



# Western Orthopaedic Association

Connecting People; Enriching Lives

## 83rd Annual Meeting

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



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# President's Welcome



Dear Colleagues,

Welcome to the 83rd Annual Meeting of the Western Orthopaedic Association in beautiful Monterey, CA!

The entire WOA Board of Directors and I are excited to have you and your family with us at the Hyatt Regency Monterey Resort. Golfers will not have far to travel as there's a great course on the resort itself, and frequent, free shuttles are available to take you to Central Monterey for shopping, sightseeing and numerous off-resort dining options.

The Welcome Dinner will be held Thursday evening in the world-famous Monterey Bay Aquarium, which you can explore at your leisure without the usual daytime crowds! Saturday night's gala will be held at the Hyatt, and should be as fun as ever.

Scientific Program Co-Chairs David Mansfield and David Chafey have created stimulating symposia as well as sessions presenting new research to make the academic portion of the Meeting interesting and educational for both general orthopaedic surgeons and subspecialists. Symposia subjects include: Hip/Knee Arthroplasty, Sports Medicine, Orthopaedic Trauma, Surgery of the Shoulder/Elbow, Spine Surgery and Orthopaedic Oncology. Additionally, original research from all orthopaedic subfields will be presented.

Welcome and we look forward to a great meeting!

Omer A. Ilahi, MD  
WOA President



Program Co-Chair



David H. Chafey III, MD  
Albuquerque, NM  
University of New Mexico

Program Co-Chair



David J. Mansfield, MD  
El Paso, TX  
El Paso Orthopaedic Surgery

Presidential Guest  
Speaker



Stephen S. Burkhart, MD  
San Antonio, TX  
**The Burden of Craft and  
the Blessing of Craftsmanship**  
Friday, 9:40 am

Howard Steel  
Lecturer



Paul Moses  
New York, NY  
**Crossing Barriers: Lessons from  
the Past on How to Overcome  
What Divides Us Today**  
Thursday, 9:25 am

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# Summary of Events

See Scientific Program for times for all CME Activities

## KEY

📍 Activity/Tour

★ Social Event

★ Special Presentation

★ Allied Health Session

## Wednesday, July 31

12:00 pm – 5:00 pm

**Board of Directors Meeting** Spyglass 1

12:00 pm – 5:00 pm

**Meeting Registration** Regency Ballroom Foyer

12:00 pm – 5:00 pm

**Poster Setup** Regency Ballroom Foyer

12:00 pm – 5:00 pm

**Exhibit Setup** Regency Ballrooms Main, 1, 2, 3

## Thursday, August 1

5:45 am – 6:45 am

**Scientific Poster Session** Regency Ballroom Foyer

5:45 am – 6:45 am

**Scientific E-Poster Session** Cypress 1, Cypress 2, Cypress 3, Big Sur 1 & Big Sur 2

5:45 am – 1:40 pm

**Speaker Ready Area** Regency Ballroom Foyer

6:15 am – 1:40 pm

**Meeting Registration** Regency Ballroom Foyer

6:30 am – 1:40 pm

**Technical Exhibits, Continental Breakfast, Coffee Breaks and Daily Drawing** Regency Ballrooms Main, 1, 2, 3

6:45 am – 6:55 am

**First Business Meeting** Regency Ballrooms 4, 5, 6

6:55 am – 7:00 am

**Welcome, Announcements and Meeting Overview** Regency Ballrooms 4, 5, 6

6:55 am – 1:40 pm

**Scientific Program** Regency Ballrooms 4, 5, 6 (unless otherwise specified)

7:50 am – 8:20 am

★ **Focused Brunch Presentation** Regency Ballrooms 4, 5, 6  
Heron Therapeutics  
\*CME Credit Not Available

8:00 am – 9:00 am

★ **Yoga** Grove Room in Monterey Ballroom  
Price: Included in Registration Fee

9:00 am – 10:30 am

★ **Spouse/Guest/Children's Hospitality** Monterey Ballroom  
Join your friends and meet new spouses while enjoying a continental breakfast. Delight in the Monterey Zoo's "Around the World" presentation. This is your chance to take a trip through several countries through meeting some of their indigenous animals. Learn how they adapt to their different environments, and conservational steps we all can make to help assure their survival.  
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** Regency Ballrooms Main, 1, 2, 3

9:25 am – 10:20 am

★ **Howard Steel Lecture** Regency Ballrooms 4, 5, 6  
Crossing Barriers: Lessons from the Past on How to Overcome What Divides Us Today  
Paul Moses

10:20 am – 10:40 am

**Break – Please visit Exhibits** Regency Ballrooms Main, 1, 2, 3

11:30 am – 12:00 pm

★ **Focused Lunch Presentation** Regency Ballrooms 4, 5, 6  
Bioventus Global  
\*CME Credit Not Available

12:40 pm – 1:40 pm

★ **Concurrent Allied Health Session 1** Windjammer  
Long Bone Fracture Management of the Lower Extremity

2:00 pm – 5:00 pm

📍 **Point Lobos Walk**  
**Meet at the Convention Center at 1:50 pm**  
Called the "greatest meeting of land and sea in the world" by landscape artist Francis McComas, Point Lobos is considered the crown jewel of the California State Park system. The reserve is a natural area of dramatic granite cliffs, unusual rock formations, caves and beaches. It is geologically unique and contains a rich and diverse plant and animal population, both on shore and in the water. Monica Hudson, author and historian will be the guide.  
Price: \$95 per person (minimum 12 participants)

1:40 pm – 2:40 pm

**Scientific Poster Session** Regency Ballroom Foyer

1:40 pm – 2:40 pm

**Scientific E-Poster Session** Cypress 1, Cypress 2, Cypress 3, Big Sur 1 & Big Sur 2

2:40 pm – 3:40 pm

**Multimedia Education Session** Regency Ballroom Foyer

5:15 pm – 6:15 pm

★ **New Member Reception** Spyglass Gazebo  
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: Resort Casual  
Price: Included in Registration Fee

6:30 pm – 9:30 pm

★ **Welcome Dinner at the Monterey Bay Aquarium**  
**Meet at the Convention Center at 6:15 pm for transportation**  
Travel into the hidden world of Monterey Bay. The WOA will have exclusive use of the Outer Bay Wing in the Monterey Bay Aquarium, a spectacular venue in the heart of the nation's largest marine sanctuary. The exhibits recreate the bay's habitats, from shallow tide pools to the open ocean and deep sea. Drinks and a delicious dinner are included.  
Attire: Resort Casual  
Price: Included in Registration Fee or \$100 per Unregistered Adult Guest, \$50 per Unregistered Child (5-17 years)

9:30 pm – 10:30 pm

★ **Resident Reception** Knuckles Sports Bar  
All Residents and medical students are invited to attend.  
Attire: Resort Casual  
Price: Included in Registration Fee



# Summary of Events

See Scientific Program for times for all CME Activities

## KEY

⊙ Activity/Tour

★ Social Event

\* Special Presentation

★ Allied Health Session

## Friday, August 2

5:45 am – 6:45 am

**Regional and AAOS Presidents' Breakfast Meeting with State Presidents and Board of Councilors** Oaktree 2 & 3

5:45 am – 6:55 am

**Scientific Poster Session** Regency Ballroom Foyer

5:45 am – 6:55 am

**Scientific E-Poster Session** Cypress 1, Cypress 2, Cypress 3, Big Sur 1 & Big Sur 2

5:45 am – 2:20 pm

**Speaker Ready Area** Regency Ballroom Foyer

6:25 am – 2:20 pm

**Meeting Registration** Regency Ballroom Foyer

6:25 am – 2:20 pm

**Technical Exhibits, Continental Breakfast, Coffee Breaks and Daily Drawing** Regency Ballrooms Main, 1, 2, 3

6:55 am – 7:00 am

**Announcements** Regency Ballrooms 4, 5, 6

7:00 am – 2:20 pm

**Scientific Program**  
Regency Ballrooms 4, 5, 6 (unless otherwise specified)

7:50 am – 8:20 am

\* **Focused Brunch Presentation** Regency Ballrooms 4, 5, 6  
Convatec  
\*CME Credit Not Available

8:00 am – 9:00 am

★ **Yoga** Grove Room in Monterey Ballroom  
Price: Included in Registration Fee

8:20 am – 8:40 am

**Break – Please visit Exhibits** Regency Ballrooms Main, 1, 2, 3

9:00 am – 10:30 am

★ **Spouse/Guest/Children's Hospitality** Monterey Ballroom  
Join your friends and meet new spouses while enjoying a continental breakfast. In addition, look forward to a food demonstration.  
Price: Included in Registration Fee or \$40 per Unregistered Adult Guest and \$20 per Child (5-17 years)

9:25 am – 9:40 am

\* **AAOS Report** Regency Ballrooms 4, 5, 6  
Kristy L. Weber, MD

9:40 am – 10:25 am

\* **Presidential Guest Speaker** Regency Ballrooms 4, 5, 6  
The Burden of Craft and the Blessing of Craftsmanship  
Stephen S. Burkhart, MD

10:25 am – 10:45 am

**Break – Please visit Exhibits** Regency Ballrooms Main, 1, 2, 3

11:30 am – 3:30 pm

⊙ **Carmel Food Tour**  
**Meet at the Convention Center at 11:20 am**  
Three glorious hours of food, drink, history, camaraderie and an insider's view of Carmel-by-the-Sea that you'll never forget

(complete with seven exclusive tasting stops!). The tour represents some of the best of Carmel's iconic restaurants and shops.  
Price: \$178 per person

11:35 am – 12:05 pm

\* **Focused Lunch Presentation** Regency Ballrooms 4, 5, 6  
Flexion Therapeutics  
\*CME Credit Not Available

12:05 pm – 1:15 pm

\* **WOF Report & Western Orthopaedic Foundation Named Grant Awards** Regency Ballrooms 4, 5, 6

12:30 pm – 5:00 pm

⊙ **Golf Tournament at Del Monte Course**  
**Meet Del Monte Golf Course at 12:20 pm; 1:00 pm Tee Time**  
Award-winning architect Jim Engh designed the Del Monte is a landmark course that has played an instrumental role in popularizing golf out west since its establishment in 1897. The oldest course in continuous operation west of the Mississippi maintains much of its classic charm today, challenging the game's best golfers with its small, sloping old-school greens. The venerable layout brings "out-of-bounds" into play on more than half its holes and puts a premium on placing the ball below the hole with well-bunkered greens that are often pitched strongly from back-to-front. Scramble format with a 1:00 pm shotgun start.  
\* **Eat during the Focused Lunch presentation**

Price: \$144 per person (Includes transportation, greens fees, beverage cart, and prizes)

1:15 pm – 2:15 pm

★ **Concurrent Allied Health Session 2** Windjammer  
Initial Management of the Spine Patient

2:00 pm – 3:30 pm

⊙ **Tennis Round Robin**  
**Meet at the Tennis Courts at 1:50 pm**  
3.5 USTA Rating or better  
Price: \$15 per person

2:20 pm – 3:20 pm

**Scientific Poster Session** Regency Ballroom Foyer

2:20 pm – 3:20 pm

**Scientific E-Poster Session** Cypress 1, Cypress 2, Cypress 3, Big Sur 1 & Big Sur 2

2:25 pm – 5:20 pm

\* **Resident/Medical Student Program** Spyglass & Oaktree

3:15 pm – 4:30 pm

⊙ **Behind the Scenes Aquarium Tour**  
**Transportation on your own**  
Expert guides will lead you through a 45-minute tour exploring the Aquarium's most popular exhibits as well as exclusive behind-the-scenes areas. You'll hear fascinating animal stories and learn some of the ways that the Aquarium cares for its over 35,000 plants and animals. Learn how to care for a jellyfish, what it takes to make a home for a shark and how the Aquarium has grown a living kelp forest. (Ages 6 and up)  
Price: \$15 per person

3:20 pm – 4:20 pm

**Multimedia Education Session** Regency Ballroom Foyer





# Summary of Events

See Scientific Program for times for all CME Activities

## KEY

⦿ Activity/Tour

✦ Social Event

★ Special Presentation

★ Allied Health Session

4:30 pm – 5:30 pm

✦OREF Reception Cypress 2

5:30 pm – 7:30 pm

✦Exhibitor Reception Regency Ballrooms Main, 1, 2, 3

Before you go to dinner, start your evening off with drinks and hors d'oeuvres!

Attire: Business Casual

Price: Included in Registration Fee or \$75 per Unregistered Adult Guest

5:30 pm – 7:30 pm

✦Kids' Movie Night with Arts & Crafts and Dinner

Big Sur 1, 2, 3

While your parents are at the Exhibitor Reception, enjoy dinner and crafts or a movie with your friends. Children under 5 must be accompanied by an adult. This is not a babysitting service and is provided **only** for parents attending the Exhibitor Reception. Children must be registered.

Price: Included in Registration Fee or \$25 per Unregistered Child (5-17)

## Saturday, August 3

5:45 am – 2:20 pm

Speaker Ready Area Regency Ballroom Foyer

5:45 am – 6:40 am

Scientific Poster Session Regency Ballroom Foyer

5:45 am – 6:40 am

Scientific E-Poster Session Cypress 1, Cypress 2, Cypress 3, Big Sur 1 & Big Sur 2

5:45 am – 6:40 am

Board of Directors Meeting Oaktree 2 & 3

6:10 am – 2:20 pm

Meeting Registration Regency Ballroom Foyer

6:10 am – 2:20 pm

Technical Exhibits, Continental Breakfast, Coffee Breaks and Daily Drawing Regency Ballrooms Main, 1, 2, 3

6:45 am – 2:20 pm

Scientific Program Regency Ballrooms 4, 5, 6

7:35 am – 7:50 am

Second Business Meeting Regency Ballrooms 4, 5, 6

8:00 am – 9:00 am

✦Yoga Grove Room in Monterey Ballroom

Price: Included in Registration Fee

8:40 am – 9:10 am

★Focused Brunch Presentation Regency Ballrooms 4, 5, 6

Medtronic

\*CME Credit Not Available

9:00 am – 10:30 am

✦Spouse/Guest/Children's Hospitality Monterey Ballroom

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, fun way!

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

9:15 am – 10:15 am

★Concurrent Allied Health Session 3 - Pediatric Sports Medicine Windjammer

9:55 am – 10:20 am

Break – Please visit Exhibits Regency Ballrooms Main, 1, 2, 3

11:10 am – 11:40 am

★Focused Lunch Presentation Regency Ballrooms 4, 5, 6

Johnson & Johnson Medical Devices Companies

\*CME Credit Not Available

11:50 am – 12:15 pm

★Presidential Address Regency Ballrooms 4, 5, 6

Dad's Lunchbox

Omer A. Ilahi, MD

1:00 pm – 5:00 pm

⦿Movie Tour

Meet at the Convention Center at 12:50 pm

Enjoy a very unique, exclusive tour of the Monterey Peninsula! Memorable scenes in nearly 200 movies have been filmed in Monterey County, including *National Velvet*, *The Sand Piper*, *Basic Instinct*, *From Here to Eternity*, *A Summer Place*, *Star Trek IV: The Voyage Home* and *Play Misty for Me*. Watch scenes that were filmed at your exact location on on-board overhead monitors in a comfortable motor coach, and hear original stories about the movies and their stars. The tour takes you through some of the most gorgeous scenery in the world, including the famous "17-Mile Drive" with a stop at the Carmel Mission, which offers tours of the courtyards, Basilica, Indian Cemetery and Museums.

Price: \$65 per person (Minimum 20 participants)

1:20 pm – 2:20 pm

★Concurrent Allied Health Session 4 - Ultrasound Injection Lab Windjammer

2:20 pm – 3:20 pm

Multimedia Education Session Regency Ballroom Foyer

3:15 pm – 4:30 pm

⦿Behind the Scenes Aquarium Tour  
Transportation on your own

Expert guides will lead you through a 45-minute tour exploring the Aquarium's most popular exhibits as well as exclusive behind-the-scenes areas. You'll hear fascinating animal stories and learn some of the ways that the Aquarium cares for its over 35,000 plants and animals. Learn how to care for a jellyfish, what it takes to make a home for a shark and how the Aquarium has grown a living kelp forest. (Ages 6 and up)

Price: \$15 per person

7:00 pm – 11:00 pm

✦Family Gala Dinner Dance Monterey Ballroom

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: Jackets, no ties

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



# Scientific Program

Regency Ballrooms 4, 5 & 6, Unless Otherwise Specified

## CME ACCREDITATION

The American Academy of Orthopaedic Surgeons designates this live activity for a maximum of 24 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

\*16 CME Credits for Scientific Program

\*5 CME Credits for Scientific E-Poster Sessions

\*3 CME Credits for Multimedia Education Sessions

To ensure correct CME credit is awarded, please complete the WOA 2019 Annual Meeting CME Credit Records online at [www.woa-assn.org](http://www.woa-assn.org). CME Certificates will be awarded to all registered participants.

## Thursday, August 1

5:45 am – 6:45 am **Scientific Poster Session** Regency Ballroom Foyer

5:45 am – 6:45 am **Scientific E-Poster Sessions**

Cypress 1, Cypress 2, Cypress 3, Big Sur 1 & Big Sur 2

6:45 am – 6:55 am **First Business Meeting**

6:55 am – 7:00 am **Welcome, Announcements and Meeting Overview**

David H. Chafey III, MD, Program Co-Chair

David J. Mansfield, MD, Program Co-Chair

Omer A. Ilahi, MD, President

### Symposium 1 – Shoulder/Elbow Surgery

Moderator: Ronald A. Navarro, MD, Kaiser Permanente

7:00 am – 7:15 am Treatment Options in Proximal Humeral Fractures

T. Bradley Edwards, MD, Fondren Orthopedic Group LLP

7:15 am – 7:30 am Clavicle Trauma from Acromion to Sternum

Ronald A. Navarro, MD, Kaiser Permanente

7:30 am – 7:45 am Elbow Trauma and the Roles of Radial Head and Total Elbow Arthroplasty

Mark T. Dillon, MD, Kaiser Permanente Sacramento

7:45 am – 7:50 am Discussion

7:50 am – 8:20 am **Focused Brunch Presentation – Heron Therapeutics**

Benefits and Limitations of Local Anesthetics in Postoperative Pain

Alexander P. Sah, MD

\*CME Credit Not Available

### Rapid Fire Session 1A – Trauma Fixation & Fracture Healing

Cypress 1  
Moderators: Jason W. Stoneback, MD, University of Colorado & Conor P. Kleweno, MD, Harborview Medical Center

8:25 am – 8:29 am Timing of Fixation and Wound Closure for Open Ankle Fractures

Marschall Berkes, MD, University of Texas Health Science Center at Houston

\*Presented by Derek L. Moody, MD

8:29 am – 8:33 am Patients Benefit from Recording Postoperative Instructions after Ankle Fracture Surgery

Sam Y. Jiang, BA, Stanford University

8:33 am – 8:37 am How do Pilon Fractures Heal? An Analysis of Dual Plating, Biomechanically Matched Fixation, and Callus Formation

Sean T. Campbell, MD, Stanford University

8:37 am – 8:41 am Titanium vs. Stainless Steel: Clinical Superiority Despite Biomechanical Inferiority

Matthew Burnham, BS, University of Arizona College of Medicine - Phoenix

\*Presented by Richard Auran, MD

8:41 am – 8:45 am Discussion

8:45 am – 8:49 am Biomechanical Comparison of Bone-Screw-Fasteners vs. Traditional Locked Screws

Malcolm DeBaun, MD, Stanford University

8:49 am – 8:53 am Operative Outcomes in Distal Humerus Fractures with One-Year Follow Up

Philip Locker, MD, University of California, San Francisco

8:53 am – 8:57 am Tapered Plate Geometry Reduces Stress Shielding in the Humeral Shaft

Tennyson L. Block, MD, San Francisco Orthopedic Residency Program, St. Mary's Medical Center

8:57 am – 9:01 am Factors Predicting Postoperative Adverse Events in Distal Humerus Fractures

Kamran Movassaghi, MD, University of California, San Francisco

9:01 am – 9:05 am Discussion

### Rapid Fire Session 1B – Total Hip

Cypress 2  
Moderators: Brian A. Jewett, MD, Slocum Center for Orthopedics and Sports Medicine & Derek F. Amanatullah, MD, PhD, Stanford University

8:25 am – 8:29 am Metal on Metal THA: Pseudotumor with Intermittent Unilateral Vascular Claudication

Alex Lencioni, MD, University of Colorado

8:29 am – 8:33 am Sleep Disturbance in Patients with Femoroacetabular Impingement and Acetabular Dysplasia

Nisha Reddy, BA, UT Southwestern Medical Center

8:33 am – 8:37 am Understanding the Learning Curve: Comparison of First 75 Direct Anterior THAs to Concomitant Established Mini-Posterior THAs

Alexander P. Sah, MD, Institute for Joint Restoration

8:37 am – 8:41 am Implant Size and Outcome Differences in Staged Bilateral THA in 300 Patients

Alexander P. Sah, MD, Institute for Joint Restoration

8:41 am – 8:45 am Discussion

8:45 am – 8:49 am Learning Curve for the Direct Superior Approach to Total Hip Arthroplasty

Rami M. Ezzibdeh, Stanford University School of Medicine

8:49 am – 8:53 am Smooth Reamer Impaction Autografting for Total Hip Arthroplasty in the Setting of Acetabular Protrusion

Adam A. Sassoon, MD, University of California, Los Angeles

8:53 am – 8:57 am Entrapped Posteromedial Structures after Spanning External Fixation in Tibial Pilon Fractures

Preet Gurusamy, MD, University of California, San Diego



# Scientific Program Regency Ballrooms 4, 5 & 6, Unless Otherwise Specified

8:57 am – 9:01 am Government Significantly Reduced Reimbursement for Surgical Hip Fracture Treatment  
Cory K. Mayfield, BS, Keck School of Medicine of the University of Southern California  
\*Presented by Jordan S. Dutcher, BS

9:01 am – 9:05 am Discussion

## **Rapid Fire Session 1C – Pediatrics** Cypress 3

Moderators: Ellen M. Raney, MD, Shriners Hospital for Children & Stephanie Logterman, MD, Denver Health Medical Center

8:25 am – 8:29 am Return to Sport after Posterior Spinal Fusion for Idiopathic Scoliosis  
Allison Tetreault, MD, University of Colorado

8:29 am – 8:33 am Skeletal Age Assessment by Calcaneal Apophyseal Stage in Cerebral Palsy  
Donald T. Kephart, MD, University of California, Davis Medical Center

8:33 am – 8:37 am AAOS Appropriate Use Criteria: Management of Supracondylar Humerus Fractures at a Level I Trauma Center  
Diana G. Douleh, MD, University of Colorado

8:37 am – 8:41 am Measuring the Acetabular Index; An Accurate and Reliable Alternative Method of Measurement  
Benjamin J. Sherman, DO, Children's Hospital of Orange County

8:41 am – 8:45 am Discussion

8:45 am – 8:49 am Mini C-Arm vs. Portable Radiograph: Radiation Exposures with Closed Reduction in the ED  
Eli Ahdoot, DO, Children's Hospital of Orange County

8:49 am – 8:53 am Does Univalve Location Differentially Effect Pressures at the Three-Point Mold?  
Blake K. Montgomery, MD, Stanford University

8:53 am – 8:57 am Distinguishing Septic Arthritis from Aseptic Effusion in Pediatric Irritable Knee  
Claudia S. Thomas, MD, University of Washington

8:57 am – 9:01 am Incidence of Coxa Profunda and Other Signs of FAI in Adolescents with DDH  
Tyler R. Freeman, MD, University of Colorado

9:01 am – 9:05 am Discussion

## **Rapid Fire Session 1D – Hand & Wrist** Big Sur 1

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

8:25 am – 8:29 am Application of Cryotherapy to Casts Reduces Skin Surface Temperature  
Neal Goldenberg, MD, San Francisco Orthopedic Residency Program, St. Mary's Medical Center

8:29 am – 8:33 am Biomechanical Comparison of Flexor Digitorum Profundus Avulsion Repair  
Jill G. Putnam, University of Arizona College of Medicine-Phoenix

8:33 am – 8:37 am Time to Case Closure of Occupational Hand Injuries  
Aaron Gray, MD, University of Nevada Las Vegas School of Medicine

8:37 am – 8:41 am Ethnicity-Related Prevalence of Obesity in Children with Distal Radius Fractures Compared with National Values  
Jessica Avila, BS, Texas Tech University Health Science Center

8:41 am – 8:45 am Discussion

8:45 am – 8:49 am Radiographic Outcomes of Dorsal Spanning Plate for Treatment of Comminuted Distal Radius Fractures  
Behnam Sharareh, MD, Baylor College of Medicine

8:49 am – 8:53 am Wide-Awake Hand Surgery Associated with Decreased Opioid Use and Morbidity  
Gopal R. Lalchandani, MD, University of California, San Francisco

8:53 am – 8:57 am Patient Outcomes and Costs after Isolated Flexor Tendon Repair  
Gopal R. Lalchandani, MD, University of California, San Francisco

8:57 am – 9:01 am Distal Ulna Morphology – Estimating the Prevalence of Reverse Obliquity  
Blake Schultz, MD, Stanford University

9:01 am – 9:05 am Discussion

## **Rapid Fire Session 1E – Basic Science** Big Sur 2

Moderators: Russell Stitzlein, MD, University of California, Irvine & Trevor J. Shelton, MD, University of California, Davis

8:25 am – 8:29 am Do Pre-Operative Transcutaneous Oxygen Perfusion Measurements Predict Atraumatic Amputation Wound Healing?  
Naudereh Noori, MD, Cedars Sinai Medical Center

8:29 am – 8:33 am Multimodal Imaging Guides Surgical Management in Preclinical Spinal Implant Infection  
Stephen Zoller, MD, University of California, Los Angeles

8:33 am – 8:37 am Lateral Femoral Cortical Thickness Correlates to Femoral Bone Mineral Density  
Musa Zaid, MD, University of California, San Francisco

8:37 am – 8:41 am Zoledronic Acid Decreases Infection in Mouse Spine Implant Infection Model  
Chad Ishmael, MD, University of California, Los Angeles

8:41 am – 8:45 am Discussion

8:45 am – 8:49 am Ex-Vivo Human Chondrocyte Toxicity After Exposure to Tranexamic Acid  
Erika L. Garbrecht, MD, University of New Mexico

8:49 am – 8:53 am Adipose-Derived Stem Cell Quantity in Infrapatellar Fat vs. Subcutaneous Lipoaspirate  
Hyunwoo P. Kang, MD, University of Southern California

8:53 am – 8:57 am Can Drilling Energy Predict Bone Mineral Density and Screw Pullout Strength in Cadaveric Bone?  
Michael J. Chen, MD, Stanford Orthopaedic

8:57 am – 9:01 am Pre-Operative Use of a Chlorhexidine-Impregnated Sponge Reduces Skin Soil Contamination  
Byron H. Izuka, MD, Children's Orthopaedics of Hawaii  
\*Presented by Trent M. Tamate, MD

9:01 am – 9:05 am Discussion

**9:05 am – 9:25 am Break – Please visit Exhibits** Regency Ballrooms Main, 1, 2 & 3

## **General Session 1 – Howard Steel Lecture**

Moderator: Omer A. Ilahi, MD, Southwest Orthopedic Group/Texas Arthroscopy & Sports Medicine Institute

9:25 am – 9:30 am **Tribute to Howard Steel**  
Theodore L. Stringer, MD, Colorado Springs Orthopaedic Group

9:30 am – 9:35 am **Introduction of Howard Steel Lecture**  
Omer A. Ilahi, MD, Southwest Orthopedic Group/Texas Arthroscopy & Sports Medicine Institute





# Scientific Program Regency Ballrooms 4, 5 & 6, Unless Otherwise Specified

9:35 am – 10:20 am **Howard Steel Lecture**  
Crossing Barriers: Lessons from the Past on How to Overcome what Divides Us Today  
Paul Moses, New York, NY

**10:20 am – 10:40 am Break – Please visit Exhibits**  
Regency Ballrooms Main, 1, 2 & 3

## Symposium 2 – Sports Medicine

Moderator: David J. Mansfield, MD, El Paso Orthopaedic Surgery Group

10:40 am – 10:55 am Anterolateral Complex of the Knee - Understanding the Evidence and Recent Trends  
Andrew G. Geeslin, MD, Western Michigan University

10:55 am – 11:10 am Pediatric, Adolescent ACL: Differences in Technique, Graft, and Augmentation to Avoid Complications in the Highest ACL Failure Risk Group  
Kevin G. Shea, MD, Stanford Children's Clinic

11:10 am – 11:25 am Is the Clock Face Analogy Truly of No Benefit for Femoral Tunnel Placement During ACL Reconstruction? Is there a Better Analogy?  
Omer A. Ilahi, MD, Southwest Orthopedic Group/Texas Arthroscopy & Sports Medicine Institute

11:25 am – 11:30 am Discussion

11:30 am – 12:00 pm **Focused Lunch Presentation – Bioventus Global**  
LIPUS and Fracture Healing  
Mark D. Campbell, MD  
\*CME Credit Not Available

## General Session 2 – OREF Update & WOF/OREF Young Investigator Awards

Moderators: David H. Chafey III, MD, University of New Mexico & David J. Mansfield, MD, El Paso Orthopaedic Surgery Group

12:00 pm – 12:05 pm **OREF Update**  
Michael L. Parks, MD, OREF President

12:05 pm – 12:13 pm Implementing a Geriatric Fracture Program in a Pluralistic Environment  
Carol Lin, MD, MA, Cedars-Sinai Medical Center

12:13 pm – 12:21 pm Mean Ten-Year Survivorship, Patient-Reported Outcomes and Satisfaction of a Fixed-Bearing Unicompartmental Knee Arthroplasty  
Ryland Kagan, MD, Oregon Health & Science University

12:21 pm – 12:29 pm Females and Long Spinal Fusions Result in Total Hip Arthroplasty  
Zachary C. Lum, DO, University of California, Davis Medical Center

12:29 pm – 12:35 pm Discussion

## Concurrent Allied Health Session 1 Windjammer

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

12:40 pm – 1:40 pm Long Bone Fracture Management of the Lower Extremity  
Ellen P. Fitzpatrick, MD, University of California, Davis

## Rapid Fire Session 2A – Trauma Tibia Cypress 1

Moderators: Bryon D. Hobby, MD, FAAOS, Billings Clinic & Michael Githens, MD, University of Washington

12:40 pm - 12:44 pm Soft Tissue Management in Open Tibial Shaft Fractures: A Comparison of Institutional Protocols  
Matthew R. Garner, MD, University of Texas Health Science Center at Houston

12:44 pm - 12:48 pm Use of Balloon Osteoplasty for Reduction of Tibial Plateau Fractures  
Stephanie Logterman, MD, Denver Health Medical Center

12:48 pm - 12:52 pm A Review of 11,000 Open Tibia Fractures over Four Decades  
Stephen Warner, MD, PhD, University of Texas Health Science Center at Houston

12:52 pm - 12:56 pm Defining the Intramedullary Axis of the Distal Tibia using Computed Tomography  
Haydn Roberts, MD, Banner University Medical Center

12:56 pm - 1:00 pm Predicting Reoperation and Quality of Life after Open Tibia Fractures  
Patrick Albright, BS, MS, University of California, San Francisco  
\*Presented by Claire Donnelley, BS

1:00 pm - 1:04 pm Quantification of Volumetric Articular Depression in Lateral Split/Depressed Tibial Plateau Fractures  
Heba Ahmad, BS, University of Texas Health Science Center at Houston

1:04 pm - 1:10 pm Discussion

1:10 pm - 1:14 pm The OTA-OFC as a Predictive Outcome Tool in Open Tibia Fractures  
Matthew R. Garner, MD, University of Texas Health Science Center at Houston

1:14 pm - 1:18 pm Comparison of Outcomes following Open vs. Closed Patella Fractures  
Jie Yao, MD, University of Washington

1:18 pm - 1:22 pm Mesh Plate as a Fixation Method for Patellar Fractures: A Report of Nine Cases  
Ahmed Thabet, MD, Texas Tech University Health Sciences Center

1:22 pm - 1:26 pm Lower Extremity CT Angiograms and Nephropathy in Orthopedic Trauma Patients  
Elise Britt, MD, University of California, San Diego Health

1:26 pm - 1:30 pm Inadequate Soft-Tissue Coverage following Open Tibia Fractures in Tanzania  
Jordan T. Holler, BS, University of California, San Francisco

1:30 pm - 1:34 pm Treatment of Tibial Plateau Fractures with a Novel Fenestrated Screw  
Alexander Telis, MD, University of Southern California

1:34 pm - 1:40 pm Discussion

## Rapid Fire Session 2B – Total Joint Cypress 2

Moderators: Jay R. Lieberman, MD, Keck School of Medicine of the University of Southern California & Parminder S. Kang, MD, Desert Orthopaedic Center

12:40 pm - 12:44 pm Toxic Noise Levels during Total Joint Arthroplasty Surgery  
Brandon A. Romero, MD, University of Nevada Las Vegas

12:44 pm - 12:48 pm Sources Of Contamination in the Operating Room: A Fluorescent Particle Powder Study  
Holt Cutler, MD, University of Texas Southwestern Medical Center

12:48 pm - 12:52 pm Complications of Total Joint Arthroplasty in Liver Disease Patients  
Eric G. Kim, MD, University of California, Davis

12:52 pm - 12:56 pm Immunologic Status Does Not Predict the Risk of Periprosthetic Infection in Patients Infected with Human Immunodeficiency Virus Undergoing Total Hip Arthroplasty  
Phillip H. Behrens IV, MD, Cedars-Sinai Medical Center

12:56 pm - 1:00 pm Evolution of Two-Stage to One-Stage Treatment of PJI: the First 500 Cases  
Gerhard E. Maale III, MD, Dallas Ft. Worth Sarcoma Group/Medical City Plano



# Scientific Program Regency Ballrooms 4, 5 & 6, Unless Otherwise Specified

1:00 pm - 1:04 pm Cannabis Use Among Patients Undergoing Total Joint Arthroplasty Has Increased

Sahitya K. Denduluri, MD, Stanford Orthopaedic Surgery

1:04 pm - 1:10 pm Discussion

1:10 pm - 1:14 pm Investigating Repeated Intra-Articular Injections of The Anti-Inflammatory Compound LMWF-5A In Adults with Severe Osteoarthritis: An Open-Label Extension Study

John Schwappach, MD, Denver Metro Orthopedics, PC

1:14 pm - 1:18 pm Staged Bilateral Total Shoulder Arthroplasty: A Systematic Review of Clinical Outcomes

John-Rudolph Smith, BS, University of Colorado Sports Medicine

1:18 pm - 1:22 pm Quantifying Patient Encounters in Arthroplasty During the Global Period

Malcolm DeBaun, MD, Stanford University Department of Orthopaedic Surgery

1:22 pm - 1:26 pm A Qualitative Comparison of Shoulder Arthroplasty to Lower Extremity Arthroplasty

Alexandra Schumacher, MS, University of Colorado Sports Medicine

1:26 pm - 1:30 pm A Qualitative Comparison on the Effect of Arthroplasty Operation Order

Alexandra Schumacher, MS, University of Colorado Sports Medicine

1:30 pm - 1:34 pm Meeting Patient Expectations after TJA: Do We Live Up to the Hype?

Adam A. Sassoon, MD, University of California, Los Angeles

1:34 pm - 1:40 pm Discussion

## **Rapid Fire Session 2C – Sports Medicine** Cypress 3

Moderators: Dean Wang, MD, University of California, Irvine & Richard A. Marder, MD, UC Davis School of Medicine

12:40 pm - 12:44 pm Resident Involvement in Sports Medicine Surgeries

Kent C. Doan, MD, University of Colorado

12:44 pm - 12:48 pm Comparative Effectiveness of Treatment Options for Displaced Midshaft Clavicle Fractures: A Systematic Review and Network Meta-Analysis

John R. Martin, MD, University of Arizona, Phoenix

\*Presented by Richard Auran, MD

12:48 pm - 12:52 pm Playing Surface Effects Anterior Cruciate Ligament Injury In NCAA Soccer

Samantha Solaru, BS, University of Southern California

12:52 pm - 12:56 pm Direct and Indirect Savings with use of In-Office Diagnostic Arthroscopy

Omar Ramos, MD, Loma Linda University Medical Center

12:56 pm - 1:00 pm Orthopaedic Sleep and Novel Analgesic Pathway for Shoulder Arthroplasty Recovery

Jonathan Cheah, MD, University of California, San Francisco

1:00 pm - 1:04 pm All Soft-Tissue Quadriceps Graft for Anterior Cruciate Ligament Reconstruction

Mitchell Stroh, DO, Hoag Orthopedic Institute

1:04 pm - 1:12 pm Discussion

1:12 pm - 1:16 pm Hypovitaminosis D is Not a Risk Factor for Stress Fracture in NCAA Division I Track and Field

Adam Lindsay, MD, University of Southern California

1:16 pm - 1:20 pm A Comparison of Collegiate Women's Court and Beach Volleyball Injury Data: A Three-Year Retrospective Analysis

Tristan Juhan, MD, MA, University of Southern California

\*Presented by Andrew Homere, MS3

1:20 pm - 1:24 pm Injections and Ultrasound Imaging in Orthopedics: Medicare Trends in Reimbursement from 2000-2019

Cory K. Mayfield, BS, Keck School of Medicine of the University of Southern California

\*Presented by Sabrina Syed, BS

1:24 pm - 1:28 pm Surfing Injuries - A Review for the Orthopaedic Surgeon

Ryan J. Bickley, MD, Tripler Army Medical Center

1:28 pm - 1:32 pm When is a Hill-Sachs Lesion Too Large for Remplissage? The Relationship Between Humeral Head Size and Infraspinatus Tendon Length

Thomas Kremen, MD, David Geffen School of Medicine at UCLA

1:32 pm - 1:40 pm Discussion

## **Rapid Fire Session 2D – Shoulder & Elbow** Big Sur 1

Moderators: Chris Kweon, MD, University of Washington & Omer A. Ilahi, MD, Southwest Orthopedic Group/Texas Arthroscopy & Sports Medicine Institute

12:40 pm - 12:44 pm The Effect of Transexamic Acid on Early Postoperative Pain and Opiate Consumption after Total Shoulder Arthroplasty

Pengcheng Wang, UCLA Medical Center Program

12:44 pm - 12:48 pm Outcomes after Shoulder Surgery: Legacy Score vs. PROMIS Function Score

Todd S. Kim, MD, Palo Alto Medical Foundation

12:48 pm - 12:52 pm Low BMI Predicts Inferior Outcomes after Reverse Total Shoulder Arthroplasty

Edward J. Wu, MD, Stanford University Department of Orthopaedic Surgery

\*Presented by Malcolm DeBaun, MD

12:52 pm - 12:56 pm Analysis of 164 Patients with Unsatisfactory Results after Failed Rotator Cuff Repair

Sagar S. Chawla, MD, University of Washington

12:56 pm - 1:00 pm Radial Neck Diameter as a Guide for Prosthetic Stem Sizing

Dave Shukla, MD, Mayo Clinic

1:00 pm - 1:04 pm Pre-Operative Corticosteroid Injections are Associated with Shoulder Arthroscopy Infectious Outcomes

Sarah Bhattacharjee, Pritzker School of Medicine at the University of Chicago

1:04 pm - 1:12 pm Discussion

1:12 pm - 1:16 pm Radiographic Changes in the Acromiohumeral Distance through the Sagittal Plane

Craig T. Gillis, DO, Buffalo, NY

1:16 pm - 1:20 pm Effects of Age on Postoperative Complications following Shoulder Arthroplasty

Hasani W. Swindell, MD, University of Southern California

1:20 pm - 1:24 pm Biomechanical Assessment of Patella Tendon Allograft as Alternative Graft Material for Superior Capsule Reconstruction

William Croom, MD, MBA, Kaiser Permanente

1:24 pm - 1:28 pm Clinical Results of Subpectoral Biceps Tenodesis using a Single Unicortical Anchor

Taylor D. Mansfield, MD, Madigan Army Medical Center

1:28 pm - 1:32 pm Sleep Quality following Rotator Cuff Repair: A Systematic Review

Andres F. Barandiaran, University of Colorado

\*Presented by Darby A. Houck, BA



# Scientific Program Regency Ballrooms 4, 5 & 6, Unless Otherwise Specified

1:32 pm - 1:40 pm Discussion

## **Rapid Fire Session 2E – Spine** Big Sur 2

Moderators: Evalina Burger, MD, University of Colorado & Yu-Po Lee, MD, University of California, Irvine

12:40 pm - 12:44 pm Costs and Utility of Post-Discharge Rehabilitation following Spinal Deformity Surgery  
Alexander A. Theologis, MD, University of California, San Francisco

12:44 pm - 12:48 pm ALIF Provides More Decompression of the Foraminal Space than Foraminotomy  
Khalid Odeh, MD, St. Mary's Medical Center, San Francisco

12:48 pm - 12:52 pm Vertebral Fracture After T10-L5 Fusion, Case Series and Literature Review  
David W. Cheng, Bones and Spine Surgery Inc.  
\*Presented by Shane Penalosa, MD

12:52 pm - 12:56 pm Thoracoplasty Effects on Postoperative Recovery in Adolescent Idiopathic Scoliosis  
Benjamin J. Sherman, DO, Children's Hospital of Orange County

12:56 pm - 1:00 pm An Analysis of Medicare Reimbursement Rates in Spine Surgery: 2000-2018  
Cory K. Mayfield, BS, Keck School of Medicine of the University of Southern California  
\*Presented by Sabrina Syed, BS

1:00 pm - 1:04 pm Fenestrated Pedicle Screw Cement Augmentation: A Safety and Efficacy Study  
Ruwan Ratnayake, MD, University of California, Davis Medical Center  
\*Presented by Houssam Bouloussa, MD, MS

1:04 pm - 1:10 pm Discussion

1:10 pm - 1:14 pm The Utility of Flexion/Extension Radiographs in Degenerative Cervical Spondylolisthesis  
Andrew P. Alvarez, MD, University of California, Irvine

1:14 pm - 1:18 pm Inpatient Episodes of Care in Spine Surgery: Medicare Reimbursement Rates  
Jordan Dutcher, Mayo Clinic School of Medicine

1:18 pm - 1:22 pm Dissimilar Rod-Screw Metal Constructs Do Not Affect Complications in Deformity Surgery  
Sahitya K. Denduluri, MD, Stanford Orthopaedic Surgery

1:22 pm - 1:26 pm Initial Management of Sacral Insufficiency Fractures: A Systematic Review  
Pierce Johnson, MD, University of Arizona Phoenix  
\*Presented by Richard Auran, MD

1:26 pm - 1:30 pm Pre-Operative Hemoglobin: A Predictor for Mobilization and Length of Stay  
Ali Noorzad, MD, Cedars-Sinai Medical Center

1:30 pm - 1:34 pm Defining the Association between Sacral Dysmorphism and Hip Dysplasia  
Elizabeth Gausden, MD, University of Texas Health Science Center at Houston

1:34 pm - 1:40 pm Discussion

1:40 pm - 2:40 pm **Scientific Poster Session** Regency Ballroom Foyer

**Scientific Poster Sessions**  
Cypress 1, Cypress 2, Cypress 3, Big Sur 1 & Big Sur 2

2:40 pm - 3:40 pm **Multimedia Education Session** Regency Ballroom Foyer

## Friday, August 2

5:45 am - 6:55 am **Scientific Poster Session** Regency Ballroom Foyer

5:45 am - 6:55 am **Scientific E-Poster Sessions**  
Cypress 1, Cypress 2, Cypress 3, Big Sur 1 & Big Sur 2

6:55 am - 7:00 am **Announcements**  
David H. Chafey III, MD, Program Co-Chair  
David J. Mansfield, MD, Program Co-Chair

### **Symposium 3 – Tumor**

Moderator: David H. Chafey III, MD, University of New Mexico

7:00 am - 7:15 am Tips and Tricks for Managing Soft Tissue Masses  
Kristy L. Weber, MD, University of Pennsylvania

7:15 am - 7:30 am The Lytic Lesion of Bone in Adults  
Valerae O. Lewis, MD, MD Anderson Cancer Center

7:30 am - 7:45 am Pediatric Bone Cysts: Know Your ABCs and UBCs  
Nicole I. Montgomery, MD, Texas Children's Hospital

7:45 am - 7:50 am Discussion

7:50 am - 8:20 am **Focused Brunch Presentation – Convatec**  
Highlights from the New Consensus Guidelines for Infection in Orthopedics - Wound Management  
Louis Kwong, MD & Alexander Sah, MD  
\*CME Credit Not Available

8:20 am - 8:40 am **Break – Please visit Exhibits**  
Regency Ballrooms Main, 1, 2 & 3

### **Rapid Fire Session 3A – Trauma Traffic & Thrombosis** Cypress 1

Moderators: Tony Pedri, MD, Regions Trauma Center & Ahmed Thabet, MD, Texas Tech University Health Sciences Center

8:40 am - 8:44 am Comparison of Injuries Among Motorcycle, Moped and Bicycle Traffic Accident Victims  
Tyler Kent, MD, University of Nevada Las Vegas

8:44 am - 8:48 am Electric Scooter Orthopaedic Injuries at a Level 1 Trauma Center  
Ophelie Lavoie-Gagne, University of California, San Diego

8:48 am - 8:52 am Electric Scooter Orthopaedic Injuries Have Significant Financial Implications  
Matthew Y. Siow, MD, University of California, San Diego

8:52 am - 8:56 am Electric Scooters: A New Wave in Orthopaedic Trauma  
Ali Noorzad, MD, Cedars-Sinai Medical Center

8:56 am - 9:00 am Discussion

9:00 am - 9:04 am An Analysis of Medicare Reimbursement Rates in Orthopaedic Trauma: 2000-2018  
Cory K. Mayfield, BS, Keck School of Medicine of the University of Southern California  
\*Presented by Jordan S. Dutcher, BS

9:04 am - 9:08 am What Makes a Strong Orthopaedic Trauma Fellowship Application: A Program Director's Perspective  
Kareem Shaath, MD, University of Texas Health Science Center





# Scientific Program Regency Ballrooms 4, 5 & 6, Unless Otherwise Specified

- 9:08 am - 9:12 am Targeted Dosing of LMWH Does Not Reduce Thrombosis in Orthopaedic Trauma  
**Carol Lin, MD, MA, Cedars-Sinai Medical Center**
- 9:12 am - 9:16 am The Incidence of DVT in Orthopedic Trauma  
**Hyunwoo P. Kang, MD, University of Southern California**

9:16 am - 9:20 am Discussion

## **Rapid Fire Session 3B – Sports Medicine** Cypress 2

Moderators: Andrew J. Veitch, MD, University of New Mexico & Chris Kweon, MD, University of Washington

- 8:40 am - 8:44 am Sliding or Non-Sliding Arthroscopic Knots for Shoulder Procedures: A Systematic Review of Clinical Outcomes  
**Caellagh D. Morrissey, BA, University of Colorado Sports Medicine**

- 8:44 am - 8:48 am All-Inside Repair of Bucket-Handle Meniscus Tears: A Systematic Review  
**Carolyn Ardizzone, University of Colorado Sports Medicine**

- 8:48 am - 8:52 am Anterior Cruciate Ligament Reconstruction Outcomes in Skiers Compared to Non-Skiers  
**Alexandra Schumacher, MS, University of Colorado Sports Medicine**

- 8:52 am - 8:56 am Bone Graft Options for Tunnel Augmentation in Revision ACL Reconstruction  
**Hytham S. Salem, MD, University of Colorado, Denver**

8:56 am - 9:00 am Discussion

- 9:00 am - 9:04 am Natural History of Subacromial Shoulder Pain: Analysis of 474 Cases  
**John H. Thayer, MBS, University of Washington School of Medicine**

- 9:04 am - 9:08 am Radiographic Assessment of Femoral Tunnel Ossification in ACL Reconstruction  
**Ali A. Qadeer, MD, Baylor College of Medicine**

- 9:08 am - 9:12 am Pre-Operative Determination of Adequate Graft Diameter for Hamstring ACL Reconstruction  
**Trevor J. Shelton, MD, University of California, Davis**

- 9:12 am - 9:16 am Surgical Trends in Meniscal Tears: Analysis of ABOS Certification Data  
**Jory Wasserburger, MD, Albuquerque, NM**

9:16 am - 9:20 am Discussion

## **Rapid Fire Session 3C – Shoulder & Elbow** Cypress 3

Moderators: Deana Mercer, MD, University of New Mexico & Ronald A. Navarro, MD, Kaiser Permanente

- 8:40 am - 8:44 am Cutibacterium Acnes Cultures are Rarely Positive in Shoulders Undergoing Primary Arthroplasty  
**Dave Shukla, MD, Mayo Clinic**

- 8:44 am - 8:48 am Comparison of MRI Utilization: Diagnosis and Treatment of the Elbow  
**Brett A. Schiffman, MD, University of Washington**

- 8:48 am - 8:52 am Analysis of Glenohumeral Joint Intraarticular Pressure Measurements in Volume-Limited MR Arthrograms in Patients with Shoulder Instability Compared to a Control Group  
**Zachary L. McBeth, MD, Madigan Army Medical Center**

- 8:52 am - 8:56 am The Relationship between "Grit" and Clinical Outcomes following Rotator-Cuff Repair  
**Andres F. Barandiaran, University of Colorado**  
**\*Presented by Stephanie Logterman, MD**

8:56 am - 9:02 am Discussion

- 9:02 am - 9:06 am Sex-Based Review of Recurrence Rates following Arthroscopic Anterior Shoulder Stabilization  
**Connor Cannizzaro, University of Colorado Sports Medicine**

- 9:06 am - 9:10 am Anterior Capsule Reconstruction vs. Pectoralis Major Transfer for Irreparable Subscapularis Tears  
**Gregory Adamson, Orthopaedic Biomechanics Laboratory, Congress Medical Foundation**

- 9:10 am - 9:14 am The Effect of Hook Plate with Augmented Fixation on High Energy Shoulder Girdle Injuries  
**Wesley Doshier, MD, University of Texas Health Science Center at Houston**  
**\*Presented by Marschall Berkes, MD**

9:14 am - 9:20 am Discussion

## **Rapid Fire Session 3D – Foot & Ankle** Big Sur 1

Moderators: David H. Chafey III, MD, University of New Mexico & Blake Schultz, MD, Stanford University

- 8:40 am - 8:44 am Lesser Metatarsophalangeal Interpositional Arthroplasty with Semitendinosus Allograft: Outcomes and Technique  
**Eugene F. Stautberg III, MD, Southwest Orthopedic Group**

- 8:44 am - 8:48 am Ligamentous Lisfranc: Biomechanical Properties of Internal Brace, Suture Button, and Screw  
**Trevor J. Shelton, MD, University of California, Davis**

- 8:48 am - 8:52 am Radiographic Evaluation of Adult Acquired Flatfoot Correction with Augmented Spring Ligament Repair  
**Jason Fogleman, MD, University of California, Davis**  
**\*Presented by Trevor J. Shelton, MD**

- 8:52 am - 8:56 am Patient-Reported Outcomes after use of Dynamic Bracing in the Civilian Population  
**Ryan Hadden, MD, Oregon Health and Science University**

8:56 am - 9:02 am Discussion

- 9:02 am - 9:06 am Outcomes and Complications of Supination-Adduction (AO/OTA 44A2.3) Ankle Fractures  
**Ram K. Alluri, MD, Keck Medical Center of USC**

- 9:06 am - 9:10 am Sural Fasciocutaneous Flaps for Ortho-Geriatric Patients  
**Haydn Roberts, MD, Banner University Medical Center**

- 9:10 am - 9:14 am Provisional Reduction and Percutaneous Pinning of Traumatic Foot Injuries  
**Justin A. Rennard, MD, University of Texas Health Science Center at Houston**

9:14 am - 9:20 am Discussion

## **Rapid Fire Session 3E – Pharmacology: The Good, Bad and the Opioids**

Big Sur 2

Moderators: Jeffrey E. Krygier, MD, Santa Clara Valley Medical Center & Amalia M. De Comas, MD, The CORE Institute



# Scientific Program Regency Ballrooms 4, 5 & 6, Unless Otherwise Specified

- 8:40 am - 8:44 am Human Skeletal Stem Cells from Acute Fractures Maintain Self-Renewal and Differentiation Independent of Non-Steroidal Anti-Inflammatory Drugs (NSAID)  
Lawrence H. Goodnough, MD, Stanford University
- 8:44 am - 8:48 am Acute Postoperative Multimodal Pain Management and Long-Term Opioid Use  
Carol Lin, MD, MA, Cedars-Sinai Medical Center
- 8:48 am - 8:52 am Standardized Pain Regimen in Orthopedic Trauma Patients Reduces Opioid Use  
Carol Lin, MD, MA, Cedars-Sinai Medical Center
- 8:52 am - 8:56 am Outcomes and Complications Among Methamphetamine Users in Orthopaedic Trauma  
Nicholas A. Trasolini, MD, University of Southern California  
\*Presented by John Carney
- 8:56 am - 9:00 am Discussion
- 9:00 am - 9:04 am High Variability in Opioid Prescribing Following Fracture Fixation  
Andrew Fithian, MD, Stanford University
- 9:04 am - 9:08 am Methamphetamine Use and Postoperative Narcotic Use in Orthopedic Trauma Patients  
Adam Lindsay, MD, University of Southern California
- 9:08 am - 9:12 am Perioperative Complication Rates amongst Methamphetamine Positive Orthopaedic Trauma Patients  
Malcolm DeBaun, MD, Stanford University
- 9:12 am - 9:16 am Complication Rates and Reimbursements in Hip Fracture Patients Using DMARDs  
Mary Kate Erdman, MD, University of Southern California
- 9:16 am - 9:20 am Discussion

## General Session 3 – AAOS Report & Presidential Guest Speaker

Moderator: Omer A. Ilahi, MD, Southwest Orthopedic Group/Texas Arthroscopy & Sports Medicine Institute

- 9:25 am - 9:40 am **AAOS Report**  
Kristy L. Weber, MD, President, AAOS, University of Pennsylvania
- 9:40 am - 9:45 am **Introduction of Presidential Guest Speaker**  
Omer A. Ilahi, MD, Southwest Orthopedic Group/Texas Arthroscopy & Sports Medicine Institute
- 9:45 am - 10:25 am **Presidential Guest Speaker**  
The Burden of Craft and the Blessing of Craftsmanship  
Stephen S. Burkhart, MD, The San Antonio Orthopaedic Group

## 10:25 am-10:45 am Break – Please visit Exhibits

Regency Ballrooms Main, 1, 2 & 3

## Symposium 4 – Hip/Knee

Moderator: Parminder S. Kang, MD, Desert Orthopaedic Center

- 10:45 am - 11:00 am Management of Peri-Prosthetic Fractures of the Femur: Don't Gamble on the Stem  
Parminder S. Kang, MD, Desert Orthopaedic Center
- 11:00 am - 11:15 am Diagnosis and Treatment of Total Joint Infections  
Michael D. Ries, MD, Reno Orthopaedic Clinic

- 11:15 am - 11:30 am The Painful Knee after Arthroplasty: Prevention and Approach  
Russell T. Nevins, MD, Nevada Orthopaedic & Spine Center

- 11:30 am - 11:35 am Discussion

- 11:35 am - 12:05 pm **Focused Lunch Presentation – Flexion Therapeutics**  
Localized Treatment for Osteoarthritis Knee Pain with a Novel Intra-Articular Formulation  
Kevin Murphy, MD  
\*CME Credit Not Available

## General Session 4 – WOF Report & Western Orthopaedic Foundation Donor Awards

Moderator: Robert R. Slater, Jr., MD, Folsom, CA

- 12:05 pm - 12:15 pm **WOF Report**  
Robert R. Slater, Jr., MD, Folsom, CA
- 12:15 pm - 12:21 pm **Basil R. Besh, MD Donor Award**  
High Resiliency Improves Patient-Reported Outcomes following Knee Surgery in Active-Duty Patients  
Nicholas J. Drayer, MD, Madigan Army Medical Center
- 12:21 pm - 12:27 pm **Nitin N. Bhatia, MD Donor Award**  
Two-Week Postoperative Radiographs after Ankle ORIF Have Low Utility  
Hyunwoo P. Kang, MD, University of Southern California
- 12:27 pm - 12:33 pm **David H. Chafey III, MD Donor Award**  
Infraspinatus Tenotomy Improves Glenoid Visualization with the Modified Judet Approach  
John Garlich, MD, Cedars-Sinai Orthopaedic Surgery
- 12:33 pm - 12:39 pm **Omer A. Ilahi, MD Donor Award**  
Supporting Orthopedic Resident Education and Advancement in Leadership Skills  
Jonathan Cheah, MD, University of California, San Francisco  
\*Presented by Sachin Allahabadi, MD
- 12:39 pm - 12:45 pm **Brian A. Jewett, MD Donor Award**  
Overprescribing of Opioids in Orthopaedic Surgery  
Taylor D. Mansfield, MD, Madigan Army Medical Center
- 12:45 pm - 12:51 pm **Clifford B. Jones, MD Donor Award**  
How Mobile Technology Changes Reporting of Morbidity and Mortality  
Christopher R. Johnson, MD, Cedars Sinai
- 12:51 pm - 12:57 pm **Jeffrey E. Krygier, MD Donor Award**  
Newer NCAA Bat Standard is Associated with Hamate Fractures  
Trevor J. Shelton, MD, University of California, Davis
- 12:57 pm - 1:03 pm **Jeffrey M. Nakano, MD Donor Award**  
Current Trends: Surgical Treatment of Syndesmotic Injuries in Elite Athletes  
Rebecca Griffith, MD, University of Colorado Denver School of Medicine
- 1:03 pm - 1:09 pm **Robert R. Slater Jr., MD Donor Award**  
Improved Fracture Reduction in Patients Undergoing Early Definitive Fixation for Tibial Plateau Fractures with Acute Compartment Syndrome  
Tony Pedri, MD, Regions Trauma Center
- 1:09 pm - 1:15 pm Discussion



# Scientific Program Regency Ballrooms 4, 5 & 6, Unless Otherwise Specified

## Concurrent Allied Health Session 2 Windjammer

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

1:20 pm - 2:20 pm Initial Management of the Spine Patient  
Adam M. Wegner, MD, Washington University, St. Louis

## Rapid Fire Session 4A – Trauma Pelvis & Acetabulum Cypress 1

Moderators: Ronald W. Lindsey, MD, The University of Texas Medical Branch & Carol Lin, MD, MA, Cedars-Sinai Medical Center

1:20 pm - 1:24 pm Expert Agreement on the Outcome of Pelvic Exam Under Anesthesia  
Geoffrey S. Marecek, MD, University of Southern California

1:24 pm - 1:28 pm Visualizing Anterior Pelvis Bone Strength to Optimize Screw Fixation  
Jerad D. Allen, MD, Harborview Medical Center  
\*Presented by Conor Kleweno, MD

1:28 pm - 1:32 pm Novel Method to Visualize Pelvic Bone Strength for Surgical Planning  
Jerad D. Allen, MD, Harborview Medical Center  
\*Presented by Conor Kleweno, MD

1:32 pm - 1:36 pm Evaluation of Functional and Psychological Outcomes in Patients with Severe Pelvic Ring Fractures  
Murphy P. Martin, MD, Denver Health Medical Center  
\*Presented by Chase Dean, MD

1:36 pm - 1:40 pm Occult Injuries of the Contralateral SI Joint in Operatively Treated Pelvis Fractures: Incidence  
Andrew S. Maertens, MD, University of Colorado

1:40 pm - 1:44 pm Complications Associated with Early vs. Delayed Fixation of Pelvic Ring Injuries  
David Rojas, MD, Denver Health Medical Center

1:44 pm - 1:50 pm Discussion

1:50 pm - 1:54 pm Posterior Pelvic Ring Bone Density: Implications for Third Sacral Segment  
Jonathan G. Eastman, MD, University of California, Davis

1:54 pm - 1:58 pm A Biomechanical Study Comparing Compressive Strength of Fully-Threaded vs. Partially Threaded Cannulated Transiliac-Transsacral Lag Screws for Posterior Pelvic Ring Stabilization  
Andrew S. Maertens, MD, University of Colorado

1:58 pm - 2:02 pm Obesity Is Not a Risk Factor for Complications Following Acetabular Fracture Surgery: A Comparative Cohort Study  
Kareem Shaath, MD, University of Texas Health Science Center

2:02 pm - 2:06 pm Low-Dose CT for Assessment of Acetabular Fracture Reduction  
Stephen Gibbs, MD, University of Southern California

2:06 pm - 2:10 pm The Hybrid Suite and Intraileal Balloon Occlusion for Acetabular Open Reduction Internal Fixation  
Jason Davis, MD, University of California, San Francisco

2:10 pm - 2:14 pm Financial Impact of the ACA on an Orthopedic Trauma Service  
Trevor J. Shelton, MD, University of California, Davis

2:14 pm - 2:20 pm Discussion

## Rapid Fire Session 4B – Tumors & Pediatrics Cypress 2

Moderators: Nicole I. Montgomery, MD, Texas Children's Hospital & Selina Poon, MD, Shriners for Children Medical Center, Pasadena

1:20 pm - 1:24 pm CD44 and ALDH1 Predict Oncologic Outcomes in Osteosarcoma  
Augustine M. Saiz Jr, MD, University of California, Davis

1:24 pm - 1:28 pm Natural History of Enchondroma Referrals at a Comprehensive Cancer Center  
Alysia K. Kemp, MD, The University of Texas MD Anderson Cancer Center

1:28 pm - 1:32 pm Acrometastasis: Is Lung Carcinoma Still the Most Common Primary Lesion?  
Alysia K. Kemp, MD, The University of Texas MD Anderson Cancer Center

1:32 pm - 1:36 pm Patellar Tendon Augmentation Not Necessary in Proximal Tibia Endoprosthetic Reconstruction  
Russell Stitzlein, MD, University of California, Irvine

1:36 pm - 1:40 pm Prospective Study of Percutaneous Bone-Anchored Implants in Patients with Above Knee Amputation: the UCSF Experience  
Musa Zaid, MD, University of California, San Francisco

1:40 pm - 1:44 pm Vertebra Plana Caused by CRMO: A Case Series in Pediatric Patients  
Jesse Roberts, MD, University of Colorado

1:44 pm - 1:50 pm Discussion

1:50 pm - 1:54 pm Utility of Bioabsorbable Fixation of Osteochondral Lesions in the Adolescent Knee; Outcomes Analysis With Minimum Two-Year Follow-Up  
Shawn Nguyen, DO, Children's Hospital of Orange County

1:54 pm - 1:58 pm Secondary Surgeries Following Major Lower Extremity Amputations in the Pediatric Population  
Christopher Joyce, MD, University of Colorado

1:58 pm - 2:02 pm Validation of a Novel Method for Measuring Proximal Ulnar Alignment in the Pediatric Patient  
Megan H. M. Kuba, MD, Kaiser Permanente Orange County

2:02 pm - 2:06 pm Percutaneous Hip Adductor Release for Cerebral Palsy: Adolescents and Adults  
David A. Yngve, MD, The University of Texas Medical Branch

2:06 pm - 2:10 pm Distinctive Opiate Prescription Patterns in Adolescent Subpopulations following ACL Reconstruction  
Charles M. Chan, MD, Stanford University  
\*Presented by Alexander Karius, BS

2:10 pm - 2:14 pm Aseptic Nonunion in Long Bones among Pediatric Patients: A Report of 13 Cases  
Ahmed Thabet, MD, Texas Tech University Health Sciences Center

2:14 pm - 2:20 pm Discussion

## Rapid Fire Session 4C – Sports Medicine Cypress 3

Moderators: COL (Ret) Edward D. Arrington, MD, Madigan Army Medical Center & Michael G. Klassen, MD, Premier Physicians Management Company





# Scientific Program Regency Ballrooms 4, 5 & 6, Unless Otherwise Specified

1:20 pm - 1:24 pm	Two-Year Revision ACL Reconstruction: Age-Based Risk Factors Matthew C. Gallo, BA, University of Southern California *Presented by Omid Jalali	1:28 pm - 1:32 pm	Joint Replacement in X-Linked Hypophosphatemia Emily S. Mills, BS, Frank H. Netter MD School of Medicine at Quinnipiac University
1:24 pm - 1:28 pm	Interfacial Shear Mechanical Properties of Commercially Available Osteochondral Allografts Dean Wang, MD, University of California, Irvine	1:32 pm - 1:36 pm	Defining a Safe Interval between Pre-Operative Corticosteroid Injections and TKAs Sarah Bhattacharjee, Pritzker School of Medicine at the University of Chicago
1:28 pm - 1:32 pm	When Do Patients Improve after Hip Arthroscopy For Femoroacetabular Impingement? A Prospective Cohort Analysis Alan Zhang, MD, University of California, San Francisco Medical Center *Presented by Sergio E. Flores, BS	1:36 pm - 1:40 pm	Predictors of Complications after TKA in Patients with a Prior Arthroscopy Geoffrey Rohlfing, MD, University of California, San Francisco
1:32 pm - 1:36 pm	Patellar Height Comparison between Knees in Adolescents and Young Adults Benjamin Albertson, MD, University of New Mexico	1:40 pm - 1:44 pm	Influence of Prior Arthroscopy on Revision TKA Complications and Readmissions Kamran Movassaghi, MD, University of California, San Francisco
1:36 pm - 1:40 pm	The Effect of ACL Graft Choice On Meniscal Repair Success Hytham S. Salem, MD, University of Colorado, Denver	1:44 pm - 1:54 pm	Discussion
1:40 pm - 1:44 pm	How Accurate are Radiographic Landmarks at Predicting the Location of Lateral Knee Structures? Thomas Kremen, MD, David Geffen School of Medicine at UCLA	1:54 pm - 1:58 pm	Periprosthetic Tissue Reaction Independent of LTT Result and Implanted Materials in TKA Brian Schneiderman, MD, Harbor UCLA Medical Center
1:44 pm - 1:52 pm	Discussion	1:58 pm - 2:02 pm	Initial/Repeat Triamcinolone Acetonide Extended-Release in Patients With Prior Intra-Articular Corticosteroids Andrew I. Spitzer, MD, Cedars-Sinai Orthopaedic Center
1:52 pm - 1:56 pm	Long-Term Risk of Osteoarthritis After Allograft or Autograft ACL Reconstruction Peter Chebi, SOAR Medical	2:02 pm - 2:06 pm	Outcomes of Kinematic, Gap Balancing and Measured Resection Total Knee Zachary C. Lum, DO, University of California, Davis Medical Center
1:56 pm - 2:00 pm	Air Arthrogram Aids Joint Distraction for Hip Arthroscopy and Decreases Acute Postoperative Pain Alan Zhang, MD, University of California, San Francisco Medical Center *Presented by Sergio E. Flores, BS	2:06 pm - 2:10 pm	Pre-Operative Vitamin D Repletion in Total Knee Arthroplasty: A Preliminary Cost-Effectiveness Model Armin Arshi, MD, David Geffen School of Medicine at UCLA
2:00 pm - 2:04 pm	Return to Sport following Medial Patellofemoral Ligament Reconstruction Darby A. Houck, BA, University of Colorado Sports Medicine	2:10 pm - 2:20 pm	Discussion <b>Rapid Fire Session 4E – Total Hip</b> Big Sur 2 Moderators: Kathryn L. Schabel, MD, Oregon Health & Science University & William J. Maloney, MD, Stanford University School of Medicine
2:04 pm - 2:08 pm	Does Workflow Influence Component Placement Accuracy to Plan for PKA? Emily Hampp, MD, Mahwah, NJ *Presented by Shon Darcy	1:20 pm - 1:24 pm	Comparing Different Hip Physical Examination Methods on the Diagnosis of Labral Tear Farshad Adib, University of Maryland Orthopaedic Associates
2:08 pm - 2:12 pm	The Impact of Workflow on Cutting Time for Partial Knee Arthroplasty Emily Hampp, MD, Mahwah, NJ *Presented by Shon Darcy	1:24 pm - 1:28 pm	Direct Anterior Approach Total Hip Arthroplasty without Pre-Operative Templating - Challenging the Dogma of Pre-Operative Templating Ian Hasegawa, MD, University of Hawaii
2:12 pm - 2:20 pm	Discussion <b>Rapid Fire Session 4D – Total Knee</b> Big Sur 1 Moderators: Jennifer M. van Warmerdam, MD, St. Mary's Medical Center Total Joint Center & Michael D. Ries, MD, Reno Orthopedic Clinic	1:28 pm - 1:32 pm	Determining and Achieving Target Limb Length and Offset in Total Hip Arthroplasty using Intra-Operative Digital Radiography Eytan M. Debbi, MD, PhD, Cedars-Sinai Medical Center
1:20 pm - 1:24 pm	Utility of Medial-to-Total Force Ratio in Kinematically Aligned TKA Trevor J. Shelton, MD, University of California, Davis	1:32 pm - 1:36 pm	Is there a Relationship between Severity of Hip Dysplasia and Patient Reported Pain? Shawn O. Okpara, BS, University of Texas Southwestern Medical Center
1:24 pm - 1:28 pm	Counseling Patients with Mechanically Aligned TKA Undergoing Kinematically Aligned TKA Trevor J. Shelton, MD, University of California, Davis	1:36 pm - 1:40 pm	Total Hip Arthroplasty for Osteoarthritis Secondary to Operatively Treated Acetabular Fractures; A Retrospective Analytic Study Samer Kakish, MD, University of New Mexico *Presented by Amber L. Price, MD

# Scientific Program

Regency Ballrooms 4, 5 & 6, Unless Otherwise Specified

1:40 pm - 1:44 pm	Patient-Reported Return to Driving following Outpatient Total Hip Arthroplasty <b>Anne R. Wright, MD, University of Hawaii</b>	2:06 pm - 2:10 pm	Understanding Perceived Abduction and Anteversion Angles in Anterior Total Hip <b>Anne R. Wright, MD, University of Hawaii</b>
1:44 pm - 1:50 pm	Discussion	2:10 pm - 2:14 pm	Does Pain Catastrophizing Predict Age of Onset in Symptomatic Hip Dysplasia and Femoroacetabular Impingement? <b>Shawn O. Okpara, BS, University of Texas Southwestern Medical Center</b>
1:50 pm - 1:54 pm	THA Outcomes in Adult Patients with Developmental Dysplasia of the Hip <b>Peter P. Hsiue, MD, University of California, Los Angeles</b>		
1:54 pm - 1:58 pm	Reduction of Femoral Offset after THA for Femoral Neck Fracture <b>Andrew A. Barrett, MD, Stanford University School of Medicine</b>	2:14 pm - 2:20 pm	Discussion
1:58 pm - 2:02 pm	Are Complete Blood Count Tests Necessary after Total Hip Arthroplasty? <b>Emily S. Mills, BS, Frank H. Netter MD School of Medicine at Quinnipiac University</b>	2:20 pm - 3:20 pm	<b>Scientific Poster Session</b> Regency Ballroom Foyer
		2:20 pm - 3:20 pm	<b>Scientific E-Poster Sessions</b> Cypress 1, Cypress 2, Cypress 3, Big Sur 1 & Big Sur 2
2:02 pm - 2:06 pm	90-Day Safety of the Direct Superior Approach to Total Hip Arthroplasty <b>Rami M. Ezzibdeh, Stanford University School of Medicine</b>	2:25 pm - 5:20 pm	<b>Resident/Medical Student Program</b> Spyglass
		3:20 pm - 4:20 pm	<b>Multimedia Education Session</b> Regency Ballroom Foyer

## Resident/Medical Student Program (Spyglass Room unless otherwise specified)

Moderator: Jeffrey E. Krygier, MD, Santa Clara Valley Medical Center

2:25 pm - 3:10 pm

### How to Get a Job in Your Ideal Employment Model

Moderator: Marney Reid, Surgical Care Affiliates

#### Panel:

Michael Githens, MD, University of Washington  
Amalia M. De Comas, MD, The CORE Institute  
Robert Mayle, MD, California Pacific Orthopaedics

2:25 pm - 3:10 pm

### Medical Student Session Oaktree Room

#### The Orthopaedic Residency Matriculation Process

Moderator: Jeffrey Krygier, MD, Santa Clara Valley Medical Center

#### Panel:

Gregory DeSilva, MD, University of Arizona  
Steven Thorpe, MD, University of California, Davis  
David Wright, MD, University of California, Irvine

3:10 pm - 3:25 pm

### The Importance of Being Involved in Orthopaedic Professional Societies

Omer A. Ilahi, MD, Southwest Orthopedic Group/Texas Arthroscopy & Sports Medicine Institute

3:25 pm - 4:05 pm

### How to Negotiate Your First Employment Contract

Rosalyn Nguyen, JD, MBA, The University of New Mexico

4:05 pm - 4:35 pm

### Making Smart Financial Decisions Early in Your Career

Kevin Shea, MD, Stanford University

4:35 pm - 5:15 pm

### How to Prepare for the Oral Exam from a Recent Graduate

Kali Tileston, MD, Stanford University

5:15 pm - 5:20 pm

### Discussion



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# Scientific Program

Regency Ballrooms 4, 5 & 6, Unless Otherwise Specified

## Saturday, August 3

5:45 am – 6:40 am **Scientific Poster Session** Regency Ballroom Foyer

5:45 am – 6:40 am **Scientific E-Poster Sessions**  
Cypress 1, Cypress 2, Cypress 3, Big Sur 1 & Big Sur 2

6:40 am – 6:45 am **Announcements**  
David H. Chafey III, MD, Co-Program Chair  
David Mansfield, MD, Co-Program Chair

### General Session 5 – WOF Resident Awards

Moderators: David H. Chafey III, MD, University of New Mexico & David J. Mansfield, MD, El Paso Orthopaedic Surgery Group

6:45 am – 6:51 am Osteogenic and Chondrogenic Differentiation Defects in Geriatric Human Skeletal Stem Cells from Acute Fractures  
Lawrence H. Goodnough, MD, Stanford University

6:51 am – 6:57 am MRI Improves Diagnosis of Ipsilateral Femoral Neck and Shaft Fractures  
Nathan Rogers, MD, University of Texas Health Science Center at Houston

6:57 am – 7:03 am Hypovitaminosis D is a Risk Factor for Posterior Chain Muscular Injury in NCAA Division I Track and Field Athletes  
Adam Lindsay, MD, University of Southern California

7:03 am – 7:09 am Improving Trainee Arthroscopic Knot Tying Skills Using the FAST Workstation  
Peters T. Otlans, MD, Oregon Health & Science University

7:09 am – 7:15 am Prospective Validation of the Sepsis MetaScore as a Novel Blood Test for Acute Septic Arthritis  
Blake Schultz, MD, Stanford University

7:15 am – 7:21 am Hip Survival following Arthroscopy: Analysis of 12,733 Patients  
Jie Yao, MD, University of Washington

7:21 am – 7:27 am Altered Cortical Activity during Single Leg Balance in ACL-Reconstructed Patients  
Benjamin C. Meyer, MD, MountainView Regional Medical Center

7:27 am – 7:35 am Discussion

7:35 am – 7:50 am **Second Business Meeting**

### Symposium 5 – Trauma

Moderator: Bryon D. Hobby, MD, FAAOS, Billings Clinic

7:50 am – 8:05 am Improving Outcomes in Tibia Fractures  
Bryon D. Hobby, MD, FAAOS, Billings Clinic

8:05 am – 8:20 am Critical-Size Bone Defect Tibia Nonunions: Evaluation and Management  
Jason W. Stoneback, MD, University of Colorado

8:20 am – 8:35 am Spino-Pelvic Fixation: Indications and Controversies  
Ronald W. Lindsey, MD, The University of Texas Medical Branch

8:35 am – 8:40 am Discussion

8:40 am – 9:10 am **Focused Brunch Presentation – Medtronic**  
Tourniquet Free Total Knee Arthroplasty: Making the Transition and Early Experiences  
Alexander P. Sah, MD  
\*CME Credit Not Available

### Rapid Fire Session 5A – Trauma Hip

Cypress 1

Moderator: Jonathan G. Eastman, MD, University of California, Davis & Andrew J. Palafox, MD, El Paso, TX

9:15 am – 9:19 am Anesthesia Choice for Elderly Hip Fracture Patients: Should Anticoagulant Status Matter?

Cory K. Mayfield, BS, Keck School of Medicine of the University of Southern California  
\*Presented by Sabrina Syed, BS

9:19 am – 9:23 am Should an Elevated INR Delay Hip Fracture Surgery?  
Cory K. Mayfield, BS, Keck School of Medicine of the University of Southern California  
\*Presented by Jordan S. Dutcher, BS

9:23 am – 9:27 am Hip Arthroplasty Outcomes for Hip Fractures in Transplant Patients  
Peter P. Hsiue, MD, University of California, Los Angeles

9:27 am – 9:31 am Effect of Parkinson's Disease on Hemiarthroplasty Outcomes for Hip Fractures  
Peter P. Hsiue, MD, University of California, Los Angeles

9:31 am – 9:35 am Discussion

9:35 am – 9:39 am The Utility of Traction Radiographs in Pre-Operative Planning for Hip Fractures  
Graham Albert, McGovern Medical School at UTHSC

9:39 am – 9:43 am Predictors for 30-Day To One-Year Readmission in a Geriatric Hip Fracture Population  
Samuel K. Stephenson, MD, Cedars Sinai Medical Center

9:43 am – 9:47 am Blood Transfusion Rates and Predictors Following Geriatric Hip Fracture Surgery  
Armin Arshi, MD, David Geffen School of Medicine at UCLA

9:47 am – 9:51 am Inpatient Rehabilitation Facility Utilization in Postsurgical Orthogeriatric Hip Fracture Care  
Armin Arshi, MD, David Geffen School of Medicine at UCLA

9:51 am – 9:55 am Discussion

### Rapid Fire Session 5B – Upper Extremity

Cypress 2

Moderator: Robert R. Slater, Jr., MD, Folsom, CA & Robin N. Kamal, MD, Stanford University Medical Center

9:15 am – 9:19 am Comparison of Patient-Specific and Generic PROMs Following Elective Hand Surgery  
Lauren M. Shapiro, MD, Stanford University

9:19 am – 9:23 am Risk Factors for Failed Conservative Management of Trigger Digits  
Hyunwoo P. Kang, MD, University of Southern California

9:23 am – 9:27 am Two-Word Assessment and its Association with Likelihood to Recommend  
Lauren M. Shapiro, MD, Stanford University

9:27 am – 9:33 am Discussion

9:33 am – 9:37 am Articular Injuries in Acute and Chronic Operative Acromioclavicular Joint Injuries  
Matti P. Asuma, MD, Madigan Army Medical Center  
\*Presented by Taylor D. Mansfield, MD

9:37 am – 9:41 am Trends in Peripheral Nerve Blocks in Arthroscopic Rotator Cuff Repairs  
Abhinav K. Sharma, BS, David Geffen School of Medicine at UCLA





# Scientific Program Regency Ballrooms 4, 5 & 6, Unless Otherwise Specified

9:41 am - 9:45 am Chronic Distal Biceps Avulsion Treated with Suture Button

[Joseph D. Mueller, DO, Ventura Orthopedics](#)

9:45 am - 9:49 am Cost and Trends of Treatment for Proximal Humerus Fractures

[Edward J. Wu, MD, Stanford University](#)

9:49 am - 9:55 am Discussion

## **Rapid Fire Session 5C – Foot & Ankle** Cypress 3

Moderators: Kimberly L. Furry, MD, Mercy Orthopedics Associates & Eugene F. Stautberg III, MD, Southwest Orthopedic Group

9:15 am - 9:19 am A Retrospective Radiographic Evaluation of Augment Bone Graft Fusion

[Trevor J. Shelton, MD, University of California, Davis](#)

9:19 am - 9:23 am Postoperative Oral Antibiotics in Outpatient Foot and Ankle Surgery

[Jacob R. Carl, MD, University of California, Davis](#)

9:23 am - 9:27 am A Prospective, Randomized Suture-Button vs. Screw Syndesmotic Fixation

[Patrick S. Barousse, MD, University of California, Davis](#)

\*Presented by [Trevor J. Shelton, MD](#)

9:27 am - 9:31 am Radiographic Outcomes of Lisfranc Injuries Treated with a Suture Button Device

[Connor Delman, MD, University of California, Davis](#)

9:31 am - 9:35 am Discussion

9:35 am - 9:39 am Utilization and Cost of Total Ankle Replacement vs. Tibiotalar Arthrodesis

[Cary S. Politzer, MD, University of California, San Diego](#)

9:39 am - 9:43 am Contemporary Comparison of Short-Term Outcomes after Total Ankle Replacement and Ankle Arthrodesis

[Stephen B. Wallace, MD, University of Texas Southwestern](#)

9:43 am - 9:47 am Evaluation of the Learning Curve for Total Ankle Replacement Using the Transfibular Approach

[Hyunwoo P. Kang, MD, University of Southern California](#)

9:47 am - 9:51 am Intra-Operative Fluoroscopy vs. Postoperative Weightbearing Radiographs after Bunion Surgery

[Amber L. Price, MD, University of New Mexico](#)

9:51 am - 9:55 am Discussion

## **Rapid Fire Session 5D – Basic Science** Big Sur 1

Moderators: James H. Flint, MD, US Navy Orthopedics & David H. Chafey III, MD, University of New Mexico

9:15 am - 9:19 am Aged Mice Demonstrate Greater Muscle Degeneration After Rotator Cuff Injury

[Abhinav K. Sharma, BS, David Geffen School of Medicine at UCLA](#)

9:19 am - 9:23 am Regional Gene Therapy with Adipose-derived Stem Cells for Bone Repair

[Venus Vakhshori, MD, University of Southern California Medical Center](#)

9:23 am - 9:27 am Dramatically Improved Strength of Proximal Humeral Fixation with a Tuberosity-Specific Fixation Plate

[Robert S. Walker, MD, University of Arizona College of Medicine Phoenix](#)

9:27 am - 9:31 am Evaluation of Multiplanar Stability in Neer Type IIB Clavicle Fractures

[John Garlich, MD, Cedars-Sinai Orthopaedic Surgery](#)

9:31 am - 9:35 am Discussion

9:35 am - 9:39 am Omega 3 Fatty Acid (O3FA) Supplementation Reduces Intervertebral Disc Degeneration

[Phillip H. Behrens IV, MD, Cedars-Sinai Medical Center](#)

9:39 am - 9:43 am Ex-Vivo Toxicity of Topical Antiseptics and Antibiotics on Human Chondrocytes

[Erika L. Garbrecht, MD, University of New Mexico](#)

9:43 am - 9:47 am Blood Transfusions: Does Storage Duration Affect Postoperative Infection Risk?

[Peter P. Hsiue, MD, University of California, Los Angeles](#)

9:47 am - 9:51 am Neural Crest-Derived Mesenchymal Stem Cells (MSCs) Enhance Bone Allograft Healing

[Phillip H. Behrens IV, MD, Cedars-Sinai Medical Center](#)

9:51 am - 9:55 am Discussion

## **Rapid Fire Session 5E – Total Knee** Big Sur 2

Moderators: Bryan S. Moon, MD, MD Anderson Cancer Center & Spencer J. Frink, MD, MD Anderson Cancer Center

9:15 am - 9:19 am Cooled Radiofrequency Ablation (CRFA) of the Geniculate Nerves Prior to Unilateral Total Knee Arthroplasty (TKA) Reduces Patient-Reported Pain Two Weeks Postoperatively

[Jeffrey Lyman, MD, Institute for Orthopedic Research and Innovation](#)

9:19 am - 9:23 am Weight Loss Knowledge Base in the Total Joint Candidate

[Kenton B. Panas, MD, University of Oklahoma](#)

9:23 am - 9:27 am Influence of Prior Arthroscopy on Primary TKA Complications and Readmissions

[Geoffrey Rohlfing, MD, University of California, San Francisco](#)

9:27 am - 9:35 am Discussion

9:35 am - 9:39 am Is There Risk to Using the Thinnest Liner in Primary TKA? Evaluation of Knee Range of Motion, Outcomes, and Manipulation Rates with the Thinnest Available Liner

[Alexander P. Sah, MD, Institute for Joint Restoration](#)

9:39 am - 9:43 am Robotic Arm Assisted Total Knee Arthroplasty Workflow Optimization: A Technique Paper Demonstrating Operative Times Comparable to Traditional Instrumentation

[Max Lingamfelter, MD, Inspira Health Network](#)

9:43 am - 9:47 am Revision of a Medial UKA to a Kinetically Aligned TKA

[Trevor J. Shelton, MD, University of California, Davis](#)

9:47 am - 9:55 am Discussion

## **Concurrent Allied Health Session 3** Windjammer

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

9:15 am - 10:15 am Pediatric Sports Medicine

[Brian M. Haus, MD, University of California, Davis](#)

**9:55 am - 10:20 am Break – Please visit Exhibits**

Regency Ballrooms Main, 1,2 & 3



# Scientific Program Regency Ballrooms 4, 5 & 6, Unless Otherwise Specified

## Symposium 6 – Spine Surgery

Moderator: Nitin N. Bhatia, MD, FACS, University of California, Irvine

- 10:20 am - 10:35 am Minimally Invasive Spine Surgery  
Yu-Po Lee, MD, University of California, Irvine
- 10:35 am - 10:50 am Spinal Stenosis and New Technologies  
Evalina Burger, MD, University of Colorado
- 10:50 am - 11:05 am Pre-Operative Assessment of Bone Quality Prior to Adult Deformity Surgery  
Olumide A. Danisa, MD, Loma Linda University Health
- 11:05 am - 11:10 am Discussion
- 11:10 am - 11:40 am **Focused Lunch Presentation – Johnson & Johnson Medical Devices Companies**  
Optimizing a Multimodal Approach to Control Postsurgical Pain  
Alexander P. Sah, MD  
\*CME Credit Not Available

## General Session 6 – Own the Bone, BOC Report & Presidential Address

Moderators: David H. Chafey III, MD, University of New Mexico & David J. Mansfield, MD, El Paso Orthopaedic Surgery Group

- 11:40 am - 11:45 am **Own the Bone**  
Update on The American Orthopaedic Association's "Own the Bone" Registry  
Fred C. Redfern, MD, Henderson, NV
- 11:45 am - 11:50 am **BOC Report**  
Bryan S. Moon, MD, MD Anderson Cancer Center
- 11:50 am - 12:15 pm **Presidential Address**  
Dad's Lunchbox  
Omer A. Ilahi, MD, Southwest Orthopedic Group/Texas Arthroscopy & Sports Medicine Institute

## General Session 7 – Abstract Presentations

Moderators: David H. Chafey III, MD, University of New Mexico & David J. Mansfield, MD, El Paso Orthopaedic Surgery Group

- 12:15 pm - 12:23 pm **WOF Funded Presentation**  
The Impact of Early Sport Specialization on the Collegiate Athlete  
Caitlin M. Rugg, MD, UC San Francisco Orthopaedic Surgery
- 12:23 pm - 12:31 pm **WOF Funded Presentation**  
Ex-Vivo Toxicity of Commonly-Used Topical Antiseptics, Antibiotics and Tranexamic Acid on Human Chondrocytes  
Erika Garbrecht, MD, University of New Mexico
- 12:31 pm - 12:37 pm Estrogen Receptor Alpha Expression in Female Knee Articular Cartilage  
Marissa Hughbanks, MD, University of Colorado School of Medicine
- 12:37 pm - 12:43 pm Ramp Lesions of the Medial Meniscus in the Setting of ACL Rupture: Reoperation Rates and Clinical Outcomes  
Dean Wang, MD, University of California, Irvine
- 12:43 pm - 12:49 pm A Biomechanical Comparison of Dual-Plate and Plate-Nail Fixation in Supracondylar Distal Femur Fractures  
David J. Wright, MD, University of California, Irvine
- 12:49 pm - 12:55 pm Utility of Debridement for Ballistic Lower Extremity Fractures  
Ali Azad, MD, University of Southern California

- 12:55 pm - 1:01 pm Hip and Knee Arthroplasty Medicare Reimbursement 2000-2018: An Unsustainable Trend  
Cory K. Mayfield, BS, Keck School of Medicine of the University of Southern California
- 1:01 pm - 1:07 pm The Necessity of Basic Metabolic Panel Tests After Total Hip Arthroplasty  
Emily S. Mills, BS, Frank H. Netter MD School of Medicine at Quinnipiac University
- 1:07 pm - 1:15 pm Discussion

## Concurrent Allied Health Session 4 Windjammer

Moderator: Jonathan G. Eastman, MD, University of California, Davis

- 1:20 pm - 2:20 pm Ultrasound Injection Lab

## Rapid Fire Session 6A – Trauma Femur Cypress 1

Moderators: Geoffrey Marecek, MD, Keck School of Medicine of the University of Southern California & Adam A. Sassoon, MD, University of California, Los Angeles

- 1:20 pm - 1:24 pm Comparison of IMN to Plating for Periprosthetic Distal Femur Fractures  
Elizabeth Gausden, MD, University of Texas Health Science Center at Houston
- 1:24 pm - 1:28 pm A New Orthogonal Plate Configuration in Treating Periprosthetic Proximal Femur Fractures  
Kareem Shaath, MD, University of Texas Health Science Center
- 1:28 pm - 1:32 pm Full Weight-Bearing after Fixation of Vancouver B1 Femur Fractures  
Malcolm DeBaun, MD, Stanford University  
\*Presented by Mark Sanchez, MD
- 1:32 pm - 1:36 pm Supracondylar Distal Femur Fractures: Nail Diameter Significantly Impacts Stability in Plate-Nail Constructs  
David J. Wright, MD, University of California, Irvine
- 1:36 pm - 1:40 pm Subsequent Femoral Fragility Fractures: Underreported and Construct-Related  
Michael Murphy, Loyola University Medical Center
- 1:40 pm - 1:44 pm Open Femur Fractures: Complications and Outcome  
Mary Kate Erdman, MD, University of Southern California
- 1:44 pm - 1:50 pm Discussion
- 1:50 pm - 1:54 pm Closed vs. Open Reduction For Young Patients with Femoral Neck Fractures  
Adam J. Miller, MD, University of Texas Health Science Center at Houston
- 1:54 pm - 1:58 pm Predictors of Nonunions in Young Patients with Femoral Neck Fractures  
Adeet Amin, BA, University of Texas Houston Orthopedics
- 1:58 pm - 2:02 pm Rates of Femoral Neck Fracture Union Using Variable Pitch Screws  
Tony Bouz, DO, Fontana, CA
- 2:02 pm - 2:06 pm Fractures Associated with Short vs. Long Cephalomedullary Nails: Distinct Injury Patterns and Patient Outcomes  
Lawrence H. Goodnough, MD, Stanford University



# Scientific Program Regency Ballrooms 4, 5 & 6, Unless Otherwise Specified

2:06 pm - 2:10 pm Prostheses Impact Amputee Quality of Life and Function in Tanzania  
[Syed Ali, University of California, San Francisco](#)

2:10 pm - 2:14 pm Moped Riders More Likely to Sustain Head Injuries than Motorcyclists  
[Tyler Kent, MD, University of Nevada Las Vegas](#)

2:14 pm - 2:20 pm Discussion

## **Rapid Fire Session 6B – Total Knee** Cypress 2

Moderators: Jeffrey M. Nakano, MD, VA Medical Center & Russell T. Nevins, MD, Nevada Orthopaedic & Spine Center

1:20 pm - 1:24 pm Pes Planus is Associated with Poor Outcomes After TKA  
[Allison Roe, MD, Stanford Hospital](#)

1:24 pm - 1:28 pm Utilization, Costs, and Complications of Outpatient vs. Inpatient Unicompartmental Knee Arthroplasty  
[Sahitya K. Denduluri, MD, Stanford Orthopaedic Surgery](#)

1:28 pm - 1:32 pm Routine Postoperative Complete Blood Count Tests after Total Knee Arthroplasty  
[Emily S. Mills, BS, Frank H. Netter, MD, School of Medicine at Quinnipiac University](#)

1:32 pm - 1:36 pm Predictors of Changing Surgeon for Subsequent Elective Total Joint Replacement  
[Syed Ali, University of California, San Francisco](#)

1:36 pm - 1:40 pm Patella Baja after Knee Arthroscopy and Early Impact on TKA  
[David A. Brethouwer, DO, Kaiser Permanente Southern California](#)

1:40 pm - 1:52 pm Discussion

1:52 pm - 1:56 pm Modern Posterior Stabilized All-Polyethylene Tibias are Equal to Metal-Backed Tibias  
[Ezequiel A. Andrade, Hoag Orthopedics Institute](#)

1:56 pm - 2:00 pm When Are Basic Metabolic Tests after Total Knee Arthroplasty Useful?  
[Emily S. Mills, BS, Frank H. Netter MD School of Medicine at Quinnipiac University](#)

2:00 pm - 2:04 pm Population-Based Survivorship of Computer Navigated vs. Conventional Total Knee Arthroplasty  
[Hyunwoo P. Kang, MD, University of Southern California](#)

2:04 pm - 2:08 pm Large Osteochondral Allograft Transplantation for Acute Traumatic Knee Articular Defects  
[Braden F. Goldberg, McGovern Medical School](#)

2:08 pm - 2:20 pm Discussion

## **Rapid Fire Session 6C – Sports Medicine** Cypress 3

Moderators: Luis H. Urrea II, MD, El Paso Orthopaedic Surgery Group & David J. Mansfield, MD, El Paso Orthopaedic Surgery Group

1:20 pm - 1:24 pm Pain Management of Anterior Cruciate Ligament Reconstruction  
[Augustine M. Saiz Jr., MD, University of California, Davis](#)

1:24 pm - 1:28 pm Impact of Sport and Injury: Assessing Athletes Using PROMIS Instruments  
[Kenneth J. Hunt, MD, University of Colorado Denver School of Medicine](#)

1:28 pm - 1:32 pm Does a Dual Attending Surgeon Strategy Confer Additional Benefit in Multi-Ligament Knee Injury

Reconstruction?

[Christopher Kurnik, MD, University of New Mexico](#)

1:32 pm - 1:36 pm Methodologic Quality of Top-Cited Articles Relating to Knee Dislocation  
[David A. Hankins, MD, University of New Mexico](#)

1:36 pm - 1:40 pm Does Discoid Morphology Affect Performance on Return-to-Sport Testing after Meniscal Repair  
[Megan H. M. Kuba, MD, Kaiser Permanente Orange County](#)

1:40 pm - 1:44 pm Helmet Design and Hits to the Head: Analysis of NFL Tackling 1951-Present  
[David Wang, MD, GWU School of Medicine](#)

1:44 pm - 1:52 pm Discussion

1:52 pm - 1:56 pm Factors Associated with Delay in Diagnosis of ACL Injuries  
[Casey A. Slattery, BS, University of Washington](#)

1:56 pm - 2:00 pm Cost Data for Nonsurgical Treatments in Sports Medicine are Lacking  
[Jie Yao, MD, University of Washington](#)

2:00 pm - 2:04 pm Neuromonitoring Changes during Pediatric Hip Arthroscopy  
[Trevor J. Shelton, MD, University of California, Davis](#)

2:04 pm - 2:08 pm Future ACL Injury Risk after ACL Reconstruction in Patients with Vascular Comorbidities: A Retrospective Database Study  
[Matthew C. Gallo, BA, University of Southern California](#)  
\*Presented by Omid Jalali

2:08 pm - 2:12 pm The Effect of Artificial Turf vs. Natural Grass on the Incidence of Ankle Injuries in NCAA Football 2004 - 2014 Seasons  
[Dave Milzman, MD, GWU School of Medicine](#)

2:12 pm - 2:20 pm Discussion

## **Rapid Fire Session 6D – Practice Management/Education & Other**

Big Sur 1

Moderators: Lawrence Housman, MD, Tucson Orthopaedic Institute PC & Steven W. Thorpe, MD, University of California, Davis Medical Center

1:20 pm - 1:24 pm What Patient Reported Outcome Should I Use?  
[Erik A. Magnusson, MD, University of Washington](#)

1:24 pm - 1:28 pm Tibial IMN: Virtual Reality vs. Standard Surgical Guide Randomized Study  
[Gideon Blumstein, MD, MS, University of California, Los Angeles](#)

1:28 pm - 1:32 pm The Presence and Implications of Education Silos in Orthopaedic Trauma  
[Mary Kate Erdman, MD, University of Southern California](#)

1:32 pm - 1:36 pm Predicting Loss to Follow-Up after Lower Extremity Fractures  
[Patrick Albright, BS, MS, University of California, San Francisco](#)  
\*Presented by Claire Donnelley, BS

1:36 pm - 1:40 pm Decreasing Orthopedic Reimbursement Trends From 2000-2016  
[Robert S. Walker, MD, University of Arizona College of Medicine Phoenix](#)





# Scientific Program Regency Ballrooms 4, 5 & 6, Unless Otherwise Specified

1:40 pm - 1:48 pm	Discussion	1:32 pm - 1:36 pm	Prospective Evaluation of Bilateral Decompression in Patients with Degenerative Spondylolisthesis <a href="#">Kimberly E. Hall, MD, Stanford Hospital and Clinics</a>
1:48 pm - 1:52 pm	Perioperative Mental Health Status Does Not Affect Patient Satisfaction after TKA <a href="#">Laura Lu, Stanford University</a>	1:36 pm - 1:40 pm	Efficacy and Safety of Early Thromboprophylaxis after Spinal Cord Injury <a href="#">Seth Ahlquist, BS, David Geffen School of Medicine at UCLA</a>
1:52 pm - 1:56 pm	Early Regional Anesthesia Improves Pain Management in Geriatric Hip Fractures <a href="#">John Garlich, MD, Cedars-Sinai Orthopaedic Surgery</a>	1:40 pm - 1:44 pm	Resiliency and Patient-Reported Outcomes in Active-Duty Military Patients Undergoing Lumbar Spinal Surgery <a href="#">Nicholas J. Drayer, MD, Madigan Army Medical Center</a>
1:56 pm - 2:00 pm	Postoperative Opioids are Associated with Nonunion after Long Bone Fractures <a href="#">Sarah Bhattacharjee, Pritzker School of Medicine at the University of Chicago</a>	1:44 pm - 1:50 pm	Discussion
2:00 pm - 2:04 pm	Trends in Payments to Orthopedic Surgeons from 2013-2017 following the Sunshine Act <a href="#">Nathanael D. Heckmann, MD, Keck School of Medicine of the University of Southern California</a>	1:50 pm - 1:54 pm	Economic Impact of Revisions for Cervical Spine Adjacent Segment Disease <a href="#">Alexander A. Theologis, MD, University of California, San Francisco</a>
2:04 pm - 2:08 pm	Alpha-Defensin Only Changes Clinical Decision-Making when Physicians are Undecided about the Diagnosis of Periprosthetic Joint Infection <a href="#">Derek F. Amanatullah, MD, PhD, Stanford University</a>	1:54 pm - 1:58 pm	Risk Factors for Dysphagia/Dysphonia after Anterior Cervical Spine Surgery <a href="#">Ruwan Ratnayake, MD, University of California, Davis Medical Center</a> <i>*Presented by Jacob I. Priester, BS</i>
2:08 pm - 2:12 pm	The Efficacy of Pediatricians Splinting Injuries in the Office Setting <a href="#">Byron H. Izuka, MD, Childrens Orthopaedics of Hawaii</a>	1:58 pm - 2:02 pm	Semitendinosus Ligament Reinforcement for Prevention of Proximal Junctional Failure <a href="#">Ram K. Alluri, MD, Keck Medical Center of USC</a>
2:12 pm - 2:20 pm	Discussion	2:02 pm - 2:06 pm	Spinolaminar Cortical Locking Plate: A Biomechanical Analysis for Lumbar Arthrodesis <a href="#">Khalid Odeh, MD, St. Mary's Medical Center, San Francisco</a>
<b>Rapid Fire Session 6E – Spine</b> Big Sur 2 Moderators: Nitin N. Bhatia, MD, FACS, University of California, Irvine & Olumide A. Danisa, MD, Loma Linda University Health		2:06 pm - 2:10 pm	Utilization and Reimbursement Trends Based on Certificate-of-Need in Single-Level Cervical Decompression <a href="#">Abiram Bala, MD, Stanford University</a>
1:20 pm - 1:24 pm	Reduced Mortality in Pediatric Non-Idiopathic Scoliosis by Implementing a Multidisciplinary <a href="#">Lorenzo de Rama Deveza, MD, PhD, Baylor College of Medicine</a> <i>*Presented by John A. Heydemann, MD</i>	2:10 pm - 2:14 pm	Repeat Cervical Spine MRI in Patients with Documented Cervical Degeneration <a href="#">Grant McChesney, MD, University of Texas Medical Branch</a>
1:24 pm - 1:28 pm	Dural Tears and Venous Thromboembolic Complications: Is there Increased Risk? <a href="#">Ram K. Alluri, MD, Keck Medical Center of USC</a>	2:14 pm - 2:20 pm	Discussion
1:28 pm - 1:32 pm	Does Autism Alter the Risk Profile for Idiopathic Scoliosis Surgery? <a href="#">John S. Vorhies, MD, Stanford University Medical Center</a> <i>*Presented by Japsimran Kaur, BS</i>	2:20 pm - 3:30 pm	<b>Multimedia Education Session</b> Regency Ballroom Foyer

Thank you for joining us at our 83rd Annual Meeting!

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# Scientific Poster/E-Poster Presentations

Regency Ballrooms Foyer, Cypress 1, 2, 3, Big Sur 1, 2

Thursday, August 1: 5:45 am – 6:45 am / 1:40 pm – 2:40 pm

Friday, August 2: 5:45 am – 6:55 am / 2:20 pm – 3:20 pm

Saturday, August 3: 5:45 am – 6:40 am

## Poster Presentations (Regency Ballrooms Foyer)

### BASIC SCIENCE

**Poster 1:** Antiplatelet Vs. Anticoagulation for Asymptomatic Patients with Vertebral Artery Injury

Michael A. Hall Jr., BSN, University of Riverside School of Medicine

### FOOT & ANKLE

**Poster 2:** Treatment of Talus Osteochondral Lesions with MACI: 13-year Follow-up

Trevor J. Shelton, MD, University of California, Davis

### HAND & WRIST

**Poster 3:** Clenched Fist Injury: Is Bedside Debridement Adequate Treatment?

Harrison F. Kay, MD, University of Southern California

### PEDIATRICS

**Poster 4:** Iliotibial Band Autograft: What Size is the Graft? A Mathematical and Cadaveric Model

Karren Takamura, MD, University of California, Los Angeles

### PRACTICE MANAGEMENT/EDUCATION

**Poster 5:** Scheduled Tylenol and Ibuprofen should be Recommended for Post-Operative Pain

Sohrab Gollogly, MD, Monterey Spine and Joint

### SHOULDER & ELBOW

**Poster 6:** Clinical Decision Making in Adhesive Capsulitis: Avoiding Bias and Improving Outcomes

Jaicharan Iyengar, MD, Alpine Orthopaedic Medical Group

### SPINE

**Poster 7:** Does ACDF Utilization and Reimbursement Change Based on Certificate of Need Status?

Abiram Bala, MD, Stanford University

**Poster 8:** Therapeutic Effect of "Placebo" Saline Injections for Discogenic Back Pain?

Derek G. Ju, MD, Cedars-Sinai Medical Center

### SPORTS MEDICINE

**Poster 9:** Return to Sport Following ACL Reconstruction: A Qualitative Systematic Review

Alexandra Schumacher, MS, University of Colorado Sports Medicine

### TOTAL HIP

**Poster 10:** Rapidly Destructive Arthritis of the Hip 2 Months after Hip Arthroscopy: A Case Report

Farshad Adib, University of Maryland Orthopaedic Associates

### TOTAL JOINT

**Poster 11:** Return to Activity Following Shoulder Arthroplasty Versus Lower Extremity Arthroplasty

Alexandra Schumacher, MS, University of Colorado Sports Medicine

### TOTAL KNEE

**Poster 12:** Anterior Impingement in Unicompartmental Knee Arthroplasty – A Cause of Pain

Patrick Greenwell, MD, University of Maryland Orthopaedics

### TRAUMA

**Poster 13:** Comparison of Complication Profiles for Femoral Neck, Intertrochanteric, and Subtrochanteric Geriatric Hip Fractures

Armin Arshi, MD, David Geffen School of Medicine at UCLA

**Poster 14:** Tourniquet Use in Both-Bone Forearm Fracture Fixation

Hyunwoo P. Kang, MD, University of Southern California

**Poster 15:** Posterior Sternoclavicular Dislocation: Do We Need "Cardiothoracic Backup"?

John S. Vorhies, MD, Stanford University Medical Center

\*Presented by Dana A. Leonard, BA

### TUMOR

**Poster 16:** Thirty-Day Outcomes After Surgery for Primary Sarcomas of the Extremities

Kathryn E. Gallaway, University of Texas Southwestern Medical Center

### UPPER EXTREMITY

**Poster 17:** Radiographic Anatomy of the Proximal Ulna to Avoid Intraarticular Implants

Thomas Githens, DO, Stanford University

\*Presented by Malcolm DeBaun, MD

## E-Poster Presentations

### Station A (Cypress 1)

### BASIC SCIENCE

**E-Poster 1:** Electrospun Synthetic Bone Scaffolds Promote MSC Function and Spinal Fusion

Derek G. Ju, MD, Cedars-Sinai Medical Center

### HAND & WRIST

**E-Poster 2:** Osseointegration Implant for Transfemoral Level Amputations

Diane Han, Nevada Orthopedic & Spine Center

### OTHER

**E-Poster 3:** Surgical Drains after Long Bone Fractures: A Randomized Controlled Trial

Syed Ali, University of California, San Francisco

\*Presented by Claire Donnelley, BS

### SHOULDER & ELBOW

**E-Poster 4:** Surgical Repair of MRI Diagnosed Moderate/High Grade CEO Tears

Michael Shepard, MD, Hoag Orthopedics

### TUMOR

**E-Poster 5:** Does Healthcare Delivery Model Affect Rates of Postoperative Radiation Referral in Metastatic Bone Disease Following Femoral Stabilization?

Sarah Hanna, BA, Oregon Health and Science University

\*Presented by Kenneth R. Gundle, MD

**E-Poster 6:** Outcomes of Treatment of Compartment Syndrome in Orthopedic Oncology Patients

Alysia K. Kemp, MD, The University of Texas MD Anderson Cancer Center

**E-Poster 7:** Opportunistic Sarcopenia Measurements on Chest CT in Soft Tissue Sarcoma

Eileen N. Phan, University of California, Davis

**E-Poster 8:** Mirels Scores of Patients Undergoing Prophylactic Fixation for Metastatic Disease

Duncan C. Ramsey, MD, MPH, Oregon Health and Science University

\*Presented by Kenneth R. Gundle, MD

**E-Poster 9:** Oncology Patients are Outliers in Bundled Payments for TJR

Lauren M. Raymond, Oregon Health & Science University

\*Presented by Kenneth R. Gundle, MD

### Station B (Cypress 2)

### PEDIATRICS

**E-Poster 10:** QR Codes - Alternative Methods for Cast Care Instructions in Children

Michael Basso-Williams, DO, MPH, Children's Hospital of Orange County



# Scientific Poster/E-Poster Presentations

Regency Ballrooms Foyer, Cypress 1, 2, 3, Big Sur 1, 2

Thursday, August 1: 5:45 am – 6:45 am / 1:40 pm – 2:40 pm

Friday, August 2: 5:45 am – 6:55 am / 2:20 pm – 3:20 pm

Saturday, August 3: 5:45 am – 6:40 am

**E-Poster 11:** Increase Growth Velocity of Osteogenesis Imperfecta Patients after Fassier-Duval Nailing

Jeffrey C. Byrd, Children's Healthcare of Atlanta - Scottish Rite Hospital

**E-Poster 12:** Quantitative Assessment of Forefoot Splay in Persistent Idiopathic Toe Walking

Donald T. Kephart, MD, UC Davis Medical Center

**E-Poster 13:** Surgical Fixation of Ipsilateral Lateral Condylar Mass and Olecranon Fractures

Nicole E. Look, MD, University of Colorado

**E-Poster 14:** Novel Technique for Early Onset Scoliosis Casting Using Jackson Table

Blake K. Montgomery, MD, Stanford University

**E-Poster 15:** Comparison of Techniques for Measuring Correction in Femoral Derotational Osteotomies: A Sawbone Study

Christopher Shultz, MD, University of New Mexico

**E-Poster 16:** Effect of Pavlik Harness Treatment on Infant Motor Milestones

Tyler J. Stavinocha, MD, Stanford Children's Health

\*Presented by Maechi B. Uzosike

**E-Poster 17:** Steroid Augmented Peripheral Nerve Blocks in Pediatric Orthopedic Lower Extremity Surgery

Francisco Valencia, MD, University Orthopedic Specialists

**E-Poster 18:** Patient/Parental Satisfaction with Postoperative Nerve Blocks in Pediatric Population

Francisco Valencia, MD, University Orthopedic Specialists

## Station C (Cypress 3)

### SPINE

**E-Poster 19:** Increased Complications in Pediatric Patients with Non-Idiopathic Scoliosis Undergoing Spinal Instrumentation for Neuromuscular Scoliosis

Lorenzo de Rama Deveza, MD, PhD, Baylor College of Medicine

\*Presented by John A. Heydemann, MD

**E-Poster 20:** Trends in Loss to Follow Up for Isolated Trauma Patients

Ekamjeet S. Dhillon, MD, University of Washington

\*Presented by Jie Yao, MD

**E-Poster 21:** Anterior Cervical Microforaminotomy: Time for a Revisit?

Sohrab Gollogly, MD, Monterey Spine and Joint

**E-Poster 22:** Lumbar Cortical Thickness is Greater in the Posterior Elements than in the Pedicles

Khalid Odeh, MD, St. Mary's Medical Center, San Francisco

**E-Poster 23:** Characteristics and Outcomes in Post Sternotomy/Thoracotomy Scoliosis Undergoing Fusion

John S. Vorhies, MD, Stanford University Medical Center

\*Presented by Kimberly E. Hall, MD

### SPORTS MEDICINE

**E-Poster 24:** Systematic Review: Incorporation of Simulation in Sports Medicine Training for Orthopedic Surgery

Gurbir Athwal, BS, Livingston, CA

## Station D (Big Sur 1)

### TOTAL JOINT

**E-Poster 25:** Total Joint Arthroplasty for International Patients at a Tertiary Military Medical Center

Gregory E. Lause, MD, Tripler Army Medical Center

\*Presented by Ryan J. Bickley, MD

**E-Poster 26:** Don't Judge a Book by its Cover: Do Demographics and Function Affect Expectations Related to TJA?

Adam A. Sassoon, MD, University of California, Los Angeles

### UPPER EXTREMITY

**E-Poster 27:** Fresh Osteochondral Allograft Transplant (FOCAT) to Capitellum - First Described Female Case

Michael Robbins, MD, Oregon Health and Science University

**E-Poster 28:** Transarticular Screw Fixation of the Unstable Elbow in Unhealthy Patients

Blake A. Seller, MD, University of Arizona, Tucson

**E-Poster 29:** Opioid Prescribing Patterns Following Treatment of Proximal Humerus Fracture

Edward J. Wu, MD, Stanford University

## Station E (Big Sur 2)

### TRAUMA

**E-Poster 30:** Short-Term Outcomes of Acetabular Fracture Patients Treated with THA Versus ORIF

Mikhail Bekarev, MD, Cedars-Sinai Medical Center

\*Presented by Milton T. M. Little, MD

**E-Poster 31:** Do-Not-Resuscitate Status Predicts Complications After Hip Fracture Surgery

Liam C. Bosch, MD, Stanford University

**E-Poster 32:** Cost-Effectiveness Analysis of Neer II Distal Clavicle Fracture Fixation Techniques

Henry Fox, BS, MA, Oregon Health and Science University School of Medicine

**E-Poster 33:** Conversion to Total Hip Arthroplasty after Acetabular Fractures

Dushawn Harley, Charles R. Drew University of Medicine & Science, David Geffen School of Medicine at UCLA

**E-Poster 34:** Barriers to Flaps for Tibia Fractures in Resource Poor Countries

Jordan T. Holler, BS, University of California, San Francisco

**E-Poster 35:** Effect of Kidney Disease on Hemiarthroplasty Outcomes After Hip Fractures

Peter P. Hsiue, MD, University of California, Los Angeles

**E-Poster 36:** First Look - Operative Orthopaedic Injuries Associated with Motorized Scooter Accidents

Chad Ishmael, MD, University of California, Los Angeles

**E-Poster 37:** Automatic Hip Fracture Identification and Functional Classification with Deep Learning

Justin D. Kroge, MD, University of California, San Francisco

**E-Poster 38:** Assessment of Sacral Pathways for Same-Level Dual Iliosacral Screw Insertion

Kendall Masada, BA, University of Texas Health Science Center at Houston

**E-Poster 39:** Compliance with Weight-Bearing Precautions: A Prospective Observational Study

Michael Murphy, Loyola University Medical Center

**E-Poster 40:** The Global Burden of Musculoskeletal Injury: A Systematic Literature Review

Daniella Cordero, BS, University of California, San Francisco

\*Presented by Theodore A. Miclau, MS

**E-Poster 41:** Optimizing a Fellowship: What Factors do Orthopaedic Trauma Fellowship Applicants Consider Important?

Kareem Shaath, MD, University of Texas Health Science Center





# See you next Summer in Maui



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