

**Western Orthopaedic Association  
Scientific Program  
Coeur d'Alene Resort  
August 2<sup>nd</sup> -5<sup>th</sup>, 2023**

**Thursday, August 3<sup>rd</sup>**

6:00 am – 7:00 am                      **Scientific Poster/E-Poster Session** (Presenters are available to answer questions)

6.45 am – 6:55 am                      **First Business Meeting**  
*Nitin N. Bhatia, MD, University of California, Irvine*

6:55 am – 7:00 am                      **Welcome, Announcements and Overview**  
*Nitin N. Bhatia, MD, President*  
*Justin Haller, MD, Program Co-Chair*  
*John A. Scolaro, MD, Program Co-Chair*

**Symposium 1 – Orthopaedic Trauma: Surviving Weekend Call**

Moderators:    Justin Haller, MD, *University of Utah*  
                         John A. Scolaro, MD, *University of California, Irvine*

7:00 am – 8:00 am                      Speakers:    *Carol Lin, MD, Cedars-Sinai Medical Center*  
   *Reza Firoozabadi, MD, University of Washington*  
   *Jonah Hebert-Davies, MD, FRCSC, Harborview Medical Center*  
   *David L. Rothberg, MD, University of Utah*  
   *Graham DeKeyser, MD, OHSU*

**General Session 1 – AI and Machine Learning in Orthopaedic Surgery**

Moderators:    Justin Haller, MD, *University of Utah*  
                         John A. Scolaro, MD, *University of California, Irvine*

*\*CME credit not available*

8:00 am – 8:30 am                      **AI and Machine Learning in Orthopaedic Surgery**  
*Jonah Hebert-Davies, MD, FRCSC, Harborview Medical Center*

8:30 am – 9:00 am                      **Focused Breakfast Presentation**  
*\*CME credit not available*

**Rapid Fire Session 1A – Trauma (Distal Femur)**

Moderators:    TBD

- 9:05 am – 9:09 am      **WOA/WOF John M. Itamura, MD Travel Grant Award**  
201 - Retrograde Nail-Locking Plate Constructs in the Treatment of Distal Femoral Native and Periprosthetic Fractures: Early Term Outcomes  
*Garrett K. Berger, MD, PharmD, University of California, San Diego*
- 9:09 am – 9:13 am      123 - Retrograde Femoral Nail Advanced: High Rate of Interlock Back-Out  
*Rahul Bhale, MD, University of California, Davis*
- 9:13 am – 9:17 am      203 - Dual Plate Fixation for Distal Femur Fractures: Multicenter Case Series  
*Bailey Mooney, BS, David Geffen School of Medicine at UCLA*
- 9:17 am – 9:20 am      Discussion
- 9:20 am – 9:24 am      380 - Reoperation to Promote Union or to Address Deep Surgical Site Infection in 228 Periprosthetic Distal Femur Fractures  
*Marshall J. Fairres, MD, Harbor University of California, Los Angeles*
- 9:24 am – 9:28 am      265 - Complication Rates of Distal Femur Replacement for Distal Femur Fractures  
*Catherine E. T. Hutchison, MD, Oregon Health & Science University*
- 9:28 am – 9:32 am      179 - Post-Operative AMPAC Score Predicts Hospital Discharge and Future Mobility Status in Patients with Periprosthetic Distal Femur Fractures  
*Tyler Thorne, BA, University of Utah*
- 9:32 am – 9:35 am      Discussion

### **Rapid Fire Session 1B – Pediatrics**

Moderators: TBD

- 9:05 am – 9:09 am      209 - Harms Reporting in RCTs Guiding Non-Operative Treatment of DDH  
*N. Mina Hwang, University of Southern California*
- 9:09 am – 9:13 am      359 - Cervical Spine Compensation following Fusion for Adolescent Idiopathic Scoliosis

*Michael Mousselli, DO, Community Memorial Health System*

- 9:13 am – 9:17 am 59 - Intermediate Results after Vertebral Body Tethering in Progressive Juvenile Scoliosis.  
*Rolando F. Roberto, MD, Shriners Hospital Northern California*
- 9:17 am – 9:20 am Discussion
- 9:20 am – 9:24 am 281 - Postoperative Mobility following Posterior Spinal Fusion for Adolescent Idiopathic Scoliosis  
*Kali R. Tileston, MD, Stanford University*
- 9:24 am – 9:28 am 166 - Asymmetry Index from Mobile Device 3D Scanning Detects Idiopathic Scoliosis  
*John S. Vorhies, MD, Stanford University*
- 9:28 am – 9:32 am 127 - Social Deprivation and the Preoperative Experience in Pediatric Femur Fractures  
*Remy Zimmerman, Children's Hospital Orange County / Pediatric Orthopedic Specialists of Orange County*
- 9:32 am – 9:35 am Discussion

**Rapid Fire Session 1C – Shoulder/Elbow (Arthroplasty)**

Moderators: TBD

- 9:05 am – 9:09 am 352 - Evaluation of Radiographic Measures for RTSA  
*Christopher E. Clinker, BS, University of Utah School of Medicine*
- 9:09 am – 9:13 am 394 - Safety, Pharmacokinetics, and Analgesia of HTX-011 in Total Shoulder Arthroplasty  
*Michael Cusick, MD, First Surgical Hospital*
- 9:13 am – 9:17 am 153 - Patient-Reported Outcomes Comparison of ORIF vs. Reverse Total Shoulder Arthroplasty for Treatment of 3 and 4-Part Proximal Humerus Fractures  
*Lukas Foster, MD, Cedars Sinai Medical Center*
- 9:17 am – 9:20 am Discussion
- 9:20 am – 9:24 am 107 - The Relationship Between Surgeon Volume and Complication Following Total Shoulder Arthroplasty: An Evaluation of 3,467 United States Orthopaedic Surgeons

*Kevin Liu, BS, University of Southern California*

9:24 am – 9:28 am 86 - Effect of BMI on Complications following Shoulder Arthroplasty: Population-Wide Analysis  
*Cory K. Mayfield, MD, University of Southern California*

9:28 am – 9:32 am 364 - Risk Factors of Acromial Stress Fractures after Reverse Shoulder Arthroplasty  
*Favian Su, MD, University of California San Francisco*

9:32 am – 9:35 am Discussion

**Rapid Fire Session 1D – Hand/Wrist**

Moderators: TBD

9:05 am – 9:09 am 263 - Statins Linked to Tendon Fraying in Patients with CMC Arthritis  
*John B. Michaud, BA, Stanford University*

9:09 am – 9:13 am 146 - Biomechanical Comparison of FiberLock® Suspensionplasty and Flexor Carpi Radialis Ligament Reconstruction for Treatment of Thumb Carpometacarpal Osteoarthritis  
*Andrew P. Nakla, BS, Orthopaedic Biomechanics Laboratory, Congress Medical Foundation*

9:13 am – 9:17 am 293 - Infection Rates after Hand Surgery: Procedure Room vs. Operating Room  
*Kalpit N. Shah, MD, Scripps Clinic*

9:17 am – 9:20 am Discussion

9:20 am – 9:24 am 62 - Are Patient-Reported Outcome Measures for Distal Radius Fractures Validated for Spanish Language and Culture? A Systematic Review  
*Lauren A. Shapiro, MD, MS, University of California, San Francisco*

9:24 am – 9:28 am 50 - Social Determinants of Health are Associated with Increased Odds of Complications Following Distal Radius Fracture Surgical Fixation  
*Sarah Stroud, MD, University of California, San Francisco*

9:28 am – 9:32 am 370 - Midterm Outcomes of Four Corner Fusion Surgery Using Nitinol Staples  
*Mohammad Zalzaleh, DO, Loma Linda University Health*

9:32 am – 9:35 am Discussion

**Rapid Fire Session 1E – Joints (Total Hip)**

Moderators: TBD

9:05 am – 9:09 am 275 - Dual Mobility Implants in THA Decrease Dislocations but Not Survivorship  
*Richard Auran, Cedars-Sinai Medical Center*

9:09 am – 9:13 am 126 - Predicting Failure After Proximal Femoral Replacement for Salvage Hip Surgery  
*Nathaneal D. Heckmann, MD, Keck Medicine of University of Southern California*

9:13 am – 9:17 am 287 - Femoral Design Influences Risk of Periprosthetic Fracture after Total Hip Arthroplasty  
*Mackenzie Kelly, MD, Oregon Health & Science University*

9:17 am – 9:20 am Discussion

9:20 am – 9:24 am 288 - Cemented Femoral Fixation Reduces Risk of Periprosthetic Femur Fracture after Total Hip Arthroplasty  
*Mackenzie Kelly, MD, Oregon Health & Science University*

9:24 am – 9:28 am 202 - Cost-Effectiveness: Fixation vs. Acute Total Hip Arthroplasty for Acetabulum Fractures  
*Bailey Mooney, BS, David Geffen School of Medicine at UCLA*

9:28 am – 9:32 am 243 - Periprosthetic Fractures: A Rising Tide of Total Hip Arthroplasty failures noted in the American Joint Replacement Registry and the role of Cemented Stems in preventing them  
*Adam A. Sassoon, MD, University of California, Los Angeles*

9:32 am – 9:35 am Discussion

9:35 am – 9:55 am *Break – Please visit exhibits*

**General Session 2 – OREF/WOF Young Investigator Awards**

Moderators: Justin Haller, MD, *University of Utah*  
John A. Scolaro, MD, *University of California, Irvine*

9:55 am – 10:02 am 210 - Tranexamic Acid is Associated with Improved Outcomes Even in High-Risk Total Joint Arthroplasty Patients  
*Nathaneal D. Heckmann, MD, Keck Medicine of University of Southern California*

10:02 am – 10:09 am 349 - Outcomes of Biceps Tenodesis with ORIF for Proximal Humeral Fractures  
*Joshua Langberg, BA, Cedars-Sinai Medical Center*

10:09 am – 10:16 am 37 - Detrimental Effects of Chlorhexidine Irrigation on Articular Cartilage Viability, Matrix, and Mechanics  
*Dean Wang, MD, University of California Irvine*

10:16 am – 10:24 am Discussion

### **Symposium 2 – Personalized Medicine in Spine Surgery**

Moderator: Vikas Patel, MD, *University of Colorado*

10:25 am – 11:25 am Speakers: *Christopher J. Kleck, MD, University of Colorado*  
*Evalina Burger, MD, University of Colorado*  
*David C. Ou-Yang, MD, University of Colorado*  
*Nitin N. Bhatia, MD, University of California, Irvine*  
*Sigurd H. Berven, MD, University of California, San Francisco*

11:25 am – 11:45 am Break – Please visit exhibits

### **General Session 3 – WOF Report, Presidential Address, Presidential Guest Speaker**

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

*\*CME credit not available*

11:45 am – 11:50 am Report of the Western Orthopaedic Foundation  
*Robert R. Slater Jr., MD, Folsom, CA*

11:50 am – 12:00 pm Presidential Address  
*Nitin N. Bhatia, MD, University of California, Irvine*

12:00 pm – 12:45 pm Presidential Guest Speaker: Equity, Diversity, and Inclusion in Orthopaedics  
*Ramon L. Jimenez, MD, Salinas, CA*

12:45 am – 1:15 pm **Focused Lunch Presentation**  
*\*CME credit not available*

## **Rapid Fire Session 2A – Trauma (Hip/Femur)**

Moderators: TBD

- 1:20 pm – 1:24 pm                      90 - Comparison of Software-Assisted and Freehand Methods of Femoral Malrotation Correction  
*Christian Blough, MD, Cedars Sinai Medical Center*
- 1:24 pm – 1:28 pm                      57 - Opioid Use Disorder Predicts Increased Perioperative Opioids Following Intramedullary Nailing  
*William Curtis, MD, University of New Mexico*
- 1:28 pm – 1:32 pm                      121 - Predictors of Failure in Reverse Obliquity Intertrochanteric Femur Fractures  
*Christian Gonzalez, BS, University of Reno, Nevada School of Medicine*
- 1:32 pm – 1:35 pm                      Discussion
- 1:35 pm – 1:39 pm                      92 - Revisions Rates of Hip Fracture Surgery in Dialysis Patients  
*Kevin Huang, MS, Cedars Sinai Medical Center*
- 1:39 pm – 1:43 pm                      262 - Hemodilution and Avoidable Blood Transfusions: Are We Over-Resuscitating Patients After Hip Fracture Surgery?  
*Erik N. Mayer, MD, University of California, Los Angeles*
- 1:43 pm – 1:47 pm                      154 - All Antegrade Femoral Nails Should Begin Medial to the Greater Trochanter  
*Jawad Najdawi, MD, Cedars Sinai Medical Center*
- 1:47 pm – 1:50 pm                      Discussion

## **Rapid Fire Session 2B – Foot/Ankle**

Moderators: TBD

- 1:20 pm – 1:24 pm                      236 - Describing the Combined Talus and Sustentaculum Fracture: A Case Series  
*Joshua Daryoush, MD, University of Utah*
- 1:24 pm – 1:28 pm                      142 - Metatarsal Phalangeal Joint Contact Characteristics Following Osteochondral Defect Repairs  
*Aaron Hui, BS, Albert Einstein College of Medicine; Orthopaedic Biomechanics Laboratory, Congress Medical*

- 1:28 pm – 1:32 pm 270 - Effect of External Fixation on Entrapped Structures in Pilon Fractures  
*Avinaash Korrapati, University of California, San Diego*
- 1:32 pm – 1:35 pm Discussion
- 1:35 pm – 1:39 pm 319 - LisFranc Injuries: Internal Brace vs. Screw Fixation, A Biomechanical Study  
*Natalia McIver, University of New Mexico*
- 1:39 pm – 1:43 pm 119 - Impact of Social Deprivation on Foot and Ankle Patient Outcomes  
*Devon Nixon, MD, University of Utah*
- 1:43 pm – 1:47 pm 237 - Return to the Operating Room Following Talus Fractures: Indications for Re-Operation and Associated Risk Factors  
*Eleanor Sato, MD, University of Utah*
- 1:47 pm – 1:50 pm Discussion

### **Rapid Fire Session 2C – Sarcoma**

Moderators: TBD

- 1:20 pm – 1:24 pm 143 - Use of Surgical Adjuvants Does Not Decrease Recurrence of Aneurysmal Bone Cysts in Surgical Intervention with Pediatric Patients  
*Alexander B. Christ, MD, Children's Hospital Los Angeles*
- 1:24 pm – 1:28 pm 4 - Gait Outcomes following Proximal Femoral Tumor Resection and Endoprosthetic Reconstruction  
*Jennifer Kallini, MD, UCLA Orthopaedic Surgery*
- 1:28 pm – 1:32 pm 326 - Complication Rates and Economic Impact of Primary vs. Oncologic Total Hip Arthroplasty  
*Varun Ravi, BBA, The University of Texas Southwestern Medical School*
- 1:32 pm – 1:35 pm Discussion
- 1:35 pm – 1:39 pm 279 - Postoperative Infection and One-Year Progression-Free Survival following Limb Salvage Surgery  
*Camille Sullivan, MD, PhD, University of California, San Francisco*



1:39 pm – 1:43 pm	318 - The Reamer-Irrigator-Aspirator Decreases Operative Times in Pathologic Femoral Fracture Fixation <i>Tina Tran, BS, Oregon Health and Science University</i>
1:43 pm – 1:47 pm	<b>WOA/WOF Thomas G. Grace, MD Travel Grant Award</b> 320 - Analysis of Referrals in Unplanned Excisions of Soft Tissue Sarcomas <i>Clare E. Wise, BS, Stanford University School of Medicine</i>
1:47 pm – 1:50 pm	Discussion
<b>Rapid Fire Session 2D – General</b> Moderators: TBD	
1:20 pm – 1:24 pm	313 - Qualitatively Evaluating the Cross-Cultural Adaptability of PROMs in Costa Rica <i>Samuel Castro, Stanford University Medical Center</i>
1:24 pm – 1:28 pm	246 - Increased Risk for Venous Thromboembolic Events in Patients undergoing Pelvis and Lower Extremity Fracture Fixation within Two Weeks of COVID-19 Infection <i>Justin P. Chan, MD, University of California, Irvine</i>
1:28 pm – 1:32 pm	363 - Defining Statistical Fragility in Orthopaedic Surgery <i>Cooper Ehlers, BS, Georgetown University School of Medicine</i>
1:32 pm – 1:35 pm	Discussion
1:35 pm – 1:39 pm	323 - Gender Disparities in Orthopedic Surgery Publication Citations <i>Alyssa K. Ishimoto, BS, Mayo Clinic Alix School of Medicine</i>
1:39 pm – 1:43 pm	11 - COVID-19 Pandemic's Impact on Pharmacologic Treatment on Newly Diagnosed Osteoporosis <i>Hai V. Le, MD, MPH, University of California, Davis</i>
1:43 pm – 1:47 pm	17 - Capacity Assessment Tool to Promote Capacity Building in Global Orthopaedic Surgical Outreach

*Lauren A. Shapiro, MD, MS, University of California, San Francisco*

1:47 pm – 1:50 pm

Discussion

**Rapid Fire Session 2E – Spine**

Moderators: TBD

1:20 pm – 1:24 pm

325 - The Use of Liposomal Bupivacaine Injection after 1 or 2 Level Lumbar Fusion Improves Post-Operative Management  
*Joseph Bigham, BS, Univ. of Washington School of Medicine*

1:24 pm – 1:28 pm

208 - Treatment of Lumbar Spinal Spondylolisthesis with Posterolateral Fusion vs. Combined Posterolateral/Transforaminal or Anterior/Lateral Interbody Fusion  
*Paramveer Birring, BS, University of California, Irvine*

1:28 pm – 1:32 pm

392 - Posterior Lumbar Interbody Fusion Patients on Pre-operative Methadone  
*Emily Burney, BS, Oregon Health & Science University*

1:32 pm – 1:35 pm

Discussion

1:35 pm – 1:39 pm

303 - Random Forest Identifies Predictors for Discharge to Facility after ACDF  
*Jun H. Chung, MD, Loma Linda University Medical Center*

1:39 pm – 1:43 pm

350 - Anterior Odontoid Screw Fixation Failure Rate And Risk Factors  
*Yichen Fan, BS, Oregon Health & Science University*

1:43 pm – 1:47 pm

327 - Social Determinants of Health Associated with Lower Patient-Reported Outcomes in Lumbar Spine Patients  
*Jennifer M. O'Donnell, MD, University of California, San Francisco*

1:47 pm – 1:50 pm

Discussion

**Symposium 3 – Early Practitioner Symposia**

Moderator: TBD

1:55 pm – 2:55 pm

Titles and Speakers

3:00 pm – 4:30 pm

**Scientific Poster/E-Poster Session** (Presenters are available to answer questions)

## **Friday, August 4<sup>th</sup>**

6:00 am – 7:00 am

**Scientific Poster/E-Poster Session** (Presenters are available to answer questions)

7:00 am – 7:05 am

### **Announcements**

*Justin Haller, MD, University of Utah*

*John A. Scolaro, MD, University of California, Irvine*

### **Symposium 4 – Emerging Trends in Hand Surgery**

Moderator: Jerry Huang, MD, *University of Washington*

7:05 am – 7:15 am

Intramedullary Screw Fixation for Metacarpal and Phalangeal Fractures

*Gregory Rafijah, MD, University of California, Irvine*

7:15 am – 7:25 am

WALANT: From ASC to Office for Simple Hand Procedures

*Leo T. Kroonen, MD, FAAOS, Kaiser Permanente San Diego*

7:25 am – 7:35 am

Management of Soft Tissue Defects in Hand and Wrist: Flaps and Biomatrix

*Luke Nicholson, MD, University of Southern California*

7:35 am – 7:45 am

Spanning Bridge Plate to the Rescue: Indications and Surgical Pearls

*Alexander Lauder, MD, University of Colorado, Denver*

7:45 am – 7:55 am

What's New in Treatment of Scaphoid Nonunions?

*Chelsea C. Boe, MD, University of Washington*

7:55 am – 8:05 am

Questions and Discussion

### **General Session 4 – Wellness in Orthopaedic Surgery**

Moderators: Justin Haller, MD, *University of Utah*

John A. Scolaro, MD, *University of California, Irvine*

*\*CME credit not available*

8:05 am – 8:35 am

Wellness in Orthopaedic Surgery

*Carla Smith, MD, St. Luke's*

8:35 am – 9:05 am

**Focused Breakfast Presentation**

*\*CME credit not available*

**Rapid Fire Session 3A – Trauma (Tibia/Tibial Plateau)**

Moderators: TBD

9:10 am – 9:40 am

**WOA/WOF Jeanette Boakes, MD & David Rives Travel Grant Award**

266 - Stimulant Use Associated with Infection After Tibial Shaft Fractures Nailing  
*Catherine E. T. Hutchison, MD, Oregon Health & Science University*

9:09 am – 9:13 am

254 - Danger Zone in Anterolateral Plate Fixation of the Distal Tibia  
*Brendon C. Mitchell, MD, University of California, San Diego*

9:13 am – 9:17 am

180 - Varus Hyperextension Pattern of Tibial Plateau Fractures Result in Worse Patient Reported Outcomes in Mid-Term Follow-up  
*Dillon C. O'Neill, MD, University of Utah*

9:17 am – 9:20 am

Discussion

9:20 am – 9:24 am

276 - Patient Reported Outcomes following Acute Compartment Syndrome in Tibial Plateau Fractures  
*Dillon C. O'Neill, MD, University of Utah*

9:24 am – 9:28 am

149 - Fibular Displacement Predicts Tibial Malrotation in Simulated Tibia-Fibula Fractures  
*Abrianna S. Robles, BS, Cedars Sinai Medical Center*

9:28 am – 9:32 am

**WOA/WOF Robert R. Slater Jr., MD Travel Grant Award**

181 - Meniscus Tear Requiring Intra-Operative Repair does not Influence Mid-Term Patient Reported Outcomes in Operatively Treated Tibial Plateau Fractures  
*Eleanor Sato, MD, University of Utah*

9:10 am – 9:40 am

Discussion

9:40 am – 10:00 am

*Break – Please visit exhibits*

### **Rapid Fire Session 3B – Basic Science**

Moderators: TBD

- 9:10 am – 9:40 am 139 - Tibiofemoral Contact Mechanics Following A Novel Hybrid Procedure for Femoral Osteochondral Defect Repairs with a Subchondral Implant and Dermal Matrix  
*Victor T. Hung, BS, Orthopaedic Biomechanics Laboratory, Congress Medical Foundation*
- 9:09 am – 9:13 am 198 - Human Bone Marrow vs. Adipose Derived Stem Cells: Influence of Donor Characteristics on Expandability and Implications for Osteogenic Ex-Vivo Regional Gene Therapy  
*Elizabeth Lechtholz-Zey, University of Southern California*
- 9:13 am – 9:17 am 29 - The Results of 16S DNA-NexGen Sequencing (NGS) in Culture-Negative PJI  
*Gerhard E. Maale, MD, Dallas Ft. Worth Sarcoma Group/Medical City Plano*
- 9:17 am – 9:20 am Discussion
- 9:20 am – 9:24 am 167 - No Difference in Chondrocyte Viability Using Manual vs. Custom-Cutting Technique for Matrix-Induced Autologous Chondrocyte Implantation (MACI)  
*Seth L. Sherman, MD, Stanford University*
- 9:24 am – 9:28 am 93 - Extended-Release vs. Immediate-Release Triamcinolone Acetonide for Osteoarthritis with Comorbid Diabetes  
*Andrew I. Spitzer, MD, Cedars-Sinai Orthopaedic Center*
- 9:28 am – 9:32 am 135 - Novel Bone-Screw-Fastener has Greater Maximum Force Prior to Loss of Screw Purchase Compared to Traditional Screws in Metaphyseal Cadaver Bone  
*Tyler Thorne, University of Utah*
- 9:10 am – 9:40 am Discussion
- 9:40 am – 10:00 am *Break – Please visit exhibits*

### **Rapid Fire Session 3C – Spine (Cervical)**

Moderators: TBD

- 9:10 am – 9:40 am 207 - Noncontiguous Simultaneous Decompression for the Treatment of Tandem Cervical and Lumbar Spinal Stenosis

*Paramveer Birring, BS, University of California, Irvine*

- 9:09 am – 9:13 am 21 - Cervical Disc Arthroplasty vs. Fusion: Cohort Analysis of 143 Patients.  
*Robert F. McLain, MD, Beachwood Medical Center*
- 9:13 am – 9:17 am 259 - Unilateral Cervical Spine Facet Fractures: Radiographic Predictors of Instability  
*Mark Prasarn, MD, The University of Texas Health Science Center at Houston*
- 9:17 am – 9:20 am Discussion
- 9:20 am – 9:24 am 157 - A Retrospective Review of Laminoplasty Using Bone Grafts and Plates  
*Rolando F. Roberto, MD, Shriners Hospital Northern California*
- 9:24 am – 9:28 am 280 - Graft Positioning and Pseudarthrosis in Anterior Cervical Discectomy and Fusion  
*Soroush Shabani, BS, USC Keck School of Medicine*
- 9:28 am – 9:32 am 10 - Surgical Management of Degenerative Cervical Myelopathy: Comparing Outcomes Between Patients Admitted Through Clinic vs. Emergency Department  
*Jared Watson, MD, University of California, Davis*
- 9:10 am – 9:40 am Discussion
- 9:40 am – 10:00 am *Break – Please visit exhibits*

**Rapid Fire Session 3D – Joints**

Moderators: TBD

- 9:10 am – 9:40 am 261 - Trends in Adoption of Dual Mobility Implants in Primary THA  
*Richard Auran, Cedars-Sinai Medical Center*
- 9:09 am – 9:13 am 376 - Visceral Fat as a Risk Factor for Periprosthetic Joint Infection after Total Hip and Knee Arthroplasty  
*Amy Z. Blackburn, Harvard University*
- 9:13 am – 9:17 am 79 - Disparities in Time to Treatment and Type of Treatment for Hip Osteoarthritis Based on Insurance Type  
*Aritra Chakraborty, BS, Stanford University*

- 9:17 am – 9:20 am Discussion
- 9:20 am – 9:24 am 387 - Comparative Analysis of UKA and HTO: Time to TKA and Other Outcome Measures  
*Dang-Huy Do, BA, Texas Scottish Rite Hospital*
- 9:24 am – 9:28 am 286 - Collared Stems Reduce Risk of Periprosthetic Fracture after Total Hip Arthroplasty  
*Mackenzie Kelly, MD, Oregon Health & Science University*
- 9:28 am – 9:32 am 289 - Fibromyalgia Increases Post-Operative Healthcare Utilization Following Total Hip Arthroplasty  
*Aidan Morell, Oregon Health & Science University*
- 9:10 am – 9:40 am Discussion
- 9:40 am – 10:00 am *Break – Please visit exhibits*

### **Rapid Fire Session 3E – Shoulder/Elbow/Upper Extremity**

Moderators: TBD

- 9:10 am – 9:40 am 316 - The Boyd Approach: A Valid Alternative for Elbow Trauma  
*Alfonso E. Ayala, MD, Kirk Kerkorian School of Medicine at UNLV*
- 9:09 am – 9:13 am 144 - The Elbow Ulnar Collateral Ligament Complex Demonstrates Region Specific Stretching and Recovery Characteristics with Valgus Loading  
*Daniel Kwak, BA, Orthopaedic Biomechanics Laboratory, Congress Medical Foundation*
- 9:13 am – 9:17 am 332 - Upper Extremity Injury Patterns Unique to Utility Terrain Off-Road Vehicles  
*SeHoon Park, MD, Kirk Kerkorian School of Medicine at UNLV*
- 9:17 am – 9:20 am Discussion
- 9:20 am – 9:24 am 106 - Recovery Roadmap for Functional Bracing of Humeral Shaft Fractures  
*Zachary A. Rockov, MD, Cedars-Sinai Medical Center*
- 9:24 am – 9:28 am 331 - Radial Styloid Approach for Management of Distal Radius Fractures

*Maksim Rusev, MA, Washington State University, Elson S. Floyd College of Medicine*

9:28 am – 9:32 am                      173 - The Pressure is On: Dorsal vs. Volar Univalves for Long Arm Casts  
*Dallyn Udall, Children's Hospital Orange County / Pediatric Orthopedic Specialists of Orange County*

9:10 am – 9:40 am                      Discussion

*9:40 am – 10:00 am                      Break – Please visit exhibits*

### **Symposium 5 – Sports Medicine**

Moderator:    Dean Wang, MD, *University of California, Irvine*

10:00 am – 10:10 am                      New Advances in Pediatric ACL Treatment  
*John Schlechter, DO, Children's Hospital Orange County*

10:11 am – 10:21am                      LET/ALL  
*Jonathan Godin, MD, The Steadman Clinic*

10:22 am – 10:30 am                      Questions and Case Presentations

10:31am – 10:41 am                      Advanced Techniques in Meniscus Management: Cases and Clinical Outcomes  
*Mia Hagen, MD, University of Washington*

10:42 am – 10:52 am                      Cartilage Repair  
*Drew Lansdown, MD, University of California, San Francisco*

10:53 am – 11:05 am                      Questions and Case Presentations

*11:05 am – 11:25 am                      Break – Please visit exhibits*

### **General Session 5 – Academy and Board Reports**

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

*\*CME credit not available*

11:25 am – 11:30 am                      OREF Report  
*Lee Grossman, OREF*

11:30 am – 11:40 am                      ABOS Report  
*Lisa A. Taitzman, MD, MPH, University of Washington*

11:40 am – 11:55 am                      AAOS Report



*Kevin J. Bozic, MD, MBA, University of Texas, Austin*

11:55 am – 12:25 pm

**Focused Lunch Presentation**

*\*CME credit not available*

**Rapid Fire Session 4A – Trauma (Reconstruction)**

Moderators: TBD

12:30 pm – 12:34 pm

151 - Magnetic Compression Nailing for Long Bone Nonunion

*Kevin Huang, MS, Cedars Sinai Medical Center*

12:34 pm – 12:38 pm

274 - Familial Analysis of Nonunion Demonstrates No Evidence of Heritable Risk

*Adam H. Kantor, MD, MBA, University of Utah*

12:38 pm – 12:42 pm

346 - 3D Mapping Comparisons of Native and Periprosthetic Distal Femur Fractures

*Judas Z. Kelley, MD, UC Davis Medical Center*

12:42 pm – 12:45 pm

Discussion

12:45 pm – 12:49 pm

49 - Injuries Sustained with Falls from Height in Crossing the U.S.-Mexico Border at a Level I Trauma Center: A Prospective Cohort Study

*Alexis B. Sandler, MD, William Beaumont Army Medical Center*

12:49 pm – 12:53 pm

245 - Opioids and NSAIDs Have Similar Associations with Nonunion Following Geriatric Fracture

*Lillia Steffenson, MD, University of Utah*

12:53 pm – 12:57 pm

244 - Predictors of Graft Creep in Induced Membrane Technique

*Tyler Thorne, BA, University of Utah*

12:57 pm – 1:00 pm

Discussion

**Rapid Fire Session 4B – Sports**

Moderators: TBD

12:30 pm – 12:34 pm

96 - Biomechanical Characterization of Isolated Acromioclavicular Joint Stability

*Gregory Adamson, MD, Orthopaedic Biomechanics Laboratory, Congress Medical Foundation*

- 12:34 pm – 12:38 pm      **WOA/WOF Jeffrey M. Nakano, MD Travel Grant Award**  
304 - Effectiveness of Dynamic Ultrasound with Iliopsoas Peritendinous Corticosteroid Injection for Internal Snapping Hip  
*Daniel Chiou, MD, University of California, Los Angeles*
- 12:38 pm – 12:42 pm      147 - Biomechanical Effect of AIGHL Reconstruction for Bankart Lesion in Thrower’s Shoulder  
*Min-Shik Chung, BS, Orthopaedic Biomechanics Laboratory, Congress Medical Foundation*
- 12:42 pm – 12:45 pm      Discussion
- 12:45 pm – 12:49 pm      116 - Reverse Total Shoulder Arthroplasty for Rotator Cuff Arthropathy vs. Osteoarthritis: Matched Cohort Analysis using the Premier Database  
*Cory K. Mayfield, MD, University of Southern California*
- 12:49 pm – 12:53 pm      124 - The LOBO Classification: Can We Agree on the Biceps Tendon?  
*Christopher Shultz, MD, University of New Mexico*
- 12:53 pm – 12:57 pm      339 - Multi-Institutional Outcomes Following Arthroscopic Treatment of Femoroacetabular Impingement  
*Andrew Spencer, University of Washington*
- 12:57 pm – 1:00 pm      Discussion
- Rapid Fire Session 4C – Joints (Total Knee)**  
Moderators: TBD
- 12:30 pm – 12:34 pm      168 - Outcomes of primary total knee arthroplasty among Native American patient population  
*Cesar Cardenas, MD, University of New Mexico*
- 12:34 pm – 12:38 pm      366 - Utilization, effectiveness, and interest in Topical Cannabidiol amongst patients with arthritis  
*Matthew Cherches, MD, University of California, San Francisco*
- 12:38 pm – 12:42 pm      67 - Stacked Metaphyseal Cones for the Treatment of Extensive Tibial Bone Loss in Revision Total Knee Arthroplasty: A Case Series of 20 Patients  
*Nathaneal D. Heckmann, MD, Keck Medicine of University of Southern California*

12:42 pm – 12:45 pm	Discussion
12:45 pm – 12:49 pm	169 - Complications of total knee arthroplasty among patients with pre-existing orthopaedic implants <i>Cesar Cardenas, MD, University of New Mexico</i>
12:49 pm – 12:53 pm	225 - Lower Revision Risk with All-Polyethylene Tibial Components in Total Knee Arthroplasty: An Analysis of The American Joint Replacement Registry <i>Adam A. Sassoon, MD, University of California, Los Angeles</i>
12:53 pm – 12:57 pm	213 - Unicompartmental Knee Arthroplasty and Periarticular Knee Osteotomy Among ABOS Part II Exam Candidates <i>Eric Smith, MD, University of California, Irvine</i>
12:57 pm – 1:00 pm	Discussion
<b>Rapid Fire Session 4D – Spine</b>	
Moderators: TBD	
12:30 pm – 12:34 pm	393 - Safety, Pharmacokinetics, and Analgesic Activity of HTX-011 in Spinal Surgery <i>Paul Geibel, MD, South Texas Spine and Surgical Hospital</i>
12:34 pm – 12:38 pm	9 - COVID-19 Pandemic's Impact on Osteoporosis Screening Using Dual-Energy X-Ray Absorptiometry <i>Hai V. Le, MD, MPH, University of California, Davis</i>
12:38 pm – 12:42 pm	238 - Revision Discectomies Following Primary Lumbar Microdiscectomy: Predictors and Postoperative Complications <i>Andy Ton, BS, USC Keck School of Medicine</i>
12:42 pm – 12:45 pm	Discussion
12:45 pm – 12:49 pm	278 - Coronal Anatomy of the Lumbar Plexus: Implications for Lateral Lumbar Interbody Fusion <i>Luiz Pimenta, USC Keck School of Medicine</i>
12:49 pm – 12:53 pm	272 - Kinetic Analysis of Structural Parameters in Degenerative Lumbar Spondylolisthesis <i>Andy Ton, BS, USC Keck School of Medicine</i>

12:53 pm – 12:57 pm 164 - CT Modeling Demonstrates Feasibility of S1AI Screw Trajectory for Spinopelvic Fixation  
*John S. Vorhies, MD, Stanford University*

12:57 pm – 1:00 pm Discussion

#### **Rapid Fire Session 4E – Pediatrics**

Moderators: TBD

12:30 pm – 12:34 pm 377 - Neutrophil-to-Lymphocyte Ratio as a Diagnostic Tool for Pediatric Musculoskeletal Infections  
*William F. Hefley, BS, Vanderbilt University School of Medicine*

12:34 pm – 12:38 pm 250 - Outcomes of Percutaneous Tendo-achilles Lengthening in Adolescent Idiopathic Toe-Walking Patients  
*Stephanie T. Kha, MD, Stanford University*

12:38 pm – 12:42 pm 171 - Arthrofibrosis Following Pediatric Anterior Cruciate Reconstruction with Quadriceps Bone-Block Autograft  
*Remy Zimmerman, Children's Hospital Orange County / Pediatric Orthopedic Specialists of Orange County*

12:42 pm – 12:45 pm Discussion

12:45 pm – 12:49 pm 283 - Femoral Deformity Alters Hip Contact Mechanics in Dysplastic Hips  
*Stephanie Pun, MD, Stanford University*

12:49 pm – 12:53 pm 260 - Orthopaedic Treatment of Pediatric Gunshot Injuries  
*Alex Villegas, BS, University of California Davis and Shriners Children's Hospital Northern California*

12:53 pm – 12:57 pm 172 - Long-Term Effects of Screw Retention in Distal Tibial Epiphyseal Fractures  
*Remy Zimmerman, Children's Hospital Orange County / Pediatric Orthopedic Specialists of Orange County*

12:57 pm – 1:00 pm Discussion

#### **Symposium 6 – Sarcoma Shakespeare: Classic Knowledge and Intellectual Theatre!**

Moderators: James H. Flint, MD, *Naval Medical Center San Diego*  
Russell N. Stitzlein, MD, *University of California, Irvine*

#### **Part 1: “Parting is Such Sweet Sorrow”: Knowing When to Refer to a Sarcoma Specialist**

Moderator: James H. Flint, MD, *Naval Medical Center San Diego*

1:05 pm – 1:10 pm                      Who Can Help?  
*James H. Flint, MD, Naval Medical Center San Diego*

1:10 pm – 1:17 pm                      Bone and Soft Tissue Sarcoma: Why Referral Matters!  
*Valerae O. Lewis, MD, MD Anderson Cancer Center*

1:17 pm – 1:24 pm                      “Thank You for this Interesting Consult!”  
*Cynthia M. Kelly, MD, OrthoOne*

1:24 pm – 1:30 pm                      Questions and Discussion

**Part 2: “To Nail or Not to Nail, that is the Question!”**

Moderator: Russell N. Stitzlein, MD, *University of California, Irvine*

1:30 pm – 1:55 pm                      Panel Discussion: “Should I Nail That?”/“Should Anyone  
Nail That?”

Panel: *David H. Chafey, MD, University of New Mexico*  
*Erika L. Garbrecht, MD, University of New Mexico*  
*Amy K. Williams, MD, Miller Children’s Hospital*

1:55 pm – 2:05 pm                      Open Forum and Discussion

2:05 pm – 3:05 pm                      **Scientific Poster/E-Poster Session** (Presenters are  
available to answer questions)

**Saturday, August 5<sup>th</sup>**

6:00 am – 7:00 am                      **Scientific Poster/E-Poster Session** (Presenters are  
available to answer questions)

6:55 am – 7:00 am                      **Announcements**  
*Justin Haller, MD, University of Utah*  
*John A. Scolaro, MD, University of California, Irvine*

**Symposium 7 – Kinematic Alignment in TKA: What that Means to Me and the Tools I Use  
to Get There – A Video-Based Technique Symposium**

Moderator: Jeremy Gililland, MD, *University of Utah*

7:00 am – 7:12 am                      The Kinematic TKA with Manual Instruments and Gap  
Balancing  
*Jeremy Gililland, MD, University of Utah*

- 7:12 am– 7:24 am                      The Kinematic TKA with Calipered Cuts  
*Lucas Anderson, MD, University of Utah*
- 7:24 am – 7:36 am                      The Kinematic TKA with Navigation Assistance  
*Ryland P. Kagan, MD, Oregon Health and Science  
University*
- 7:36 am – 7:48 am                      The Kinematic TKA with Robotic Assistance  
*Timothy P. Lovell, MD, Providence Orthopedics and Sports  
Medicine*
- 7:48 am – 8:00 am                      Discussion

**General Session 6 – Role of Social Media in Orthopaedics**

*\*CME credit not available*

- 8:00 am – 8:30 am                      **Role of Social Media in Orthopaedics**  
*Christopher McCrum, MD, Samaritan Athletic Medicine  
Center*
- 8:30 am – 9:00 am                      **Focused Breakfast Presentation**  
*\*CME credit not available*

**Rapid Fire Session 5A – Trauma (Pelvis/Acetabulum)**

Moderators:    TBD

- 9:05 am – 9:09 am                      374 - Operative Rates and Fracture Patterns in Dysmorphic  
Sacrum  
*Alejandro Alejandrez, BS, University of California, San  
Francisco*
- 9:09 am – 9:13 am                      256 - Early Post-Treatment PROMIS Measures among  
Pelvic and Acetabular Fracture Patients  
*Amy M. Cizik, PhD, MPH, University of Utah*
- 9:13 am – 9:17 am                      335 - L5-S1 Facet Joint Involvement in Pelvic Ring  
Injuries  
*Nicholas C. Danford, MD, Harborview Medical Center  
\*Presented by Suzanna M. Ohlsen, MD*
- 9:17 am – 9:21 am                      249 - Rates of Vaginal vs. Cesarean Delivery after Pelvic  
Ring Fixation  
*Catherine E. T. Hutchison, MD, Oregon Health & Science  
University*

9:21 am – 9:25 am	369 - Fever is Not Associated with Increased Complications After Pelvic Surgery <i>Kamran Movassaghi, MD, University of California, San Francisco</i>
9:25 am – 9:29 am	368 - Surgical Acetabular Fractures: Complications and Reoperation Risks in Older Patients <i>Paal K. Nilssen, BA, Cedars-Sinai Medical Center</i>
9:29 am – 9:35 am	Discussion
9:35 am – 9:39 am	15 - Body Mass Index Predicts Early Complications After Acetabular Fracture <i>Julian Wier, BS, Keck School of Medicine</i>
9:39 am – 9:43 am	258 - Fully Threaded vs. Partially Threaded Iliosacral Screws Biomechanical Superiority Study <i>Mark Prasarn, MD, The University of Texas Health Science Center at Houston</i>
9:43 am – 9:47 am	132 - Trajectory of Patient Reported Outcomes and Minimal Clinically Important Differences in Isolated and Polytraumatic Pelvis and Acetabular Fractures <i>Tyler Thorne, University of Utah</i>
9:47 am – 9:51 am	192 - Biomechanical Analysis of a Modified Triangular Osteosynthesis Technique <i>Wyatt D. Vander Voort, MD, University of California, Davis</i>
9:51 am – 9:55 am	16 - Cirrhosis is Associated with Complications After Operatively Treated Acetabular Fractures <i>Julian Wier, BS, Keck School of Medicine</i>
9:55 am – 9:59 am	156 - Patient-Reported and Clinical Outcomes of Patients with U-type Sacral Fractures <i>Adam Wright-Chisem, Cedars Sinai Medical Center</i>
9:59 am – 10:05 am	Discussion
10:05 am – 10:30 am	Break – Please visit exhibits

**Rapid Fire Session 5B – Spine**  
Moderators: TBD

- 9:05 am – 9:09 am 312 - The Risk of Neurological Deterioration While on Neoadjuvant Denosumab in Patients with Spinal Giant Cell Tumor of Bone presenting with Epidural Disease Causing Neurological or Impending Deficit: A Meta-Analysis of The Literature  
*Humaid Al Farii, MD, MD Anderson Cancer Center*
- 9:09 am – 9:13 am 177 - Elevated Serum Alkaline Phosphatase is an Independent Predictor of Complications after Lumbar Spinal Fusion  
*Justin P. Chan, MD, University of California, Irvine*
- 9:13 am – 9:17 am 206 - Utility of a Novel Acute Spinal Cord MRI Protocol at a Level 1 Trauma Center  
*Justin P. Chan, MD, University of California, Irvine*
- 9:17 am – 9:21 am 351 - Risk Factors associated with Spontaneous Vertebral Osteomyelitis and Discitis  
*Luke Channer, Oregon Health & Science University*
- 9:21 am – 9:25 am 336 - Mind the Gap: Paramedian approach for coccygectomy  
*David Frolov, BS, Washington State University*
- 9:25 am – 9:29 am 360 - Unsatisfactory Outcomes after Spine Surgery are Associated with New-Onset Depression and Substance Abuse Disorder in the First Year After Surgery  
*Henry Hoang, BS, Montefiore Medical Center*
- 9:29 am – 9:35 am Discussion
- 9:35 am – 9:39 am 345 - Predictors for Surgical Sacroiliac Joint Fusion  
*Olivia F. Krol, BS, Oregon Health & Science University*
- 9:39 am – 9:43 am 8 - Complications and Readmissions after Surgery for Cauda Equina Syndrome  
*Hai V. Le, MD, MPH, University of California, Davis*
- 9:43 am – 9:47 am 372 - Efficacy of Postoperative Bracing after Fixation of Unstable Thoracolumbar Injuries  
*Derek L. Moody, MD, Univeristy of Texas Health Science Center*
- 9:47 am – 9:51 am 51 - Sociodemographic Characteristics of Patients Undergoing Surgery for Central Cord Syndrome  
*Dagoberto Pina, University of California, Davis*



- 9:51 am – 9:55 am 186 - Regional Variations and Utilization Trends in Sacroiliac Joint Fusion  
*Andy Ton, BS, USC Keck School of Medicine*
- 9:55 am – 9:59 am 165 - Stepwise Ponte Osteotomy: Biomechanical Pilot of a Risk-Minimizing Approach  
*John S. Vorhies, MD, Stanford University*
- 9:59 am – 10:05 am Discussion
- 10:05 am – 10:30 am *Break – Please visit exhibits*

### **Rapid Fire Session 5C – Should/Elbow**

Moderators: TBD

- 9:05 am – 9:09 am 95 - Tendon Transfer increases Internal Rotation Strength Following Lateralized Reverse Shoulder Arthroplasty with Subscapularis Insufficiency  
*Gregory Adamson, MD, Orthopaedic Biomechanics Laboratory, Congress Medical Foundation*
- 9:09 am – 9:13 am 223- Linking the Distal Humerus Columns in Articular Fracture Fixation  
*John Heifner, MD, MS, The Hand Institute*
- 9:13 am – 9:17 am 94 - Biomechanical Evaluation of the Effectiveness of Combined Latissimus Dorsi and Teres Major Tendon Transfer for Improving Active Internal Rotation Strength in Cases of Subscapularis Insufficiency Following Lateralized Reverse Shoulder Arthroplasty  
*Gyu Rim Baek, BS, Orthopaedic Biomechanics Laboratory, Congress Medical Foundation*
- 9:17 am – 9:21 am 141 - Effect of Glenoid Bone Loss and Shoulder Position on Axillary Nerve Position During Latarjet Surgery  
*Andrew Carbone, Orthopaedic Biomechanics Laboratory, Congress Medical Foundation*
- 9:21 am – 9:25 am 388 - Progression of Symptomatic Bilateral Rotator Cuff Disease  
*Christopher E. Clinker, BS, University of Utah School of Medicine*

9:25 am – 9:29 am	32 - The Current State of Online Patient Education regarding Shoulder Arthroplasty <i>Matthew T. Gulbrandsen, MD, Loma Linda University</i>
9:29 am – 9:35 am	Discussion
9:35 am – 9:39 am	56 - A Randomized Controlled Trial of Ibuprofen vs. Meloxicam for Pain Control after Shoulder Surgery <i>Jaicharan Iyengar, MD, Alpine Orthopaedic Medical Group</i>
9:39 am – 9:43 am	110 - Inferior Surgical Outcomes Following Reverse Total Shoulder Arthroplasty for Failed ORIF Compared to Acute Arthroplasty: A Matched Cohort Analysis <i>Cory K. Mayfield, MD, University of Southern California</i>
9:43 am – 9:47 am	267 - Forces Imparted on the Shoulder While Shooting Various Firearms <i>Ali Qadeer, MD, San Diego Arthroscopy &amp; Sports Medicine Program</i>
9:47 am – 9:51 am	47 - Home Health Care is Associated with an Increased Risk of ED Visit, Readmission, and Cost of Care without Reducing Risk of Complication following Shoulder Arthroplasty: A Propensity Score-Analysis <i>Sean Sequeira, BS, Union Memorial Hospital</i>
9:51 am – 9:55 am	391 - Racial Disparities in Postoperative Outcomes of Anatomic and Reverse Total Shoulder Arthroplasty <i>George Thomas, BS, George Washington University Hospital</i>
9:55 am – 9:59 am	390 - Clinical Outcomes after Revision to Subpectoral Biceps Tenodesis <i>Christopher E. Clinker, BS, University of Utah School of Medicine</i>
9:59 am – 10:05 am	Discussion
10:05 am – 10:30 am	<i>Break – Please visit exhibits</i>
<b>Rapid Fire Session 5D – Joints</b>	
Moderators: TBD	
9:05 am – 9:09 am	25 - Comparison of Total Knee Arthroplasty Outcomes Between Hemodialysis and Renal Transplant Patients

*Seth Ahlquist, MD, University of California, Los Angeles*

- 9:09 am – 9:13 am 229 - Compartment Pressures In Computer Navigated Kinematically Aligned Total Knee Arthroplasty  
*Gregory J. Harbison, MD, University of California, Davis*
- 9:13 am – 9:17 am 108 - Safety and Efficacy of Aspirin in Patients at High-Risk of Venous Thromboembolism  
*Nathaneal D. Heckmann, MD, Keck Medicine of University of Southern California*
- 9:17 am – 9:21 am 83 - Benefits of Preoperative Physical Therapy and Home Evaluation in Joint Arthroplasty  
*Brandon E. Lung, MD, University of California, Irvine*
- 9:21 am – 9:25 am 133 - Preoperative Bisphosphonate Use Does Not Decrease Periprosthetic Fracture Risk  
*Sean S. Rajaei, MD, MS, Cedars-Sinai Medical Center*
- 9:25 am – 9:29 am 242 - Postoperative Outcomes in Total Joint Arthroplasty for Patients with Multiple Myeloma  
*Mehdi S. Salimy, BS, Massachusetts General Hospital*
- 9:29 am – 9:35 am Discussion
- 9:35 am – 9:39 am 46 - Previous Extensor Mechanism Repair is Associated with Increased Rates of Lysis of Adhesions following Total Knee Arthroplasty (TKA): A Propensity Matched Analysis  
*Sean Sequeira, BS, Union Memorial Hospital*
- 9:39 am – 9:43 am 300 - Ligament Tension and Balance Before and After Robotic-Assisted Total Knee Arthroplasty - Dynamic Changes with Increasing Applied Force  
*Abhinav K. Sharma, MD, University of California, Irvine*
- 9:43 am – 9:47 am 100 - Soft-Tissue Releases in Manual and Robotic TKA: Rate and Outcomes  
*Andrew I. Spitzer, MD, Cedars-Sinai Orthopaedic Center*
- 9:47 am – 9:51 am 197 - Misuse of Minimum Clinically Important Differences is Prevalent in Total Knee Arthroplasty  
*Jens Verhey, MD, Mayo Clinic Arizona*
- 9:51 am – 9:55 am 290 - Is Timing of Total Hip Arthroplasty and Lumbar Spine Fusion Associated with Risk of Hip Dislocation?  
*Sebastian Welling, Oregon Health & Science University*

9:55 am – 9:59 am 247 - Timing of Elective Total Joint Arthroplasty after COVID-19 Infection: When is it Safe to Proceed?  
*Justin P. Chan, MD, University of California, Irvine*

9:59 am – 10:05 am Discussion

10:05 am – 10:30 am Break – Please visit exhibits

### **Rapid Fire Session 5E – Sports**

Moderators: TBD

9:05 am – 9:09 am 63 - Reliability of Posterior Tibial Slope Measurement on Magnetic Resonance Imaging vs. Computed Tomography  
*Hunter L. Bohlen, MD, University of California Irvine*

9:09 am – 9:13 am 328 - CURES effect on Narcotic Prescriptions after ACL and Meniscus Surgery  
*Damien Cannon, MD, LLU Orthopedics*

9:13 am – 9:17 am 257 - MRI Reliability Identifying Medial Patellotibial Ligaments and Medial Patellomeniscal Ligaments  
*Paulo Castaneda, BSE, University of Arizona College of Medicine, Phoenix*

9:17 am – 9:21 am 294 - Effect of Subacromial Epinephrine Injection on Visualization during Shoulder Arthroscopy  
*Shawn D. Feinstein, MD*

9:21 am – 9:25 am 330 - Delayed Hip Arthroscopy Increases 2-Year Risk of Revision Surgery  
*Ryan D. Freshman, MD, University of California, San Francisco*

9:25 am – 9:29 am 65 - Increasing Trend in Brazilian Jiu Jitsu Injuries Presenting to U.S. Emergency Departments and an Injury Profile – A 10-Year Analysis.  
*Morgan Hasegawa, MD, University of Hawai'i*

9:29 am – 9:35 am Discussion

9:35 am – 9:39 am 14 - Early Complication Rates After Arthroscopic Meniscus Repair vs. Meniscectomy  
*Wilson C. Lai, MD, UC Irvine Medical Center*

- 9:39 am – 9:43 am 178 - Postoperative Body Composition in NCAA Division I Collegiate Athletes  
*Thomas E. Olson, MD, University of California, Los Angeles*
- 9:43 am – 9:47 am 314 - Tibial Tubercle Overgrowth Correlates with Posterior Tibial Slope: A Novel Radiographic Assessment  
*Reece M. Rosenthal, BS, University of Utah*
- 9:47 am – 9:51 am 1 - The Impact of Shoe Type on Ankle Injuries in Basketball  
*Patrick J. Tansey, MD, University of Texas Medical Branch*
- 9:51 am – 9:55 am 307 - Opioid Consumption after Rotator Cuff Repair and Regional Anesthesia  
*Akshar P. Thakkar, BS, Northwestern Medicine*
- 9:55 am – 9:59 am 2 - The Prevalence of Spin Bias in Meniscal Allograft Transplant Research  
*Matthew T. Gulbrandsen, MD, Loma Linda University*
- 9:59 am – 10:05 am Discussion
- 10:05 am – 10:30 am *Break – Please visit exhibits*
- General Session 7 – WOF Endowed Resident and Fellows Award**  
Moderator: Justin Haller, MD, *University of Utah*  
John A. Scolaro, MD, *University of California, Irvine*
- 10:30 am – 10:36 am 174 - A Temporal Analysis of Perioperative Complications following COVID-19 Infection in Patients Undergoing Spine Surgery  
*Justin P. Chan, MD, University of California, Irvine*
- 10:36 am – 10:42 am 269 - Effect of Metallic Augmentation on Outcomes in Total Shoulder Arthroplasty  
*Cara Lai, MD, Mayo Clinic*
- 10:42 am – 10:48 am 114 - Outcomes of Total Shoulder Arthroplasty for Inflammatory Arthritis vs. Osteoarthritis: A Nationwide Matched Cohort Analysis from 2016-2020  
*Cory K. Mayfield, MD, University of Southern California*
- 10:48 am – 10:54 am 6 - IMN Length and Loss of Reduction in IT Fractures  
*Patrick Naeger, MD, University of Texas Medical Branch*

10:54 am – 11:00 am 182 - Predictors of Functional Patient Reported Outcome after Uni- and Bicondylar Tibial Plateau Fracture  
*Dillon C. O'Neill, MD, University of Utah*

11:00 am – 11:06 am 347 - Return to Pushups following Arthroscopic Posterior Capsulolabral Repair  
*Patrick W. Rooney, MD, Madigan Army Medical Center*

11:06 am – 11:12 am 248 - Predictors of Reoperation in Induced Membrane Technique for Acute Traumatic Bone Loss  
*Lillia Steffenson, MD, University of Utah*

11:12 am – 11:18 am 253 - Multi-Center Analysis of Implant Breakage of a Popular Cephalomedullary Nail  
*Mathew Whittaker, MD, Stanford University*

11:18 am – 11:24 am **Clarence and Sherril Splithoff Pediatric Orthopaedic Surgery Award**  
5 - Prospective Cohort Study Evaluating Kinematic and Kinetic Data During Functional Testing following MPFL Reconstruction  
*Tram L. Tran, MD, MPH, University of Arizona Phoenix/Banner University Medical Center*

11:24 am – 11:30 am Discussion

### **General Session 8 – Second Business Meeting and Howard Steel Lecture**

*\*CME credit not available*

11:30 am – 11:40 am Second Business Meeting

11:40 am – 11:45 am Introduction  
*Nitin N. Bhatia, MD, University of California, Irvine*

11:45 am – 12:30 pm Washington Wines: From Grape to Glass  
*Jean C. Dodson Peterson, PhD, Washington State University*

12:30 pm – 12:45 pm Refreshment Break

### **Symposium 8 – Innovation Competition**

Moderator: Stephen E. White, *Depuy Synthes & Yves Crozet, Stryker*

12:45 pm – 1:45 pm Titles/Speakers

## **Rapid Fire Session 6A – Trauma (Geriatrics)**

Moderators: TBD

- 1:50 pm – 1:54 pm                      362 - Does Elevated Troponin Levels Affect the Outcome of Fragility Fractures  
*Savannah F. Baimbridge, BSA, The University of Texas Health Science Center at Houston- McGovern Medical School*
- 1:54 pm – 1:58 pm                      264 - Risk Factors for Readmission following Elderly Low Energy Pelvis Fractures  
*Cooper Ehlers, University of California, San Diego*
- 1:58 pm – 2:02 pm                      234 - Delaying Arthroplasty Greater Than 48 Hours for Hip Fracture in Patients on Clopidogrel Increases Risk of Medical and Surgical Complications  
*Nathaneal D. Heckmann, MD, Keck Medicine of University of Southern California*
- 2:02 pm – 2:05 pm                      Discussion
- 2:05 pm – 2:09 pm                      204 - Medium-Term Reoperation following THA vs. ORIF for Elderly Acetabular Fractures  
*Bailey Mooney, BS, David Geffen School of Medicine, University of California, Los Angeles*
- 2:09 pm – 2:13 pm                      188 - Early Functional Outcomes of Sacral U-type Fractures in Geriatric Patients  
*Avrey A. Novak, MD, University of Washington*
- 2:13 pm – 2:17 pm                      375 - Direct Anterior vs. Posterior Approach for THA for Femoral Neck Fracture  
*Ishan Shah, MD, St Mary's Medical Center*
- 2:17 pm – 2:20 pm                      Discussion

## **Rapid Fire Session 6B – General**

Moderators: TBD

- 1:50 pm – 1:54 pm                      324 - A Survey of Applicants' Perceptions of Preference Signaling for the 2022-2023 Orthopaedic Surgery Residency Program Match Cycle.  
*Jake X. Checketts, DO, Oklahoma State University Medical Center*

1:54 pm – 1:58 pm	3 - Workers Compensation Status affects Patient Satisfaction in Upper Extremity Patients <i>Matthew T. Gulbrandsen, MD, Loma Linda University</i>
1:58 pm – 2:02 pm	252 - Early Weight Bearing and Patient Outcomes in Lower Extremity Fractures <i>Kylee North, University of Utah</i>
2:02 pm – 2:05 pm	Discussion
2:05 pm – 2:09 pm	152 - COVID-Impacted Match Patterns of Orthopaedic Surgery Applicants <i>Thomas E. Olson, MD, University of California, Los Angeles</i>
2:09 pm – 2:13 pm	175 - Success of Resident Research Grants in Orthopaedic Trauma <i>Mackinzie A. Stanley, BA, California University of Science and Medicine</i>
2:13 pm – 2:17 pm	183 - “The COVID-19 Effect” on Arthroplasty: Expanding Indications for Same Day Discharge <i>Jeremiah Taylor, BS, University of California, Los Angeles</i>
2:17 pm – 2:20 pm	Discussion
<b>Rapid Fire Session 6C – Sarcoma</b>	
Moderators: TBD	
1:50 pm – 1:54 pm	145 - Predicting Myxoid Soft Tissue Tumor Diagnosis: Radiologists vs Radiomics <i>Stephen W. Chenard, BScH, MSc, Vanderbilt University School of Medicine</i>
1:54 pm – 1:58 pm	163 - Distal Femur Compress® Survivorship and Functional Outcomes Beyond 10-Years <i>Inochi Gonzalez Calvo, MD, University of California San Francisco</i>
1:58 pm – 2:02 pm	13 - Predicting Survival for Patients Undergoing Surgery for Metastatic Spine Disease <i>Hai V. Le, MD, MPH, University of California, Davis</i>
2:02 pm – 2:05 pm	Discussion
2:05 pm – 2:09 pm	<b>WOA/WOF Resident Travel Grant Award Winner</b>



241 - Conditional Survival after Surgery for Metastatic Tumors of the Spine  
*John .C Shapton, MD, San Francisco Orthopedic Residency Program*

2:09 pm – 2:13 pm

148 - Addition of Perioperative Vancomycin: Effect on Endoprosthetic Reconstruction Infection Rate  
*Stephen W. Chenard, BScH, MSc, Vanderbilt University School of Medicine*

2:13 pm – 2:17 pm

12 - Sociodemographic Characteristics of Patients Undergoing Surgery for Spine Metastatic Disease  
*Hai V. Le, MD, MPH, University of California, Davis*

2:17 pm – 2:20 pm

Discussion

**Rapid Fire Session 6D – Joints**

Moderators: TBD

1:50 pm – 1:54 pm

239 - Surgical Training Era May Impact Opioid Prescribing Patterns in Arthroplasty Surgeons  
*Amy Z. Blackburn, Massachusetts General Hospital*

1:54 pm – 1:58 pm

306 - Risk Factors Associated with Post-Operative Cardiac Events following Arthroplasty  
*Shivan N. Chokshi, University of Texas Medical Branch*

1:58 pm – 2:02 pm

356 - The Impact of a Lightweight Pneumatic Robotic Knee Wearable on Gait  
*Jonathan Lee, BA, Stanford University School of Medicine*

2:02 pm – 2:05 pm

Discussion

2:05 pm – 2:09 pm

240 - Variance in Intersurgeon Performance in Total Joint Arthroplasty Using MCID-W  
*Amy Z. Blackburn, Massachusetts General Hospital*

2:09 pm – 2:13 pm

298 - Sacral Slope Change from Standing to Relaxed-Seated Grossly Overpredicts the Presence of a Stiff Spine  
*Abhinav K. Sharma, MD, University of California, Irvine*

2:13 pm – 2:17 pm

291 - Dislocation after Total Hip Arthroplasty is Associated with Opioid Use  
*Sebastian Welling, Oregon Health & Science University*

2:17 pm – 2:20 pm

Discussion

## **Rapid Fire Session 6E – Spine**

Moderators: TBD

- |                   |   |
|-------------------|---|
| 1:50 pm – 1:54 pm | 89 - Evaluation of Spin in Literature Regarding Herniated Lumbar Disc Interventions<br><i>Maya S. Abu-Zahra, University of Southern California</i>  |
| 1:54 pm – 1:58 pm | 176 - Differential Interspinous Process Device Adoption and Utilization Across the United States<br><i>Justin P. Chan, MD, University of California, Irvine</i>                                     |
| 1:58 pm – 2:02 pm | 48 - A Comparison of Various Spinal Surgeries for Multilevel DCM in the Geriatric Patient Population<br><i>Jeffrey Choi, MD, University of California, Irvine</i>                                   |
| 2:02 pm – 2:05 pm | Discussion  |
| 2:05 pm – 2:09 pm | 285 - Preoperative Epidural Steroid Injections and Infection Risk in Posterior Cervical Surgery<br><i>Tara Shelby, BS, USC Keck School of Medicine</i>  |
| 2:09 pm – 2:13 pm | 284 - Extension and Neutral K-Line Differences: Applications in Degenerative Cervical Myelopathy<br><i>Sagar Telang, USC Keck School of Medicine</i>  |
| 2:13 pm – 2:17 pm | 69 - Patients with Hip Osteoarthritis Have a Higher Rate of Revision Following Lumbar Spinal Fusion Surgery<br><i>Nathaneal D. Heckmann, MD, Keck Medicine of University of Southern California</i> |
| 2:17 pm – 2:20 pm | Discussion  |
| 2:20 pm – 3:20 pm | <b>Scientific Poster/E-Poster Session</b> (Presenters are available to answer questions)  |