Thursday, August 1

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

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
*CME Credit Not Available

Rapid Fire Session 1A – Trauma Fixation & Fracture Healing
Moderator: TBD

8:25 am – 8:29 am  151 - Timing of Fixation and Wound Closure for Open Ankle Fractures
Marschall Berkes, MD, University of Texas Health Science Center at Houston

8:29 am – 8:33 am  423 - Patients Benefit from Recording Postoperative Instructions after Ankle Fracture Surgery
Sam Y. Jiang, BA, Stanford University
How do Pilon Fractures Heal? An Analysis of Dual Plating, Biomechanically Matched Fixation, and Callus Formation
Sean T. Campbell, MD, Stanford University

Titanium versus Stainless Steel: Clinical Superiority Despite Biomechanical Inferiority
Matthew Burnham, BS, University of Arizona College of Medicine - Phoenix

Discussion

Biomechanical Comparison of Bone-Screw-Fasteners Versus Traditional Locked Screws
Malcolm DeBaun, MD, Stanford University

Operative Outcomes in Distal Humerus Fractures With 1-Year Follow Up
Philip Locker, MD, University of California, San Francisco

Tapered Plate Geometry Reduces Stress Shielding in the Humeral Shaft
Tennyson L. Block, MD, San Francisco Orthopedic Residency Program, St. Mary's Medical Center

Factors Predicting Post-Operative Adverse Events In Distal Humerus Fractures
Kamran Movassaghi, MD, University of California, San Francisco

Discussion

Rapid Fire Session 1B – Total Hip
Moderator: TBD

Metal on Metal THA - Pseudotumor with Intermittent Unilateral Vascular Claudication
Alex Lencioni, MD, University of Colorado

Sleep Disturbance in Patients with Femoroacetabular Impingement and Acetabular Dysplasia
Nisha Reddy, BA, UT Southwestern Medical Center
8:33 am – 8:37 am  
60 - 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  
61 - 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  
62 - 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  
161 - Smooth Reamer Impaction Autografting for Total Hip Arthroplasty in the Setting of Acetabular Protrusio
Adam A. Sassoon, MD, University of California, Los Angeles

8:53 am – 8:57 am  
146 - Entrapped Posteromedial Structures after Spanning External Fixation in Tibial Pilon Fractures
Preet Gurusamy, MD, University of California, San Diego

8:57 am – 9:01 am  
371 - Government Significantly Reduced Reimbursement for Surgical Hip Fracture Treatment
Cory K. Mayfield, BS, Keck School of Medicine of the University of Southern California

9:01 am – 9:05 am  
Discussion

**Rapid Fire Session 1C – Pediatrics**  
**Moderator: TBD**

8:25 am – 8:29 am  
159 - Return To Sport After Posterior Spinal Fusion for Idiopathic Scoliosis
Allison Tetreault, MD, University of Colorado

8:29 am – 8:33 am  
210 - 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  
416 - 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 448 - 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 410 - Mini C-Arm Versus 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 191 - Does Univalve Location Differentially Effect Pressures at the Three-Point Mold?
Blake K. Montgomery, MD, Stanford University

8:53 am – 8:57 am 338 - Distinguishing Septic Arthritis from Aseptic Effusion in Pediatric Irritable Knee
Claudia S. Thomas, MD, University of Washington

8:57 am – 9:01 am 270 - Incidence of Coxa Profunda & 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
Moderator: TBD

8:25 am – 8:29 am 241 - 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 37 - Distal Ulna Morphology – Estimating the Prevalence of Reverse Obliquity
Blake Schultz, MD, Stanford University

8:33 am – 8:37 am 330 - 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 23 - 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 72 - 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 78 - 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 344 - Patient Outcomes and Costs after Isolated Flexor Tendon Repair
Gopal R. Lalchandani, MD, University of California, San Francisco

8:57 am – 9:01 am 63 - Biomechanical Comparison of Flexor Digitorum Profundus Avulsion Repair
Jill G. Putnam, University of Arizona College of Medicine-Phoenix

9:01 am – 9:05 am Discussion

Rapid Fire Session 1E – Basic Science
Moderator: TBD

8:25 am – 8:29 am 99 - 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 74 - Multimodal Imaging Guides Surgical Management in Preclinical Spinal Implant Infection
Stephen Zoller, MD, University of California, Los Angeles

8:33 am – 8:37 am 119 - Lateral Femoral Cortical Thickness Correlates to Femoral Bone Mineral Density
Musa Zaid, MD, University of California San Francisco

8:37 am – 8:41 am 221 - Zoledronic Acid Decreases Infection in Mouse Spine Implant Infection Model
Chad Ishmael, MD, University of California, Los Angeles
<table>
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<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>8:41 am – 8:45 am</td>
<td>Discussion</td>
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</table>
| 8:45 am – 8:49 am | 300 - Ex-Vivo Human Chondrocyte Toxicity After Exposure to Tranexamic Acid  
                     
                     Erika L. Garbrecht, MD, University of New Mexico                         |
| 8:49 am – 8:53 am | 283 - Adipose-Derived Stem Cell Quantity in Infrapatellar Fat Versus Subcutaneous Lipoaspirate  
                     
                     Hyunwoo P. Kang, MD, University of Southern California                |
| 8:53 am – 8:57 am | 136 - 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 | 279 - Pre-Operative Use of a Chlorhexidine-Impregnated Sponge Reduces Skin Soil Contamination  
                     
                     Byron H. Izuka, MD, Childrens Orthopaedics of Hawaii               |
| 9:01 am – 9:05 am | Discussion                                                              |
| 9:05 am – 9:25 am | Break – Please visit Exhibits                                           |

**General Session 1 – Howard Steel Lecture**  
**Moderator:** Omer A. Ilahi, MD, Southwest Orthopedic Group/Texas Arthroscopy & Sports Medicine Institute

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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</table>
| 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 |
| 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                                           |

**Symposium 2 – Sports Medicine**  
**Moderator:** David J. Mansfield, MD, El Paso Orthopaedic Surgery Group

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<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td>10:40 am – 10:55 am</td>
<td>Anterolateral Complex of the Knee - Understanding the Evidence and Recent Trends</td>
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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 – TBD
*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

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

12:13 pm – 12:21 pm
133 - Mean 10-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
434 - 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
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, UC Davis Health

Rapid Fire Session 2A – Trauma Tibia
<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker(s)</th>
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</thead>
<tbody>
<tr>
<td>12:40 pm</td>
<td>Soft Tissue Management in Open Tibial Shaft Fractures: A Comparison of Institutional Protocols</td>
<td>Matthew R. Garner, MD, University of Texas Health Science Center at Houston</td>
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<tr>
<td>12:44 pm</td>
<td>Use of Balloon Osteoplasty for Reduction of Tibial Plateau Fractures</td>
<td>Stephanie Logterman, MD, Denver Health Medical Center</td>
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<tr>
<td>12:48 pm</td>
<td>A Review of 11,000 Open Tibia Fractures over Four Decades</td>
<td>Stephen Warner, MD, PhD, University of Texas Health Science Center at Houston</td>
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<tr>
<td>12:52 pm</td>
<td>Defining the Intramedullary Axis of the Distal Tibia using Computed Tomography</td>
<td>Haydn Roberts, MD, Banner University Medical Center</td>
</tr>
<tr>
<td>12:56 pm</td>
<td>Predicting Reoperation and Quality of Life after Open Tibia Fractures</td>
<td>Patrick Albright, BS, MS, University of California-San Francisco</td>
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<tr>
<td>1:00 pm</td>
<td>Quantification of Volumetric Articular Depression in Lateral Split/Depressed Tibial Plateau Fractures</td>
<td>Heba Ahmad, BS, University of Texas Health Science Center at Houston</td>
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<tr>
<td>1:04 pm</td>
<td>Discussion</td>
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<td>1:10 pm</td>
<td>The OTA-OFC as a Predictive Outcome Tool in Open Tibia Fractures</td>
<td>Matthew R. Garner, MD, University of Texas Health Science Center at Houston</td>
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<td>1:14 pm</td>
<td>Comparison of Outcomes Following Open versus Closed Patella Fractures</td>
<td>Jie Yao, MD, University of Washington</td>
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<td>1:18 pm</td>
<td>Mesh Plate as a Fixation Method for Patellar Fractures: A Report of 9 Cases</td>
<td>Ahmed Thabet, MD, Texas Tech University Health Sciences Center</td>
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<td>Time</td>
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<tr>
<td>1:22 pm - 1:26 pm</td>
<td>Lower Extremity CT Angiograms and Nephropathy in Orthopedic Trauma Patients</td>
<td>Elise Britt, MD, University of California, San Diego Health</td>
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<tr>
<td>1:26 pm - 1:30 pm</td>
<td>Inadequate Soft-Tissue Coverage Following Open Tibia Fractures in Tanzania</td>
<td>Jordan T. Holler, BS, University of California-San Francisco</td>
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<tr>
<td>1:30 pm - 1:34 pm</td>
<td>Treatment of Tibial Plateau Fractures with a Novel Fenestrated Screw</td>
<td>Alexander Telis, MD, University of Southern California</td>
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<td>1:34 pm - 1:40 pm</td>
<td>Discussion</td>
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<tr>
<td>12:40 pm - 12:44 pm</td>
<td>Toxic Noise Levels During Total Joint Arthroplasty Surgery</td>
<td>Brandon A. Romero, MD, University of Nevada Las Vegas</td>
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<tr>
<td>12:44 pm - 12:48 pm</td>
<td>Sources Of Contamination in the Operating Room: A Fluorescent Particle Powder Study</td>
<td>Holt Cutler, MD, University of Texas Southwestern Medical Center</td>
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<tr>
<td>12:48 pm - 12:52 pm</td>
<td>Complications of Total Joint Arthroplasty in Liver Disease Patients</td>
<td>Eric G. Kim, MD, University of California, Davis</td>
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<td>12:52 pm - 12:56 pm</td>
<td>Immunologic Status Does Not Predict the Risk of Periprosthetic Infection in Patients Infected with Human Immunodeficiency Virus Undergoing Total Hip Arthroplasty</td>
<td>Phillip H. Behrens IV, MD, Cedars-Sinai Medical Center</td>
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<td>12:56 pm - 1:00 pm</td>
<td>Evolution of 2 Stage to 1 Stage Treatment of PJI: the First 500 Cases</td>
<td>Gerhard E. Maale III, MD, Dallas Ft.Woth Sarcoma Group/Medical City Plano</td>
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<td>1:00 pm - 1:04 pm</td>
<td>Cannabis Use Among Patients Undergoing Total Joint Arthroplasty Has Increased</td>
<td>Sahitya K. Denduluri, MD, Stanford Orthopaedic Surgery</td>
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</table>
1:04 pm - 1:10 pm Discussion

1:10 pm - 1:14 pm 341 - Intrawound Vancomycin in Total Hip and Increased Intraoperative Imaging Does Not Correlate with Better Functional Outcomes in Tibial Plateau Fractures
Nathanael D. Heckmann, MD, Keck School of Medicine of the University of Southern California

1:14 pm - 1:18 pm 87 - 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 249 - Quantifying Patient Encounters in Arthroplasty During the Global Period
Malcolm DeBaun, MD, Stanford University Department of Orthopaedic Surgery

1:22 pm - 1:26 pm 323 - A Qualitative Comparison of Shoulder Arthroplasty to Lower Extremity Arthroplasty
Alexandra Schumacher, MS, University of Colorado Sports Medicine

1:26 pm - 1:30 pm 325 - A Qualitative Comparison on the Effect of Arthroplasty Operation Order
Alexandra Schumacher, MS, University of Colorado Sports Medicine

1:30 pm - 1:34 pm 379 - 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
Moderator: TBD

12:40 pm - 12:44 pm 188 - Resident Involvement in Sports Medicine Surgeries
Kent C. Doan, MD, University of Colorado

12:44 pm - 12:48 pm 322 - 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
12:48 pm - 12:52 pm  339 - Playing Surface Effects Anterior Cruciate Ligament Injury In NCAA Soccer
Samantha Solaru, BS, University of Southern California

12:52 pm - 12:56 pm  352 - 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  9 - Orthopaedic Sleep and Novel Analgesic Pathway for Shoulder Arthroplasty Recovery
Jonathan Cheah, MD, University of California-San Francisco

1:00 pm - 1:04 pm  147 - All Soft-Tissue Quadriceps Graft for Anterior Cruciate Ligament Reconstruction
Mitchell Stroh, DO, Hoag Orthopedic Institute

1:04 pm - 1:10 pm  Discussion

1:10 pm - 1:14 pm  286 - Hypovitaminosis D is Not a Risk Factor for Stress Fracture in NCAA Division I Track and Field
Adam Lindsay, MD, University of Southern California

1:14 pm - 1:18 pm  290 - 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

1:18 pm - 1:22 pm  313 - 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

1:22 pm - 1:26 pm  186 - Surfing Injuries - A Review For The Orthopaedic Surgeon
Ryan J. Bickley, MD, Tripler Army Medical Center

1:26 pm - 1:30 pm  231 - Assessment of Cartilage Growth After Biopsy of Osteochondral Loose Bodies
Sean Robinson, MD, St. Mary's Medical Center

1:30 pm - 1:34 pm  234 - 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
Rapid Fire Session 2D – Shoulder & Elbow
Moderator: TBD

12:40 pm - 12:44 pm  391 - The Effect of Tranexamic Acid on Early Postoperative Pain and Opiate Consumption After Total Shoulder Arthroplasty
Pengcheng Wang, UCLA Medical Center Program

12:44 pm - 12:48 pm  148 - Outcomes after Shoulder Surgery: Legacy Score versus PROMIS Function Score
Todd S. Kim, MD, Palo Alto Medical Foundation

12:48 pm - 12:52 pm  390 - Low BMI Predicts Inferior Outcomes After Reverse Total Shoulder Arthroplasty
Edward J. Wu, MD, Stanford University Department of Orthopaedic Surgery

12:52 pm - 12:56 pm  408 - 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  450 - Radial Neck Diameter as a Guide for Prosthetic Stem Sizing
Dave Shukla, MD, Mayo Clinic

1:00 pm - 1:04 pm  327 - Preoperative Corticosteroid Injections are Associated with Shoulder Arthroscopy Infectious Outcomes
Sarah Bhattacharjee, Pritzker School of Medicine at the University of Chicago

1:04 pm - 1:10 pm  Discussion

1:10 pm - 1:14 pm  421 - Radiographic Changes In The Acromiohumeral Distance Through The Sagittal Plane
Craig T. Gillis, DO, Buffalo, NY

1:14 pm - 1:18 pm  357 - Effects of Age on Postoperative Complications Following Shoulder Arthroplasty
Hasani W. Swindell, MD, University of Southern California

1:18 pm - 1:22 pm  124 - Biomechanical Assessment of Patella Tendon Allograft as Alternative Graft Material for Superior Capsule Reconstruction
1:22 pm - 1:26 pm  137 - Stemless Shoulder Arthroplasty: Review of Short and Medium-term Results
   Nicholas P. Satariano, MD, University of California, San Francisco

1:26 pm - 1:30 pm  311 - Clinical Results of Subpectoral Biceps Tenodesis using a Single Unicortical Anchor
   Taylor D. Mansfield, MD, Madigan Army Medical Center

1:30 pm - 1:34 pm  331 - Sleep Quality Following Rotator Cuff Repair: A Systematic Review
   Andres F. Barandiaran, University of Colorado

1:34 pm - 1:40 pm  Discussion

Rapid Fire Session 2E – Spine
Moderator: TBD

12:40 pm - 12:44 pm  454 - 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  256 - 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  346 - Decreased MicroRNA-29a is Associated with Ligamentum Flavum Hypertrophy
   Richard Wawrose, MD, UPMC

12:52 pm - 1:00 pm  449 - Thoracoplasty Effects on Post-Operative Recovery in Adolescent Idiopathic Scoliosis
   Benjamin J. Sherman, DO, Children's Hospital of Orange County

1:00 pm - 1:04 pm  315 - 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

1:00 pm - 1:04 pm  342 - Fenestrated Pedicle Screw Cement Augmentation: A Safety and Efficacy Study
Ruwan Ratnayake, MD, University of California, Davis Medical Center

1:04 pm - 1:10 pm  Discussion

1:10 pm - 1:14 pm  174 - The Utility of Flexion/Extension Radiographs in Degenerative Cervical Spondylolisthesis
Andrew P. Alvarez, MD, University of California, Irvine

1:14 pm - 1:18 pm  306 - Inpatient Episodes of Care in Spine Surgery: Medicare Reimbursement Rates
Jordan Dutcher, Mayo Clinic School of Medicine

1:18 pm - 1:22 pm  397 - 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  104 - Initial Management of Sacral Insufficiency Fractures: A Systematic Review
Pierce Johnson, MD, University of Arizona Phoenix

1:26 pm - 1:30 pm  73 - Preoperative Hemoglobin: A Predictor for Mobilization and Length of Stay
Ali Noorzad, MD, Cedars-Sinai Medical Center

1:30 pm - 1:34 pm  172 - 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 & E-Poster Sessions

2:40 pm – 3:40 pm  Multimedia Education Session

**Friday, August 2**

5:45 am – 6:55 am  Scientific Poster & E-Poster Sessions

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**  
*Krissy 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**  
*CME Credit Not Available*

8:20 am – 8:40 am  
**Break – Please visit Exhibits**

**Rapid Fire Session 3A – Trauma Traffic & Thrombosis**  
**Moderator:** TBD

8:40 am - 8:44 am  
114 - 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  
250 - Electric Scooter Orthopaedic Injuries at a Level 1 Trauma Center  
*Ophelie Lavoie-Gagne, University of California, San Diego*

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

8:52 am - 8:56 am  
281 - 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  
367 - 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*

9:04 am - 9:08 am  
447 - What Makes a Strong Orthopaedic Trauma Fellowship Application: A Program Director's Perspective
9:08 am - 9:12 am 199 - 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 208 - 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
Moderator: TBD

8:40 am - 8:44 am 383 - 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 141 - All-Inside Repair of Bucket-Handle Meniscus Tears: A Systematic Review
Carolyn Ardizzone, University of Colorado Sports Medicine

8:48 am - 8:52 am 318 - 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 125 - Bone Graft Options for Tunnel Augmentation in Revision ACL Reconstruction
Hytham S. Salem, MD, Universit of Colorado, Denver

8:56 am - 9:00 am Discussion

9:00 am - 9:04 am 144 - 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 173 - Radiographic Assessment of Femoral Tunnel Ossification in ACL Reconstruction
Ali A. Qadeer, MD, Baylor College of Medicine
Preoperative Determination of Adequate Graft Diameter for Hamstring ACL Reconstruction
*Trevor J. Shelton, MD, University of California, Davis*

Surgical Trends in Meniscal Tears: Analysis of ABOS Certification Data.
*Jory Wasserburger, MD, Albuquerque, NM*

Discussion

**Rapid Fire Session 3C – Shoulder & Elbow**
**Moderator: TBD**

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

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

**8:48 am - 8:52 am**
307 - 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**
332 - The Relationship between “Grit” and Clinical Outcomes Following Rotator-Cuff Repair
*Andres F. Barandiaran, University of Colorado*

**8:56 am - 9:00 am**
Discussion

**9:00 am - 9:04 am**
27 - Trends in Peripheral Nerve Blocks in Arthroscopic Rotator Cuff Repairs
*Abhinav K. Sharma, BS, David Geffen School of Medicine at UCLA*

**9:04 am - 9:08 am**
53 - Sex-Based Review of Recurrence Rates Following Arthroscopic Anterior Shoulder Stabilization
*Connor Cannizzaro, University of Colorado Sports Medicine*

**9:08 am - 9:12 am**
129 - Anterior Capsule Reconstruction versus Pectoralis Major Transfer for Irreparable Subscapularis Tears
Gregory Adamson, Orthopaedic Biomechanics Laboratory, Congress Medical Foundation

9:12 am - 9:16 am  77 - The Effect of Hook Plate with Augmented Fixation on High Energy Shoulder Girdle Injuries
Wesley Dosher, MD, University of Texas Health Science Center At Houston

9:16 am - 9:20 am  Discussion

Rapid Fire Session 3D – Foot & Ankle
Moderator: TBD

8:40 am - 8:44 am  28 - Lesser Metatarsophalangeal Interpositional Arthroplasty with Semitendinosus Allograft: Outcomes and Technique
Eugene F. Stautberg III, MD, Southwest Orthopedic Group

8:44 am - 8:48 am  43 - 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  220 - Contemporary Comparison of Short-Term Outcomes after Total Ankle Replacement and Ankle Arthrodesis
Stephen B. Wallace, MD, University of Texas Southwestern

8:52 am - 8:56 am  167 - Patient-Reported Outcomes after use of Dynamic Bracing in the Civilian Population
Ryan Hadden, MD, Oregon Health and Science University

8:56 am - 9:00 am  Discussion

9:00 am - 9:04 am  235 - Outcomes and Complications of Supination-Adduction (AO/OTA 44A2.3) Ankle Fractures
Ram K. Alluri, MD, Keck Medical Center of USC

9:04 am - 9:08 am  443 - Sural Fasciocutaneous Flaps for Ortho-Geriatric Patients
Haydn Roberts, MD, Banner University Medical Center

9:08 am - 9:12 am  178 - Tricortical Kirschner Wire vs Screw Fixation for Distal Chevron Osteotomy
Natalie R. Black, BS, University of Texas Medical Branch at Galveston
| 9:12 am - 9:16 am | 181 - Provisional Reduction and Percutaneous Pinning of Traumatic Foot Injuries  
Justin A. Rennard, MD, University of Texas Health Science Center at Houston |
<table>
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<tr>
<td>9:16 am - 9:20 am</td>
<td>Discussion</td>
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**Rapid Fire Session 3E – Pharmacology: The Good, Bad and the Opioids**  
**Moderator: TBD**

| 8:40 am - 8:44 am | 122 - 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 | 200 - Acute Post-Operative Multimodal Pain Management and Long-Term Opioid Use  
Carol Lin, MD, MA, Cedars-Sinai Medical Center |
| 8:48 am - 8:52 am | 97 - Standardized Pain Regimen in Orthopedic Trauma Patients Reduces Opioid Use  
Carol Lin, MD, MA, Cedars-Sinai Medical Center |
| 8:52 am - 8:56 am | 226 - Outcomes and Complications Among Methamphetamine Users in Orthopaedic Trauma  
Nicholas A. Trasolini, MD, University of Southern California |
| 8:56 am - 9:00 am | Discussion |
| 9:00 am - 9:04 am | 190 - High Variability in Opioid Prescribing Following Fracture Fixation  
Andrew Fithian, MD, Stanford University |
| 9:04 am - 9:08 am | 224 - Methamphetamine Use and Post-operative Narcotic Use in Orthopedic Trauma Patients  
Adam Lindsay, MD, University of Southern California |
| 9:08 am - 9:12 am | 258 - Perioperative Complication Rates Amongst Methamphetamine Positive Orthopaedic Trauma Patients  
Malcolm DeBaun, MD, Stanford University |
| 9:12 am - 9:16 am | 207 - 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

**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 Orthopedic 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**  
*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
12:15 pm – 12:21 pm  **Basil R. Besh, MD Donor Award**  
419 - 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**  
373 - 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**  
157 - 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**  
381 - Supporting Orthopedic Resident Education and Advancement in Leadership Skills  
*Jonathan Cheah, MD, University of California-San Francisco*

12:39 pm – 12:45 pm  **Brian A. Jewett, MD Donor Award**  
309 - Overprescribing of Opioids in Orthopaedic Surgery  
*Taylor D. Mansfield, MD, Madigan Army Medical Center*

12:45 pm – 12:51 pm  **Jeffrey E. Krygier, MD Donor Award**  
403 - Newer NCAA Bat Standard is Associated with Hamate Fractures  
*Trevor J. Shelton, MD, University of California, Davis*

12:51 pm – 12:57 pm  **Jeffrey M. Nakano, MD Donor Award**  
166 - Current Trends: Surgical Treatment of Syndesmotic Injuries in Elite Athletes  
*Rebecca Griffith, MD, University of Colorado Denver School of Medicine*

12:57 pm – 1:03 pm  **Robert R. Slater Jr., MD Donor Award**  
407 - Improved Fracture Reduction in Patients Undergoing Early Definitive Fixation for Tibial Plateau Fractures with Acute Compartment Syndrome  
*Tony Pedri, MD, Regions Trauma Center*

1:03 pm – 1:10 pm  Discussion

**Concurrent Allied Health Session 2**  
**Moderator:**  Theodore W. Coates, PA-C, University of California, Davis
Rapid Fire Session 4A – Trauma Pelvis & Acetabulum
Moderator: TBD

1:15 pm - 1:19 pm  216 - Expert Agreement on the Outcome of Pelvic Exam Under Anesthesia
Geoffrey S. Marecek, MD, University of Southern California

1:19 pm - 1:23 pm  143 - Visualizing Anterior Pelvis Bone Strength to Optimize Screw Fixation
Jerad D. Allen, MD, Harborview Medical Center

1:23 pm - 1:27 pm  145 - Novel Method to Visualize Pelvic Bone Strength for Surgical Planning
Jerad D. Allen, MD, Harborview Medical Center

1:27 pm - 1:31 pm  294 - Evaluation of Functional and Psychological Outcomes in Patients with Severe Pelvic Ring Fractures
Murphy P. Martin, MD, Denver Health Medical Center

1:31 pm - 1:35 pm  297 - Occult Injuries of the Contralateral SI Joint in Operatively Treated Pelvis Fractures: Incidence
Andrew S. Maertens, MD, University of Colorado

1:35 pm - 1:39 pm  292 - Complications Associated with Early Versus Delayed Fixation of Pelvic Ring Injuries
David Rojas, MD, Denver Health Medical Center

1:39 pm - 1:45 pm  Discussion

1:45 pm - 1:49 pm  55 - Posterior Pelvic Ring Bone Density: Implications for Third Sacral Segment
Jonathan G. Eastman, MD, University of California, Davis

1:49 pm - 1:53 pm  204 - A Biomechanical Study Comparing Compressive Strength of Fully Threaded versus Partially Threaded Cannulated Transiliac-Transacral Lag Screws for Posterior Pelvic Ring Stabilization.
Andrew S. Maertens, MD, University of Colorado
1:53 pm - 1:57 pm  237 - 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

1:57 pm - 2:01 pm  219 - Low Dose CT for Assessment of Acetabular Fracture Reduction  
Stephen Gibbs, MD, University of Southern California

2:01 pm - 2:05 pm  94 - The Hybrid Suite and Intralial Balloon Occlusion for Acetabular Open Reduction Internal Fixation  
Jason Davis, MD, University of California, San Francisco

2:05 pm - 2:09 pm  404 - Financial Impact of the ACA on an Orthopedic Trauma Service  
Trevor J. Shelton, MD, University of California, Davis

2:09 pm - 2:15 pm  Discussion

Rapid Fire Session 4B – Tumor and Pediatrics
Moderator: TBD

1:15 pm - 1:19 pm  264 - CD44 and ALDH1 Predict Oncologic Outcomes in Osteosarcoma  
Augustine M. Saiz Jr., MD, University of California, Davis

1:19 pm - 1:23 pm  160 - Natural History of Enchondroma Referrals at a Comprehensive Cancer Center  
Alysia K. Kemp, MD, The University of Texas MD Anderson Cancer Center

1:23 pm - 1:27 pm  163 - Acrometastasis: Is Lung Carcinoma Still the Most Common Primary Lesion?  
Alysia K. Kemp, MD, The University of Texas MD Anderson Cancer Center

1:27 pm - 1:31 pm  362 - Patellar Tendon Augmentation Not Necessary in Proximal Tibia Endoprosthetic Reconstruction  
Russell Stitzlein, MD, University of California, Irvine

1:31 pm - 1:35 pm  120 - Prospective Study of Percutaneous Bone-Anchored Implants in Patients with Above Knee Amputation: the UCSF Experience  
Musa Zaid, MD, University of California, San Francisco
1:35 pm - 1:39 pm  366 - Vertebra Plana Caused by CRMO: A Case Series in Pediatric Patients  
   Jesse Roberts, MD, University of Colorado

1:39 pm - 1:45 pm        Discussion

1:45 pm - 1:49 pm        439 - Utility of Bioabsorbable Fixation of Osteochondral Lesions in the Adolescent Knee; Outcomes Analysis With Minimum 2 Year Follow-Up  
   Shawn Nguyen, DO, Children's Hospital of Orange County

1:49 pm - 1:53 pm        47 - Secondary Surgeries Following Major Lower Extremity Amputations in the Pediatric Population  
   Christopher Joyce, MD, University of Colorado

1:53 pm - 1:57 pm        177 - Validation of a Novel Method for Measuring Proximal Ulnar Alignment in the Pediatric Patient  
   Megan H. M. Kuba, MD, Kaiser Permanente Orange County

1:57 pm - 2:01 pm        304 - Percutaneous Hip Adductor Release for Cerebral Palsy: Adolescents and Adults  
   David A. Yngve, MD, The University of Texas Medical Branch

2:01 pm - 2:05 pm        314 - Distinctive Opiate Prescription Patterns in Adolescent Subpopulations following ACL Reconstruction  
   Charles M. Chan, MD, Stanford University

2:05 pm - 2:09 pm        453 - Aseptic Nonunion in Long Bones among Pediatric Patients: A Report of Thirteen Cases  
   Ahmed Thabet, MD, Texas Tech University Health Sciences Center

2:09 pm - 2:15 pm        Discussion

Rapid Fire Session 4C – Sports Medicine
Moderator: TBD

1:15 pm - 1:19 pm        291 - 2 Year Revision ACL Reconstruction: Age-based Risk Factors  
   Matthew C. Gallo, BA, University of Southern California

1:19 pm - 1:23 pm        456 - Interfacial Shear Mechanical Properties of Commercially Available Osteochondral Allografts  
   Dean Wang, MD, Hospital for Special Surgery
1:23 pm - 1:27 pm  
80 - When Do Patients Improve after Hip Arthroscopy for Femoroacetabular Impingement? A Prospective Cohort Analysis  
*Alan Zhang, MD, UCSF Medical Center*

1:27 pm - 1:31 pm  
308 - Patellar Height Comparison Between Knees in Adolescents and Young Adults  
*Benjamin Albertson, MD, University of New Mexico*

1:31 pm - 1:35 pm  
121 - The Effect of ACL Graft Choice On Meniscal Repair Success  
*Hytham S. Salem, MD, University of Colorado, Denver*

1:35 pm - 1:39 pm  
239 - How Accurate Are Radiographic Landmarks at Predicting the Location of Lateral Knee Structures?  
*Thomas Kremen, MD, David Geffen School of Medicine at UCLA*

1:39 pm - 1:45 pm  
Discussion

1:45 pm - 1:49 pm  
8 - The Effect of Turf Toe Injuries on Player Performance in the National Football League  
*Andrew Tran, MD, George Washington University*

1:49 pm - 1:53 pm  
38 - Handedness Affects Resident Upper Extremity Motion Patterns During Arthroscopic Simulation  
*Joseph G. O'Sullivan, Oregon Health and Science University*

1:53 pm - 1:57 pm  
81 - Air Arthrogram Aids Joint Distraction for Hip Arthroscopy and Decreases Acute Post-Operative Pain  
*Alan Zhang, MD, University of California, San Francisco Medical Center*

1:57 pm - 2:01 pm  
93 - Return to Sport Following Medial Patellofemoral Ligament Reconstruction  
*Darby A. Houck, BA, University of Colorado Sports Medicine*

2:01 pm - 2:05 pm  
95 - Does Workflow Influence Component Placement Accuracy to Plan for PKA?  
*Emily Hampp, MD, Mahwah, NJ*

2:05 pm - 2:09 pm  
96 - The Impact of Workflow on Cutting Time for Partial Knee Arthroplasty
2:09 pm - 2:15 pm  
Discussion

**Rapid Fire Session 4D – Total Knee**

**Moderator:** TBD

1:15 pm - 1:19 pm  
400 - Utility of Medial-to-Total Force Ratio in Kinematically Aligned TKA  
*Trevor J. Shelton, MD, University of California, Davis*

1:19 pm - 1:23 pm  
405 - Counseling Patients with Mechanically Aligned TKA Undergoing Kinematically Aligned TKA  
*Trevor J. Shelton, MD, University of California, Davis*

1:23 pm - 1:27 pm  
437 - Joint Replacement in X-Linked Hypophosphatemia  
*Emily S. Mills, BS, Frank H. Netter MD School of Medicine at Quinnipiac University*

1:27 pm - 1:31 pm  
328 - Defining a Safe Interval Between Preoperative Corticosteroid Injections and TKA’s  
*Sarah Bhattacharjee, Pritzker School of Medicine at the University of Chicago*

1:31 pm - 1:35 pm  
66 - Predictors of Complications After TKA In Patients With A Prior Arthroscopy  
*Geoffrey Rohlfing, MD, University of California, San Francisco*

1:35 pm - 1:39 pm  
67 - Influence of Prior Arthroscopy on Revision TKA Complications and Readmissions  
*Kamran Movassaghi, MD, University of California, San Francisco*

1:39 pm - 1:45 pm  
Discussion

1:45 pm - 1:49 pm  
98 - Periprosthetic Tissue Reaction Independent of LTT Result and Implanted Materials in TKA  
*Brian Schneiderman, MD, Harbor UCLA Medical Center*

1:49 pm - 1:53 pm  
128 - Outcome of Modern Blood Conservation Methods in Patients Undergoing Unicompartment Knee Replacement, Unilateral Total knee Replacement and Concurrent Bilateral Total Knee  
*Rohan Bhimani, MD, Massachusetts General Hospital*
1:53 pm - 1:57 pm  
435 - Outcomes of Kinematic, Gap balancing and Measured Resection Total Knee  
Zachary C. Lum, DO, University of California: Davis Medical Center

1:57 pm - 2:01 pm  
197 - Preoperative Vitamin D Repletion in Total Knee Arthroplasty: A Preliminary Cost-effectiveness Model  
Armin Arshi, MD, David Geffen School of Medicine at UCLA

2:01 pm - 2:05 pm  
424 - The Femoral Condyles are not Parallel in Coronal Plane; What is the Significance? A Radiographic and Computational Study  
Mahdie Kerdari, MD, Rowan University

2:05 pm - 2:09 pm  
432 - To Evaluate The Efficacy and Safety of Buprenorphine 5 mg Patch in the Immediate Post Op Pain Relief Following Total Knee Replacement  
Sanjay B. Londhe, MS FRCS FRCSI MCh (Orth), Holy Spirit Hospital

2:09 pm - 2:15 pm  
Discussion

**Rapid Fire Session 4E – Total Hip**  
**Moderator:** TBD

1:15 pm - 1:19 pm  
310 - Comparing Different Hip Physical Examination Methods on the Diagnosis of Labral Tear  
Farshad Adib, University of Maryland Orthopaedic Associates

1:19 pm - 1:23 pm  
349 - Direct Anterior Approach Total Hip Arthroplasty without Preoperative Templating - Challenging the Dogma of Preoperative Templating  
Ian Hasegawa, MD, University of Hawaii

1:23 pm - 1:27 pm  
100 - Determining and Achieving Target Limb Length and Offset in Total Hip Arthroplasty using Intraoperative Digital Radiography  
Eytan M. Debbi, MD, PhD, Cedars-Sinai Medical Center

1:27 pm - 1:31 pm  
215 - Is There a Relationship between Severity of Hip Dysplasia and Patient Reported Pain?  
Shawn O. Okpara, BS, University of Texas Southwestern Medical Center
1:31 pm - 1:35 pm  217 - Total Hip Arthroplasty for Osteoarthritis Secondary to Operatively Treated Acetabular Fractures; A Retrospective Analytic Study  
Samer Kakish, MD, University of New Mexico

1:35 pm - 1:39 pm  223 - Patient Reported Return to Driving Following Outpatient Total Hip Arthroplasty  
Anne R. Wright, MD, University of Hawaii

1:39 pm - 1:45 pm  Discussion

1:45 pm - 1:49 pm  32 - THA Outcomes in Adult Patients with Developmental Dysplasia of the Hip  
Peter P. Hsiue, MD, University of California, Los Angeles

1:49 pm - 1:53 pm  127 - Reduction of Femoral Offset after THA for Femoral Neck Fracture  
Andrew A. Barrett, MD, Stanford University School of Medicine

1:53 pm - 1:57 pm  287 - Are Complete Blood Count Tests Necessary after Total Hip Arthroplasty?  
Emily S. Mills, BS, Frank H. Netter MD School of Medicine at Quinnipiac University

1:57 pm - 2:01 pm  180 - 90-Day Safety of the Direct Superior Approach to Total Hip Arthroplasty  
Rami M. Ezzibdeh, Stanford University School of Medicine

2:01 pm - 2:05 pm  205 - Understanding Perceived Abduction and Anteversion Angles in Anterior Total Hip  
Anne R. Wright, MD, University of Hawaii

2:05 pm - 2:09 pm  211 - Does Pain Catastrophizing Predict Age of Onset in Symptomatic Hip Dysplasia and Femoroacetabular Impingement?  
Shawn O. Okpara, BS, University of Texas Southwestern Medical Center

2:09 pm - 2:15 pm  Discussion

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

2:15 pm – 5:30 pm  TBD
2:15 pm – 3:15 pm  Scientific Poster & E-Poster Sessions
3:15 pm – 4:15 pm  Multimedia Education Session

Saturday, August 3

5:45 am – 6:40 am  Scientific Poster & E-Poster Sessions

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  58 - 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  102 - 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  289 - 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  385 - Improving Trainee Arthroscopic Knot Tying Skills Using the FAST Workstation
Peters T. Otlans, MD, Oregon Health & Science University

7:09 am – 7:15 am  108 - 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  278 - Hip Survival Following Arthroscopy: Analysis of 12,733 Patients
Jie Yao, MD, University of Washington

7:21 am – 7:27 am  198 - 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
*CME Credit Not Available

Rapid Fire Session 5A – Trauma Hip
Moderator: TBD

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

9:19 am - 9:23 am 365 - Should an Elevated INR Delay Hip Fracture Surgery?
Cory K. Mayfield, BS, Keck School of Medicine of the University of Southern California

9:23 am - 9:27 am 33 - Hip Arthroplasty Outcomes for Hip Fractures in Transplant Patients
Peter P. Hsiue, MD, University of California, Los Angeles

9:27 am - 9:31 am 31 - 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  118 - The Utility of Traction Radiographs in Preoperative Planning for Hip Fractures  
*Graham Albert, McGovern Medical School at UTHSCH*

9:39 am - 9:43 am  103 - Predictors For Thirty-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  105 - 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  106 - 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**
**Moderator: TBD**

9:15 am - 9:19 am  139 - Incidence of Corrective Procedures after Non-Operatively Managed Distal Radius Fractures in the Elderly  
*Nicholas P. Satariano, MD, University of California, San Francisco*

9:19 am - 9:23 am  209 - Thumb UCL Repair with Suture Tape Augmentation Restores Kinematics  
*Nilay A. Patel, MD, University of California, Irvine*

9:23 am - 9:27 am  152 - Comparison of Patient-Specific and Generic PROMs Following Elective Hand Surgery  
*Lauren M. Shapiro, MD, Stanford University*

9:27 am - 9:31 am  262 - Risk Factors for Failed Conservative Management of Trigger Digits  
*Hyunwoo P. Kang, MD, University of Southern California*

9:31 am - 9:35 am  Discussion
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<td>Lauren M. Shapiro, MD, Stanford University</td>
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<td>9:39 am - 9:43 am</td>
<td>Articular Injuries in Acute and Chronic Operative</td>
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<td>Acromioclavicular Joint Injuries</td>
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<td>Matti P. Asuma, MD, Madigan Army Medical Center</td>
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<td>9:43 am - 9:47 am</td>
<td>Chronic Distal Biceps Avulsion Treated with Suture Button</td>
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<td>Joseph D. Mueller, DO, Ventura Orthopedics</td>
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<td>9:47 am - 9:51 am</td>
<td>Cost and Trends of Treatment for Proximal Humerus</td>
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<td>Edward J. Wu, MD, Stanford University</td>
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<td>9:51 am - 9:55 am</td>
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**Rapid Fire Session 5C – Foot & Ankle**

**Moderator: TBD**

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<td>A Retrospective Radiographic Evaluation of Augment Bone Graft Fusion</td>
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<td>Trevor J. Shelton, MD, University of California, Davis</td>
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<td>9:19 am - 9:23 am</td>
<td>Postoperative Oral Antibiotics in Outpatient Foot and Ankle Surgery</td>
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<td>Jacob R. Carl, MD, University of California, Davis</td>
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<td>9:23 am - 9:27 am</td>
<td>A Prospective, Randomized Suture-button versus Screw Syndesmotic Fixation</td>
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<td>Patrick S. Barousse, MD, University of California, Davis</td>
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<td>9:27 am - 9:31 am</td>
<td>Radiographic Outcomes of Lisfranc Injuries Treated with a Suture Button Device</td>
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<td>Connor Delman, MD, University of California, Davis</td>
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<td>9:31 am - 9:35 am</td>
<td>Discussion</td>
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<td>9:35 am - 9:39 am</td>
<td>Utilization and Cost of Total Ankle Replacement versus Tibiotalar Arthrodesis</td>
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<td>Cary S. Politzer, MD, University of California, San Diego</td>
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<td>9:39 am - 9:43 am</td>
<td>Radiographic Evaluation of Adult Acquired Flatfoot Correction With Augmented Spring Ligament Repair</td>
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<td>Jason Fogleman, MD, University of California, Davis</td>
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9:43 am - 9:47 am  89 - 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  123 - Intraoperative Fluoroscopy Versus 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**

**Moderator: TBD**

9:15 am - 9:19 am  26 - 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  75 - Regional Gene Therapy with Adipose-derived Stem Cells for Bone Repair  
*Venus Vakhshori, MD, LAC+USC Medical Center*

9:23 am - 9:27 am  335 - 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  193 - 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  387 - 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  299 - 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  34 - Blood Transfusions: Does Storage Duration Affect Postoperative Infection Risk?  
*Peter P. Hsiue, MD, University of California, Los Angeles*
9:47 am - 9:51 am  388 - 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
Moderator: TBD

9:15 am - 9:19 am  428 - CRP (C Reactive Protein) Level After Total Knee Replacement in Indian Population- Does it Follow Anglo-Saxon Trend?
Sanjay B. Londhe, MS FRCS FRCSI MCh (Orth), Holy Spirit Hospital

9:19 am - 9:23 am  430 - Post TKR Home Physiotherapy for a Period of 6 Weeks Reduces the Rate of Post TKR Manipulation Under Anesthesia (MUA) Rate
Sanjay B. Londhe, MS FRCS FRCSI MCh (Orth), Holy Spirit Hospital

9:23 am - 9:27 am  24 - 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

9:27 am - 9:31 am  369 - Weight Loss Knowledge Base in the Total Joint Candidate
Kenton B. Panas, MD, University of Oklahoma

9:31 am - 9:35 am  Discussion

9:35 am - 9:39 am  65 – Influence Of Prior Arthroscopy On Primary TKA Complications And Readmissions
Geoffrey Rohlfing, MD, University of California, San Francisco

9:39 am - 9:43 am  444 - 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

9:43 am - 9:47 am  302 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*

9:47 am - 9:51 am

401 - Revision of a Medial UKA to a Kinematically Aligned TKA
*Trevor J. Shelton, MD, University of California, Davis*

9:51 am - 9:55 am

Discussion

**Concurrent Allied Health Session 3**
**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

**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
*Olamide 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 Company**
*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
*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**  
**Moderator: TBD**

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation</th>
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| 12:15 pm – 12:23 pm | **OREF/WOF Funded Presentation**  
248 - 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 | **OREF/WOF Funded Presentation**  
Chondrocyte Viability After Exposure to Antiseptic Solutions and TXA  
*Erika Garbrecht, MD, University of New Mexico* |
| 12:31 pm – 12:37 pm | 386 - Estrogen Receptor Alpha Expression in Female Knee Articular Cartilage |
12:37 pm – 12:43 pm  
109 - How Mobile Technology Changes Reporting of Morbidity and Mortality  
Christopher R. Johnson, MD, Cedars Sinai

12:43 pm – 12:49 pm  
296 - A Biomechanical Comparison of Dual-Plate and Plate-Nail Fixation in Supracondylar Distal Femur Fractures  
David J. Wright, MD, University of California Irvine, Department of Orthopaedic Surgery

12:49 pm – 12:55 pm  
196 - Utility of Debridement for Ballistic Lower Extremity Fractures  
Ali Azad, MD, University of Southern California

12:55 pm – 1:01 pm  
425 - Is Posterior Referencing a Reliable Technique for Rotational Femoral Component Alignment in TKR?  
Mahdie Kerdari, MD, Rowan University, Glassboro, New Jersey

1:01 pm – 1:07 pm  
Cory K. Mayfield, BS, Keck School of Medicine of the University of Southern California

1:07 pm – 1:13 pm  
288 - 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

1:13 pm – 1:20 pm  
Discussion

**Rapid Fire Session 6A – Trauma Femur**  
Moderator: TBD

1:25 pm - 1:29 pm  
170 – Comparison of IMN to Plating for Periprosthetic Distal Femur Fractures  
Elizabeth Gausden, MD, University of Texas Health Science Center at Houston

1:29 pm - 1:33 pm  
187 - A New Orthogonal Plate Configuration in Treating Periprosthetic Proximal Femur Fractures  
Kareem Shaath, MD, University of Texas Health Science Center
1:33 pm - 1:37 pm  254 - Full Weight Bearing After Fixation of Vancouver B1 Femur Fractures  
*Malcolm DeBaun, MD, Stanford University*

1:37 pm - 1:41 pm  298 - Supracondylar Distal Femur Fractures: Nail Diameter Significantly Impacts Stability in Plate-Nail Constructs  
*David J. Wright, MD, University of California, Irvine*

1:41 pm - 1:45 pm  154 - Subsequent Femoral Fragility Fractures: Underreported and Construct-Related  
*Michael Murphy, Loyola University Medical Center*

1:45 pm - 1:49 pm  195 - Open Femur Fractures: Complications and Outcome  
*Mary Kate Erdman, MD, University of Southern California*

1:49 pm - 1:55 pm  Discussion

1:55 pm - 1:59 pm  182 - Closed versus Open Reduction For Young Patients with Femoral Neck Fractures  
*Adam J. Miller, MD, University of Texas Health Science Center at Houston*

1:59 pm - 2:03 pm  156 - Predictors of Nonunions in Young Patients with Femoral Neck Fractures  
*Adeet Amin, BA, University of Texas Houston Orthopedics*

2:03 pm - 2:07 pm  414 - Rates of Femoral Neck Fracture Union Using Variable Pitch Screws  
*Tony Bouz, DO, Fontana, CA*

2:07 pm - 2:11 pm  56 - Fractures Associated with Short Versus Long Cephalomedullary Nails: Distinct Injury Patterns and Patient Outcomes  
*Lawrence H. Goodnough, MD, Stanford University*

2:11 pm - 2:15 pm  269 - Prostheses Impact Amputee Quality of Life and Function in Tanzania  
*Syed Ali, University of California-San Francisco*

2:15 pm - 2:19 pm  115 - Moped Riders More Likely to Sustain Head Injuries than Motorcyclists  
*Tyler Kent, MD, University of Nevada Las Vegas*

2:19 pm - 2:25 pm  Discussion
Rapid Fire Session 6B – Total Knee
Moderator: TBD

1:25 pm - 1:29 pm
11 - Effect of Modern Blood Preservation Techniques in Patients Undergoing Unicompartment Knee Replacement, Unilateral Total knee Replacement and Concurrent Bilateral Total Knee Replacement
Rohan Bhimani, MD, Massachusetts General Hospital

1:29 pm - 1:33 pm
83 - Pes Planus is Associated with Poor Outcomes After TKA
Allison Roe, MD, Stanford Hospital

1:33 pm - 1:37 pm
12 - Difference between Mechanical Alignment in Navigation versus Scanogram during Total Knee Arthroplasty
Rohan Bhimani, MD, Massachusetts General Hospital

1:37 pm - 1:41 pm
71 - Utilization, Costs, and Complications of Outpatient versus Inpatient Unicompartmental Knee Arthroplasty
Sahitya K. Denduluri, MD, Stanford Orthopaedic Surgery

1:41 pm - 1:45 pm
284 - Routine Postoperative Complete Blood Count Tests after Total Knee Arthroplasty
Emily S. Mills, BS, Frank H. Netter MD School of Medicine at Quinnipiac University

1:45 pm - 1:49 pm
320 - Predictors of Changing Surgeon for Subsequent Elective Total Joint Replacement
Syed Ali, University of California-San Francisco

1:49 pm - 1:55 pm
Discussion

1:55 pm - 1:59 pm
415 - Patella Baja after Knee Arthroscopy and Early Impact on TKA
David A. Brethouwer, DO, Kaiser Permanente Southern California

1:59 pm - 2:03 pm
245 - Modern Posterior Stabilized All-Polyethylene Tibias are Equal to Metal-Backed Tibias
Ezequiel A. Andrade, Hoag Orthopedics Institute

2:03 pm - 2:07 pm
285 - When Are Basic Metabolic Tests After Total Knee Arthroplasty Useful?
Emily S. Mills, BS, Frank H. Netter MD School of Medicine at Quinnipiac University
2:07 pm - 2:11 pm  336 - Population-Based Survivorship of Computer Navigated Versus Conventional Total Knee Arthroplasty
*Hyunwoo P. Kang, MD, University of Southern California*

2:11 pm - 2:15 pm  420 - Implementation of a Standardized Care Pathway for Total Knee Arthroplasty
*Daniel Gelvez, BS, University of Texas Southwestern Medical Center*

2:15 pm - 2:19 pm  183 - Large Osteochondral Allograft Transplantation for Acute Traumatic Knee Articular Defects
*Braden F. Goldberg, McGovern Medical School*

2:19 pm - 2:25 pm  Discussion

**Rapid Fire Session 6C – Sports Medicine**
Moderator: TBD

1:25 pm - 1:29 pm  138 - Pain Management of Anterior Cruciate Ligament Reconstruction
*Augustine M. Saiz Jr., MD, University of California, Davis*

1:29 pm - 1:33 pm  169 - Impact of Sport and Injury: Assessing Athletes Using PROMIS Instruments
*Kenneth J. Hunt, MD, University of Colorado Denver School of Medicine*

1:33 pm - 1:37 pm  321 - Does a Dual Attending Surgeon Strategy Confer Additional Benefit in Multi-Ligament Knee Injury Reconstruction?
*Christopher Kurnik, MD, University of New Mexico*

1:37 pm - 1:41 pm  422 - Methodologic Quality of Top Cited Articles Relating to Knee Dislocation
*David A. Hankins, MD, University of New Mexico*

1:41 pm - 1:45 pm  364 - Does Discoid Morphology Affect Performance on Return-to-Sport Testing After Meniscal Repair
*Megan H. M. Kuba, MD, Kaiser Permanente Orange County*

1:45 pm - 1:49 pm  368 - Helmet Design and Hits to the Head: Analysis of NFL Tackling 1951-Present
*David Wang, MD, GWU School of Medicine*
1:49 pm - 1:55 pm  Discussion

1:55 pm - 1:59 pm  457 - Ramp Lesions of the Medial Meniscus in the Setting of ACL Rupture: Reoperation Rates and Clinical Outcomes
   Dean Wang, MD, Hospital for Special Surgery

1:59 pm - 2:03 pm  265 - Factors Associated with Delay in Diagnosis of ACL Injuries
   Casey A. Slattery, BS, University of Washington

2:03 pm - 2:07 pm  268 - Cost Data for Nonsurgical Treatments in Sports Medicine are Lacking
   Jie Yao, MD, University of Washington

2:07 pm - 2:11 pm  29 - Neuromonitoring Changes During Pediatric Hip Arthroscopy
   Trevor J. Shelton, MD, University of California, Davis

2:11 pm - 2:15 pm  293 - Future ACL Injury Risk After ACL Reconstruction in Patients with Vascular Comorbidities: a Retrospective Database Study
   Matthew C. Gallo, BA, University of Southern California

   Dave Milzman, MD, GWU School Of Medicine

2:19 pm - 2:25 pm  Discussion

**Rapid Fire Session 6D – Practice Management/Education & Other**
Moderator: TBD

1:25 pm - 1:29 pm  347 - What Patient Reported Outcome Should I Use?
   Erik A. Magnusson, MD, University of Washington

1:29 pm - 1:33 pm  134 - Tibial IMN: Virtual Reality vs. Standard Surgical Guide Randomized Study
   Gideon Blumstein, MD, MS, University of California, Los Angeles

1:33 pm - 1:37 pm  233 - The Presence and Implications of Education Silos in Orthopaedic Trauma
   Mary Kate Erdman, MD, University of Southern California
1:37 pm - 1:41 pm  
263 - Predicting Loss to Follow-Up after Lower Extremity Fractures  
*Patrick Albright, BS, MS, University of California-San Francisco*

1:41 pm - 1:45 pm  
46 - Bringing In An Associate - Friend or Future Foe?  
*Debra Phairas, San Francisco, CA*

1:45 pm - 1:49 pm  
49 - Decreasing Orthopedic Reimbursement Trends From 2000-2016  
*Robert S. Walker, MD, University of Arizona College of Medicine Phoenix*

1:49 pm - 1:55 pm  
Discussion

1:55 pm - 1:59 pm  
82 - Perioperative Mental Health Status Does Not Affect Patient Satisfaction After TKA  
*Laura Lu, Stanford University*

1:59 pm - 2:03 pm  
158 - Early Regional Anesthesia Improves Pain Management in Geriatric Hip Fractures  
*John Garlich, MD, Cedars-Sinai Orthopaedic Surgery*

2:03 pm - 2:07 pm  
329 - Postoperative Opioids are Associated with Nonunion After Long Bone Fractures  
*Sarah Bhattacharjee, Pritzker School of Medicine at the University of Chicago*

2:07 pm - 2:11 pm  
345 - Trends in Payments to Orthopedic Surgeons from 2013-2017 Following the Sunshine Act  
*Nathanael D. Heckmann, MD, Keck School of Medicine of the University of Southern California*

2:11 pm - 2:15 pm  
412 - Alpha-Defensin Only Changes Clinical Decision-Making when Physicians are Undecided about the Diagnosis of Periprosthetic Joint Infection  
*Derek F. Amanatullah, MD, PhD, Stanford University*

2:15 pm - 2:19 pm  
398 - The Efficacy of Pediatricians Splinting Injuries in the Office Setting  
*Byron H. Izuka, MD, Childrens Orthopaedics of Hawaii*

2:19 pm - 2:25 pm  
Discussion

**Rapid Fire Session 6E – Spine**  
Moderator: TBD
1:25 pm - 1:29 pm
222 - Reduced Mortality in Pediatric Non-Idiopathic Scoliosis by Implementing a Multidisciplinary
Lorenzo de Rama Deveza, MD, PhD, Baylor College of Medicine

1:29 pm - 1:33 pm
240 - Dural Tears and Venous Thromboembolic Complications. Is there Increased Risk?
Ram K. Alluri, MD, Keck Medical Center of USC

1:33 pm - 1:37 pm
348 - Does Autism Alter the Risk Profile for Idiopathic Scoliosis Surgery?
John S. Vorhies, MD, Stanford University Medical Center

1:37 pm - 1:41 pm
377 - Prospective Evaluation of Bilateral Decompression in Patients with Degenerative Spondylolisthesis
Kimberly E. Hall, MD, Stanford Hospital and Clinics

1:41 pm - 1:45 pm
411 - Efficacy and Safety of Early Thromboprophylaxis After Spinal Cord Injury
Seth Ahlquist, BS, David Geffen School of Medicine at UCLA

1:45 pm - 1:49 pm
418 - Resiliency and Patient Reported Outcomes in Active-Duty Military Patients Undergoing Lumbar Spinal Surgery
Nicholas J. Drayer, MD, Madigan Army Medical Center

1:49 pm - 1:55 pm
Discussion

1:55 pm - 1:59 pm
455 - Economic Impact of Revisions for Cervical Spine Adjacent Segment Disease
Alexander A. Theologis, MD, University of California, San Francisco

1:59 pm - 2:03 pm
21 - Risk Factors for Dysphagia/Dysphonia after Anterior Cervical Spine Surgery
Ruwun Ratnayake, MD, University of California, Davis Medical Center

2:03 pm - 2:07 pm
244 - Semitendinosus Ligament Reinforcement for Prevention of Proximal Junctional Failure
Ram K. Alluri, MD, Keck Medical Center of USC

2:07 pm - 2:11 pm
251 - Spinolaminar Cortical Locking Plate: A Biomechanical Analysis for Lumbar Arthrodesis
Khalid Odeh, MD, St. Mary’s Medical Center, San Francisco

Abiram Bala, MD, Stanford University

2:15 pm - 2:19 pm  54 - Repeat Cervical Spine MRI in Patients with Documented Cervical Degeneration
Grant McChesney, MD, University of Texas Medical Branch

2:19 pm - 2:25 pm  Discussion

Concurrent Allied Health Session 4
Moderator: Theodore W. Coates, PA-C, University of California, Davis

1:25 pm – 2:25 pm  Ultrasound Injection Lab
Speaker TBD

2:25 pm – 3:25 pm  Multimedia Education Session