

### **Resident Awards**

85 - Iatrogenic Septic Arthritis Following Arthrocentesis Through Cellulitis  
*Kent C. Doan, MD, University of Colorado*

355 - Regional Gene Therapy for Bone Healing Using 3D Printed Scaffolds  
*Hyunwoo P. Kang, MD, University of Southern California*

118 - Implant Removal vs. Single-Stage Implant Exchange for Late Infections after Spinal Fusions for AIS  
*Derek T. Nhan, MD, University of Washington*

191 - Does the Symmetry of Patellar Morphology Matter When Matching Osteochondral Allografts for Osteochondral Defects Involving the Central Ridge of the Patella?  
*Karan A. Patel, MD, Mayo Clinic Arizona*

### **Basic Science**

59 - Multimodal Pain Management Following Orthopaedic Sports Procedures and Limiting Opioid Prescriptions – A Pilot Study  
*Ethan M. Bernstein, MD, MPH, Naval Medical Center San Diego*

450 - Atrophic Nonunions are Associated with Functional Defects in Human Skeletal Stem Cells  
*Lawrence H. Goodnough, MD, Stanford University*

454 - Discordant effects of NSAIDS on Human and Mouse Skeletal Stem Cells  
*Lawrence H. Goodnough, MD, Stanford University*

517 - Translational Challenges of Fluorescence Image-Guided Surgical Debridement in a Mouse Model  
*Peter P. Hsiue, MD, University of California, Los Angeles*

458 - Regional Gene Therapy Cell Dosage Using Human Cells in Rats  
*Hansel Ihn, MD, University of Southern California*

556 - Does Harvest Method of Adipose Derived Mesenchymal Stem Cells Matter?  
*Hansel Ihn, MD, University of Southern California*

248 - A Translational Porcine Model for Human Cell-Based Therapies in the Treatment of Post Traumatic Osteoarthritis Following Anterior Cruciate Ligament Injury  
*Thomas Kremen, MD, David Geffen School of Medicine at UCLA*

364 - Nell-1 Downregulation in Osteoblasts Contributes to Oculo-Auriculo-Vertebral(OAV) Spectrum Disorder  
*Timothy Liu, BS, University of California, Los Angeles*

439 - Inflammatory Cytokines in the Painful Ankle Joint

*Andrew S. Maertens, MD, University of Colorado*

525 - Efficacy of Waterproof Surgical Dressings

*Richard Michelin, DO, Riverside University Health System Medical Center*

171 - Biomechanical Analysis of a Novel Metacarpal Intramedullary Nail

*Midhat Patel, MD, University of Arizona College of Medicine, Phoenix*

24 - Impact of Free Radical Stabilization Techniques on Acetabular Liners

*Amber L. Price, MD, University of New Mexico*

478 - A Bioactive Synthetic Membrane for Controlled Osteoinductive Growth Factor Release

*Brett Salazar, BS, Stanford University*

612 - Analyzing the Immunosuppressive Effect of Angiotensin-Converting Enzyme Inhibitors

*Rishi Trikha, MD, University of California, Los Angeles*

125 - In Vitro Toxicity of Bupivacaine on Self-assembled Tissue-Engineered Cartilage

*Dean C. Wang, MD, University of California, Irvine*

### **Foot & Ankle**

16 - Radiographic and Magnetic Resonance Imaging of the Symptomatic Synthetic Cartilage Implant

*Tonya W. An, MD, MA, Cedars-Sinai Medical Center*

196 - Kinematics of the Talus and Fibula after Syndesmotic Injury

*Jonathan Bartolomei, MS, University of Colorado School of Medicine*

197 - First Metatarsophalangeal Joint Arthrodesis: A Case Series Comparing Operative Techniques

*Jonathan Bartolomei, MS, University of Colorado School of Medicine*

22 - Cavus and Varus Alignment are Associated with Peroneal Tendon Pathology

*Hallie Bradley, MD, UT Southwestern*

237 - Decreasing Medicare Reimbursement Rates in Orthopaedic Foot and Ankle Surgery 2000-2019

*David G. Deckey, MD, Mayo Clinic Arizona*

546 - Avoiding the Osteotomy: Mapping of Posterior Talar Dome Access Through Posteromedial vs. Posterolateral Approaches

*Graham DeKeyser, MD, University of Utah*

180 - Arthroscopy During Ankle Fracture. What are we Missing?

*Shain Howard, MD, Valley Hospital Orthopedic Surgery*

234 - Open Ankle Fractures: Is Immediate Internal Fixation Safe?  
*Rami Khalifa, MD, PhD, Texas Tech University Health Science*

412 - Novel Mouse Model of Hindlimb Contracture with 3D-Printed Casts  
*Laura K. Moore, MD, PhD, University of California San Francisco*

526 - Authorship Trends in Foot and Ankle Publications: A Bibliometric Analysis of the Journal of Foot and Ankle Surgery  
*Ankur S. Narain, MD, University of Massachusetts Memorial Medical Center*

### **Hand & Wrist**

417 - Surgical Management of Traumatic Neuromas using the “Bridge to Nowhere” Technique  
*Sofia Bougioukli, MD, PhD, Keck School of Medicine, USC*

46 - Customized Relative Motion Splints for Rehabilitation after Flexor Tendon Repair – A Cadaveric Study  
*David A. Hulet, MD, University of Washington*

235 - Limb Occlusion Pressure vs. Standard Pneumatic Tourniquet Pressure in Open Carpal Tunnel Surgery – A Randomized Trial  
*Hannah Morehouse, MD, Houston Methodist Hospital*

305 - Regional Anesthesia on Postoperative Resource Utilization in Wrist Fracture Surgery  
*Michael Sun, MD, Cedars-Sinai Medical Center*

506 - Incidence, Timing, and Risk Factors for Tendon Rupture after Distal Radius Fractures  
*Catphuong L. Vu, MD, MPH, University of Washington*

### **Other**

282 - Measurement of Acetabular Wall Indices: A Comparison between CT and Plain Radiography  
*Dean C. Wang, MD, University of California, Irvine*

### **Pediatrics**

95 - Normalization Time Among Graf IIC Hips Undergoing Pavlik Harness Treatment  
*Tyler R. Freeman, MD, University of Colorado*

165 - Remodeling of Sagittal Plane Mal-Union after Pediatric Supracondylar Fractures  
*James G. Gamble, MD, PhD, Stanford University Medical Center*

342 - Virtual Reality Reduces Pain, Fear, and Anxiety during Pediatric Orthopaedic Outpatient Procedures

*Katherine Hastings, MPH, Stanford University*

253 - Teenagers With Humeral Shaft Fractures Achieve Excellent Outcomes Without Surgery  
*Benjamin V. Kelley, MD, University of California Los Angeles*

107 - It's O.K. Anesthesia

*John Livingstone, MD, Kapiolani Medical Center for Women and Children*

403 - Suture-Button vs. Screw Fixation in Adolescent Syndesmotic Injuries

*Benjamin Lurie, BA, UC San Diego School of Medicine, Rady Children's Hospital*

479 - NPO Time and Aspiration Risk Not Associated in Pediatric Patients

*Carl A. Nunziato, MD, Dell Seton Medical Center*

92 - Medial Pinning in Pediatric Supracondylar Humerus Fractures: Safer Than Thought?

*Andrew B. Rees, BS, Vanderbilt University School of Medicine*

468 - The Effect of Health Mindset on Patients with Adolescent Idiopathic Scoliosis

*Kali R. Tileston, MD, Stanford University*

554 - Quantifying Pediatric Gait from Metrics Derivable from Wearable Inertial Sensors

*Joanne Zhou, MD, Stanford University*

### **Pharmacology**

520 - Surgical Pain Severity and Opioid Use on Postoperative Opioid Prescriptions

*Johnna Jaynstein, PA-C, Denver Health*

122 - No Ancef? No Problem: An Examination of Prophylactic Antibiotic Use in Pediatric Orthopaedic Procedures

*Derek T. Nhan, MD, University of Washington*

392 - Effects of Intrathecal Opioids vs. Intravenous Methadone on Clinical Outcomes

*Akash Patel, BS, Shriners Hospital for Children, Northern California*

354 - Nationwide Medicare Opioid Prescription Patterns among Orthopedic Surgeons

*Renee E. Walker, BS, University of Texas Medical Branch*

### **Practice Management/Education**

361 - Safety and Efficiency of a Novel Needle Management System

*Abiram Bala, MD, Stanford University*

571 - The Impact of Trainees and Physician Assistants on Intraoperative Duration

*Eli M. Cahan, BA, Stanford University*

577 - The Surgeon Success and Practice Satisfaction Survey  
*Michael Lowe, BS, Rocky Vista University*

579 - Virtual Reality in Orthopedic Arthroplasty Surgery Training  
*Brandon McKinney, DO, Ventura County Medical Center*

126 - Does a Career in Orthopaedic Surgery Affect a Woman's Fertility?  
*Selina Poon, MD, Shriners for Children Medical Center, Pasadena*

### **Shoulder & Elbow**

389 - Shoulder Stabilization in Patients With or Without History of Seizure  
*Obiajulu Agha, BA, University of California San Francisco*

213 - Chronic Preoperative SSRI's are an Independent Risk Factor for Rotator Cuff Repair Revision  
*Sarah Bhattacharjee, Pritzker School of Medicine at the University of Chicago*

83 - Does ORIF Cost the Same as Total Elbow Replacement for Distal Humerus Fractures in Elderly Patients?  
*Sahitya K. Denduluri, MD, Stanford Orthopaedic Surgery*

456 - Effect of Renal Disease on Glenohumeral Osteoarthritis Shoulder Arthroplasty Outcomes  
*Peter P. Hsiue, MD, University of California, Los Angeles*

101 - Clinical Outcome and Complication Rates Following Reverse Shoulder Arthroplasty Revision  
*Pierce Johnson, MD, University of Arizona Phoenix*

157 - Radiographic Stress-shielding in Press-Fit and Cemented Short Humeral Stem Shoulder Arthroplasty  
*Alexander R. Markes, BS, University of California San Francisco School of Medicine*

243- Analysis of Risk Factors for Blood Transfusion after Total Shoulder Arthroplasty  
*Ankur Narain, MD, University of Massachusetts Memorial Medical Center*

337 - Inferior Tilt of the Baseplate Decreases Range of Motion in Reverse Shoulder Arthroplasty  
*Midhat Patel, MD, University of Arizona College of Medicine, Phoenix*

229 - Radial Head Arthroplasty: Outcomes for Ingrowth vs. Smooth Stems  
*Zachary A. Rockov, MD, Cedars-Sinai Medical Center*

18 - Intraoperative Navigation and Increased Glenoid Baseplate Screw Length in rTSA  
*Gregory R. Sprowls, MD, Baylor Scott & White Health, Texas A&M Health Science Center*

278 - Optimal Fixation of the Capitellar Fragment In Distal Humerus Fractures

*David J. Wright, MD, University of California, Irvine*

### **Spine**

301 - Does Conflict of Interest Affect Reported Fusion Rates with Bone Graft Extenders?

*Garwin Chin, MD, UC Irvine Orthopaedic Surgery*

76 - Concussive Injury to the Spinal Cord During Pediatric Spinal Surgery for Adolescent Idiopathic Scoliosis

*Robert Cho, MD, Shriners for Children Medical Center*

493 - Racial and Socioeconomic Status Effects Treatment of Spinal Epidural Abscesses

*Gabriel P. Joseph, AB, Stanford University Pediatric Orthopaedics*

194 - Platelet Dysfunction in Major Pediatric Scoliosis Surgery

*Lydia McKeithan, BE, Vanderbilt University*

116 - A Decade of Spinal Fusion Outcomes in Children with Cerebral Palsy: Are They Improving?

*Derek T. Nhan, MD, University of Washington*

214 - The Effects of Selective Serotonin Reuptake Inhibitors on Lumbar Arthrodesis

*Sean C. Pirkle, BA, Pritzker School of Medicine at the University of Chicago*

528 - Prospective Evaluation of Degenerative Cervical Myelopathy In Asymptomatic Patients Over 60 Years

*Ryan M. Schiedo, MD, University of Massachusetts Memorial Medical Center*

323 - Do Opioid prescriptions after PSF for AIS cause Opioid abuse?

*John S. Vorhies, MD, Stanford University Medical Center*

51 - A Triple Protocol Has Eliminated Infection Following Spinal Deformity Surgeries

*Kirkham B. Wood, MD, Stanford University School of Medicine*

448 - Bundled Care Payment Initiative: Variability in Costs within Spine Surgery

*Hao-Hua Wu, MD, University of California-San Francisco*

### **Sports Medicine**

586 - Hamstring ACL Reconstruction: Autograft Only vs. Hybrid Graft

*Bryan G. Adams, MD, Madigan Army Medical Center*

430 - Randomized Clinical Evaluation of Anterior Cruciate Ligament Reconstruction Grafts

*Edward D. Arrington, MD, Madigan Army Medical Center*

186 - MLB Pitchers with Revision UCLR Have More Lateral Release Locations

*Landon Cohen, MS, Keck School of Medicine of USC*

77 - Increased Posterior Tibial Slope is Associated with Higher Rates of Anterior Cruciate Ligament Reconstruction Graft Rupture

*Christian Cruz, MD, Tripler Army Medical Center*

346 - Post ACL Reconstruction Activity Levels Correlate with Increased Cartilage Degeneration

*James M. Friedman, MD, University of California San Francisco*

164 - Lateral Meniscus Width: Relevance to Saucerization of Discoid Lateral Menisci

*James G. Gamble, MD, PhD, Stanford University Medical Center*

601 - Outcomes of Arthroscopic Loose Body Management in Patella Instability: Medial Patellofemoral Ligament Neglect or Repair vs. Reconstruction

*Preet Gurusamy, MD, University of California, San Diego*

299 - Assessing Reparability of Meniscal Tears Using 3T MRI

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

419 - Long-Term Clinical Outcomes of Arthroscopic Conversion of Partial-Thickness Rotator Cuff Tear to Full-Thickness Rotator Cuff Tear

*Christopher S. Lee, MD, MBA, Lee Sports and Joint Institute*

112 - Capsular Closure Effect on Sport Return Among High Level Athletes

*Justin Makovicka, MD, Mayo Clinic*

113 - Hip "Rotator Cuff" Tears: Characteristics and Concomitant Vastus Lateralis Pathology

*Justin Makovicka, MD, Mayo Clinic*

8 - Preoperative Measurement of the Pediatric Semitendinosus as a Predictor of Autograft Diameter Used in ACL Reconstruction

*Andrew J. Morris, MD, Kaiser Permanente, Orange County*

124 - Using the Remnant ACL to Improve Knee Stability after ACL Tears in a Cadaveric Model

*Derek T. Nhan, MD, University of Washington*

294 - Returning to Activity Following ACL Revisions: A MARS Cohort Analysis

*Erin Owen, PhD, MPH, Slocum Research and Education Foundation*

23 - Pediatric Patella Dislocations: Chondral Damage in Primary vs. Multiple Dislocations

*Amber L. Price, MD, University of New Mexico*

141 - Is Percutaneous Medial Collateral Ligament (MCL) Relaxation During Anterior Cruciate Ligament Reconstruction a Safe Option for Gaining Access to the Medial Knee Compartment in Children?

*John A. Schlechter, DO, Children's Hospital Orange County / Pediatric Orthopedic Specialists*

*of Orange County*

536 - Blood Glucose Levels in Diabetic Patients Following Intra-Articular Corticosteroid Injection of the Shoulder: A Pilot Study

*Adam Seidl, MD, University of Colorado Sports Medicine*

559 - Donor Age Effect on Biomechanical Properties in Bone-Patellar Tendon-Bone Allografts

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

326 - Do Peripheral Nerve Blocks Decrease Opioid Usage after ACL Reconstruction?

*John S. Vorhies, MD, Stanford University Medical Center*

276 - Postoperative Range of Motion Following Arthroscopic Gluteus Medius and Minimus Repair

*David J. Wright, MD, University of California, Irvine*

28 - Is There a Gender Gap in Patient Outcomes After Hip Arthroscopy for FAI?

*Alan Zhang, MD, UCSF Medicine Center*

### **Total Hip**

311 - Detecting Inadvertent Muscle Damage during a Piriformis “Sparing” Approach to the Hip

*Derek F. Amanatullah, MD, PhD, Stanford University*

174 - Selective Screw Fixation is Associated with Early Failure of Primary Acetabular Components for Aseptic Loosening

*John C. Bonano, MD, Stanford University*

452 - Evaluation of Acetabular Cup Alignment and Motion with Screw Placement

*Elizabeth Davis, MD, UT Houston McGovern School of Medicine*

394 - Total Hip Arthroplasty Outcomes in Patients with Acetabular Protrusion

*Danielle E. Greig, MD, University of California, Los Angeles*

407 - Cemented vs. Cementless Fixation for Total Hip Arthroplasty: A Nationwide Analysis

*Xiao T. Chen, BA, Keck School of Medicine of the University of Southern California*

540 - No Dislocation Panacea: Mid-Term Outcomes of Dual Mobility Bearing Primary Total Hip Arthroplasty

*Michael Kim-Orden, MD, University of California Los Angeles*

418 - Impact of Hip Spacer Design on Periprosthetic Joint Infection Outcomes

*Landon Polakof, MD, Cedars-Sinai Medical Center*

592 - Complications, Costs, and Time to Conversion Total Hip Arthroplasty Following Acetabular



*Karim Sabeh, MD, Massachusetts General Hospital*

134 - How Much Hip Motion is Used in Real-Life Activities?

*Alexander P. Sah, MD, Institute for Joint Restoration*

150 - Cleaning the Taper in Retained Stems: Three Methods Show What is Left, and What is Taken Away

*Erik Woelber, MD, Oregon Health and Sciences University*

### **Total Joint**

360 - Success of Rapid Discharge Protocol Follow Total Hip Arthroplasty

*Paul J. Baker, BS, University of Hawaii, John A. Burns School of Medicine*

510 - Comorbidity Burden Impacts Venous Thromboembolism Risk After Total Knee Arthroplasty

*Abiram Bala, MD, Stanford University*

481 - Outcomes after Treatment of Prosthetic Joint Infections

*Elizabeth Davis, MD, UT Houston McGovern School of Medicine*

333 - Reliable Union with Retrograde Nailing of Intraarticular Distal Femur Fractures

*Samantha Nino, MD, Orlando Health*

327 - Compressive Osteointegration Device for Management of Non-Oncologic Complex Arthroplasty

*Scott Galey, MD, UCLA Orthopedic Surgery*

138 - New Morphometric Fixed-Bearing Medial UKA: Minimum 2-Year Follow-Up Results of a Prospective Multicenter Study

*Alexander P. Sah, MD, Institute for Joint Restoration*

30 - Block Bay Spinal Anesthesia for Total Joint Arthroplasty: Improving Efficiency

*Joanne Zhou, MD, Stanford University*

### **Total Knee**

431 - Donor Age Does Not Effect Clinical Outcomes of Allograft Anterior Cruciate Ligament Reconstruction

*Edward D. Arrington, MD, Madigan Army Medical Center*

568 – Navigation Does Not Impact Reimbursement in Primary Total Knee Arthroplasty

*Abriam Bala, MD, Stanford University*

569 - Lateral Parapatellar Approach: Less Constraint, Equivalent Outcomes for Complex TKA

*Meghan Brown, MD, University of Southern California*

56 - Previous Knee Arthroscopy Timing Affects Revision Risk Following Knee Arthroplasty  
*Safa C. Fassih, MD, George Washington University*

380 - Safety Comparison of Bilateral and Unilateral Total Knee Arthroplasty  
*Amelia Hummel, BA, John A. Burns School of Medicine, University of Hawaii*

189 - Outcomes of Symmetric and Asymmetric Tibial Baseplates with Ultracongruent Insert  
*Melissa Jackels, BS, John A. Burns School of Medicine*

106 - Soft Tissue Instability as Predicted by a Measured Resection TKA Surgical Technique  
*Bertrand P. Kaper, MD, Orthopaedic Specialists of Scottsdale*

486 - Can Knee Stability at 0 and 90 Degrees Accurately Predict Mid-Flexion Stability in TKA  
*Bertrand P. Kaper, MD, Orthopaedic Specialists of Scottsdale*

488 - Incidence of Soft-Tissue Releases in Robotic-Assisted Total Knee Arthroplasty  
*Bertrand P. Kaper, MD, Orthopaedic Specialists of Scottsdale*

231 - Safety of Single-Stage Bilateral Total Knee Arthroplasty in the Elderly  
*Landon Kozai, BA, University of Hawaii John A. Burns School of Medicine*

363 - The Increasing Burden of Revision Total Knee Arthroplasty  
*Sean S. Rajae, MD, MS, Cedars-Sinai Medical Center*

137 - Knee Range of Motion During Daily Activities Assessed by a Novel Gait Tracking Wearable Device  
*Alexander P. Sah, MD, Institute for Joint Restoration*

176 - Complications in 555 Consecutive Unilateral or Bilateral Unicompartmental Knee Arthroplasties  
*Brandan I. Sakka, BS, University of Hawaii John A. Burns School of Medicine*

209 - Femoral Axes Cannot Accurately Predict Femoral Rotation in Gap-Balanced TKA  
*Ian G. Schroeder, MD, Cedars-Sinai Medical Center*

499 - Concordance of Pain Measures and Efficacy of Ta-Er In Knee Osteoarthritis  
*Andrew I. Spitzer, MD, Cedars-Sinai Orthopaedic Center*

548 - Medial Proximal Tibial Resection Is Superior to Soft Tissue Balancing  
*Rushabh M. Vakharia, MD, Holy Cross Hospital*

## **Trauma**

587 - Local Antibiotic Powder Reduces Postoperative Infection in Orthopaedic Trauma Surgery  
*Ally Balabanova, BS, Denver Health*

60 - Does Predetermined Cephalomedullary Nail Angle affect Reduction or Tip-to-Apex Distance?

*Tony Bouz, DO, Fontana, CA*

589 - Impact on Periosteal Vasculature After Dual Plating of the Distal Femur: A Cadaveric Study

*Michael J. Chen, MD, Stanford University*

78 - Increased Callus with Carbon Fiber Plates in Distal Femur Fractures

*Chase S. Dean, MD, University of Colorado*

221 - Comparison of Clinical Outcomes Between Cephalomedullary Nail Lengths: A Retrospective Review

*Peter Z. Du, MD, University of Arizona, Tucson*

332 - A Prescribing Protocol Decreases the Rate of Chronic Opioid Use in Orthopaedic Trauma Patients

*Andrew Fithian, MD, Stanford University*

200 - Cost-Effectiveness Analysis of Short vs. Long Cephalomedullary Nails for Treatment of Stable Intertrochanteric Hip Fractures

*Carson Fuller, BS, Washington State University Elson S. Floyd College of Medicine*

377 - Discrepancies in Opioid Records: Electronic Medical Record vs. Statewide Database

*John Garlich, MD, Cedars-Sinai Orthopaedic Surgery*

459 - Failure Rates of Non-Operative Treatment Valgus Impacted Femoral Neck Fractures

*Lawrence H. Goodnough, MD, Stanford University*

255 - Anterior Knee Pain After Tibial Nailing is Associated with Patella Baja

*Christopher R. Johnson, MD, Cedars Sinai*

574 - Assessment of Sacral Bone Density for Surgical Fracture Fixation

*Conor Kleweno, MD, Harborview Medical Center, University of Washington*

590 - Postoperative Pain in Outpatient Orthopedic Trauma Patients

*Kyle Kubes, MD, Community Memorial Health System*

154 - Low Energy Ballistic Tibia Fractures: Are Complication Rates Similar to Closed Injuries?

*Christopher Lee, MD, University of California, Los Angeles*

224 - Local Antibiotic Delivery via Calcium Sulfate for Orthopaedic Infections

*Ashley Levack, MD, MAS, University of Texas, Health Sciences Center at Houston*

*\*Presented by Daniel A. Driscoll, MD*

- 284 - Hip Reduction Before Pan-scan Improves Time to Reduction & Radiation Exposure  
*Philip H. Locker, MD, University of California, San Francisco*
- 524 - Traumatic Proximal Tibiofibular Joint Dislocations: Fixation Matters  
*Erik A. Magnusson, MD, University of Washington*
- 437 - Interlocking Screw Configuration Influences Distal Tibial Fracture Stability in Torsion  
*Malcolm DeBaun, MD, Stanford University*
- 330 - Retrograde Intramedullary Nail vs. Locking Plate for Intraarticular Distal Femur Fractures  
*Samantha Nino, MD, Orlando Health*
- 201 - Novel High Energy Femoral Neck/Shaft MRI Protocol: One Year Outcomes  
*Nathan B. Rogers, MD, The University of Texas Health Science Center at Houston, McGovern Medical School*
- 202 - Cost Analysis: MRI Protocol Identifying High Energy Femoral Neck Fractures  
*Nathan B. Rogers, MD, The University of Texas Health Science Center at Houston, McGovern Medical School*
- 405 - Higher 30-day Readmission in Patients Taking Direct Oral Anticoagulants  
*Nathan B. Rogers, MD, The University of Texas Health Science Center at Houston, McGovern Medical School*
- 552 - CT Assessment of Lateral Wall Integrity in AO/OTA 31A1/2 Fractures  
*Augustine M. Saiz, MD, University of California, Davis*
- 286 - Variation of Condylar Width with Limb Position in Tibial Plateau Fractures  
*Douglass Tucker, BS, Keck School of Medicine*
- 530 - Exam Under Anesthesia Improves Agreement on Stability and Operative Indications  
*Douglass Tucker, BS, Keck School of Medicine*
- 366 - Is Callus Formation Desirable in Pilon Fractures?  
*Noelle L. Van Rysselberghe, MD, Stanford University*
- 433 - Posterior-Only Fixation of APC Pelvic Ring Injuries for Select Indications  
*Stephen J. Warner, MD, PhD, University of Texas Health Science Center at Houston*
- 504 - Revisiting Associations between Femoral Fracture Morphology and Ipsilateral Neck Fractures  
*Stephen J. Warner, MD, PhD, University of Texas Health Science Center at Houston*
- 383 - Anterior Hip Dislocation: Characterization of a Rare Injury and Predictors of Functional Outcome  
*Robert Wojahn, MD, Harborview Medical Center / University of Washington*

## **Tumor**

45 - Effects of Perioperative Blood Transfusion on Outcomes After Oncologic Procedures  
*Louise Atadja, BS, University of Texas Southwestern Medical Center*

81 - A Novel Percutaneous Osseous Pathway Screw Fixation Technique for Periacetabular Metastatic Disease  
*Sahitya K. Denduluri, MD, Stanford Orthopaedic Surgery*

457 - High Grade Intramedullary Osteosarcoma: Does Histologic Subtype Affect Outcome?  
*James H. Flint, MD, Naval Medical Center San Diego*

375 - Trends in the Evaluation and Management of Suspected Metastatic Long Bone Fractures by the General Orthopedist  
*Emily Naclerio, MD, University of Arizona College of Medicine, Phoenix*

198 - Healing of Allograft Junctions: Does Accuracy of Osteotomies Matter?  
*Robert Weinschenk, MD, The University of Texas MD Anderson Cancer Center*

615 - Combining Shelf Osteotomy with Proximal Femoral Reconstruction after Oncologic Resection  
*Joanne Zhou, MD, Stanford University*

## **Upper Extremity**

385 - Necrotizing Fasciitis Infection's Association with Rainfall and Humidity  
*Landon Cohen, MS, Keck School of Medicine of USC*

84 - Trends and Costs of Treatment Options for Diaphyseal Humerus Fractures  
*Sahitya K. Denduluri, MD, Stanford Orthopaedic Surgery*

73 - In-Hospital Outcomes of Upper Extremity NSTI Treated With Dermatofasciectomy  
*Rachel E. Lefebvre, MD, University of Southern California*

119 - More Physeal and Complete Upper-Extremity Fractures Among Obese and Overweight Children  
*Derek T. Nhan, MD, University of Washington*

561 - Comparison of Patient Demographics and Risk Factors for Dislocations After Primary Reverse Shoulder Arthroplasty  
*Samuel J. Swiggett, Maimonides Medical Center*