakfast! Clean the World – WOA’s Social Responsibility Event. We will take repurposed bottled amenities and build hygiene kits to donate to a shelter. Hygiene kits are a great way to give back to our local communities in an affordable, mobile, and fun way.

  Price: Included in Registration Fee or $40 per Unregistered Adult Guest and $20 per Child (5-17 years)

- **8:40 am – 9:10 am**
  - **Focused Brunch Presentation**  
  Mt. Daly Ballroom B

  *CME Credit Not Available*

- **9:55 am – 10:20 am**
  - **Break – Please visit Exhibits**  
  Mt. Daly Ballroom A, C, D & E

- **11:00 am – 3:00 pm**
  - **Anderson Ranch Arts Center**  
  Meet in Lobby at 10:50 am for transportation

  The Annual Art Auction is Anderson Ranch's largest community fundraiser of the year and a festive highlight of the summer season! Held at the historic Ranch, the event welcomes art lovers of all ages to the campus. Over 200 works of art from $100 – $20,000 are available in live and silent auctions. Enjoy live music, art activities for children and a delicious picnic lunch prepared by the Ranch Café. Proceeds support the Ranch's artistic programs.

  Price: $20 per person (Includes transportation and BBQ lunch)

  Maximum 20 people

- **11:25 am – 11:40 am**
  - **Presidential Address**  
  Mt. Daly Ballroom B

  The WOA and YOU

  Brian Jewett, MD

- **11:45 am – 12:45 pm**
  - **Concurrent Allied Health Session 4 - Case Review**  
  Alpine Springs

- **12:45 pm – 6:00 pm**
  - **Class III Whitewater Rafting on the Colorado River**  
  Meet in Lobby at 12:35 pm

  This popular trip boasts excellent Class III whitewater, followed by a stunning and scenic relaxing float within steep majestic canyon walls. These rapids, with names like “Superstition”, “The Wall”, and “Pinball”, create an exhilarating section of unforgettable white water. The first section has Class III rapids and then declines to Class II & I as we focus on the beautiful scenery in the canyon. Younger children and less adventurous adults can enter the rafts after the first set of larger rapids. **Children must be 50 lbs. and be able to swim.**

  Price: $118 per Adult (13 and older) / $108 per Child 6-12

- **1:30 pm – 5:30 pm**
  - **Get to Know Aspen Tour**  
  Meet in Lobby at 1:20 pm

  This tour is a delightful blend Aspen’s fascinating history with a stop at the Aspen Historical Museum; an architectural exploration by van of the Victorian West End; a stop at the Red Brick to visit with some highly talented local artists; and a tour with the curator of the current exhibit at the Aspen Art Museum.

  Price: $110 per person (Minimum 10 people)

- **2:00 pm – 3:00 pm**
  - **Multimedia Education Session**  
  1st Floor Registration

- **7:00 pm – 11:00 pm**
  - **Family Gala Dinner Dance**  
  Mt. Daly Ballroom A

  Enjoy the sunset, then the stars and let's get the party started! This is the night to let your hair down and have some fun with your friends and colleagues. There will be a fabulous band, dinner and drinks, and don't forget to bring your dance moves!

  Attire: Denim & Diamonds Theme - Jeans, Jackets and Cowboy Boots

  Price: Included in Registration Fee or $150 per Unregistered Adult Guest and $50 per Child (5-17 years)

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CME ACCREDITATION
The American Academy of Orthopaedic Surgeons designates this live activity for a maximum of 24.75 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

*16.5 CME Credits for Scientific Program
*5 CME Credits for Scientific E-Poster Sessions
*3.25 CME Credits for Multimedia Education Sessions

To ensure correct CME credit is awarded, please complete the WOA 2018 Annual Meeting CME Credit Records online at www.woa-assn.org. CME Certificates will be awarded to all registered participants.

Thursday, August 2
5:45 am  Scientific E-Poster Session  Cirque Boardroom, Cathedral Deck, Cathedral Peak & Castle Peak Auditorium

6:45 am  Welcome and Announcements  Jeffrey E. Krygier, MD, Program Chair

6:50 am  Symposium 1 – Sports – Focus on the Athlete’s Knee 
Moderator: Jonathan Brayman, MD, University of Colorado School of Medicine

7:00 am  Team Physician Role and Responsibilities: How to Do It Right  Eric McCarty, MD, University of Colorado School of Medicine

7:12 am  Return to Play after an ACL Injury  Kevin D. Plancher, MD, Albert Einstein College of Medicine

7:24 am  Management of the “Other” Knee Ligaments (ALL, MCL, LCL, etc...)  CAPT Matthew T. Provencher, MD, The Steadman Clinic

7:36 am  Current State of the Art in Treatment of Patellar Instability  Rachel M. Frank, MD, University of Colorado School of Medicine

7:48 am  Discussion

7:50 am  Focused Brunch Presentation  *CME Credit Not Available  Robert R. Slater Jr., MD, Folsom, CA

Concurrent Allied Health Session 1 – Hand  Alpine Springs

Moderator: Theodore W. Coates, PA-C, University of California, Davis Medical Center

7:50 am  Review of Hand Injuries and Conditions  Robert R. Slater Jr., MD, Folsom, CA

Rapid Fire Sessions 1A – Pediatrics  Cirque Boardroom

Moderators: Stephanie Y. Pun, MD, Stanford University Medical Center & Meghan N. Irnie, MD, Stanford University Medical Center

8:25 am  Trends in Pediatric Traumatic Upper Extremity Amputations  Venus Vakhshori, MD, Keck School of Medicine of the University of Southern California

8:29 am  Association Between Fracture Laterality and Nerve Injury Among Pediatric Supracondylar Humerus Fractures  Diana G. Douleh, MD, University of Colorado

8:33 am  How Often Are Pediatric Elbow Radiographs Adequate for Interpretation  Daniel S. Breton, DO, Riverside University Health System  *Presented by Steven G. Kenney, DO, MPH

8:37 am  Mischievous Metaphyseal Metallic Implants in Children  Chason Ziino, MD, Stanford University  *Presented by Kimberly Hall, MD

8:41 am  Discussion

8:45 am  Radiolucent versus Fracture Tables for In Situ SCFE Pinning  Katherine Schroeder, MD, Texas Children’s Hospital / Baylor College of Medicine

8:49 am  Accuracy of Fluoroscopy When Assessing Pin Protrusion during Fracture Stabilization?  Steven G. Kenney, DO, MPH, Riverside University Health System

8:53 am  Sacroiliac Periosteal Avulsion as an Indication of Posterior Pelvic Fracture Instability in Children  Chase S. Dean, MD, University of Colorado School of Medicine

8:57 am  Closed versus Surgical Management of SER IV Ankle Fractures in Adolescents: Maintain the Ankle Mortise  Benjamin M. Lurie, BA, Rady Children’s Hospital

9:01 am  Discussion

Rapid Fire Sessions 1B – Upper Extremity/Hand & Wrist  Cathedral Deck

Moderators: Gregory L. DeSilva, MD, University of Arizona Health Sciences & Basil R. Besh, MD, Fremont Orthopaedic & Rehabilitative Medicine

8:25 am  Proximal Row Carpectomy versus Four Corner Fusion: Regional Differences, Incidence, and Conversion to Fusion  Harrison F. Kay, MD, University of Southern California Medical Center  *Presented by Hyunwoo P. Kang, MD

8:29 am  Feasibility and Usability of a Ranking Tool for Trigger Finger  Lauren M. Shapiro, MD, Stanford Hospital and Clinics

8:33 am  Wrist Arthroscopy for the Treatment of Scapholunate Predynamic Instability and Return to Push-Up Activity  Christopher M. Belyea, MD, MBA, Tripler Army Medical Center

8:37 am  FaST-Fix All-Arthroscopic Repair of Peripheral TFCC Tears: Safe and Effective in Long-Term  Eric J. Sarkissian, MD, Stanford University Medical Center

8:41 am  Discussion

8:45 am  Epidemiological and Treatment Trends of Distal Radius Fractures across Multiple Age Groups  Ali Azad, MD, University of Southern California

8:49 am  Peripheral Nerve Block Prior to Distal Radius Repair  Pierce Johnson, MD, Banner University of Arizona

8:53 am  Feasibility and Usability of Conjoint Analysis for Distal Radius Fractures  Lauren M. Shapiro, MD, Stanford Hospital and Clinics

8:57 am  Declining Use of Wrist External Fixation – The Rise of the Bridge Plate  Venus Vakhshori, MD, Keck School of Medicine of the University of Southern California

9:01 am  Discussion

Rapid Fire Sessions 1C – Total Hip  Cathedral Peak

Moderators: Alexander Sah, MD, Institute for Joint Restoration & Kathryn L. Schabel, MD, Oregon Health & Science University

8:41 am  Discussion
8:25 am  Statin Use Is Associated with Less Postoperative Arrhythmia after Total Hip Arthroplasty  
Michael Chen, MD, Stanford University  

8:29 am  THA in HIV-Positive Patients Managed with Contemporary Protocols: Outcomes  
Clara L. Telford, BA, University of Texas Southwestern  
*Presented by Sean Shahrastani, MD  

8:33 am  Resources and Complications in Primary Total Arthroplasty for Dialysis Patients  
Joseph Patterson, MD, University of California San Francisco  

8:37 am  Discussion  

8:42 am  Incision Site Subcutaneous Fat Thickness and 90-Day Complications for THA  
Gregory R. Sprowls, MD, Baylor Scott and White Health  

8:46 am  To Cement or Not to Cement? Modern Hybrid Total Hip Replacement - Low Risks and Excellent Results with Cemented Femoral Fixation  
Alexander Sah, MD, Institute for Joint Restoration  

8:50 am  First Report of Early Results of a Commonly Used Cementless Single Tapered Femoral Component in Primary Total Hip Arthroplasty  
Alexander Sah, MD, Institute for Joint Restoration  

8:54 am  Discussion  

Rapid Fire Sessions 1D – Sports Medicine  Castle Peak Auditorium  
Moderators: Eric McCarty, MD, University of Colorado School of Medicine & Omer A. Ilahi, MD, Southwest Orthopedic Group/Texas Arthroscopy & Sports Medicine Institute  

8:25 am  Outcomes of Arthroscopic Capsular Release Based on Patient Position  
Darby A. Houck, BA, University of Colorado School of Medicine  

8:29 am  Regional Anesthesia for Shoulder Arthroscopy Decreases Early Opioid Requirements in Preoperative Opioid Users  
Nicholas A. Trasolini, MD, Keck School of Medicine of the University of Southern California  
*Presented by Hyunwoo P. Kang, MD  

8:33 am  Does the ABER View Improve Preoperative Identification of Labral Lesions?  
Jeffrey E. Mait, MD, The Sports Clinic  

8:37 am  Scapular Retraction Test’s Diagnostic Accuracy in Assessing Rotator Cuff Status  
Stephen T. Gates, MD, University of Texas Southwestern  

8:41 am  Discussion  

8:45 am  Trans-Osseous versus Anchor Repair of Acute Patellar Tendon Ruptures  
James A. O’Dowd, MD, University of Southern California  

8:49 am  Trans-Osseous versus Anchor Repair of Acute Quadriceps Tendon Ruptures  
Steven Heer, BS, Tulane School of Medicine  

8:53 am  Return to Work after Autologous Chondrocyte Implantation of the Knee in Patients with Workers’ Compensation Insurance  
John G. Lane, MD, University of California  

8:57 am  Outcomes of Pediatric Meniscal Injuries  
Stephanie Logterman, MD, University of Colorado  

9:01 am  Discussion  

9:05 am  Break – Please Visit Exhibits  Mt. Daly Ballroom A, C, D & E  

General Session 1 – Howard Steel Lecture  Castle Peak Auditorium  
Moderator: Brian A. Jewett, MD, Slocum Center for Orthopedics and Sports Medicine  

9:25 am  Introduction of Presidential Guest Speaker  
Brian A. Jewett, MD, Slocum Center for Orthopedics and Sports Medicine  

9:30 am  Howard Steel Presentation  
Choosing Resilience: How Physicians and Medical Organizations Can Curb Burnout  
Wayne M. Sotile, PhD, The Sotile Center for Resilience and the Center for Physician Resilience  

10:20 am  Break – Please Visit Exhibits  Mt. Daly Ballroom A, C, D & E  

Symposium 2 – Surviving Hand Call for Non-Hand Specialists – A Case Based Session with a Panel of Experts  
Moderator: Jeffrey E. Krygier, MD, Santa Clara Valley Medical Center  

Panelists:  
Gregory L. DeSilva, MD, University of Arizona Health Sciences  
Kevin D. Plancher, MD, Albert Einstein College of Medicine  
Robin N. Kamal, MD, Stanford University Medical Center  

10:40 am  Panel Discussion  

11:30 am  Focused Lunch Presentation  *CME Credit Not Available  
Johnson & Johnson Medical Devices Companies  
Moving Toward Opioid Free Orthopedic Surgery  
Alexander Sah, MD  

General Session 2 – OREF Update/WOF/OREF Young Investigator Awards  
Moderator: Jeffrey E. Krygier, MD, Santa Clara Valley Medical Center  

12:00 pm  OREF Update  
P. Joanne Ray, CEO of Orthopaedic Research and Education Foundation  

12:05 pm  Biomarkers of Neutrophil Extracellular Trap Formation (NETosis) and Their Relationship to Wound Healing in Ankle Fracture Surgery  
William T. Kent, MD, University of California, San Diego  

12:13 pm  3-Dimensional Virtual Reality for Pain Control in Orthopaedic Patients: A Prospective Randomized Control Study  
Milton T. M. Little, MD, Cedars Sinai Medical Center  

12:21 pm  Correlation of Intraoperative Neurophysiologic Monitoring Changes with Postoperative Neurologic Deficits  
Kali R. Tileston, MD, Stanford University  

12:29 pm  Discussion  

Concurrent Allied Health Session 2 – Trauma  Alpine Springs  
Moderator: Theodore W. Coates, PA-C, University of California, Davis Medical Center  

12:00 pm  Hip Fractures – Diagnosis and Management  
Milton L. “Chip” Routt Jr., MD, University of Texas Health Science Center  

12:40 pm  Patient Mental Health Status Is Minimally Associated with Patient Satisfaction  
Laura Lu, BS, Stanford University  
*Presented by Derek F. Amanatullah, MD, PhD  

12:44 pm  The Effect of a Revised Curriculum on OITE Performance  
Taylor R. Lara, MD, Oregon Health & Science University  

12:48 pm  A Structured Review Instrument Improves the Quality of Orthopaedic Journal Club  
Sean T. Campbell, MD, Stanford University  

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<tr>
<th>Time</th>
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</table>
| 12:52 pm | Orthopaedic Surgery Residents and the Physician Payment Sunshine Act: Are Payments to Resident Physicians Being Reported in the Open Payments Database?  
*Presented by Kent T. Yamaguchi, MD | 1:04 pm | Low Complication Rates among Geriatric Olecranon Fracture Patients Treated with Plate Fixation  
Sean T. Campbell, MD, Stanford University |
| 12:56 pm | Discussion                                                                                 | 1:08 pm | Comparison of Tension Band and Plate Fixation of Olecranon Fractures  
Michael Del Core, MD, University of Texas Southwestern Medical Center |
| 1:00 pm | Which Subspecialties Produce Best Evidence at the AAOS Annual Meeting?  
Kimberly E. Souza, BS, Stanford University | 1:12 pm | Concomitant Upper Extremity Fracture Worsens Outcomes in Elderly Patients with Hip Fracture  
Mary Kate Thayer, MD, University of Washington Department of Orthopaedics  
*Presented by Conor P. Klewenko, MD | 1:16 pm | Discussion |
| 1:04 pm | The Thirty Year Slump: Gender Diversity in Orthopaedic Literature  
Meghan A. Brown, MD, University of Southern California Medical Center | 1:20 pm | A Novel Technique for Olecranon Osteotomy for Treatment of Distal Humerus Fractures  
Duncan C. Ramsey, MD, MPH, Oregon Health & Science University |
| 1:08 pm | Gender Disparities in Industry Support of Orthopaedic Surgeons  
Rafael Buerva, MD, MHS, University of California Los Angeles  
*Presented by Danielle C. Greenberg, BA | 1:24 pm | Radial Head Instability and Limited Hand Rotation after Simulated IOM Injury  
Christina Salas, PhD, University of New Mexico  
*Presented by Deana Mercer, MD |
| 1:12 pm | Current Maternity, Paternity and Adoption Leave Policies in Orthopaedic Surgery Residencies  
Sara Van Nortwick, MD, Stanford University  
*Presented by Breana Sijander, MD | 1:28 pm | Effects of Centralized Microvascular Outreach on Quality of Patient Care  
Christopher Chen, MD, University of Colorado |
| 1:16 pm | Discussion                                                                                 | 1:32 pm | Feasibility of Discussing Cost of Surgery at Point of Care  
Laura Lu, BS, Stanford University  
*Presented by Lauren M. Shapiro, MD |
| 1:20 pm | Can Patients and Families Read the Questionnaires for Patient Related Outcome Measures?  
Ellen M. Raney, MD, Shriners Hospital for Children | 1:36 pm | Discussion |
| 1:24 pm | One-Year Global Unplanned Reoperation Rates: A Useful Quality Metric in Orthopaedic Surgery?  
Trevor Grace, MD, University of California San Francisco | 1:40 pm | Rapid Fire Sessions 2C – Total Knee  
Moderators: Alexander Sah, MD, Institute for Joint Restoration & Jennifer M. van Warmerdam, MD, St. Mary’s Medical Center Total Joint Center |
| 1:28 pm | Does Tailoring Discharge Opioid Regimens to Inpatient Use after Orthopaedic Procedures Affect Refill Rates?  
Olufemi Adams, BA, BS, University of Chicago - Pritzker School of Medicine | 1:44 pm | Manipulation Rate Is Not Increased after Customized Total Knee Arthroplasty  
Andrew B. Kay, MD, Houston Methodist Hospital |
| 1:32 pm | Infection Surveillance at Ambulatory Surgical Centers  
Jory Wasserburger, MD, University of New Mexico | 1:48 pm | Unexpected High Failure Rate in a Patient-Specific Total Knee Arthroplasty  
Kevin Park, MD, Houston Methodist Hospital |
| 1:36 pm | Discussion                                                                                 | 1:52 pm | Effect of Computer Navigation on Complication Rates Following Unicompartmental Knee Arthroplasty  
Deepak V. Chona, MD, Stanford University  
*Presented by Abiram Bala, MD |
| 1:40 pm | Nationwide Database Analysis of Intramedullary Nail versus Plate Fixation for Humeral Shaft Fractures  
Paul D. Navo, MPH, Keck School of Medicine of the University of Southern California  
*Presented by Alexis Rounds, BS | 1:56 pm | Discussion |
| 1:44 pm | Early Post-Operative Outcomes of Plate Versus Nail Fixation for Humeral Shaft Fractures  
Jill A. Goodwin, MD, University of Arizona College of Medicine  
*Presented by Blake Eyberg, MD | 2:00 pm | Vitamin D Is Associated with Higher Complication Rates in TKA  
Vishal Hegde, MD, University of California, Los Angeles |
| 1:48 pm | Operative versus Nonoperative Treatment of Humeral Shaft Fractures  
Brian M. Cash, MD, University of California Los Angeles Medical Center and Orthopaedic Hospital | 2:04 pm | Early Opioid Cessation and Patient Reported Outcomes in Primary TKA  
Andrew R. Summers, BS, Oregon Health & Science University  
*Presented by Jack Mazullo, BA |
| 1:52 pm | Relationship of Neurovascular Structures to Multplanar Distal Interlocking Screws in Intramedullary Humeral Nails  
Garrett Steinmetz, MD, University of Oklahoma | 2:08 pm | Tranexamic Acid with Limited Use Tourniquet in Total Knee Arthroplasty  
Avrey Novak, BS, University of Washington School of Medicine  
*Presented by Adam A. Sassoon, MD, MS |
| 2:00 pm | Low-Profile Mesh Plating for Treating Transverse Olecranon Fractures: Biomechanical Evaluation  
Christina Salas, PhD, University of New Mexico  
*Presented by Deana Mercer, MD | 2:12 pm | Aminocaproic Acid versus Tranexamic Acid in Total Joint Arthroplasty. What’s Better?  
Zachary Lum, DO, University of California, Davis |
<table>
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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>1:16 pm</td>
<td>Discussion</td>
<td>Castle Peak Auditorium</td>
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<tr>
<td>1:20 pm</td>
<td>Outcomes of a Unique Milling System Technique for Patellofemoral Arthroplasty</td>
<td>Castle Peak Auditorium</td>
<td>Alexander Sah, MD, Institute for Joint Restoration</td>
</tr>
<tr>
<td>1:24 pm</td>
<td>Effect of Patellar Thickness on Gait Biomechanics Following Knee Arthroplasty</td>
<td>Castle Peak Auditorium</td>
<td>Anne Wright, MD, University of Hawaii</td>
</tr>
<tr>
<td>1:28 pm</td>
<td>Addressing Large Tibial Osseous Defects in Primary Total Knee Arthroplasty</td>
<td>Castle Peak Auditorium</td>
<td>Jae S. You, MD, University of Hawaii</td>
</tr>
<tr>
<td>1:32 pm</td>
<td>Clinical Performance of a Novel 3D Printed Cementless Tibial Baseplate</td>
<td>Castle Peak Auditorium</td>
<td>Steven F. Harwin, MD, Mount Sinai Hospital</td>
</tr>
<tr>
<td>1:36 pm</td>
<td>Discussion</td>
<td>Castle Peak Auditorium</td>
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**Rapid Fire Sessions 2D – Trauma/Hip Fractures**

Moderators: Geoffrey S. Marecek, MD, Keck School of Medicine of the University of Southern California & Julius A. Bishop, MD, Stanford HealthCare

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<th>Time</th>
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<th>Moderator(s)</th>
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<tbody>
<tr>
<td>12:40 pm</td>
<td>Time-to-Block: Early Fascia Iliac Block Reduces Opioid Use in Geriatric Hip Fractures</td>
<td>Castle Peak Auditorium</td>
<td>Joseph Patterson, MD, University of California</td>
</tr>
<tr>
<td>12:44 pm</td>
<td>Geriatric Hip Fractures: Regional Anesthesia with Multimodal Pain Management</td>
<td>Castle Peak Auditorium</td>
<td>John M. Garlich, MD, Cedars Sinai Medical Center</td>
</tr>
<tr>
<td>12:48 pm</td>
<td>Single-Shot versus Continuous Fascia Iliaca Blocks for Hip Fractures</td>
<td>Castle Peak Auditorium</td>
<td>Stephen Stephan, MD, Cedars-Sinai Medical Center</td>
</tr>
<tr>
<td>12:52 pm</td>
<td>Fascia Iliacus Blocks Do Not Affect Hospital Length of Stay</td>
<td>Castle Peak Auditorium</td>
<td>Landon S. Polakof, MD, Cedars-Sinai Medical Center</td>
</tr>
<tr>
<td>12:56 pm</td>
<td>Discussion</td>
<td>Castle Peak Auditorium</td>
<td></td>
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<tr>
<td>1:00 pm</td>
<td>Determining Indications for Preoperative Fascia Iliac Nerve Block in Hip Fracture Patients</td>
<td>Castle Peak Auditorium</td>
<td>Eytan Debbi, MD, PhD, Cedars Sinai Medical Center</td>
</tr>
<tr>
<td>1:04 pm</td>
<td>Fewer Fatal Fractures: Impact of Comprehensive Geriatric Hip Fracture Program on One-Year Mortality</td>
<td>Castle Peak Auditorium</td>
<td>Jason W. Stoneback, MD, University of Colorado School of Medicine</td>
</tr>
<tr>
<td>1:08 pm</td>
<td>Predictors for 30-Day to One-Year Readmission Rates in a Geriatric Hip Fracture Population</td>
<td>Castle Peak Auditorium</td>
<td>Samuel K. Stephenson, MD, PhD, Cedars Sinai Medical Center</td>
</tr>
<tr>
<td>1:12 pm</td>
<td>Impact of Interhospital Transfer on 30-Day Hip Fracture Outcomes</td>
<td>Castle Peak Auditorium</td>
<td>David Campbell, MD, University of Arizona</td>
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<tr>
<td>1:16 pm</td>
<td>Discussion</td>
<td>Castle Peak Auditorium</td>
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<tr>
<td>1:20 pm</td>
<td>Incidence and Risk Factors for Pneumonia in Hip Fractures</td>
<td>Castle Peak Auditorium</td>
<td>Blake Eyberg, MD, University of Arizona</td>
</tr>
<tr>
<td>1:24 pm</td>
<td>Nail versus Plate: No Difference in Hip Fracture Episode Cost</td>
<td>Castle Peak Auditorium</td>
<td>Joseph Patterson, MD, University of California</td>
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<tr>
<td>1:28 pm</td>
<td>Hip Fracture Patients Receiving Perioperative TAVR Have Higher Complication Rates</td>
<td>Castle Peak Auditorium</td>
<td>Dhieeraj R. Yalamanchili, MD, Cedars-Sinai Medical Center</td>
</tr>
<tr>
<td>1:32 pm</td>
<td>Effect of Organ Transplantation on Operative Outcomes in Hip Fractures</td>
<td>Castle Peak Auditorium</td>
<td>Bejan A. Alvandi, BS, Keck School of Medicine of the University of Southern California</td>
</tr>
<tr>
<td>1:36 pm</td>
<td>Discussion</td>
<td>Castle Peak Auditorium</td>
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<tr>
<td>7:50 am</td>
<td><strong>Focused Brunch Presentation</strong></td>
<td>Cirque Boardroom</td>
<td>C. Brian Blackwood, MD</td>
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<td><em>CME Credit Not Available</em></td>
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<tr>
<td>8:25 am</td>
<td><strong>Rapid Fire Sessions 3A – Pediatrics</strong></td>
<td>Cathedral Deck</td>
<td>Malcolm R. DeBaun, MD</td>
</tr>
<tr>
<td>8:49 am</td>
<td>Weight-Bearing Osteochondritis Dissecans Lesions of the Knee: Two-Year Follow-Up Analysis</td>
<td>Cathedral Deck</td>
<td>Liang Zhou, MD, Tripler Army Medical Center</td>
</tr>
<tr>
<td>8:49 am</td>
<td>Growth Arrest after Transphyseal ACL Reconstruction in Skeletally Immature Adolescents</td>
<td>Cathedral Deck</td>
<td>Thomas J. Melton, MD, Madigan Army Medical Center</td>
</tr>
<tr>
<td>8:45 am</td>
<td>A Patellar Advancement Technique in Children with Patella Alta and Cerebral Palsy</td>
<td>Cathedral Deck</td>
<td>Jason T. Rhodes, MD, Children's Hospital Colorado</td>
</tr>
<tr>
<td>8:33 am</td>
<td>Single versus Two Incision Technique for Treatment of Neuromuscular Hip Dysplasia</td>
<td>Cathedral Deck</td>
<td>Sara Van Nortwick, MD, Stanford University</td>
</tr>
<tr>
<td>8:33 am</td>
<td>The Influence of Plafond Impaction in Pronation-Abduction Ankle Fractures and the Role of Computed Tomography in Diagnosis and Surgical Planning</td>
<td>Cathedral Deck</td>
<td>Ram K. Alluri, MD, Keck School of Medicine of the University of Southern California</td>
</tr>
<tr>
<td>8:41 am</td>
<td><strong>Rapid Fire Sessions 3B – Foot &amp; Ankle/Ankle Injuries</strong></td>
<td>Cathedral Deck</td>
<td>Michael Reiter, MD, University of Colorado School of Medicine &amp; Conor P. Kleweno, MD, Harborview Medical Center</td>
</tr>
<tr>
<td>8:45 am</td>
<td>The Incidence of Plafond Impaction in Pronation-Abduction Ankle Fractures and the Role of Computed Tomography in Diagnosis and Surgical Planning</td>
<td>Cathedral Deck</td>
<td>Ram K. Alluri, MD, Keck School of Medicine of the University of Southern California</td>
</tr>
<tr>
<td>8:29 am</td>
<td>Ankle Fractures: Ottawa Ankle Rules Need Geriatric Modifier</td>
<td>Cathedral Deck</td>
<td>David Weiner, MD, Union Memorial Hospital</td>
</tr>
<tr>
<td>8:33 am</td>
<td>Predicting Risk of Complications in Diabetic Patients with Ankle Fractures</td>
<td>Cathedral Deck</td>
<td>Robin H. Dunn, MD, University of Colorado School of Medicine</td>
</tr>
<tr>
<td>8:37 am</td>
<td>Quality and Utility of Immediate PACU Radiographs after Ankle Fractures</td>
<td>Cathedral Deck</td>
<td>Tony Pedri, MD, University of New Mexico</td>
</tr>
<tr>
<td>8:41 am</td>
<td><strong>Rapid Fire Sessions 3C – Sports Medicine</strong></td>
<td>Cathedral Deck</td>
<td>Eric Q. Pang, MD, Stanford University</td>
</tr>
<tr>
<td>8:45 am</td>
<td>Tibialal Pressure Mechanics after Instrumentation with Screws versus Suspensory Fixation</td>
<td>Cathedral Deck</td>
<td>Eric Q. Pang, MD, Stanford University</td>
</tr>
<tr>
<td>8:49 am</td>
<td>Cost-Effectiveness of Screw versus Suture Button Fixation in Syndesmotic Injuries</td>
<td>Cathedral Deck</td>
<td>Duncan C. Ramsey, MD, MPH, Oregon Health &amp; Science University</td>
</tr>
<tr>
<td>8:53 am</td>
<td>Open Visualization versus Palpation for Reduction of the Syndesmosis</td>
<td>Cathedral Deck</td>
<td>Eric Q. Pang, MD, Stanford University</td>
</tr>
<tr>
<td>8:57 am</td>
<td>Evaluating Current Treatment Strategies for Syndesmotic Injuries in Athletes</td>
<td>Cathedral Deck</td>
<td>Michael Reiter, MD, University of Colorado School of Medicine</td>
</tr>
<tr>
<td>8:37 am</td>
<td>Impact of Bariatric and Transplant Surgery on Rotator Cuff Tears</td>
<td>Cathedral Deck</td>
<td>Steven J. Barad, MD, Methodist Hospital</td>
</tr>
<tr>
<td>8:25 am</td>
<td>Clinical and Radiographic Outcomes of a Novel Acromioclavicular-Coracoclavicular (AC/CC) Reconstruction</td>
<td>Cathedral Deck</td>
<td>Joseph D. Cooper, MD, Keck School of Medicine of the University of Southern California</td>
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<tr>
<td>8:33 am</td>
<td>Effect of Prior Bariatric and Transplant Surgery on Rotator Cuff Tears</td>
<td>Cathedral Deck</td>
<td>Anthony Essifie, MD, University of Southern California</td>
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<tr>
<td>8:37 am</td>
<td>Is Arthroscopy at Time of Medial Patellofemoral Ligament Reconstruction Necessary?</td>
<td>Cathedral Deck</td>
<td>Christopher Shultz, MD, University of New Mexico</td>
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<tr>
<td>8:41 am</td>
<td>Risk Factors for Early Revision Anterior Cruciate Ligament Reconstruction</td>
<td>Cathedral Deck</td>
<td>Matthew C. Gallo, BA, Keck School of Medicine of the University of Southern California</td>
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<tr>
<td>8:49 am</td>
<td>Validation of PROMIS Computer Adaptive Testing for Multi-Ligament Knee Reconstruction</td>
<td>Cathedral Deck</td>
<td>Hyunwoo P. Kang, MD, Keck School of Medicine of the University of Southern California</td>
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<tr>
<td>8:53 am</td>
<td>Are Orthopaedic Surgeons Performing Fewer Arthroscopic Partial Meniscectomies in Patients Greater than 50 Years Old? A National Database Study</td>
<td>Cathedral Deck</td>
<td>Hyunwoo P. Kang, MD, Keck School of Medicine of the University of Southern California</td>
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8:37 am  Outcomes of Femoral Head Fractures Associated with Traumatic Hip Dislocations  
Michael Del Core, MD, University of Texas Southwestern Medical Center  
*Presented by Stephen Blake Wallace, MD

8:41 am  Discussion

8:45 am  Current Drug and Alcohol Use in Orthopedic Trauma Patients  
D’Ann Arthur, MD, Harbor-University of California Los Angeles Medical Center

8:49 am  Surgical Delay Increases the Rate of 30 Day Complications and Mortality in Femoral Shaft Fractures  
Robert Walker, MD, University of Arizona College of Medicine  
*Presented by Ryan DiGiovanni, MD

8:53 am  Location of Pelvic Ballistic Fracture and Associated Visceral Injuries  
Mary Kate Erdman, MD, University of Southern California

8:57 am  Discussion

Concurrent Allied Health Session 3 – Radiology  
Alpine Springs  
Moderator: Theodore W. Coates, PA-C, University of California, Davis

8:25 am  Imaging of the Wrist and Hand  
Andrew Sonin, MD, FACR, Radiology Imaging Associates, PC

9:05 am  Break – Please Visit Exhibits  
Mt. Daly Ballroom A, C, D & E

General Session 3 – AAOS Report & Presidential Guest Speaker  
Mt. Daly Ballroom A, C, D & E

9:25 am  AAOS Report  
David A. Halsey, MD, President

9:40 am  Introduction of Presidential Guest Speaker  
Brian A. Jewett, MD, Slocum Center for Orthopedics and Sports Medicine

9:45 am  Presidential Guest Speaker  
Succeeding in the Brave New/Old World: Facts Are Stubborn Things!  
Nathan S. Kaufman, Kaufman Strategic Advisors

10:35 am  Break – Please Visit Exhibits  
Mt. Daly Ballroom A, C, D & E

Symposium 4 – Orthopaedic Business  
Moderator: Michael J. McCaslin, CPA, Somerset CPA and Advisors

10:55 am  Key Business Issues:  
Patient Centered Care  
Urgent Care/Immediate Access  
Extender Utilization, Optimization and Cost Accounting  
Ownership of Assets and Services to Manage Risk  
Payer, Hospital and Employer Strategies  
Private Equity and Impact on Orthopaedics

Panel:  
Michael J. McCaslin, CPA, Somerset CPAs and Advisors  
Brian A. Jewett, MD, Slocum Center for Orthopedics and Sports Medicine

11:40 am  Discussion

11:45 am  Focused Lunch Presentation  
*CME Credit Not Available  
Flexion Therapeutics  
Clinical Data Supporting Approval for ZILRETTA® (triamcinolone acetonide extended-release injectable suspension utilizing microsphere PLGA technology) as an Intra-articular Treatment for Osteoarthritis of the Knee (OAK) Pain  
Jack Bert, MD

General Session 4 – WOF Report & Western Orthopaedic Foundation Named Grants  
Mt. Daly Ballroom B, Unless Otherwise Specified  
Moderator: Robert R. Slater Jr., MD, Folsom, CA

8:15 am  WOF Report  
Robert R. Slater, Jr., MD, Folsom, CA

8:25 am  WOF Robert R. Slater, Jr., MD Travel Grant  
Complications in Computer Navigated versus Conventional Total Hip Arthroplasty  
Blake K. Montgomery, MD, Stanford University

8:35 am  WOF Brian A. Jewett, MD Travel Grant  
Application of Patient-Reported Outcome Measurement Information System in Elite Athletes  
Jesse Roberts, MD, University of Colorado Denver

8:45 am  WOF Jeffrey E. Krygier, MD Travel Grant  
A Preoperative Score for Predicting 30-Day Readmission after Elective 1-2 Level Posterior Lumbar Spinal Fusion  
Joseph Patterson, MD, University of California, San Francisco

8:55 am  WOF Jeffrey M. Nakano, MD Travel Grant  
Efficacy of a Team-Based Approach to Improving Antibiotic Administration in Open Fractures  
Alvin Shieh, MD, University of California Davis

9:05 am  WOF Paul C. Collins, MD Travel Grant  
Infection Rates of Low-Velocity Gunshot Femur Fractures Treated without Debridement  
Jessica D. Bear, MD, Hospital for Special Surgery

9:15 am  WOF Basil R. Besh, MD Travel Grant  
Timing of Lumbar Spinal Fusion Impacts Total Hip Arthroplasty Outcomes  
Abiram Bala, MD, Stanford University

9:25 am  WOF Milton L. "Chip" Routt, Jr., MD Travel Grant  
Mouse Spine Implant Infection Model: Fluorescent Probe Detects Multiple Bacteria  
Gideon W. Blumstein, MD, MS, University of California Los Angeles

9:35 am  WOF Nitin N. Bhatia, MD Travel Grant  
Smoking and Total Hip Arthroplasty in 2014: Increased Complications and Costs  
Eytani Debbi, MD, PhD, Cedars Sinai Medical Center

9:45 am  WOF Jeffrey M. Nakano, MD Travel Grant  
Efficacy of a Team-Based Approach to Improving Antibiotic Administration in Open Fractures  
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Gideon W. Blumstein, MD, MS, University of California Los Angeles

10:25 am  WOF Nitin N. Bhatia, MD Travel Grant  
Smoking and Total Hip Arthroplasty in 2014: Increased Complications and Costs  
Eytani Debbi, MD, PhD, Cedars Sinai Medical Center

10:35 am  Discussion

Rapid Fire Sessions 4A – Basic Science  
Mt. Daly Ballroom A, C, D & E

Moderators: Robert R. Slater, Jr., MD, Folsom, CA & Jeffrey E. Krygier, MD, Santa Clara Valley Medical Center

12:30 pm  Local Delivery of Supplemental Agrin Prevents Motor Endplate Degradation  
Winnie Palsisp, MD, University of California, Irvine

12:40 pm  hES-Pericyte Conditioned Media Rescue Myotube Atrophy In Vitro  
Regina Husman, BS, David Geffen School of Medicine at University of California Los Angeles

12:50 pm  Differentially Expressed Micro-RNA in Rotator Cuff Tendinopathy Using RNA-Sequencing  
Kimberly Hall, MD, Stanford Hospital and Clinics

1:00 pm  Accuracy of 3D Printed Bone Models Using Open Source Software  
Trevor J. Shelton, MD, MS, University of California, Davis

1:10 pm  Anti-Inflammatory Peptide Enhances New Bone Formation and Reduces Inflammation in Rbhm-2-Mediated Spine Fusion  
Phillip H. Behrens, MD, Cedars-Sinai Medical Center

1:20 pm  Characterization of Stable and Endochondral Human Articular Cartilage Progenitor Cells  
Phillip W. Lam, BS, Oregon Health & Science University
2:05 pm Division I Collegiate Athletes Have a High Return-to-Sport Rate Following Hip Arthroscopy for Femoroacetabular Impingement Syndrome
Haley L. Nakata, BS, Keck School of Medicine of the University of Southern California
*Presented by John M. Garlich, MD

2:01 pm Regional Anesthesia Decreases Length of Stay in Tibial Shaft Fractures
Ryan DiGiovanni, MD, Banner University Medical Center
*Presented by Michael Duran, MD

1:57 pm Effect of Artificial Turf versus Natural Grass on Knee Injuries in NCAA Football: Ten Year Report
Galvin Loughran, BS, Georgetown University School of Medicine

1:53 pm The Epidemiology of Concussions in a NCAA Division I Female Soccer Team
Santo L. Rosario, BA, Keck School of Medicine of the University of Southern California
*Presented by Shane Korber, BS

1:49 pm Early Return from Concussion Associated with Increased Injury in Athletes
Garrett Harada, BA, David Geffen School of Medicine at the University of California Los Angeles

1:45 pm Management of Aseptic Pertochanteric Femoral Fracture Nonunions
Donald A. Wiss, MD, Cedars Sinai Medical Center
*Presented by John M. Garlich, MD

1:41 pm Does Screw Location Affect the Risk of Subtrochanteric Femoral Fracture after Femoral Neck Fixation?
Erica K. Crump, MD, Naval Medical Center San Diego

1:37 pm Are Piriformis Reconstruction Nails Ideal for Prophylactic Femoral Neck Fixation?
Alvin Shieh, MD, University of California, Davis

1:33 pm Does Screw Location Affect the Risk of Subtrochanteric Femoral Fracture after Femoral Neck Fixation?
Nikolas Baksh, MD, Oregon Health & Science University

1:29 pm Blade Plating of High-Energy Proximal Femur Fractures Results in Union and Minimal Complications
Matthew Weldon, MD, University of Texas at Houston
*Presented by Timothy S. Achor, MD

1:25 pm Which Trauma Patients Need Psychiatry Consultation?: A Pilot Survey Study
Sean T. Campbell, MD, Stanford University

1:21 pm Which Trauma Patients Need Psychiatry Consultation?: A Pilot Survey Study
*Presented by John M. Garlich, MD

1:17 pm Does Screw Location Affect the Risk of Subtrochanteric Femoral Fracture after Femoral Neck Fixation?
*Presented by Omid Jalali, BS

1:13 pm Greater Muscle Degeneration in Aged Mice after Rotator Cuff Injury
Santano L. Rosario, BA, Keck School of Medicine at the University of Southern California

1:09 pm Single-Stage Revision with Tobramycin-Loaded Polymethylmethacrylate Is Ineffective in Periprosthetic Infection Model
Zachary D.C. Burke, MD, David Geffen School of Medicine at University of California Los Angeles

1:05 pm Toward Translational Treatments: A Novel Model of Revision Arthroplasty
Zachary D.C. Burke, MD, David Geffen School of Medicine at University of California Los Angeles

1:01 pm Outcomes and Complications of SIGN Intramedullary Nailing of the Tibia
Matthew Weldon, MD, University of Texas at Houston
*Presented by Jennifer J. Wages, PhD, ATC, OTC

1:57 pm Discussion

1:53 pm Clavicle Nonunions: Plate and Graft Type Do Not Effect Healing Rates
Nicholas Trasolini, MD, Keck School of Medicine at the University of Southern California
*Presented by Alexander H. Arzeno, MD

1:49 pm Healing the Index Humeral Nonunion Surgery
Lawrence H. Goodnough, MD, PhD, Stanford University

1:45 pm Changes in Practice Patterns Regarding the Treatment of Foot and Ankle Fractures
Nikolas Baksh, MD, Oregon Health & Science University

1:41 pm Clavicle Nonunions: Plate and Graft Type Do Not Effect Healing Rates
Donald A. Wiss, MD, Cedars Sinai Medical Center
*Presented by John M. Garlich, MD

1:37 pm AAPA Guidelines Regarding the Management of the Aseptic Pertochanteric Femoral Fracture
Garrett Harada, BA, David Geffen School of Medicine at the University of California Los Angeles

1:33 pm Does Screw Location Affect the Risk of Subtrochanteric Femoral Fracture after Femoral Neck Fixation?
*Presented by Ovidiu Chirila, MD

1:29 pm Does Screw Location Affect the Risk of Subtrochanteric Femoral Fracture after Femoral Neck Fixation?
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1:25 pm Which Trauma Patients Need Psychiatry Consultation?: A Pilot Survey Study
*Presented by John M. Garlich, MD

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*Presented by Jennifer J. Wages, PhD, ATC, OTC

1:57 pm Discussion
Scientific Program

Mt. Daly Ballroom B, Unless Otherwise Specified

1:25 pm  Insurance Status Predicts Morbidity, Mortality, and Cost in Revision Total Joint Arthroplasty
Blake Ebyerg, MD, University of Arizona College of Medicine

1:29 pm  Use of a 2D/3D Registration Method to Evaluate the Psosas Impingement in Total Hip Arthroplasty
Ahmad Faizan, PhD, Mahwah, NJ
*Presented by Laura Scholl, MS

1:33 pm  Mortality during Total Hip Periprosthetic Joint Infection: A Meta-Analysis
Zachary Lum, DO, University of California, Davis

1:37 pm  Immediate Impact of Tranexamic Acid in Blood Conservation in Primary Total Joint Replacement
Alexander Sah, MD, Institute for Joint Restoration

1:41 pm  Discussion

1:45 pm  A Comparison of Traumatic Hip Fracture & Primary Elective Total Hip Patients: Comorbidity Burden, Hospital Course, Postoperative Complications and Cost of Care Analysis
Sean M. Mitchell, MD, University of Arizona College of Medicine Phoenix
*Presented by Jason A. Lowe, MD

1:49 pm  Isolated Greater Trochanteric Fracture and the Direct Anterior Approach Using a Fracture Table
Bradley P. Graw, MD, Palo Alto Medical Foundation

1:53 pm  An In-Vitro Comparative Assessment of Acetabular Cup Removal Systems
Louis M. Kwong, MD, Harbor-University of California Los Angeles Medical Center

1:57 pm  Discussion

2:01 pm  Mortality during Total Knee Periprosthetic Joint Infection: A Meta-Analysis
Zachary Lum, DO, University of California, Davis

2:05 pm  Conversion Rates and Timing to Total Knee Arthroplasty Following ACL Reconstruction: A United States Population-Based Study
Jacob Bobman, MD, Keck School of Medicine of the University of Southern California

2:09 pm  Bilateral Simultaneous versus Staged Total Knee Arthroplasty: Minimal Perioperative Risk Differences
Ellen L. Tsay, BS, MS, University of California, San Francisco

2:13 pm  Distal Femur Locking Plates Fit Poorly after Total Knee Arthroplasty
Sean T. Campbell, MD, Stanford University

2:17 pm  Discussion

Scientific E-Poster Tour

Cirque Boardroom, Cathedral Deck, Cathedral Peak & Castle Peak Auditorium
Moderators: Jeffrey E. Krygier, MD, Santa Clara Valley Medical Center & Julius A. Bishop, MD, Stanford HealthCare

2:25 pm  E-Poster Tour

3:25 pm  Multimedia Education Session 1st Floor Registration

General Session 5 – WOF Resident Awards
Moderator: Michael Dayton, MD, University of Colorado School of Medicine

7:00 am  Influence of Capsular Laxity and Labral Integrity on Hip Stability
Adam Johannsen, MD, Stanford University

7:06 am  C1-C3 Construct with Short C2 Pedicle Screws versus Goel-Harms Fixation
Young Lu, MD, University of California, Irvine

7:12 am  When is an Orthopaedic Intern Ready to Take Call?
Trevor Barronian, MD, Oregon Health & Science University

7:18 am  Comparing AHD Between MRI and X-Ray in Massive Cuff Tears
Steven Donohoe, MD, Keck School of Medicine of the University of Southern California

7:24 am  Innervation of the Subscapularis: An Anatomical Study
Brian W. Sager, MD, University of Texas Southwestern

7:30 am  Pre-Operative CT Can Predict Post-Operative Shortening of Extra-Capsular Hip Fractures
Garin Hecht, MD, Harborview Medical Center

7:36 am  Intramedullary Nailing versus Lateral Locked Plating for Distal Femur Fractures
K. Chandra Vemulapalli, MD, University of Texas Health McGovern Medical School

7:42 am  Discussion

Symposium 5 – Trauma
Moderator: Timothy S. Achor, MD, Memorial Hermann Texas Medical Center

7:50 am  How to Avoid Non-Unions
Alexandra K. Schwartz, MD, University of California, San Diego

8:02 am  Healthcare Finance and Trauma Coding
Timothy J. Bray, MD, Reno Orthopedic Clinic

8:14 am  Humeral Shaft Fractures: What’s Current? What’s Controversial?
Clifford B. Jones, MD, The CORE Institute

8:26 am  Case Discussion

8:36 am  Discussion

8:40 am  Focused Brunch Presentation  *CME Credit Not Available
Convatec
Risk Mitigation of Infection in Total Joint Arthroplasty
Alexander Sah, MD

Rapid Fire Sessions 5A – Tumor  Cirque Boardroom
Moderators: Russ N. Sitzlein, MD, MD Anderson Cancer Center & Bryan S. Moon, MD, MD Anderson Cancer Center

9:15 am  Distal Femoral Compressive Osseointegration Endoprostheses: A Minimum Ten-Year Follow-Up Study
Kara Tanaka, MFA, University of California, San Francisco

9:19 am  Compress Mechanical Failure Assessment Using Radiographic Parameter Driven Decision Tree
Lindsay Parlee, BS, MD, Oregon Health & Science University

9:23 am  Vascularized Fibula Grafting in the Operative Treatment of Bone Tumors
Mark J. Landau, MD, Keck School of Medicine of the University of Southern California
*Presented by Ram K. Alluri, MD

Saturday, August 4

5:40 am  Scientific E-Poster Session  Cirque Boardroom, Cathedral Deck, Cathedral Peak & Castle Peak Auditorium

6:40 am  Announcements
Jeffrey E. Krygier, MD, Program Chair

6:45 am  Second Business Meeting

Follow WOA on Social Media  @WesternOrthopaedic  @WesternOrtho
9:35 am Outcomes of Reamer Irrigator Aspirator in Metastatic Femoral Intramedullary Nails  
Alexandra K. Callan, MD, University of Texas Southwestern Medical Center

9:39 am PROMIS Outcomes Following Surgical Intervention for Metastatic Bone Disease: Analysis of Early Enrollment in a Multicenter Cohort Study  
Daniel M. Lerman, MD, Institute Limb Preservation, OrthoONE, Presbyterian/St. Luke’s Medical Center

9:43 am Pattern of Radiation Referral after Femoral Stabilization in Metastatic Disease  
Andrew R. Summers, BS, Oregon Health & Science University  
*Presented by David S. Putnam, MD

9:47 am Host Immune Response in Undifferentiated Pleomorphic Sarcoma – Ten-Year Retrospective Analysis  
Joey Sheridan, BS, University of California, San Francisco

9:51 am Discussion

**Rapid Fire Sessions SB – Upper Extremity/Shoulder** Cathedral Deck
Moderators: Kimberly L. Furry, MD, Mercy Orthopedics Associates & Jeffrey M. Nakano, MD, Rocky Mountain Orthopaedic Associates

9:15 am Utility for Radiographs in Diagnosing Hill-Sachs and Bankart Lesions: NO NEED Pre-Reduction Radiology  
Dave Milzman, MD, George Washington School of Medicine

9:19 am Intraoperative Clavicle Fracture Characterization and Radiographic Outcomes after Operative Fixation  
Nicholas J. Drayer, MD, Madigan Army Medical Center  
*Presented by Michelle L. Dudevoir, MD

9:23 am Effect of Pre-Operative Opioid Usage on Pain Following Arthroplasty  
William Curtis, BS, Keck School of Medicine of the University of Southern California  
*Presented by Ryan Lee, BS

9:27 am Discussion

9:31 am Outcomes of Rotator Cuff Tear Repair with No Postoperative Rehabilitation  
Joey Sheridan, BS, University of California, San Francisco

9:35 am Biomechanical Testing of Five Methods of Fixing Acetabular Fractures  
Weston Ryan, BS, University of Colorado Denver School of Medicine

9:39 am Comparison of Injury Rate and Pattern of Collegiate Beach and Indoor Volleyball  
Darby A. Houck, BA, University of Colorado School of Medicine

9:43 am Evaluation of Preoperative Diagnostic and Treatment Costs Prior to Arthroscopic Shaving  
David J. Mansfield, MD, El Paso Orthopaedic Surgery Group

9:47 am Host Immune Response in Undifferentiated Pleomorphic Sarcoma – Ten-Year Retrospective Analysis  
Joey Sheridan, BS, University of California, San Francisco

9:51 am Discussion

**Rapid Fire Sessions SC – Trauma** Cathedral Peak
Moderators: Timothy S. Achor, MD, Memorial Hermann Texas Medical Center & Milton L. “Chip” Rout Jr., MD, University of Texas Health Science Center

9:15 am Percutaneous Transiliac-Transtarsal Fixation of Sacral Insufficiency Fractures Improves Ambulation and Rate of Disposition to Home  
J. Brock Walker, MD, University of Arizona College of Medicine  
*Presented by David Campbell, MD

9:19 am Superior Pubic Ramus Screw Fixation: Radiographic Assessment of Successful Medullary Screw Insertion  
Brock Foster, MD, University of Southern California  
*Presented by Nima Kabirian, MD

9:23 am Safety of Medullary Superior Pubic Ramus Screws  
James Learned, MD, University of California Irvine Medical Center

9:27 am A Biomechanical Study of Three Methods of Fixing Acetabular Fractures  
Weston Ryan, BS, University of Colorado Denver School of Medicine

9:31 am Discussion

9:35 am Restoring Condylic Width: Radiographic Relationship Between The Lateral Tibial Plateau and Lateral Femoral Condyle in Normal Adult Knees  
Nima Kabirian, MD, University of Southern California

9:39 am Lateral Articular Involvement in Tibial Plateau Schatzker Type IV Fractures  
Mary Kate Erdman, MD, University of Southern California

9:43 am Heterotopic Ossification About the Knee in Floating Knee Injuries  
Trevor J. Shelton, MD, MS, University of California, Davis

9:47 am Evaluation of Lateral C-Arm Drape Contamination during Lower Extremity Fracture Surgery: A Prospective Pilot Study  
Erin Haggerty, MD, Cedars Sinai Medical Center

9:51 am Discussion

**Rapid Fire Sessions 5D – Sports Medicine** Castle Peak Auditorium
Moderators: CAPT Matthew T. Provencher, MD, The Steadman Clinic & David J. Mansfield, MD, El Paso Orthopaedic Surgery Group

9:15 am Fists of Fury but No Fractures: Fighting in the National Hockey League  
Aidan Neustadtyl, BS, Georgetown University

9:19 am Prevalence and Treatment of Humeral Head Avascular Necrosis in Transplant and Bariatric Surgery Patients: A Population-Based Study  
Rita Darzi, MD, Massachusetts General Hospital

9:23 am Characterization of Metal Debris from Refurbished Arthroscopic Shavers  
Louis M. Kwong, MD, Harbor-University of California Los Angeles Medical Center

9:27 am Treatment Injections for Lateral Epicondylitis: A Systematic Review of Overlapping Meta-Analyses  
Darby A. Houck, BA, University of Colorado School of Medicine

9:31 am Discussion

9:35 am Pediatric and Adolescent Injury in Rodeo: A Systematic Review  
Jason W. Stoneback, MD, University of Colorado School of Medicine

9:39 am Measurements of Femoracetabular Impingement Reliable across Various Levels of Training  
Ryan J. Bickley, MD, Johns Hopkins University School of Medicine

9:43 am Evaluation of Preoperative Diagnostic and Treatment Costs Prior to Articular Cartilage Restoration Surgery  
Brenda Iglesias, BS, David Geffen School of Medicine at University of California Los Angeles/Charles Drew University of Medicine and Science

9:47 am Comparison of Injury Rate and Pattern of Collegiate Beach and Indoor Volleyball  
Alexis Rounds, BS, Keck School of Medicine at the University of Southern California

9:51 am Discussion

9:55 am Break – Please Visit Exhibits Mt. Daly Ballroom A, C, D & E

**Symposium 6 – Foot & Ankle – Acute Injuries to the Foot & Ankle**  
Moderator: Kenneth J. Hunt, MD, University of Colorado School of Medicine

10:20 am Syndesmotic Injuries  
Daniel K. Moon, MBA, MD, University of Colorado School of Medicine

10:30 am Lateral Ankle Ligament Injuries  
Kenneth J. Hunt, MD, University of Colorado School of Medicine

10:40 am Achilles Tendon Injuries  
Douglas E. Lucas, DO, Centura Health Physician Group
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Speaker(s)</th>
</tr>
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<tbody>
<tr>
<td>11:00 am</td>
<td>General Session 6 – Own the Bone, BOC Report &amp; Presidential Address</td>
<td>Own the Bone</td>
<td>Fred C. Redfern, MD, Henderson, NV</td>
</tr>
<tr>
<td>11:20 am</td>
<td>BOC Report</td>
<td>Freezer Cartilage for Orthopedics and Sports Medicine</td>
<td>Brian A. Jewett, MD, Slocum Center for Orthopedics and Sports Medicine</td>
</tr>
<tr>
<td>11:25 am</td>
<td>Presidential Address</td>
<td>The WOA and YOU</td>
<td>Brian A. Jewett, MD, Slocum Center for Orthopedics and Sports Medicine</td>
</tr>
<tr>
<td>11:45 am</td>
<td>Concurrent Allied Health Session 4 – Case Review</td>
<td>Alpine Springs</td>
<td>Basil R. Besh, MD, Fremont Orthopaedic &amp; Rehabilitative Medicine</td>
</tr>
<tr>
<td>12:00 pm</td>
<td>Rapid Fire Session 6A – Foot &amp; Ankle</td>
<td>Cul de sac Versus Zygomatic Gastrocele</td>
<td>Mohammed A. Khalid, MD, University of Texas Medical Branch</td>
</tr>
<tr>
<td>12:06 pm</td>
<td>Rapid Fire Session 6A – Foot &amp; Ankle</td>
<td>All-Sof Suture Anchor versus Suture Bridge Construct for Insertional Achilles Tendon Repairs</td>
<td>Eric J. Lakey, BS, University of Colorado School of Medicine</td>
</tr>
<tr>
<td>12:10 pm</td>
<td>Rapid Fire Session 6A – Foot &amp; Ankle</td>
<td>Achilles Sleeve Avulsion: Clinical Features Including Description of a New Radiographic Sign</td>
<td>Christopher Shultz, MD, University of New Mexico</td>
</tr>
<tr>
<td>12:14 pm</td>
<td>Rapid Fire Session 6A – Foot &amp; Ankle</td>
<td>Gender Differences on SF-36 Patient-Reported Outcomes of Diabetic Foot Disease</td>
<td>Michael Del Core, MD, University of Texas Southwestern Medical Center</td>
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<tr>
<td>12:18 pm</td>
<td>Rapid Fire Session 6A – Foot &amp; Ankle</td>
<td>Discussion</td>
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<tr>
<td>12:27 pm</td>
<td>Rapid Fire Session 6A – Foot &amp; Ankle</td>
<td>Radiological Assessment of Sesamoid Reduction after Chevron-Akin Osteotomy</td>
<td>Jie Chen, MD, MPH, University of Texas Medical Branch</td>
</tr>
<tr>
<td>12:31 pm</td>
<td>Rapid Fire Session 6B – Spine</td>
<td>Lumbar Subcutaneous Adipose to Spine Process Depth Ratio as a Predictor for Surgical Complications</td>
<td>Kyle Shaw, BA, David Geffen School of Medicine at University of California Los Angeles</td>
</tr>
<tr>
<td>12:37 pm</td>
<td>Rapid Fire Session 6C – Trauma</td>
<td>Complications of Modified Single-Incision Wiltse Approach to the Lumbar Spine</td>
<td>Nicolas Baksh, MD, Oregon Health &amp; Science University</td>
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<tr>
<td>12:42 pm</td>
<td>Rapid Fire Session 6C – Trauma</td>
<td>Infection</td>
<td></td>
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<tr>
<td>12:47 pm</td>
<td>Rapid Fire Session 6C – Trauma</td>
<td>Greater Trochanteric Fractures with Intertrochanteric Extension: What Is the Rate of Displacement?</td>
<td>William T. Kent, MD, University of California, San Diego</td>
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<tr>
<td>11:49 am</td>
<td>Kinematic Analysis of Sagittal Plane Stability of Delta Frame External Fixation</td>
<td>Addison Wood, DO, PhD, John Peter Smith Hospital</td>
</tr>
<tr>
<td>11:53 am</td>
<td>Current Trends in the Management of Flail Chest</td>
<td>J. Brock Walker, MD, University of Arizona College of Medicine</td>
</tr>
<tr>
<td>11:57 am</td>
<td>Diagnosis of Traumatic Shoulder Arthrotomies Using Saline Load Test with Intra-Articular Pressure</td>
<td>Matthew Belton, MD, University of Colorado School of Medicine</td>
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<tr>
<td>12:01 pm</td>
<td>Orthopaedic Trauma Quality Measures for Value Based Healthcare Delivery</td>
<td>Malcolm R. DeBaun, MD, Stanford University</td>
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<td>12:05 pm</td>
<td>VTE Occurrences in Pelvic &amp; Lower Extremity Trauma Despite Modern Prophylactic Protocols</td>
<td>Sean M. Mitchell, MD, University of Arizona College of Medicine</td>
</tr>
<tr>
<td>12:13 pm</td>
<td>Prolonged Opioid Use Following Geriatric Hip Fracture Surgery</td>
<td>John M. Garlich, MD, Cedars Sinai Medical Center</td>
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<tr>
<td>12:17 pm</td>
<td>Dramatically Increased Rate of Mortality Associated with Atypical Hip Fractures</td>
<td>Robert Walker, MD, University of Arizona College of Medicine</td>
</tr>
<tr>
<td>12:21 pm</td>
<td>Current Trends in Postoperative Opioid Prescriptions after Ankle Fracture Surgery</td>
<td>Michael Chen, MD, Stanford University</td>
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<tr>
<td>12:29 pm</td>
<td>Early Post-Operative Radiographs Have No Effect on Patient Satisfaction</td>
<td>Blake J. Schultz, MD, Stanford University</td>
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<td>12:33 pm</td>
<td>X-Ray Does Not Adequately Assess Intertrochanteric Fracture Lateral Wall Morphology</td>
<td>Garin Hecht, MD, Harborview Medical Center</td>
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<td>Michael Chen, MD, Stanford University</td>
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<td>12:56 pm</td>
<td>An MRI Study of Neurovascular Bundle to Popliteus Tendon Distance</td>
<td>John M. Garlich, MD, University of Arizona</td>
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<tr>
<td>12:50 pm</td>
<td>Limb Length Discrepancy and Walking Performance in Hemiplegic Cerebral Palsy</td>
<td>Jason T. Rhodes, MD, Children's Hospital Colorado</td>
</tr>
<tr>
<td>12:56 pm</td>
<td>An MRI Study of Neurovascular Bundle to Popliteus Tendon Distance</td>
<td>Kendall A. Shifflett, BS, Orthopaedic Institute for Children</td>
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<tr>
<td>1:02 pm</td>
<td>Should We Repair Extensor Tendon Lacerations &gt;50% of Tendon Width?</td>
<td>Christina Salas, PhD, University of New Mexico</td>
</tr>
<tr>
<td>1:08 pm</td>
<td>Does Day of the Week of Surgery Affect Time to Discharge?</td>
<td>Kali R. Tileston, MD, Stanford University</td>
</tr>
<tr>
<td>1:21 pm</td>
<td>Trends of Initial Management Following Proximal Humerus Fracture</td>
<td>Farhad Darbandi, MD, University of Arizona</td>
</tr>
<tr>
<td>1:26 pm</td>
<td>Hypoalbuminemia Is a Risk Factor for Both Complications and Readmissions after Proximal Fractures</td>
<td>Jonathan Cheah, MD, University of California, San Francisco</td>
</tr>
<tr>
<td>1:30 pm</td>
<td>Survivorship of Proximal Humerus Fracture Initial Management</td>
<td>Alexis Rounds, BS, Keck School of Medicine at the University of Southern California</td>
</tr>
<tr>
<td>1:35 pm</td>
<td>X-Ray Does Not Adequately Assess Intertrochanteric Fracture Lateral Wall Morphology</td>
<td>Blake J. Schultz, MD, Stanford University</td>
</tr>
<tr>
<td>1:40 pm</td>
<td>Does Day of the Week of Surgery Affect Time to Discharge?</td>
<td>Kali R. Tileston, MD, Stanford University</td>
</tr>
<tr>
<td>1:49 pm</td>
<td>Complication of Reverse Shoulder Arthroplasty for Proximal Humerus Fracture</td>
<td>Farhad Darbandi, MD, University of Arizona</td>
</tr>
<tr>
<td>1:59 pm</td>
<td>Outpatient Total Elbow Arthroplasty, 90-Day Outcomes</td>
<td>Michael Stone, MD, Keck School of Medicine at the University of Southern California</td>
</tr>
<tr>
<td>2:00 pm</td>
<td>Does Day of the Week of Surgery Affect Time to Discharge?</td>
<td>Kali R. Tileston, MD, Stanford University</td>
</tr>
<tr>
<td>2:05 pm</td>
<td>90-Day Complication Rate following Shoulder Arthroplasty in a Veteran Population</td>
<td>Farhad Darbandi, MD, University of Arizona</td>
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**Rapid Fire Session 6D – Upper Extremity/ Shoulder & Elbow**

- **Castle Peak Auditorium**
- **Moderators:** COL (Ret) Edward D. Arrington, MD, Madigan Army Medical Center & Kimberly L. Furry, MD, Mercy Orthopedics Associates

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<tr>
<td>11:45 am</td>
<td>Short-Term Outcomes of Outpatient Total Shoulder Arthroplasty Protocol</td>
<td>Richard L. Auran, MD, University of Arizona College of Medicine - Phoenix</td>
</tr>
<tr>
<td>11:49 am</td>
<td>Socioeconomic and Ethnic Disparities in Pain Following Total Shoulder Arthroplasty</td>
<td>Alexis Rounds, BS, Keck School of Medicine at the University of Southern California</td>
</tr>
<tr>
<td>11:53 am</td>
<td>Patient-Specific Planning in Shoulder Arthroplasty: Bending the Learning Curve</td>
<td>Henry M. Fox, BS, MA, Oregon Health &amp; Science University</td>
</tr>
<tr>
<td>11:57 am</td>
<td>Smoking as a Risk Factor for Complications Following Shoulder Arthroplasty: A Population-Based Study</td>
<td>Jae Kim, MA, Keck School of Medicine at the University of Southern California</td>
</tr>
<tr>
<td>12:01 pm</td>
<td>Orthopaedic Trauma Quality Measures for Value Based Healthcare Delivery</td>
<td>Malcolm R. DeBaun, MD, Stanford University</td>
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<td>12:05 pm</td>
<td>VTE Occurrences in Pelvic &amp; Lower Extremity Trauma Despite Modern Prophylactic Protocols</td>
<td>Sean M. Mitchell, MD, University of Arizona College of Medicine</td>
</tr>
<tr>
<td>12:13 pm</td>
<td>Prolonged Opioid Use Following Geriatric Hip Fracture Surgery</td>
<td>John M. Garlich, MD, Cedars Sinai Medical Center</td>
</tr>
<tr>
<td>12:17 pm</td>
<td>Dramatically Increased Rate of Mortality Associated with Atypical Hip Fractures</td>
<td>Robert Walker, MD, University of Arizona College of Medicine</td>
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<tr>
<td>12:21 pm</td>
<td>Current Trends in Postoperative Opioid Prescriptions after Ankle Fracture Surgery</td>
<td>Michael Chen, MD, Stanford University</td>
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<tr>
<td>12:29 pm</td>
<td>Early Post-Operative Radiographs Have No Effect on Patient Satisfaction</td>
<td>Blake J. Schultz, MD, Stanford University</td>
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<tr>
<td>12:33 pm</td>
<td>X-Ray Does Not Adequately Assess Intertrochanteric Fracture Lateral Wall Morphology</td>
<td>Garin Hecht, MD, Harborview Medical Center</td>
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<tr>
<td>12:37 pm</td>
<td>Current Trends in Postoperative Opioid Prescriptions after Ankle Fracture Surgery</td>
<td>Michael Chen, MD, Stanford University</td>
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<tr>
<td>12:56 pm</td>
<td>An MRI Study of Neurovascular Bundle to Popliteus Tendon Distance</td>
<td>John M. Garlich, MD, University of Arizona</td>
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<tr>
<td>1:02 pm</td>
<td>Should We Repair Extensor Tendon Lacerations &gt;50% of Tendon Width?</td>
<td>Christina Salas, PhD, University of New Mexico</td>
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<tr>
<td>1:08 pm</td>
<td>Does Day of the Week of Surgery Affect Time to Discharge?</td>
<td>Kali R. Tileston, MD, Stanford University</td>
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<tr>
<td>1:14 pm</td>
<td>Injections Prior to Rotator Cuff Repair Increase Revision Rotator Cuff Repair Rates</td>
<td>Alexander E. Weber, MD, Keck School of Medicine at the University of Southern California</td>
</tr>
<tr>
<td>1:20 pm</td>
<td>Injections Prior to Rotator Cuff Repair Increase Revision Rotator Cuff Repair Rates</td>
<td>Alexander E. Weber, MD, Keck School of Medicine at the University of Southern California</td>
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<tr>
<td>1:26 pm</td>
<td>Discussion</td>
<td>Kimberly L. Furry, MD, Mercy Orthopedics Associates</td>
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<td>1:30 pm</td>
<td>Farewell</td>
<td>Kimberly L. Furry, MD, Mercy Orthopedics Associates</td>
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<tr>
<td>1:35 pm</td>
<td>Questions &amp; Discussion</td>
<td>Kimberly L. Furry, MD, Mercy Orthopedics Associates</td>
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<tr>
<td>2:00 pm</td>
<td>Multimedia Education Session</td>
<td>Kimberly L. Furry, MD, Mercy Orthopedics Associates</td>
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</tbody>
</table>
# Scientific Poster Presentations

Cirque Boardroom, Cathedral Deck, Cathedral Peak & Castle Peak Auditorium  
Thursday, August 2: 5:45 am – 6:45 am / 1:40 pm – 2:40 pm  
Friday, August 3: 6:00 am – 7:00 am / 2:25 pm – 3:25 pm (Tour)  
Saturday, August 4: 5:40 am – 6:40 am

## Station A - Cirque Boardroom

### SPORTS MEDICINE

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<tr>
<td><strong>Poster 1</strong></td>
<td>Effect of Sport Specialization on Injury in Division I Athletes</td>
<td>Seth Ahlquist, BS, David Geffen School of Medicine at University of California Los Angeles</td>
</tr>
<tr>
<td><strong>Poster 2</strong></td>
<td>Effect of Correction Angle on Complications Following High Tibial Osteotomy</td>
<td>Derek Axibal, MD, MS, University of Colorado</td>
</tr>
<tr>
<td><strong>Poster 3</strong></td>
<td>Outcomes of ACL Reconstruction with Planned vs Unplanned Hybrid Graft</td>
<td>Derek Axibal, MD, MS, University of Colorado</td>
</tr>
<tr>
<td><strong>Poster 4</strong></td>
<td>Rotation Medical Patch Augmentation after Rotator Cuff Repair and Reduced Opioid Consumption</td>
<td>Steven J. Barad, MD, Methodist Hospital</td>
</tr>
<tr>
<td><strong>Poster 5</strong></td>
<td>Reliability of Preoperative MRI Prediction of Hamstring ACL Autograft Size</td>
<td>Andrew Hanna, MS, Virginia Tech Carilion School of Medicine</td>
</tr>
<tr>
<td><strong>Poster 6</strong></td>
<td>2016 Track and Field Olympic Trials: Injuries and Medical Care</td>
<td>Nicholas L. Strasser, MD, Slocum Center for Orthopedics &amp; Sports Medicine</td>
</tr>
<tr>
<td><strong>Poster 7</strong></td>
<td>Cannabis Use and Fracture Healing: A Matched Case-Control Study</td>
<td>Nicholas L. Strasser, MD, Slocum Center for Orthopedics &amp; Sports Medicine</td>
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### TOTAL KNEE

<table>
<thead>
<tr>
<th>Poster</th>
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</table>
| **Poster 8** | Early Results of a New Cementless TKA Design | Russell G. Cohen, MD, Tucson Orthopedic Institute  
*Presented by Sheridan James, BS |
| **Poster 9** | Arthrodesis with a Cephalomedullary Nail after Failed Total Knee Arthroplasty | Malcolm DeBaun, MD, Stanford University |
| **Poster 10** | Less Iatrogenic Soft Tissue Damage in Robotic-Arm Assisted Approach TKA | Emily Hampp, PhD, Mahwah, NJ  
*Presented by Laura Scholl, MS |
| **Poster 11** | Use of Intraoperative Implant Planning to Reduce Occurrence of Soft Tissue Releases | Robert C. Marchand, MD, Ortho Rhode Island  
*Presented by Laura Scholl, MS |

### UPPER EXTREMITY

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<tr>
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<th>Title</th>
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| **Poster 12** | Driving After Shoulder Arthroplasty: When Is It Safe? | Santino L. Rosario, BA, Keck School of Medicine at the University of Southern California  
*Presented by Alexis Rounds, BS |
| **Poster 13** | Trends in Peripheral Nerve Blocks in Shoulder Arthroscopy | Abhinav Sharma, BS, David Geffen School of Medicine at University of California Los Angeles |

## Station B - Cathedral Deck

### BASIC SCIENCE

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<tr>
<th>Poster</th>
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| **Poster 14** | A New Orthopedic Screw Design that Does Not Strip | Nicholas Alfonso, MD, University of Colorado  
*Presented by Todd H. Baldini, MSc |
| **Poster 15** | Does Greater Trochanter Decortication Affect Suture Anchor Pullout Strength in Abductor Tendon Repairs?: A Biomechanical Study | Jill A. Goodwin, MD, University of Arizona College of Medicine  
*Presented by Blake Eyberg, MD |
| **Poster 16** | Biomechanical Analysis of Retrograde Superior Ramus Screw Fixation Constructs | Justin F. Lucas, MD, Harborview Medical Center  
*Presented by Alvin Shieh, MD |
| **Poster 17** | Local Bio-Absorbable Antibiotic Calcium Sulfate Beads in Hip and Knee Arthroplasty | Zachary Lum, DO, University of California, Davis |
| **Poster 18** | Effects of Fondaparinux For Prophylaxis in Total Joint Arthroplasty | Zachary Lum, DO, University of California, Davis |

### FOOT & ANKLE

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<tr>
<th>Poster</th>
<th>Title</th>
<th>Speaker</th>
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</table>
| **Poster 19** | Operative Outcomes In Ankle and Talus Fractures Following Organ Transplantation | Bejan A. Alvandi, BS, Keck School of Medicine of the University of Southern California  
*Presented by Venus Vakhshori, MD |
| **Poster 20** | Calcaneal Fractures Through Prior Schanz Pin Sites in Diabetic Neuropathy | Rachel Larsen, BS, Oregon Health and Science University |
| **Poster 21** | Dexamethasone Addition to Popliteal Nerve Blocks - Postoperative Nerve Complication and Analgesia Duration | Naudereh Noori, MD, Cedars Sinai Medical Center  
*Presented by Dheeraj R. Yalamanchili, MD |
| **Poster 22** | A Systematic Review of the Outcome Evaluation Tools for the Foot and Ankle | pejma shazadeh safavi, BS, University of Texas Medical Branch at Galveston |

### PEDIATRICS

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<tr>
<td><strong>Poster 23</strong></td>
<td>Use of Rotationplasty for Pediatric Trauma and Significant Physeal Injuries</td>
<td>Kristina Barber, BA, University of Colorado School of Medicine</td>
</tr>
<tr>
<td><strong>Poster 24</strong></td>
<td>Transphyseal Distal Humerus Fracture in a Premature Neonate</td>
<td>Justin Chang, MD, University of Colorado Hospital</td>
</tr>
<tr>
<td><strong>Poster 25</strong></td>
<td>Atypical Femur Fracture in the Setting of Long-Term Bisphosphonate Use for Osteogenesis Imperfecta</td>
<td>Steven Jones Jr., MD, University of Colorado School of Medicine</td>
</tr>
<tr>
<td><strong>Poster 26</strong></td>
<td>Morphological Features of the Hip in Skeletal Dysplasia</td>
<td>Adam Lindsay, MD, MS, University of Southern California</td>
</tr>
<tr>
<td><strong>Poster 27</strong></td>
<td>Current State of the Opioid Epidemic as it Pertains to Pediatric Orthopaedics</td>
<td>Ellen M. Raney, MD, Shriners Hospital for Children</td>
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**Station C - Cathedral Peak**

**SPINE**

**Poster 28:** Venous Compression and Stenosis Owing To Lumbo-Sacral Exostosis: Case Report  
Jory Wasserburger, MD, University of New Mexico  
*Presented by Anastasia Haponyuk*

**Poster 29:** Preoperative Oxycodeone ER Impact on Postoperative Opioid Use and Outcomes  
Joshua Hwang, BS, University of California, Davis School of Medicine

**Poster 30:** Bariatric Surgery Prior to Posterior Lumbar Fusion Reduces Medical Complications in Infected  
Deeptee Jain, MD, University of California, San Francisco  
*Presented by Joseph Patterson, MD*

**Poster 31:** Impact of Cirrhosis on Morbidity and Mortality After Spinal Fusion  
Young Lu, MD, University of California, Irvine

**Poster 32:** Complications of Harms Atlantoaxial Fixation at an Academic Medical Center  
Thomas O’Toole, BA, Oregon Health & Science University

**TOTAL HIP**

**Poster 33:** Impact of Spinal Deformity on Acetabular Cup Orientation in Total Hip Arthroplasty  
John Attenello, MD, University of Hawaii

**Poster 34:** Blood Loss and THA: Impact of a Bipolar Sealant Device  
Tyler Bron, MD, University of Colorado School of Medicine  
*Presented by Michael Dayton, MD*

**Poster 35:** Early Clinical Outcomes with an Additive Manufactured Porous Acetabular Cup  
Russell G. Cohen, MD, Tucson Orthopedic Institute

**Poster 36:** Pre-Operative Rehabilitation Correlates With Decreased Hospital Stay After Hip/Knee Arthroplasty  
Sahitya Denduluri, MD, Stanford University  
*Presented by Derek F. Amanatullah, MD, PhD*

**Poster 37:** Impact of Depression on Opioid Requirements after Total Joint Arthroplasty  
Trevor Grace, MD, University of California, San Francisco

**Poster 38:** Acetabular Liner Geometry and Dislocation Rate: Does it Really Matter?  
Alex Jouflas, BS, University of Colorado School of Medicine

**Poster 39:** Correlation Of Modular Tapered Stem Subsidence In Revision THA  
Emmanuel C. Nwelue, MD, University of Texas Southwestern  
*Presented by Sean Shahrestani, MD*

**Poster 40:** Ten-Year Outcomes Following Kinematically Aligned Total Knee Arthroplasty  
Trevor J. Shelton, MD, MS, University of California, Davis

**Station D - Castle Peak Auditorium**

**TRAUMA**

**Poster 41:** Effect of Organ Transplantation on Operative Outcomes Following Tibial Plateau Fractures  
Bejan A. Alvandi, BS, Keck School of Medicine of the University of Southern California  
*Presented by Venus Vakhshori, MD*

**Poster 42:** Effect Of Bariatric Surgery On Operative Outcomes In Pelvic and Acetabular Fractures  
Bejan A. Alvandi, BS, Keck School of Medicine of the University of Southern California  
*Presented by Venus Vakhshori, MD*

**Poster 43:** How Feasible Are Routine Intraoperative Plain Radiographs in Orthopaedic Trauma Surgery?  
Eric D. Farrell, MD, University of California Los Angeles  
*Presented by Brian M. Cash, MD*

**Poster 44:** Knee Radiographs? Ottawa Rules Need Change  
Rand Floyd, MS, Georgetown University Medical School

**Poster 45:** Fat Emboli Syndrome and the Orthopedic Trauma Surgeon  
Trevor Jackson, MD, University of Colorado School of Medicine

**Poster 46:** Body Habitus and Soft Tissue Envelope Thickness Overlying Knee Joint  
Paul Johnson, MD, University of New Mexico

**Poster 47:** Spectrum of Orthopaedic Injuries Associated with Hoverboard Use  
Derek Ju, MD, Cedars-Sinai Medical Center  
*Presented by John Garlich, MD*

**Poster 48:** Implant Removal Rates for Stable and Unstable Ankle Fractures  
David S. Putnam, MD, Oregon Health and Science University

**Poster 49:** Orthopedic Surgeons Have Inadequate Knowledge Regarding Costs of Imaging Studies  
Blake Schultz, MD, Stanford University

**Poster 50:** A Review of Surgical Approaches and Outcomes for Hoffa Fracture  
Kristin Toy, MS, University of Toledo College of Medicine  
*Presented by Adam T. Mierzwa, MS*

**TUMOR**

**Poster 51:** Observing Clinical and Radiographic Outcomes of Limb Salvage with a 3D Printed Custom Titanium Cage  
David B. Hahn, MD, Institute for Limb Preservation

**Poster 52:** Results of Femoral Head AVN Decompression and Autologous Stem Cell Injection  
Cynthia M. Kelly, MD, Colorado Limb Consultants
See you next Summer in Monterey

July 31 - August 3, 2019
Hyatt Regency Monterey
Monterey, CA