# A LEGACY OF SUPPORT FOR RESIDENT INVESTIGATORS



# 2023 RESIDENT RESEARCH SYMPOSIA WINNERS

#### NATIONAL

2023 Richard Kyle, MD OREF National Resident Champion

**Brendan Shi, MD** University of California, Los Angeles Bisphosphonate Chaperones Effectively Target the Enthesis Without Impairing Soft Tissue-to-Bone Repair Integrity

#### **Top Scoring Residents**

Christian Blough, MD Cedars-Sinai Hormonal Contraceptives Protect Against Ligament Injuries in Female Athletes

# Edwin Chaharbakhshi, MD

West Virginia University Does Cement Mixing Technique Affect Surgical Exposures to Contaminants and Operating Room Exposures to Volatile Organic Compounds?

**Bijan Dehghani, MD** University of Pennsylvania Defining In Vitro and In Situ Thresholds for Tension Activated Repair Patches

#### Mitchell Ng, MD

Maimonides Medical Center Liposomal Bupivacaine Does Not Decrease Post-Operative Pain in Patients with Intracapsular Femoral Neck Fracture Treated with Hemiarthroplasty: A Double-Blinded Randomized, Controlled Trial

#### **Presenters' Choice**

Katherine Gerull, MD Washington University in St. Louis Attrition Amongst Residents Entering US Orthopedic Surgery Residency Programs: Analysis of National GME Census Data

# MIDWEST

#### **First Place**

Ryan Furdock, MD Case Western Reserve University/University Hospitals Cleveland Medical Center *Culture Expansion Affects Stem Cell Secretome* 

#### Second Place

Katherine Gerull, MD Washington University in St. Louis Attrition Among Residents Entering US Orthopedic Surgery Residency Programs: Analysis of National GME Census Data

# Alex Kane Miller, MD

Beaumont Hospital Royal Oak Outpatient Spine Surgery in the Medicare Population: Trends in Hospital Outpatient and Ambulatory Surgical Center Utilization, 2010-2021

#### Third Place—4-Way Tie

Jonathan Ellis, MD University of Cincinnati

Intra-Articular Air and Hip Joint Radiodensity Correlate with Posterior Wall Acetabulum Fracture Instability

#### William Harkin, MD

Rush University Medical Center Clinical Outcomes and Survivorship of Lateral Unicompartmental Knee Arthroplasty: A Large Single Surgeon Cohort

# Christopher Johnson, MD

University of Chicago Civilian Lumbosacral Ballistic Fractures and Their Associated Injuries

#### Cody Lee, MD

University of Chicago Long Head of the Biceps Autograft Performs Biomechanically Similar to Human Dermal Allograft for Superior Capsule Reconstruction After Rotator Cuff Tear

#### **Presenters' Choice**

Margaret Sinkler, MD University Hospitals, Case Western Reserve Subperiosteal Elevation of the Ulnar Nerve is a Safe and Effective Way to Minimize Post-Operative Ulnar Neuritis in Distal Humerus Fractures

# SOUTHEAST

#### First Place

Nainisha Chintalapudi, MD Atrium Health/Carolinas Medical Center Fracture Related Infections after Low-velocity Ballistic Tibia Fractures: What do Cultures Show?

#### Second Place

Edwin Chaharbakhshi, MD West Virginia University Does Cement Mixing Technique Affect Surgical Exposures to Contaminants and Operating Room Exposures to Volatile Organic Compounds?

#### Rahul Goel, MD

Emory University School of Medicine Non-invasive Active Acoustics as Biomarkers of Early Periprosthetic Joint Effusions, A Cadaveric Study

#### **Third Place**

Janice Bonsu, MD Emory University School of Medicine 90-Day Post-Operative Complications Among Revision TKA Patients Diagnosed with COVID-19 Postoperatively

#### Eoghan T. Hurley, MD

Duke University Anterior Shoulder Instability – An International Delphi Consensus Statement

#### Bridger Rodoni, MD

Emory University School of Medicine Trends in Costs and Professional Reimbursements for Revision Total Knee and Hip Arthroplasty

#### **Presenters' Choice**

Benjamin Averkamp, MD

Atrium Health/Carolinas Medical Center Opioid-Free Surgery vs Traditional Perioperative Analgesia: A Randomized Control Trial of Novel Clinical Care Pathway in Elective Orthopedic Surgery

# **CENTRAL WEST**

#### First Place

#### Samuel Roswell Huntley, MD

University of Miami Epidemiology and Video Analysis of Hamstring Injuries in the National Basketball Association

# Second Place

David S. Constantinescu, MD University of Miami Intravenous Meloxicam versus Intravenous Ketorolac for Pain Control Following Total Joint Arthroplasty: A Randomized Controlled Trial

#### Sarah N. Powell, MD

University of Nebraska Medical Center Female Medical Students' Interest in Orthopedics Decreased After Sawbones Lab

#### **Third Place**

# Alexandra Cancio-Bello, MD

Mayo Clinic Arizona

Recent Workforce Trends in Orthopedic Surgery: Overall Attrition is Increasing, Yet Female Orthopedic Surgeons are Leaving More Frequently and Much Earlier in Their Careers

# Galvin Loughran, MD

Stanford University Effect of Ulnar Collateral Ligament Reconstruction on Off-Speed Pitch Performance in MLB Pitchers

#### Ellen L. Tsay, MD

University of California San Francisco Early Clinical Outcomes of "Lemon-Dropped" Complex Primary Total Joint Arthroplasty Patients to a Tertiary Care Center

#### **Presenters' Choice**

**Bryan Ang, MD** Lenox Hill Hospital, Northwell Health Can Discharge Radiographics Predict Junctional Complications? A Decision Tree Analysis

# STEADMAN PHILIPPON RESEARCH INSTITUTE FELLOWS

#### **First Place**

#### Maximilian Hinz, MD

The Steadman Philippon Research Institute (SPRI) Malrotated Lateral Knee Radiographs Do Not Allow for A Proper Assessment of Medical or Lateral Posterior Slope

#### Second Place

# Mark E. Cinque, MD

The Steadman Philippon Research Institute (SPRI) Clinical Differences Between Medial and Lateral Sided Knee Dislocations at 10-year Follow-up

#### Ajay Kanakamedala, MD

The Steadman Philippon Research Institute (SPRI) Distal Clavicle Excision is not Associated with Adverse Outcomes After Reverse Total Shoulder Arthroplasty

#### **Third Place**

#### Haruki Nishimura, MD, PhD

The Steadman Philippon Research Institute (SPRI) Fisetin Treated Human Bone Marrow Aspirate Concentrate on Osteoarthritis Rats

#### Michael G. Rizzo, MD

The Steadman Philippon Research Institute (SPRI) The Performance of ChatGPT on Orthopaedic In-Service Training Exams: A Comparative Study of the GT-3.5 Turbo and GPT-4 Models in Orthopaedic Education

#### Kohei Yamaura, MD, PhD

The Steadman Philippon Research Institute (SPRI) A Unique Golf Ball-Like Cartilage Morphology of the Femoral Head-Neck Junction in Patients with Femoroacetabular Impingement Syndrome

#### **Presenters' Choice**

#### Phob Ganokroj, MD

The Steadman Philippon Research Institute (SPRI) Biomechanical Evaluation of the Two Different Levels of Coracoid Graft Positions in the Latarjet Procedure for Anterior Shoulder Instability

# WESTERN

#### First Place

Brendan Shi, MD University of California, Los Angeles Bisphosphonate Chaperones Effectively Target the Enthesis Without Impairing Soft Tissue-to-Bone Repair Integrity

#### Second Place

Christian Blough, MD Cedars-Sinai Hormonal Contraceptives Protect Against Ligament Injuries in Female Athletes

#### Brendon Mitchell, MD

University of California, San Diego Danger Zone in Anterolateral Plate Fixation of the Distal Tibia – A 3D CT Angiography Model

# **Third Place**

Samy Gabriel, MD

University of California, San Diego The Effect of Adjacent Level Osteophytes on Proximal Junctional Kyphosis After Multi-Level Thoracolumbar Fusions

#### Michael Hachadorian, MD

University of California, San Diego Association Between Same-Day Discharge Shoulder Arthroplasty and Risk of Adverse Events in Patients with American Society of Anesthesiologists Classification  $\geq$  3: A Cohort Study

### Rishi Trikha, MD

University of California, Los Angeles A Systematic Review of Trainee Ethnic and Gender Diversity in Orthopaedic Surgery and Other Surgical Subspecialties

#### **Presenters' Choice**

Richard W. Lang III, MD Naval Medical Center San Diego *Cervical Spine Conditions in United States Military Aviators: A 19-Year Retrospective Cohort* 

### NORTHEAST

# First Place

Mitchell Ng, MD Maimonides Medical Center

Liposomal Bupivacaine Does Not Decrease Post-Operative Pain in Patients with Intracapsular Femoral Neck Fracture Treated with Hemiarthroplasty: A Double-Blinded Randomized, Controlled Trial

#### Second Place

Bijan Dehghani, MD

University of Pennsylvania Defining in Vitro and In Situ Thresholds for Tension Activated Repair Patches

#### Gergo Merkely, MD, PhD

Harvard Combined Orthopaedic Residency Program Identifying Anterior Cruciate Ligament Injuries Through Automated Video Analysis of In-Game Motion Patterns

# **Third Place**

**Troy Amen, MD** The Hospital for Special Surgery *Evaluation of Racial, Ethnic, and Socioeconomic Disparities an Indication for Carpal Tunnel Release* 

#### David N. Bernstein, MD

Harvard Combined Orthopaedic Residency Program Do Commonly Used Geographically Based Social Determinant of Health (SDoH) Indices Measure the "Same Thing," and Which is Best in Orthopaedic Surgery?

#### David S. Liu, MD

Harvard Combined Orthopaedic Residency Program Effect of Vitamin D In Prevention and Treatment of Pediatric Fractures

#### **Presenters' Choice**

Julie Retzky, MD The Hospital for Special Surgery

Lateral Extra-Articular Tenodesis is Associated with Improved Graft Maturity on MRI Two Years Following Anterior Cruciate Ligament Reconstruction with Quadriceps Tendon Autograft in Skeletally Immature Athletes

#### SOUTHWEST

### First Place

Junho Ahn, MD

University of Texas Southwestern Medical Center Early Clinical Outcomes of Osteochondral Allograft for Capitellar Osteochondritis Dissecans in Adolescent Athletes

#### Second Place

Olivia Barron, MD Baylor College of Medicine Etiology of Acute Extremity Pediatric Compartment Syndrome: A Retrospective Review

#### Semran Thamer, MD

University of Texas at Austin Dell Medical School The Relationship Between the Timing of Knee Osteoarthritis Diagnoses and Arthroscopic Partial Meniscectomy

# **Third Place**

#### Kathleen Lundquist, MD

University of Texas Health Science Center, San Antonio Comparing Fixation Techniques in Metacarpal Fractures: Intramedullary Screw versus Open Reduction Internal Fixation

# Tyler Williamson, MD

University of Texas Health Science Center, San Antonio The Fragility of Statistical Significance in the Use of Aspirin in Prevention of Venous Thromboembolism Events Following Hip Fracture Surgery: A Systematic Review

#### Qais Zai, MD

University of Texas at Austin, Dell Medical School Factors Associated with Incidence and Recurrence of Lower Back Pain: A Large Population Analysis of the UK Biobank

#### **Presenters' Choice Award**

**Stephanie Price, MD** University of Texas at Austin, Dell Medical School Long Leg Cast Versus Hinged Knee Brace Immobilization After Surgical Treatment of Tibial Tubercle Fractures

# CALIFORNIA ORTHOPAEDIC ASSOCIATION ANNUAL MEETING

#### Garrett Berger, MD

University of California, San Diego

Safe and Effective Aspirations and Nerve Blocks for the On-Call Orthopaedic Surgeons

# MINNESOTA ORTHOPAEDIC SOCIETY ANNUAL MEETING

Ryan T. Conyer, MD Mayo Clinic

Hermiathroplasty versus Total Shoulder Arthroplasty in B2 Glenoids with an Intact Rotator Cuff: A Long-Term Matched Cohort Analysis

#### Nicholas Reiners, MD

University of Minnesota, Gillette Children's Hospital Pediatric Hip Deformity from Legg Calve Perthes Disease:Assessing Trends in Treatment Over Time The Orthopaedic Research and Education Foundation (OREF) is an independent 501(c)(3) non-profit organization committed to improving clinical practice and patient outcomes by funding outstanding research and mentoring new investigators to improve the lives of patients with musculoskeletal conditions.

Since its founding, OREF has provided nearly \$150 million in orthopaedic research grants and awards. Our active grant portfolio totals 107 research grants with a value of \$8.3 million. Current funding opportunities and a list of awarded grants may be accessed at **www.oref.org/grants**.



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