



# Western Orthopaedic Association

## 82nd Annual Meeting

August 1-4, 2018 ♦ Westin Snowmass ♦ Snowmass, CO



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# Grantor & Exhibitor Acknowledgements

The Western Orthopaedic Association is grateful for the support of its educational grantors and exhibitors. Thank you for your participation and commitment to WOA.

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# President's Welcome



Dear Colleagues,

Welcome to Snowmass, Colorado. As President of the WOA this year, it is my honor to welcome you and your family to the beautiful valley of Snowmass for the 82nd Annual Meeting of the WOA. My wife Debbie and I are excited and grateful that you have chosen to spend a wonderful summer week with us in Snowmass, and we hope you enjoy both the simulating academic meeting, and the fantastic outdoor mountain venue that awaits you and your family.

I would like to give a big thanks to Jeff Krygier, MD who, along with the Program Committee, has put together a tremendous program with symposia on the latest updates in joint replacement, trauma, sports, and foot and ankle, as well as the kick-off of a new series, "Survive the Night" hand call for the general orthopedist. The rapid fire sessions will provide a casual but upbeat venue for original research papers, while the resident program, led by Jennifer van Warmerdam, will help attending residents prepare for life in orthopedics.

Thursday night, we will kick off the meeting at the Outdoor Rodeo, which is sure to entertain the whole family. And remember, our closing Saturday night Gala is themed Denim and Diamonds, so feel free to dress up your jeans.

This year we have an incredible line-up of guest speakers. Dr. Wayne Sotile will deliver the Howard Steel Lecture on Thursday with an engaging talk on physician resilience and preventing burnout. On Friday, my Presidential Guest Speaker Nate Kaufman will challenge all of us with medical economics and the stubborn facts that might change your views. AAOS President David A. Halsey, MD will address the attendees on Friday with an Academy update, and our final special invitee, Mike McCaslin from the Ortho Forum, will lead a symposium on orthopedic business success.

The Board of Directors has worked tirelessly to make sure there is plenty of fun this year in Colorado. I hope you and your family enjoy the biking, hiking, jeeping, fly fishing, golfing, and touring available in Snowmass and Aspen. New this year for spouses, significant others, and families, we will have morning yoga each day, and a breakfast each morning. Dr. Sotile will speak at breakfast Thursday, the dogsled teams of Snowmass will be at breakfast Friday, and on Saturday we will have a community outreach team helping put hygiene kits together for local organizations.

Again, thank you for coming to Snowmass to enjoy the WOA Annual Meeting this year. I appreciate your engagement and participation throughout the week's activities, and look forward to hosting a wonderful week of education and fun!

Regards,

*Brian Jewett*

Brian A. Jewett, MD  
WOA President

## Program Chair



Jeffrey E. Krygier, MD  
San Jose, CA  
Santa Clara Valley Medical Center

## Presidential Guest Speaker



Nathan S. Kaufman  
San Diego, CA  
**Succeeding in the Brave New/Old World:  
Facts Are Stubborn Things!**  
Friday, 9:40 am

## Howard Steel Lecturer



Wayne M. Sotile, PhD  
Davidson, NC  
**Choosing Resilience: How Physicians &  
Medical Organizations Can Curb Burnout**  
Thursday, 9:25 am



# Summary of Events

See Scientific Program for times for all CME Activities

## KEY

⦿ Activity/Tour

✦ Social Event

✧ Special Presentation

★ Allied Health Session

## Wednesday, August 1

12:00 pm – 5:00 pm

**Board of Directors Meeting** Kitchen Snowmass Dining Room II

12:00 pm – 5:00 pm

**Meeting Registration** Mt. Daly Ballroom Foyer

12:00 pm – 5:00 pm

**Exhibit Setup** Mt. Daly Ballroom A, C, D & E

12:00 pm – 5:00 pm

**Speaker Ready Area** 1st Floor Registration

## Thursday, August 2

5:45 am – 6:45 am

**Scientific E-Poster Session** Cirque Boardroom, Cathedral Deck, Cathedral Peak & Castle Peak Auditorium

5:45 am – 1:40 pm

**Speaker Ready Area** 1st Floor Registration

6:00 am – 1:40 pm

**Meeting Registration** Mt. Daly Ballroom Foyer

6:30 am – 1:40 pm

**Technical Exhibits, Continental Breakfast, Coffee Breaks and Daily Drawing** Mt. Daly Ballroom A, C, D & E

6:45 am – 6:50 am

**Welcome, Announcements and Meeting Overview** Mt. Daly Ballroom B

6:50 am – 7:00 am

**First Business Meeting** Mt. Daly Ballroom B

7:00 am – 1:40 pm

**Scientific Program** Mt. Daly Ballroom B (unless otherwise specified)

7:30 am

✦ **Yoga** Overlook Room  
Price: Included in Registration Fee

7:30 am

✦ **Group Walk** Meet in Lobby  
Price: Included in Registration Fee

7:50 am – 8:20 am

✧ **Focused Brunch Presentation** Mt. Daly Ballroom B  
\*CME Credit Not Available

7:50 am – 8:50 am

★ **Concurrent Allied Health Session 1 - Hand** Alpine Springs

8:30 am – 10:00 am

✦ **Spouse/Guest/Children's Hospitality** Garden Terrace  
Join your friends and meet new spouses while enjoying a continental breakfast. Our Howard Steel Speaker, Dr. Wayne Sotile will present "Resilient Medical Families: New Challenges; New Solutions" and Steve Miller with the Convention and Visitors Bureau will tell us what is exciting in Snowmass and activities to explore!  
Price: Included in Registration Fee or \$40 per Unregistered Adult Guest and \$20 per Child (5-17 years)

9:05 am – 9:25 am

**Break – Please visit Exhibits** Mt. Daly Ballroom A, C, D & E

9:25 am – 10:20 am

✧ **Howard Steel Lecture** Mt. Daly Ballroom B  
Choosing Resilience: How Physicians & Medical Organizations Can Curb Burnout  
Wayne M. Sotile, PhD

10:20 am – 10:40 am

**Break – Please visit Exhibits** Mt. Daly Ballroom A, C, D & E

11:30 am – 12:00 pm

✧ **Focused Lunch Presentation** Mt. Daly Ballroom B  
\*CME Credit Not Available

12:00 pm – 12:35 pm

✧ **OREF Update/WOF/Young Investigator Awards** Mt. Daly Ballroom B

12:00 pm – 1:00 pm

★ **Concurrent Allied Health Session 2 - Trauma** Alpine Springs

12:45 pm – 5:15 pm

⦿ **Biking Tour Downhill from Maroon Bells**

**Meet in Lobby at 12:35 pm**

The tour begins with a drive to the "most photographed peaks in North America" – the Maroon Bells and Maroon Lake. At Maroon Lake there will be time for photographs and to talk about the local wildlife. After everyone has limbered up, you will begin your 12-mile downhill descent on a paved road through the Maroon Valley. Along the way, you are welcome to stop and enjoy the spectacular views, and to photograph one of the most picturesque wilderness areas in Colorado. Your trip finishes in Aspen. We will stop for a refreshing snack along the way. The Maroon Bells road is closed to most vehicular traffic for the majority of the summer and affords a perfect opportunity to enjoy your downhill bike ride. Trip departs at 1:15 pm and returns by 5:15 pm. **\*Please eat prior to tour.**

Price: \$115 per Adult (13 and older) / \$105 per Child 7-12 (under 7 cannot ride their own bike) / \$39 per child under 3 in Burley trailer

1:00 pm – 5:00 pm

⦿ **Jeep Tour**

**Meet in Lobby at 12:50 pm**

Panoramic views of the entire Roaring Fork Valley highlight this trip, as we head high up Aspen Mountain to an elevation of 12,000 feet. As soon as we leave the Gant, we begin our ascent, winding up roads that you may recognize as ski runs if you have visited us in the winter months. Once on top, we will traverse Richmond Ridge before descending the backside of Aspen Mountain. Along the way we will pass old silver mines rich in history. Once we get back on to Castle Creek Road, we will head to the ghost town of Ashcroft. This scenic ghost town was once larger than Aspen itself during the height of the mining boom. **\*Please eat prior to tour.**

Price: \$105 per Adult (13 and older) / \$95 per Child 8-12

1:40 pm – 2:40 pm

**Scientific E-Poster Session** Cirque Boardroom, Cathedral Deck, Cathedral Peak & Castle Peak Auditorium  
Presenters will be available to answer questions.

1:45 pm – 5:00 pm

✧ **Resident Symposium** Alpine Springs

2:40 pm – 4:00 pm

**Multimedia Education Session** 1st Floor Registration



# Summary of Events

See Scientific Program for times for all CME Activities

## KEY

⦿ Activity/Tour

✦ Social Event

★ Special Presentation

★ Allied Health Session

4:45 pm – 5:30 pm

✦ **New Member Reception** Overlook Room

All WOA new members are invited to attend this reception. The WOA Board, and other leadership, would like to take this opportunity to welcome you to the WOA.

Attire: Cowboy Boots and Jeans or Resort Casual

5:45 pm – 10:00 pm

✦ **Welcome Dinner at the Rodeo**

**Meet at bus depot at 5:30 pm for transportation to the Rodeo**

Have a boot stomping good time at Snowmass's Rodeo -Saddle Bronc Riding, Bareback riding, Bull Riding, Team Roping, Barrel Races and more! All children can participate in the calf scramble. Sidle up to the bar and savor the best BBQ in Colorado.

Transportation from hotel provided.

Attire: Cowboy Boots and Jeans

Price: Included in Registration Fee or \$100 per Unregistered Adult Guest, \$50 per Unregistered Child (5-17 years)

9:45 pm – 10:45 pm

✦ **Resident Reception** Overlook Room

All Residents are invited to attend this reception.

Attire: Cowboy Boots and Jeans or Resort Casual

Price: Included in Registration Fee

## Friday, August 3

6:00 am – 7:00 am

**Regional and AAOS Presidents' Breakfast Meeting with State Presidents and Board of Councilors**

Kitchen Snowmass Dining Room II

6:00 am – 7:00 am

**Scientific E-Poster Session** Cirque Boardroom, Cathedral Deck, Cathedral Peak & Castle Peak Auditorium

6:00 am – 2:25 pm

**Speaker Ready Area** 1st Floor Registration

6:30 am – 2:25 pm

**Meeting Registration** Mt. Daly Ballroom Foyer

6:45 am – 2:25 pm

**Technical Exhibits, Continental Breakfast, Coffee Breaks and Daily Drawing** Mt. Daly Ballroom A, C, D & E

6:55 am – 7:00 am

**Announcements** Mt. Daly Ballroom B

7:00 am – 2:25 pm

**Scientific Program** Mt. Daly Ballroom B (unless otherwise specified)

7:30 am

✦ **Yoga** Overlook Room

Price: Included in Registration Fee

7:30 am

✦ **Group Walk** Meet in Lobby

Price: Included in Registration Fee

7:50 am – 8:20 am

★ **Focused Brunch Presentation** Mt. Daly Ballroom B

\*CME Credit Not Available

8:25 am – 9:25 am

★ **Concurrent Allied Health Session 3 – Radiology** Alpine Springs

8:30 am – 10:30 am

✦ **Spouse/Guest/Children's Hospitality** Garden Terrace

Meet & greet the sled dogs of Snowmass while enjoying a continental breakfast.

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

9:05 am – 9:25 am

**Break – Please visit Exhibits** Mt. Daly Ballroom A, C, D & E

9:25 am – 9:40 am

★ **AAOS Report** Mt. Daly Ballroom B

David Halsey, MD

9:40 am – 10:35 am

★ **Presidential Guest Speaker** Mt. Daly Ballroom B

Succeeding in the Brave New/Old World: Facts Are Stubborn Things!

Nathan S. Kaufman

10:35 am – 10:55 am

**Break – Please visit Exhibits** Mt. Daly Ballroom A, C, D & E

11:45 am – 12:15 pm

★ **Focused Lunch Presentation** Mt. Daly Ballroom B

\*CME Credit Not Available

12:15 pm – 1:20 pm

★ **WOF Report & Western Orthopaedic Foundation Named Grant Awards** Mt. Daly Ballroom B

1:00 pm – 5:00 pm

⦿ **Fly Fishing**

**Meet in Lobby at 12:20 pm for transportation**

Fly Fishing for wild trout in the unspoiled waters of Western Colorado is an unforgettable experience not to be missed. The Aspen/Snowmass area, with the Roaring Fork and Frying Pan Rivers at its back door, is the center of the finest wild trout fishing in Western Colorado. Both rivers are designated as Gold Medal Rivers by the Colorado Department of Wildlife. Trip departs at 12:30 pm and returns by 5:00 pm.

\***Eat during the Focused Lunch presentation.**

Price: \$290 per Angler (Includes equipment, flies, license, and gratuity)

1:00 pm – 5:30 pm

⦿ **Golf Tournament at Snowmass Club**

**Meet in Lobby at 12:30 pm; 1:00 pm Tee Time**

Award-winning architect Jim Engh designed the Snowmass Club Golf Course. The result is a course with majestic views, challenging landscapes, and sensitivity to the land and the sky above it. The fairways are sculpted, the greens are challenging, and the bunkers are downright frightening.

\***Eat during the Focused Lunch presentation**

Price: \$165 per person (Includes transportation, greens fees, beverage cart, and prizes)

1:30 pm – 5:00 pm

⦿ **Novice-Intermediate Hiking with Guide**

**Meet in Lobby at 1:20 pm**

Get a close look at the natural environment while you enjoy scenic, secluded trails. The elevation gain is 600-1,300 vertical feet, round trip distance is 3-4 miles and trail time is about 2 ½ hours, including transportation. Includes refreshments.

\***Eat during the Focused Lunch presentation**

Price: \$99 per adult (13+) / \$89 per child (8-12) (Includes gratuity)





# Summary of Events

See Scientific Program for times for all CME Activities

## KEY

⦿ Activity/Tour

✦ Social Event

✧ Special Presentation

★ Allied Health Session

2:25 pm – 3:25 pm

**Scientific E-Poster Tour** Cirque Boardroom, Cathedral Deck, Cathedral Peak & Castle Peak Auditorium

Presenters will be available to answer questions.

3:25 pm – 4:25 pm

**Multimedia Education Session** 1st Floor Registration

5:30 pm – 7:30 pm

✦ **Exhibitor Reception** Mt. Daly Ballroom A, C, D & E

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

Attire: Business Casual

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

5:30 pm – 7:30 pm

✦ **Kids' Movie Night with Arts & Crafts and Dinner**

Cathedral Peak

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

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

## Saturday, August 4

5:40 am – 6:40 am

**Scientific E-Poster Session** Cirque Boardroom, Cathedral Deck, Cathedral Peak & Castle Peak Auditorium

5:40 am – 1:35 pm

**Speaker Ready Area** 1st Floor Registration

5:45 am – 6:40 am

**Board of Directors Meeting** Kitchen Snowmass Dining Room II

6:15 am – 1:35 pm

**Meeting Registration** Mt. Daly Ballroom Foyer

6:30 am – 1:35 pm

**Technical Exhibits, Continental Breakfast, Coffee Breaks and Daily Drawing** Mt. Daly Ballroom A, C, D & E

6:45 am – 7:00 am

**Second Business Meeting** Mt. Daly Ballroom B

7:00 am – 1:35 pm

**Scientific Program** Mt. Daly Ballroom B (unless otherwise specified)

7:30 am

✦ **Yoga** Overlook Room

Price: Included in Registration Fee

7:30 am

✦ **Group Walk** Meet in Lobby

Price: Included in Registration Fee

8:30 am – 10:00 am

✦ **Spouse/Guest/Children's Hospitality** Garden Terrace

Enjoy a continental breakfast! Clean the World – WOA's Social Responsibility Event. We will take repurposed bottled amenities and build hygiene kits to donate to a shelter. Hygiene kits are a great way to give back to our local communities in an affordable, mobile, and fun way.

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

8:40 am – 9:10 am

✧ **Focused Brunch Presentation** Mt. Daly Ballroom B

\*CME Credit Not Available

9:55 am – 10:20 am

**Break – Please visit Exhibits** Mt. Daly Ballroom A, C, D & E

11:00 am – 3:00 pm

⦿ **Anderson Ranch Arts Center**

**Meet in Lobby at 10:50 am for transportation**

The Annual Art Auction is Anderson Ranch's largest community fundraiser of the year and a festive highlight of the summer season! Held at the historic Ranch, the event welcomes art lovers of all ages to the campus. Over 200 works of art from \$100 – \$20,000 are available in live and silent auctions. Enjoy live music, art activities for children and a delicious picnic lunch prepared by the Ranch Café. Proceeds support the Ranch's artistic programs.

Price: \$20 per person (Includes transportation and BBQ lunch)

Maximum 20 people

11:25 am – 11:40 am

✧ **Presidential Address** Mt. Daly Ballroom B

The WOA and YOU

Brian Jewett, MD

11:45 am – 12:45 pm

★ **Concurrent Allied Health Session 4 - Case Review**

Alpine Springs

12:45 pm – 6:00 pm

⦿ **Class III Whitewater Rafting on the Colorado River**

**Meet in Lobby at 12:35 pm**

This popular trip boasts excellent Class III whitewater, followed by a stunning and scenic relaxing float within steep majestic canyon walls. These rapids, with names like "Superstition", "The Wall", and "Pinball", create an exhilarating section of unforgettable white water. The first section has Class III rapids and then declines to Class II & I as we focus on the beautiful scenery in the canyon. Younger children and less adventuresome adults can enter the rafts after the first set of larger rapids. **Children must be 50 lbs. and be able to swim.**

Price: \$118 per Adult (13 and older) / \$108 per Child 6-12

1:30 pm – 5:30 pm

⦿ **Get to Know Aspen Tour**

**Meet in Lobby at 1:20 pm**

This tour is a delightful blend Aspen's fascinating history with a stop at the Aspen Historical Museum; an architectural exploration by van of the Victorian West End; a stop at the Red Brick to visit with some highly talented local artists; and a tour with the curator of the current exhibit at the Aspen Art Museum.

Price: \$110 per person (Minimum 10 people)

2:00 pm – 3:00 pm

**Multimedia Education Session** 1st Floor Registration

7:00 pm – 11:00 pm

✦ **Family Gala Dinner Dance** Mt. Daly Ballroom A

Enjoy the sunset, then the stars and let's get the party started! This is the night to let your hair down and have some fun with your friends and colleagues. There will be a fabulous band, dinner and drinks, and don't forget to bring your dance moves!

Attire: Denim & Diamonds Theme - Jeans, Jackets and Cowboy Boots

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



# Scientific Program

Mt. Daly Ballroom B, Unless Otherwise Specified

## CME ACCREDITATION

The American Academy of Orthopaedic Surgeons designates this live activity for a maximum of 24.75 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

- \*16.5 CME Credits for Scientific Program
- \*5 CME Credits for Scientific E-Poster Sessions
- \*3.25 CME Credits for Multimedia Education Sessions

To ensure correct CME credit is awarded, please complete the WOA 2018 Annual Meeting CME Credit Records online at [www.woa-assn.org](http://www.woa-assn.org). CME Certificates will be awarded to all registered participants.

## Thursday, August 2

5:45 am **Scientific E-Poster Session** Cirque Boardroom, Cathedral Deck, Cathedral Peak & Castle Peak Auditorium

6:45 am **Welcome and Announcements**  
Jeffrey E. Krygier, MD, Program Chair  
Brian A. Jewett, MD, President

6:50 am **First Business Meeting**

### Symposium 1 – Sports – Focus on the Athlete's Knee

Moderator: Jonathan Bravman, MD, University of Colorado School of Medicine

7:00 am Team Physician Role and Responsibilities: How to Do It Right  
Eric McCarty, MD, University of Colorado School of Medicine

7:12 am Return to Play after an ACL Injury  
Kevin D. Plancher, MD, Albert Einstein College of Medicine

7:24 am Management of the "Other" Knee Ligaments (ALL, MCL, LCL, etc...)  
CAPT Matthew T. Provencher, MD, The Steadman Clinic

7:36 am Current State of the Art in Treatment of Patellar Instability  
Rachel M. Frank, MD, University of Colorado School of Medicine

7:48 am Discussion

7:50 am **Focused Brunch Presentation** \*CME Credit Not Available  
**Smith & Nephew**

### Concurrent Allied Health Session 1 – Hand

Alpine Springs  
Moderator: Theodore W. Coates, PA-C, University of California, Davis Medical Center

7:50 am Review of Hand Injuries and Conditions  
Robert R. Slater Jr., MD, Folsom, CA

### Rapid Fire Sessions 1A – Pediatrics

Cirque Boardroom  
Moderators: Stephanie Y. Pun, MD, Stanford University Medical Center & Meghan N. Imrie, MD, Stanford University Medical Center

8:25 am Trends in Pediatric Traumatic Upper Extremity Amputations  
Venus Vakhshori, MD, Keck School of Medicine of the University of Southern California

8:29 am Association Between Fracture Laterality and Nerve Injury Among Pediatric Supracondylar Humerus Fractures  
Diana G. Douleh, MD, University of Colorado

8:33 am How Often Are Pediatric Elbow Radiographs Adequate for Interpretation  
Daniel S. Brereton, DO, Riverside University Health System  
\*Presented by Steven G. Kenney, DO, MPH

8:37 am Mischievous Metaphyseal Metallic Implants in Children  
Chason Ziino, MD, Stanford University  
\*Presented by Kimberly Hall, MD

8:41 am Discussion

8:45 am Radiolucent versus Fracture Tables for In Situ SCFE Pinning  
Katherine Schroeder, MD, Texas Children's Hospital / Baylor College of Medicine

8:49 am Accuracy of Fluoroscopy When Assessing Pin Protrusion during Fracture Stabilization?  
Steven G. Kenney, DO, MPH, Riverside University Health System

8:53 am Sacroiliac Periosteal Avulsion as an Indication of Posterior Pelvic Fracture Instability in Children  
Chase S. Dean, MD, University of Colorado School of Medicine

8:57 am Closed versus Surgical Management of SER IV Ankle Fractures in Adolescents: Maintain the Ankle Mortise  
Benjamin M. Lurie, BA, Rady Children's Hospital

9:01 am Discussion

**Rapid Fire Sessions 1B – Upper Extremity/Hand & Wrist** Cathedral Deck  
Moderators: Gregory L. DeSilva, MD, University of Arizona Health Sciences & Basil R. Besh, MD, Fremont Orthopaedic & Rehabilitative Medicine

8:25 am Proximal Row Carpectomy versus Four Corner Fusion: Regional Differences, Incidence, and Conversion to Fusion  
Harrison F. Kay, MD, University of Southern California Medical Center  
\*Presented by Hyunwoo P. Kang, MD

8:29 am Feasibility and Usability of a Ranking Tool for Trigger Finger  
Lauren M. Shapiro, MD, Stanford Hospital and Clinics

8:33 am Wrist Arthroscopy for the Treatment of Scapholunate Predynamic Instability and Return to Push-Up Activity  
Christopher M. Belyea, MD, MBA, Tripler Army Medical Center

8:37 am Fast-Fix All-Arthroscopic Repair of Peripheral TFCC Tears: Safe and Effective in Long-Term  
Eric J. Sarkissian, MD, Stanford University Medical Center

8:41 am Discussion

8:45 am Epidemiological and Treatment Trends of Distal Radius Fractures across Multiple Age Groups  
Ali Azad, MD, University of Southern California

8:49 am Peripheral Nerve Block Prior to Distal Radius Repair  
Pierce Johnson, MD, Banner University of Arizona

8:53 am Feasibility and Usability of Conjoint Analysis for Distal Radius Fractures  
Lauren M. Shapiro, MD, Stanford Hospital and Clinics

8:57 am Declining Use of Wrist External Fixation – The Rise of the Bridge Plate  
Venus Vakhshori, MD, Keck School of Medicine of the University of Southern California

9:01 am Discussion

### Rapid Fire Sessions 1C – Total Hip

Cathedral Peak  
Moderators: Alexander Sah, MD, Institute for Joint Restoration & Kathryn L. Schabel, MD, Oregon Health & Science University



# Scientific Program

Mt. Daly Ballroom B, Unless Otherwise Specified

- 8:25 am Statin Use Is Associated with Less Postoperative Arrhythmia after Total Hip Arthroplasty  
Michael Chen, MD, Stanford University
- 8:29 am THA in HIV-Positive Patients Managed with Contemporary Protocols Outcomes  
Clara L. Telford, BA, University of Texas Southwestern  
\*Presented by Sean Shahrestani, MD
- 8:33 am Resources and Complications in Primary Total Arthroplasty for Dialysis Patients  
Joseph Patterson, MD, University of California San Francisco
- 8:37 am Discussion
- 8:42 am Incision Site Subcutaneous Fat Thickness and 90-Day Complications for THA  
Gregory R. Sprowls, MD, Baylor Scott and White Health
- 8:46 am To Cement or Not to Cement? Modern Hybrid Total Hip Replacement - Low Risks and Excellent Results with Cemented Femoral Fixation  
Alexander Sah, MD, Institute for Joint Restoration
- 8:50 am First Report of Early Results of a Commonly Used Cementless Single Tapered Femoral Component in Primary Total Hip Arthroplasty  
Alexander Sah, MD, Institute for Joint Restoration
- 8:54 am Discussion

## Rapid Fire Sessions 1D – Sports Medicine Castle Peak Auditorium

Moderators: Eric McCarty, MD, University of Colorado School of Medicine & Omer A. Ilahi, MD, Southwest Orthopedic Group/Texas Arthroscopy & Sports Medicine Institute

- 8:25 am Outcomes of Arthroscopic Capsular Release Based on Patient Position  
Darby A. Houck, BA, University of Colorado School of Medicine
- 8:29 am Regional Anesthesia for Shoulder Arthroscopy Decreases Early Opioid Requirements in Preoperative Opioid Users  
Nicholas A. Trasolini, MD, Keck School of Medicine of the University of Southern California  
\*Presented by Hyunwoo P. Kang, MD
- 8:33 am Does the ABER View Improve Preoperative Identification of Labral Lesions?  
Jeffrey E. Mait, MD, The Sports Clinic
- 8:37 am Scapular Retraction Test's Diagnostic Accuracy in Assessing Rotator Cuff Status  
Stephen T. Gates, MD, University of Texas Southwestern
- 8:41 am Discussion
- 8:45 am Trans-Osseous versus Anchor Repair of Acute Patellar Tendon Ruptures  
James A. O'Dowd, MD, University of Southern California
- 8:49 am Trans-Osseous versus Anchor Repair of Acute Quadriceps Tendon Ruptures  
Steven Heer, BS, Tulane School of Medicine
- 8:53 am Return to Work after Autologous Chondrocyte Implantation of the Knee in Patients with Workers' Compensation Insurance  
John G. Lane, MD, University of California
- 8:57 am Outcomes of Pediatric Meniscal Injuries  
Stephanie Logterman, MD, University of Colorado
- 9:01 am Discussion
- 9:05 am **Break – Please Visit Exhibits** Mt. Daly Ballroom A, C, D & E

## General Session 1 – Howard Steel Lecture

Moderator: Brian A. Jewett, MD, Slocum Center for Orthopedics and Sports Medicine

- 9:25 am Introduction of Presidential Guest Speaker  
Brian A. Jewett, MD, Slocum Center for Orthopedics and Sports Medicine

## 9:30 am Howard Steel Presentation

Choosing Resilience: How Physicians and Medical Organizations Can Curb Burnout  
Wayne M. Sotile, PhD, The Sotile Center for Resilience and the Center for Physician Resilience

- 10:20 am **Break – Please Visit Exhibits** Mt. Daly Ballroom A, C, D & E

## Symposium 2 – Surviving Hand Call for Non-Hand Specialists – A Case Based Session with a Panel of Experts

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

### Panelists:

Gregory L. DeSilva, MD, University of Arizona Health Sciences  
Kevin D. Plancher, MD, Albert Einstein College of Medicine  
Robin N. Kamal, MD, Stanford University Medical Center

- 10:40 am Panel Discussion

- 11:30 am **Focused Lunch Presentation** \*CME Credit Not Available  
**Johnson & Johnson Medical Devices Companies**  
Moving Toward Opioid Free Orthopedic Surgery  
Alexander Sah, MD

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

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

- 12:00 pm **OREF Update**  
P. Joanne Ray, CEO of Orthopaedic Research and Education Foundation
- 12:05 pm Biomarkers of Neutrophil Extracellular Trap Formation (NETosis) and Their Relationship to Wound Healing in Ankle Fracture Surgery  
William T. Kent, MD, University of California, San Diego
- 12:13 pm 3-Dimensional Virtual Reality for Pain Control in Orthopaedic Patients: A Prospective Randomized Control Study  
Milton T. M. Little, MD, Cedars Sinai Medical Center
- 12:21 pm Correlation of Intraoperative Neurophysiologic Monitoring Changes with Postoperative Neurologic Deficits  
Kali R. Tileston, MD, Stanford University
- 12:29 pm Discussion

## Concurrent Allied Health Session 2 – Trauma Alpine Springs

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

- 12:00 pm Hip Fractures – Diagnosis and Management  
Milton L. "Chip" Routt Jr., MD, University of Texas Health Science Center

## Rapid Fire Sessions 2A – Other Cirque Boardroom

Moderators: Robin H. Dunn, MD, University of Colorado School of Medicine & Jeffrey E. Krygier, MD, Santa Clara Valley Medical Center

- 12:40 pm Patient Mental Health Status Is Minimally Associated with Patient Satisfaction  
Laura Lu, BS, Stanford University  
\*Presented by Derek F. Amanatullah, MD, PhD
- 12:44 pm The Effect of a Revised Curriculum on OITE Performance  
Taylor R. Lara, MD, Oregon Health & Science University
- 12:48 pm A Structured Review Instrument Improves the Quality of Orthopaedic Journal Club  
Sean T. Campbell, MD, Stanford University





# Scientific Program Mt. Daly Ballroom B, Unless Otherwise Specified

12:52 pm Orthopaedic Surgery Residents and the Physician Payment Sunshine Act: Are Payments to Resident Physicians Being Reported in the Open Payments Database?  
Jason H. Ghodasra, MD, MSCI, University of California Los Angeles  
\*Presented by Kent T. Yamaguchi, MD

12:56 pm Discussion

1:00 pm Which Subspecialties Produce Best Evidence at the AAOS Annual Meeting?  
Kimberly E. Souza, BS, Stanford University

1:04 pm The Thirty Year Slump: Gender Diversity in Orthopaedic Literature  
Meghan A. Brown, MD, University of Southern California Medical Center

1:08 pm Gender Disparities in Industry Support of Orthopaedic Surgeons  
Rafael Buerba, MD, MHS, University of California Los Angeles  
\*Presented by Danielle C. Greenberg, BA

1:12 pm Current Maternity, Paternity and Adoption Leave Policies in Orthopaedic Surgery Residencies  
Sara Van Nortwick, MD, Stanford University  
\*Presented by Breana Siljander, MD

1:16 pm Discussion

1:20 pm Can Patients and Families Read the Questionnaires for Patient Related Outcome Measures?  
Ellen M. Raney, MD, Shriners Hospital for Children

1:24 pm One-Year Global Unplanned Reoperation Rates: A Useful Quality Metric in Orthopaedic Surgery?  
Olufemi Adams, BA, BS, University of Chicago - Pritzker School of Medicine

1:28 pm Does Tailoring Discharge Opioid Regimens to Inpatient Use after Orthopaedic Procedures Affect Refill Rates?  
Trevor Grace, MD, University of California San Francisco

1:32 pm Infection Surveillance at Ambulatory Surgical Centers  
Jory Wasserburger, MD, University of New Mexico

1:36 pm Discussion

## **Rapid Fire Sessions 2B – Upper Extremity** Cathedral Deck

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

12:40 pm Nationwide Database Analysis of Intramedullary Nail versus Plate Fixation for Humeral Shaft Fractures  
Paul D. Navo, MPH, Keck School of Medicine of the University of Southern California  
\*Presented by Alexis Rounds, BS

12:44 pm Early Post-Operative Outcomes of Plate Versus Nail Fixation for Humeral Shaft Fractures  
Jill A. Goodwin, MD, University of Arizona College of Medicine  
\*Presented by Blake Eyberg, MD

12:48 pm Operative versus Nonoperative Treatment of Humeral Shaft Fractures  
Brian M. Cash, MD, University of California Los Angeles Medical Center and Orthopaedic Hospital

12:52 pm Relationship of Neurovascular Structures to Multiplanar Distal Interlocking Screws in Intramedullary Humeral Nails  
Garrett Steinmetz, MD, University of Oklahoma

12:56 pm Discussion

1:00 pm Low-Profile Mesh Plating for Treating Transverse Olecranon Fractures: Biomechanical Evaluation  
Christina Salas, PhD, University of New Mexico  
\*Presented by Deana Mercer, MD

1:04 pm Low Complication Rates among Geriatric Olecranon Fracture Patients Treated with Plate Fixation  
Sean T. Campbell, MD, Stanford University

1:08 pm Comparison of Tension Band and Plate Fixation of Olecranon Fractures  
Michael Del Core, MD, University of Texas Southwestern Medical Center

1:12 pm Concomitant Upper Extremity Fracture Worsens Outcomes in Elderly Patients with Hip Fracture  
Mary Kate Thayer, MD, University of Washington Department of Orthopaedics  
\*Presented by Conor P. Kleweno, MD

1:16 pm Discussion

1:20 pm A Novel Technique for Olecranon Osteotomy for Treatment of Distal Humerus Fractures  
Duncan C. Ramsey, MD, MPH, Oregon Health & Science University

1:24 pm Radial Head Instability and Limited Hand Rotation after Simulated IOM Injury  
Christina Salas, PhD, University of New Mexico  
\*Presented by Deana Mercer, MD

1:28 pm Effects of Centralized Microvascular Outreach on Quality of Patient Care  
Christopher Chen, MD, University of Colorado

1:32 pm Feasibility of Discussing Cost of Surgery at Point of Care  
Laura Lu, BS, Stanford University  
\*Presented by Lauren M. Shapiro, MD

1:36 pm Discussion

## **Rapid Fire Sessions 2C – Total Knee** Cathedral Peak

Moderators: Alexander Sah, MD, Institute for Joint Restoration & Jennifer M. van Warmerdam, MD, St. Mary's Medical Center Total Joint Center

12:40 pm Manipulation Rate Is Not Increased after Customized Total Knee Arthroplasty  
Andrew B. Kay, MD, Houston Methodist Hospital

12:44 pm Does Use of Robotic Technology Improve Surgeon Ergonomic Safety and Satisfaction during TKA?  
Laura Scholl, MS, Mahwah, NJ

12:48 pm Unexpected High Failure Rate in a Patient-Specific Total Knee Arthroplasty  
Kevin Park, MD, Houston Methodist Hospital

12:52 pm Effect of Computer Navigation on Complication Rates Following Unicompartamental Knee Arthroplasty  
Deepak V. Chona, MD, Stanford University  
\*Presented by Abiram Bala, MD

12:56 pm Discussion

1:00 pm Vitamin D Is Associated with Higher Complication Rates in TKA  
Vishal Hegde, MD, University of California, Los Angeles

1:04 pm Early Opioid Cessation and Patient Reported Outcomes in Primary TKA  
Andrew R. Summers, BS, Oregon Health & Science University  
\*Presented by Jack Mazzulo, BA

1:08 pm Tranexamic Acid with Limited Use Tourniquet in Total Knee Arthroplasty  
Avrey Novak, BS, University of Washington School of Medicine  
\*Presented by Adam A. Sassoon, MD, MS

1:12 pm Aminocaproic Acid versus Tranexamic Acid in Total Joint Arthroplasty. What's Better?  
Zachary Lum, DO, University of California, Davis



# Scientific Program Mt. Daly Ballroom B, Unless Otherwise Specified

- 1:16 pm Discussion
- 1:20 pm Outcomes of a Unique Milling System Technique for Patellofemoral Arthroplasty  
Alexander Sah, MD, Institute for Joint Restoration
- 1:24 pm Effect of Patellar Thickness on Gait Biomechanics Following Knee Arthroplasty  
Anne Wright, MD, University of Hawaii
- 1:28 pm Addressing Large Tibial Osseous Defects in Primary Total Knee Arthroplasty Using Trabecular Metal Cones  
Jae S. You, MD, University of Hawaii
- 1:32 pm Clinical Performance of a Novel 3D Printed Cementless Tibial Baseplate  
Steven F. Harwin, MD, Mount Sinai Hospital  
\*Presented by Manoshi Bhowmik-Stoker, PhD

1:36 pm Discussion

## Rapid Fire Sessions 2D – Trauma/Hip Fractures Castle Peak Auditorium

Moderators: Geoffrey S. Marecek, MD, Keck School of Medicine of the University of Southern California & Julius A. Bishop, MD, Stanford HealthCare

- 12:40 pm Time-to-Block: Early Fascia Iliac Block Reduces Opioid Use in Geriatric Hip Fractures  
John M. Garlich, MD, Cedars Sinai Medical Center
- 12:44 pm Geriatric Hip Fractures: Regional Anesthesia with Multimodal Pain Management  
John M. Garlich, MD, Cedars Sinai Medical Center
- 12:48 pm Single-Shot versus Continuous Fascia Iliaca Blocks for Hip Fractures  
Stephen Stephan, MD, Cedars-Sinai Medical Center
- 12:52 pm Fascia Iliacus Blocks Do Not Affect Hospital Length of Stay  
Landon S. Polakof, MD, Cedars-Sinai Medical Center
- 12:56 pm Discussion
- 1:00 pm Determining Indications for Preoperative Fascia Iliac Nerve Block in Hip Fracture Patients  
Eytan Debbi, MD, PhD, Cedars Sinai Medical Center
- 1:04 pm Fewer Fatal Fractures: Impact of Comprehensive Geriatric Hip Fracture Program on One-Year Mortality  
Jason W. Stoneback, MD, University of Colorado School of Medicine
- 1:08 pm Predictors for 30-Day to One-Year Readmission Rates in a Geriatric Hip Fracture Population  
Samuel K. Stephenson, MD, PhD, Cedars Sinai Medical Center
- 1:12 pm Impact of Interhospital Transfer on 30-Day Hip Fracture Outcomes  
David Campbell, MD, University of Arizona
- 1:16 pm Discussion
- 1:20 pm Incidence and Risk Factors for Pneumonia in Hip Fractures  
Blake Eyberg, MD, University of Arizona College of Medicine
- 1:24 pm Nail versus Plate: No Difference in Hip Fracture Episode Cost  
Joseph Patterson, MD, University of California San Francisco
- 1:28 pm Hip Fracture Patients Receiving Perioperative TAVR Have Higher Complication Rates  
Dheeraj R. Yalamanchili, MD, Cedars-Sinai Medical Center
- 1:32 pm Effect of Organ Transplantation on Operative Outcomes in Hip Fractures  
Bejan A. Alvandi, BS, Keck School of Medicine of the University of Southern California  
\*Presented by Venus Vakhshori, MD
- 1:36 pm Discussion

- 1:40 pm **Scientific E-Poster Session** Cirque Boardroom, Cathedral Deck, Cathedral Peak & Castle Peak Auditorium  
Presenters are available to answer questions.

## Resident Review Course Alpine Springs

Moderators: Jennifer M. van Warmerdam, MD, St. Mary's Medical Center Total Joint Center

- 1:45 pm How to Prepare for the Oral Orthopaedic Board Examination from an Examiner's Point of View  
Milton L. "Chip" Routt Jr., MD, University of Texas Health Science Center
- 2:15 pm How to Prepare for the Oral Exam from a Recent Graduate  
Speaker TBA
- 2:45 pm Panel Discussion: Pros and Cons of Different Practice Settings  
Private/Foundation Model  
Jennifer M. van Warmerdam, MD, St. Mary's Medical Center Total Joint Center
- Academic  
Meghan N. Imrie, MD, Stanford University Medical Center
- County  
Jeffrey E. Krygier, MD, Santa Clara Valley Medical Center
- Volunteer  
Speaker TBA
- 3:15 pm How to Negotiate Your First Employment Contract  
Roselyn Nguyen JD, MBA, The University of New Mexico
- 4:00 pm How to Find Your Niche and Build Your Brand  
Ryan M. Nunley, MD, Washington University School of Medicine
- 4:45 pm Why It Is Important to Be a Resident Member of the WOA  
Logan Koehler, MD, William Beaumont Army Medical Center/Texas Tech El Paso Health Sciences Center
- 4:50 pm Discussion
- 2:40 pm **Multimedia Education Session** 1st Floor Registration

## Friday, August 3

- 6:00 am **Scientific E-Poster Session** Cirque Boardroom, Cathedral Deck, Cathedral Peak & Castle Peak Auditorium

## Announcements

Jeffrey E. Krygier, MD, Program Chair

## Symposium 3 – Adult Reconstruction: Why Knees Fail – Tips and Tricks to Avoid and Manage Complications

Moderator: William J. Maloney, MD, Stanford University School of Medicine

- 7:00 am Introduction – Current Problems and Why TKA's Fail Today  
William J. Maloney, MD, Stanford University School of Medicine
- 7:02 am Wound Drainage and the Infected Knee  
Jay R. Lieberman, MD, Keck School of Medicine of the University of Southern California
- 7:12 am The Unstable Knee  
Derek F. Amanatullah MD, PhD, Stanford University School of Medicine
- 7:22 am The Stiff Total Knee  
William J. Maloney, MD, Stanford University School of Medicine
- 7:32 am Robotics and Total Knee Replacement – Has the Time Come?  
Russell G. Cohen, MD, Tucson Orthopaedic Institute
- 7:42 am Cases and Questions



# Scientific Program

Mt. Daly Ballroom B, Unless Otherwise Specified

7:50 am **Focused Brunch Presentation** \*CME Credit Not Available  
**Stryker**  
Creating the Future with Mako Robotic-Arm Assisted Surgery  
C. Brian Blackwood, MD

**Rapid Fire Sessions 3A – Pediatrics** Cirque Boardroom  
Moderators: Stephanie Y. Pun, MD, Stanford University Medical Center & Meghan N. Imrie, MD, Stanford University Medical Center

8:25 am Weight-Bearing Osteochondritis Dissecans Lesions of the Knee: Two-Year Follow-Up Analysis  
Liang Zhou, MD, Tripler Army Medical Center

8:29 am Growth Arrest after Transphyseal ACL Reconstruction in Skeletally Immature Adolescents  
Thomas J. Melton, MD, Madigan Army Medical Center

8:33 am A Patellar Advancement Technique in Children with Patella Alta and Cerebral Palsy  
Jason T. Rhodes, MD, Children's Hospital Colorado

8:37 am Single versus Two Incision Technique for Treatment of Neuromuscular Hip Dysplasia  
Sara Van Nortwick, MD, Stanford University  
\*Presented by Malcolm R. DeBaun, MD

8:41 am Discussion

8:45 am Effects of Calcaneal Lengthening Osteotomy on Foot Progression Angle in Children with Cerebral Palsy  
Ryan Davenport, BS, University of Colorado School of Medicine

8:49 am Pediatric Dual X-Ray Absorptiometry (DXA) Scores Poorly Correlate with Vertebral Fractures  
Sara Van Nortwick, MD, Stanford University

8:53 am Outcomes of Meniscus Repairs in Children and Adolescents  
Shawn Nguyen, DO, Riverside University of Health Sciences

8:57 am Discussion

**Rapid Fire Sessions 3B – Foot & Ankle/Ankle Injuries** Cathedral Deck  
Moderators: Christopher B. Hirose, MD, Saint Alphonsus Coughlin Foot and Ankle Clinic & Kimberly L. Furry, MD, Mercy Orthopedics Associates

8:25 am The Incidence of Plafond Impaction in Pronation-Abduction Ankle Fractures and the Role of Computed Tomography in Diagnosis and Surgical Planning  
Ram K. Alluri, MD, Keck School of Medicine of the University of Southern California

8:29 am Ankle Fractures: Ottawa Ankle Rules Need Geriatric Modifier  
David Weiner, MD, Union Memorial Hospital

8:33 am Predicting Risk of Complications in Diabetic Patients with Ankle Fractures  
Robin H. Dunn, MD, University of Colorado School of Medicine

8:37 am Quality and Utility of Immediate PACU Radiographs after Ankle Fractures  
Tony Pedri, MD, University of New Mexico  
\*Presented by Matthew G. Wharton, MD

8:41 am Discussion

8:45 am Tibiotalar Pressure Mechanics after Instrumentation with Screws versus Suspensory Fixation  
Eric Q. Pang, MD, Stanford University  
\*Presented by Ariel A. Palanca, MD

8:49 am Cost-Effectiveness of Screw versus Suture Button Fixation in Syndesmotic Injuries  
Duncan C. Ramsey, MD, MPH, Oregon Health & Science University

8:53 am Open Visualization versus Palpation for Reduction of the Syndesmosis  
Eric Q. Pang, MD, Stanford University  
\*Presented by Julius A. Bishop, MD

8:57 am Evaluating Current Treatment Strategies for Syndesmosis Injuries in Athletes  
Michael Reiter, MD, University of Colorado School of Medicine  
\*Presented by Robin H. Dunn, MD

9:01 am Discussion

**Rapid Fire Sessions 3C – Sports Medicine** Cathedral Peak  
Moderators: Rachel M. Frank, MD, University of Colorado School of Medicine & Richard A. Marder, MD, UC Davis School of Medicine

8:25 am Clinical and Radiographic Outcomes of a Novel Acromioclavicular-Coracoclavicular (AC/CC) Reconstruction  
Joseph D. Cooper, MD, Keck School of Medicine of the University of Southern California  
\*Presented by Mary Kate Erdman, MD

8:29 am Biceps Tendon Tenodesis without Tenotomy: A Means of Augmenting Repair of Massive Rotator Cuff Tears  
Steven J. Barad, MD, Methodist Hospital

8:33 am Effect of Prior Bariatric and Transplant Surgery on Rotator Cuff Tears  
Anthony Essilfie, MD, University of Southern California

8:37 am Is Arthroscopy at Time of Medial Patellofemoral Ligament Reconstruction Necessary?  
Christopher Shultz, MD, University of New Mexico

8:41 am Discussion

8:45 am Risk Factors for Early Revision Anterior Cruciate Ligament Reconstruction  
Matthew C. Gallo, BA, Keck School of Medicine of the University of Southern California  
\*Presented by Kavitha Thiagarajan, BA

8:49 am Validation of PROMIS Computer Adaptive Testing for Multi-Ligament Knee Reconstruction  
Shane Korber, BS, Keck School of Medicine of the University of Southern California

8:53 am Are Orthopaedic Surgeons Performing Fewer Arthroscopic Partial Meniscectomies in Patients Greater than 50 Years Old? A National Database Study  
Hyunwoo P. Kang, MD, Keck School of Medicine of the University of Southern California

8:57 am Discussion

**Rapid Fire Sessions 3D – Trauma** Castle Peak Auditorium  
Moderators: Geoffrey S. Marecek, MD, Keck School of Medicine of the University of Southern California & Conor P. Kleweno, MD, Harborview Medical Center

8:25 am The Super Elderly ( $\geq 80$  Years Old) Do Not Have Higher Inpatient Morbidity Than Young Geriatric (65-79 Years Old) Pelvic Insufficiency Fractures  
Sean S. Rajaei, MD, Cedars-Sinai Medical Center  
\*Presented by Milton T. M. Little, MD

8:29 am Retrospective Examination of Tension Band Plate Fixation in Transverse and Comminuted Patella Fractures  
Sean M. Mitchell, MD, University of Arizona College of Medicine Phoenix  
\*Presented by Richard L. Auran, MD

8:33 am Patient-Reported Outcomes after Pelvic and Acetabular Fractures: A Preliminary Study  
Conor P. Kleweno, MD, Harborview Medical Center





# Scientific Program Mt. Daly Ballroom B, Unless Otherwise Specified

8:37 am Outcomes of Femoral Head Fractures Associated with Traumatic Hip Dislocations  
Michael Del Core, MD, University of Texas Southwestern Medical Center  
\*Presented by Stephen Blake Wallace, MD

8:41 am Discussion

8:45 am Current Drug and Alcohol Use in Orthopedic Trauma Patients  
D'Ann Arthur, MD, Harbor-University of California Los Angeles Medical Center

8:49 am Surgical Delay Increases the Rate of 30 Day Complications and Mortality in Femoral Shaft Fractures  
Robert Walker, MD, University of Arizona College of Medicine  
\*Presented by Ryan DiGiovanni, MD

8:53 am Location of Pelvic Ballistic Fracture and Associated Visceral Injuries  
Mary Kate Erdman, MD, University of Southern California

8:57 am Discussion

**Concurrent Allied Health Session 3 – Radiology** Alpine Springs  
Moderator: Theodore W. Coates, PA-C, University of California, Davis

8:25 am Imaging of the Wrist and Hand  
Andrew Sonin, MD, FACR, Radiology Imaging Associates, PC

9:05 am **Break – Please Visit Exhibits** Mt. Daly Ballroom A, C, D & E

**General Session 3 – AAOS Report & Presidential Guest Speaker**  
Moderator: Brian A. Jewett, MD, Slocum Center for Orthopedics and Sports Medicine

9:25 am **AAOS Report**  
David A. Halsey, MD, President

9:40 am Introduction of Presidential Guest Speaker  
Brian A. Jewett, MD, Slocum Center for Orthopedics and Sports Medicine

9:45 am **Presidential Guest Speaker**  
Succeeding in the Brave New/Old World: Facts Are Stubborn Things!  
Nathan S. Kaufman, Kaufman Strategic Advisors

10:35 am **Break – Please Visit Exhibits** Mt. Daly Ballroom A, C, D & E

**Symposium 4 – Orthopaedic Business**  
Moderator: Michael J. McCaslin, CPA, Somerset CPA and Advisors

10:55 am **Key Business Issues:**  
Patient Centered Care  
Urgent Care/Immediate Access  
Extender Utilization, Optimization and Cost Accounting  
Ownership of Assets and Services to Manage Risk  
Payer, Hospital and Employer Strategies  
Private Equity and Impact on Orthopaedics

## Panel:

Michael J. McCaslin, CPA, Somerset CPAs and Advisors  
Brian A. Jewett, MD, Slocum Center for Orthopedics and Sports Medicine

11:40 am Discussion

11:45 am **Focused Lunch Presentation** \*CME Credit Not Available  
**Flexion Therapeutics**  
Clinical Data Supporting Approval for ZILRETTA® (triamcinolone acetate extended-release injectable suspension utilizing microsphere PLGA technology) as an Intra-articular Treatment for Osteoarthritis of the Knee (OAK) Pain  
Jack Bert, MD

**General Session 4 – WOF Report & Western Orthopaedic Foundation Named Grants**  
Moderator: Robert R. Slater Jr., MD, Folsom, CA

12:15 pm **WOF Report**  
Robert R. Slater, Jr., MD, Folsom, CA

12:25 pm **WOF Robert R. Slater, Jr., MD Travel Grant**  
Complications in Computer Navigated versus Conventional Total Hip Arthroplasty  
Blake K. Montgomery, MD, Stanford University

12:31 pm **WOF Brian A. Jewett, MD Travel Grant**  
Application of Patient-Reported Outcome Measurement Information System in Elite Athletes  
Jesse Roberts, MD, University of Colorado

12:37 pm **WOF Jeffrey E. Krygier, MD Travel Grant**  
A Preoperative Score for Predicting 30-Day Readmission after Elective 1-2 Level Posterior Lumbar Spinal Fusion  
Joseph Patterson, MD, University of California, San Francisco

12:43 pm **WOF Jeffrey M. Nakano, MD Travel Grant**  
Efficacy of a Team-Based Approach to Improving Antibiotic Administration in Open Fractures  
Alvin Shieh, MD, University of California Davis

12:49 pm **WOF Paul C. Collins, MD Travel Grant**  
Infection Rates of Low-Velocity Gunshot Femur Fractures Treated without Debridement  
Jessica D. Bear, MD, Hospital for Special Surgery

12:55 pm **WOF Basil R. Besh, MD Travel Grant**  
Timing of Lumbar Spinal Fusion Impacts Total Hip Arthroplasty Outcomes  
Abiram Bala, MD, Stanford University

1:01 pm **WOF Milton L. "Chip" Routt, Jr., MD Travel Grant**  
Mouse Spine Implant Infection Model: Fluorescent Probe Detects Multiple Bacteria  
Gideon W. Blumstein, MD, MS, University of California Los Angeles

1:07 pm **WOF Nitin N. Bhatia, MD Travel Grant**  
Smoking and Total Hip Arthroplasty in 2014: Increased Complications and Costs  
Eytan Debbi, MD, PhD, Cedars Sinai Medical Center

1:13 pm Discussion

**Rapid Fire Sessions 4A – Basic Science** Cirque Boardroom  
Moderators: Robert R. Slater, Jr., MD, Folsom, CA & Jeffrey E. Krygier, MD, Santa Clara Valley Medical Center

1:25 pm Local Delivery of Supplemental Agrin Prevents Motor Endplate Degradation  
Winnie Palispis, MD, University of California, Irvine

1:29 pm hES-Pericyte Conditioned Media Rescue Myotube Atrophy In Vitro  
Regina Husman, BS, David Geffen School of Medicine at University of California Los Angeles

1:33 pm Differentially Expressed Micro-RNA in Rotator Cuff Tendinopathy Using RNA-Sequencing  
Kimberly Hall, MD, Stanford Hospital and Clinics

1:37 pm Accuracy of 3D Printed Bone Models Using Open Source Software  
Trevor J. Shelton, MD, MS, University of California, Davis

1:41 pm Discussion

1:45 pm Anti-Inflammatory Peptide Enhances New Bone Formation and Reduces Inflammation in Rbmbp-2-Mediated Spine Fusion  
Phillip H. Behrens, MD, Cedars-Sinai Medical Center

1:49 pm Characterization of Stable and Endochondral Human Articular Cartilage Progenitor Cells  
Phillip W. Lam, BS, Oregon Health & Science University



# Scientific Program Mt. Daly Ballroom B, Unless Otherwise Specified

1:53 pm "Smart" Pedicle Probe for Residency Motor Skills Evaluation and Training  
Christina Salas, PhD, University of New Mexico  
\*Presented by Deana Mercer, MD

1:57 pm Discussion

2:01 pm Masquelet Model to Evaluate Engineered Induced Membranes for Bone Healing  
Malcolm R. DeBaun, MD, Stanford University

2:05 pm Toward Translational Treatments: A Novel Model of Revision Arthroplasty  
Zachary D.C. Burke, MD, David Geffen School of Medicine at University of California Los Angeles

2:09 pm Single-Stage Revision with Tobramycin-Loaded Polymethylmethacrylate Is Ineffective in Periprosthetic Infection Model  
Zachary D.C. Burke, MD, David Geffen School of Medicine at University of California Los Angeles

2:13 pm Greater Muscle Degeneration in Aged Mice after Rotator Cuff Injury  
Abhinav Sharma, BS, David Geffen School of Medicine at University of California Los Angeles

2:17 pm Discussion

## **Rapid Fire Sessions 4B – Sports Medicine** Cathedral Deck

Moderators: Rachel M. Frank, MD, University of Colorado School of Medicine & COL (Ret) Edward D. Arrington, MD, Madigan Army Medical Center

1:25 pm Fixed-versus Adjustable-Loop Devices for ACLR: A Systematic Review and Meta-Analysis  
Darby A. Houck, BA, University of Colorado School of Medicine

1:29 pm New Biomechanical Testing Standards for Adjustable Femoral Cortical Suspension Devices  
Alexander B. Peterson, MD, Tibor Rubin Long Beach VA Medical Center

1:33 pm Estimating the Length of Semitendinosus and Gracilis Tendons by MRI  
Ali A. Qadeer, MD, Baylor College of Medicine

1:37 pm ACL and ATSF Injury Epidemiology and Risk Factors in Skiers  
Benjamin Albertson, MD, University of New Mexico

1:41 pm Discussion

1:45 pm Supplementation of Vitamin D in Division I NCAA Athletes  
Shane Korber, BS, Keck School of Medicine of the University of Southern California

1:49 pm Early Return from Concussion Associated with Increased Injury in Athletes  
Garrett Harada, BA, David Geffen School of Medicine at the University of California Los Angeles

1:53 pm The Epidemiology of Concussions in a NCAA Division I Female Soccer Team  
Santano L. Rosario, BA, Keck School of Medicine of the University of Southern California  
\*Presented by Shane Korber, BS

1:57 pm Effect of Artificial Turf versus Natural Grass on Knee Injuries in NCAA Football: Ten Year Report  
Galvin Loughran, BS, Georgetown University School of Medicine

2:01 pm Discussion

2:05 pm Division I Collegiate Athletes Have a High Return-to-Sport Rate Following Hip Arthroscopy for Femoroacetabular Impingement Syndrome  
Haley L. Nakata, BS, Keck School of Medicine of the University of

Southern California

\*Presented by Omid Jalali, BS

2:09 pm Factors Determining Safe Return to Driving after Hip Arthroscopy  
Mika De Coster, BS, Keck School of Medicine of the University of Southern California

2:13 pm Incidence and Management of Heterotopic Ossification Following Arthroscopic Hip Surgery  
Michael J. Huang, MD, Colorado Springs Orthopaedic Group  
\*Presented by Jennifer J. Wages, PhD, ATC, OTC

2:17 pm Discussion

## **Rapid Fire Sessions 4C – Trauma** Cathedral Peak

Moderators: David H. Chafey III, MD, University of New Mexico & Jonathan G. Eastman, MD, University of California, Davis

1:25 pm Which Trauma Patients Need Psychiatry Consultation?: A Pilot Survey Study  
Sean T. Campbell, MD, Stanford University

1:29 pm Blade Plating of High-Energy Proximal Femur Fractures Results in Union and Minimal Complications  
Matthew Weldon, MD, University of Texas at Houston  
\*Presented by Timothy S. Achor, MD

1:33 pm Does Screw Location Affect the Risk of Subtrochanteric Femur Fracture after Femoral Neck Fixation?  
Erica K. Crump, MD, Naval Medical Center San Diego

1:37 pm Are Piriformis Reconstruction Nails Ideal for Prophylactic Femoral Neck Fixation?  
Alvin Shieh, MD, University of California, Davis

1:41 pm Discussion

1:45 pm Management of Aseptic Ptertrochanteric Femoral Fracture Nonunions  
Michael Duran, MD, University of Arizona College of Medicine

1:49 pm Healing the Index Humeral Nonunion Surgery  
Donald A. Wiss, MD, Cedars Sinai Medical Center  
\*Presented by John M. Garlich, MD

1:53 pm Clavicle Nonunions: Plate and Graft Type Do Not Effect Healing Rates  
Donald A. Wiss, MD, Cedars Sinai Medical Center  
\*Presented by John M. Garlich, MD

1:57 pm Discussion

2:01 pm Regional Anesthesia Decreases Length of Stay in Tibial Shaft Fractures  
Ryan DiGiovanni, MD, Banner University Medical Center  
\*Presented by Michael Duran, MD

2:05 pm Outcomes and Complications of SIGN Intramedullary Nailing of the Tibia  
Nikolas Baksh, MD, Oregon Health & Science University

2:09 pm Flexed versus Semi-Extended Positioning for Tibial Nailing: Changing Practice Patterns  
Lawrence H. Goodnough, MD, PhD, Stanford University  
\*Presented by Alexander H. Arzeno, MD

2:13 pm Methamphetamine Abuse in Orthopaedic Trauma Patients  
Nicholas Trasolini, MD, Keck School of Medicine at the University of Southern California  
\*Presented by John Carney, BS

2:17 pm Discussion

## **Rapid Fire Sessions 4D – Total Joint** Castle Peak Auditorium

Moderators: Derek F. Amanatullah MD, PhD, Stanford University School of Medicine & Kathryn L. Schabel, MD, Oregon Health & Science University



# Scientific Program Mt. Daly Ballroom B, Unless Otherwise Specified

- 1:25 pm Insurance Status Predicts Morbidity, Mortality, and Cost in Revision Total Joint Arthroplasty  
Blake Eyberg, MD, University of Arizona College of Medicine
- 1:29 pm Use of a 2D/3D Registration Method to Evaluate the Psoas Impingement in Total Hip Arthroplasty  
Ahmad Faizan, PhD, Mahwah, NJ  
\*Presented by Laura Scholl, MS
- 1:33 pm Mortality during Total Hip Periprosthetic Joint Infection: A Meta-Analysis  
Zachary Lum, DO, University of California, Davis
- 1:37 pm Immediate Impact of Tranexamic Acid in Blood Conservation in Primary Total Joint Replacement  
Alexander Sah, MD, Institute for Joint Restoration
- 1:41 pm Discussion
- 1:45 pm A Comparison of Traumatic Hip Fracture & Primary Elective Total Hip Patients: Comorbidity Burden, Hospital Course, Postoperative Complications and Cost of Care Analysis  
Sean M. Mitchell, MD, University of Arizona College of Medicine Phoenix  
\*Presented by Jason A. Lowe, MD
- 1:49 pm Isolated Greater Trochanteric Fracture and the Direct Anterior Approach Using a Fracture Table  
Bradley P. Graw, MD, Palo Alto Medical Foundation
- 1:53 pm An In-Vitro Comparative Assessment of Acetabular Cup Removal Systems  
Louis M. Kwong, MD, Harbor-University of California Los Angeles Medical Center
- 1:57 pm Discussion
- 2:01 pm Mortality during Total Knee Periprosthetic Joint Infection: A Meta Analysis  
Zachary Lum, DO, University of California, Davis
- 2:05 pm Conversion Rates and Timing to Total Knee Arthroplasty Following ACL Reconstruction: A United States Population-Based Study  
Jacob Bobman, MD, Keck School of Medicine of the University of Southern California
- 2:09 pm Bilateral Simultaneous versus Staged Total Knee Arthroplasty: Minimal Perioperative Risk-Differences  
Ellen L. Tsay, BS, MS, University of California, San Francisco
- 2:13 pm Distal Femur Locking Plates Fit Poorly after Total Knee Arthroplasty  
Sean T. Campbell, MD, Stanford University
- 2:17 pm Discussion

## Scientific E-Poster Tour

Cirque Boardroom, Cathedral Deck, Cathedral Peak & Castle Peak Auditorium

Moderators: Jeffrey E. Krygier, MD, Santa Clara Valley Medical Center & Julius A. Bishop, MD, Stanford HealthCare

2:25 pm E-Poster Tour

3:25 pm **Multimedia Education Session** 1<sup>st</sup> Floor Registration

## Saturday, August 4

- 5:40 am **Scientific E-Poster Session** Cirque Boardroom, Cathedral Deck, Cathedral Peak & Castle Peak Auditorium
- 6:40 am **Announcements**  
Jeffrey E. Krygier, MD, Program Chair
- 6:45 am **Second Business Meeting**

## General Session 5 – WOF Resident Awards

Moderator: Michael Dayton, MD, University of Colorado School of Medicine

- 7:00 am Influence of Capsular Laxity and Labral Integrity on Hip Stability  
Adam Johannsen, MD, Stanford University
- 7:06 am C1-C3 Construct with Short C2 Pedicle Screws versus Goel-Harms Fixation  
Young Lu, MD, University of California, Irvine
- 7:12 am When is an Orthopaedic Intern Ready to Take Call?  
Trevor Barronian, MD, Oregon Health & Science University
- 7:18 am Comparing AHD Between MRI and X-Ray in Massive Cuff Tears  
Steven Donohoe, MD, Keck School of Medicine of the University of Southern California
- 7:24 am Innervation of the Subscapularis: An Anatomical Study  
Brian W. Sager, MD, University of Texas Southwestern
- 7:30 am Pre-Operative CT Can Predict Post-Operative Shortening of Extra-Capsular Hip Fractures  
Garin Hecht, MD, Harborview Medical Center
- 7:36 am Intramedullary Nailing versus Lateral Locked Plating for Distal Femur Fractures  
K. Chandra Vemulapalli, MD, University of Texas Health McGovern Medical School
- 7:42 am Discussion

## Symposium 5 – Trauma

Moderator: Timothy S. Achor, MD, Memorial Hermann Texas Medical Center

- 7:50 am How to Avoid Non-Unions  
Alexandra K. Schwartz, MD, University of California, San Diego
- 8:02 am Healthcare Finance and Trauma Coding  
Timothy J. Bray, MD, Reno Orthopedic Clinic
- 8:14 am Humeral Shaft Fractures: What's Current? What's Controversial?  
Clifford B. Jones, MD, The CORE Institute
- 8:26 am Case Discussion
- 8:36 am Discussion
- 8:40 am **Focused Brunch Presentation** \*CME Credit Not Available  
**ConvaTec**  
Risk Mitigation of Infection in Total Joint Arthroplasty  
Alexander Sah, MD

## Rapid Fire Sessions 5A – Tumor

Cirque Boardroom  
Moderators: Russ N. Stitzlein, MD, MD Anderson Cancer Center & Bryan S. Moon, MD, MD Anderson Cancer Center

- 9:15 am Distal Femoral Compressive Osseointegration Endoprostheses: A Minimum Ten-Year Follow-Up Study  
Kara Tanaka, MFA, University of California, San Francisco
- 9:19 am Compress Mechanical Failure Assessment Using Radiographic Parameter Driven Decision Tree  
Lindsay Parlee, BS, Med, Oregon Health & Science University
- 9:23 am Vascularized Fibula Grafting in the Operative Treatment of Bone Tumors  
Mark J. Landau, PhD, Keck School of Medicine of the University of Southern California  
\*Presented by Ram K. Alluri, MD
- 9:27 am Incidence of Amputees Who Could Benefit From an Osseointegrated Prosthesis  
Melissa N. Zimel, MD, University of California, San Francisco
- 9:31 am Discussion





# Scientific Program Mt. Daly Ballroom B, Unless Otherwise Specified

9:35 am Outcomes of Reamer Irrigator Aspirator in Metastatic Femoral Intramedullary Nails  
Alexandra K. Callan, MD, University of Texas Southwestern Medical Center

9:39 am PROMIS Outcomes Following Surgical Intervention for Metastatic Bone Disease: Analysis of Early Enrollment in a Multicenter Cohort Study  
Daniel M. Lerman, MD, Institute Limb Preservation, OrthoONE, Presbyterian/St. Luke's Medical Center

9:43 am Pattern of Radiation Referral after Femoral Stabilization in Metastatic Disease  
Andrew R. Summers, BS, Oregon Health & Science University  
\*Presented by David S. Putnam, MD

9:47 am Host Immune Response in Undifferentiated Pleomorphic Sarcoma – Ten-Year Retrospective Analysis  
Joey Sheridan, BS, University of California, San Francisco

9:51 am Discussion

**Rapid Fire Sessions 5B – Upper Extremity/Shoulder** Cathedral Deck  
Moderators: Kimberly L. Furry, MD, Mercy Orthopedics Associates & Jeffrey M. Nakano, MD, Rocky Mountain Orthopaedic Associates

9:15 am Utility for Radiographs in Diagnosing Hill-Sachs and Bankart Lesions: NO NEED Pre-Reduction Radiology  
Dave Milzman, MD, George Washington School of Medicine

9:19 am Intraoperative Clavicle Fracture Characterization and Radiographic Outcomes after Operative Fixation  
Nicholas J. Drayer, MD, Madigan Army Medical Center  
\*Presented by Michelle L. Dudevior, MD

9:23 am Effect of Pre-Operative Opioid Usage on Pain Following Arthroplasty  
William Curtis, BS, Keck School of Medicine of the University of Southern California  
\*Presented by Ryan Lee, BS

9:27 am Discussion

9:35 am Vascularized Dermal Autograft for the Treatment of Irreparable Rotator Cuff Tears  
Michael Stone, MD, Keck School of Medicine of the University of Southern California

9:39 am Axillary and Radial Nerve Proximity to Latissimus Insertion: A Cadaveric Study  
Stephen T. Gates, MD, University of Texas Southwestern

9:43 am Discussion

**Rapid Fire Sessions 5C – Trauma** Cathedral Peak  
Moderators: Timothy S. Achor, MD, Memorial Hermann Texas Medical Center & Milton L. "Chip" Rountt Jr., MD, University of Texas Health Science Center

9:15 am Percutaneous Transiliac-Transsacral Fixation of Sacral Insufficiency Fractures Improves Ambulation and Rate of Disposition to Home  
J. Brock Walker, MD, University of Arizona College of Medicine  
\*Presented by David Campbell, MD

9:19 am Superior Pubic Ramus Screw Fixation: Radiographic Assessment of Successful Medullary Screw Insertion  
Brock Foster, MD, University of Southern California  
\*Presented by Venus Vakhshori, MD

9:23 am Safety of Medullary Superior Pubic Ramus Screws  
James Learned, MD, University of California Irvine Medical Center

9:27 am A Biomechanical Study of Three Methods of Fixing Acetabular Fractures  
Weston Ryan, BS, University of Colorado Denver School of Medicine

9:31 am Discussion

9:35 am Restoring Condylar Width: Radiographic Relationship Between The Lateral Tibial Plateau and Lateral Femoral Condyle in Normal Adult Knees  
Nima Kabirian, MD, University of Southern California  
\*Presented by Geoffrey S. Marecek, MD

9:39 am Lateral Articular Involvement in Tibial Plateau Schatzker Type IV Fractures  
Mary Kate Erdman, MD, University of Southern California

9:43 am Heterotopic Ossification About the Knee in Floating Knee Injuries  
Trevor J. Shelton, MD, MS, University of California, Davis

9:47 am Evaluation of Lateral C-Arm Drape Contamination during Lower Extremity Fracture Surgery: A Prospective Pilot Study  
Erin Haggerty, MD, Cedars Sinai Medical Center

9:51 am Discussion

**Rapid Fire Sessions 5D – Sports Medicine** Castle Peak Auditorium  
Moderators: CAPT Matthew T. Provencher, MD, The Steadman Clinic & David J. Mansfield, MD, El Paso Orthopaedic Surgery Group

9:15 am Fists of Fury but No Fractures: Fighting in the National Hockey League  
Aidan Neustadtl, BS, Georgetown University

9:19 am Prevalence and Treatment of Humeral Head Avascular Necrosis in Transplant and Bariatric Surgery Patients: A Population-Based Study  
Kavitha Thiagarajan, BA, Keck School of Medicine of the University of Southern California

9:23 am Characterization of Metal Debris from Refurbished Arthroscopic Shavers  
Louis M. Kwong, MD, Harbor-University of California Los Angeles Medical Center

9:27 am Treatment Injections for Lateral Epicondylitis: A Systematic Review of Overlapping Meta-Analyses  
Darby A. Houck, BA, University of Colorado School of Medicine

9:31 am Discussion

9:35 am Pediatric and Adolescent Injury in Rodeo: A Systematic Review  
Jason W. Stoneback, MD, University of Colorado School of Medicine

9:39 am Measurements of Femoroacetabular Impingement Reliable across Various Levels of Training  
Ryan J. Bickley, MD, Johns Hopkins University School of Medicine

9:43 am Evaluation of Preoperative Diagnostic and Treatment Costs Prior to Articular Cartilage Restoration Surgery  
Brenda Iglesias, BA, David Geffen School of Medicine at University of California Los Angeles/Charles Drew University of Medicine and Science

9:47 am Comparison of Injury Rate and Pattern of Collegiate Beach and Indoor Volleyball  
Alexis Rounds, BS, Keck School of Medicine at the University of Southern California

9:51 am Discussion

9:55 am **Break – Please Visit Exhibits** Mt. Daly Ballroom A, C, D & E

**Symposium 6 – Foot & Ankle – Acute Injuries to the Foot & Ankle**  
Moderator: Kenneth J. Hunt, MD, University of Colorado School of Medicine

10:20 am Syndesmotomies Injuries  
Daniel K. Moon, MBA, MD, MS, University of Colorado School of Medicine

10:30 am Lateral Ankle Ligament Injuries  
Kenneth J. Hunt, MD, University of Colorado School of Medicine

10:40 am Achilles Tendon Injuries  
Douglas E. Lucas, DO, Centura Health Physician Group



# Scientific Program Mt. Daly Ballroom B, Unless Otherwise Specified

- 10:50 am Backcountry Ankle Trauma  
Christopher B. Hirose, MD, Saint Alphonsus Coughlin Foot and Ankle Clinic
- 11:00 am Case Discussion
- 11:08 am Questions

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

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

- 11:10 am **Own the Bone**  
Fred C. Redfern, MD, Henderson, NV
- 11:20 am **BOC Report**  
Bryan S. Moon, MD, MD Anderson Cancer Center
- 11:25 am **Presidential Address**  
The WOA and YOU  
Brian A. Jewett, MD, Slocum Center for Orthopedics and Sports Medicine

## Concurrent Allied Health Session 4 – Case Review Alpine Springs

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

- 11:45 am Bring Your Cases to Discuss  
Basil R. Besh, MD, Fremont Orthopaedic & Rehabilitative Medicine

## Rapid Fire Session 6A – Foot & Ankle Cirque Boardroom

Moderators: Kenneth J. Hunt, MD, University of Colorado School of Medicine & Jeffrey M. Nakano, MD, Rocky Mountain Orthopaedic Associates

- 11:45 am Short Term Complications in Geriatric Ankle Fractures Using a Protocolized Approach to Surgical Treatment  
Gerard Chang, MD, Thomas Jefferson University Hospital
- 11:49 am Impact of Time to Surgery for Closed Supination External Rotation (OTA/AO 44-B) Ankle Fractures  
Anthony Essilfie, MD, University of Southern California  
\*Presented by Matthew Orgel, MD
- 11:53 am Diagnostic Validation of Dynamic Ultrasound Evaluation of Supination-External Rotation Ankle Injuries  
Cara Fisher, MS, University of North Texas Health Science Center
- 11:57 am Discussion
- 12:02 pm Dual Purpose Use of FHL Tendon for Management of Chronic Achilles Ruptures  
Mohammed A. Khalid, MD, University of Texas Medical Branch
- 12:06 pm All-Soft Suture Anchor versus Suture Bridge Construct for Insertional Achilles Tendon Repairs  
Eric J. Lakey, BS, University of Colorado School of Medicine
- 12:10 pm Achilles Sleeve Avulsions: Clinical Features Including Description of a New Radiographic Sign  
Christopher Shultz, MD, University of New Mexico
- 12:14 pm Gender Differences on SF-36 Patient-Reported Outcomes of Diabetic Foot Disease  
Michael Del Core, MD, University of Texas Southwestern Medical Center
- 12:18 pm Discussion
- 12:23 pm A Comparison of Calcaneal Osteotomies for Charcot-Marie-Tooth Varus Hindfoot Deformity  
Tonya W. An, MD, MA, Cedars-Sinai
- 12:27 pm Radiological Assessment of Sesamoid Reduction after Chevron-Akin Double Osteotomy  
Jie Chen, MD, MPH, University of Texas Medical Branch

- 12:31 pm Arthroscopic versus Open MTP Arthrodesis: A Biomechanical Comparison  
Christopher Chen, MD, University of Colorado
- 12:34 pm The Influence of Percentile Weight Bearing on Foot Radiographs  
Trevor J. Shelton, MD, MS, University of California, Davis
- 12:38 pm Discussion

## Rapid Fire Session 6B – Spine Cathedral Deck

Moderators: P. Douglas Kiester, MD, University of California, Irvine & Jeffrey E. Krygier, MD, Santa Clara Valley Medical Center

- 11:45 am Lumbar Subcutaneous Adipose to Spinous Process Depth Ratio as a Predictor for Surgical Complications  
Kylie Shaw, BA, David Geffen School of Medicine at University of California Los Angeles
- 11:49 am Risk Factors for Readmission and Complications in Obese and Morbidly Obese Patients Undergoing Elective Posterior Spinal Fusion  
Deeptee Jain, MD, University of California, San Francisco  
\*Presented by Joseph Patterson, MD
- 11:53 am Complications of Modified Single-Incision Wiltse Approach to the Lumbar Spine  
Nikolas Baksh, MD, Oregon Health & Science University
- 11:57 am A “Smart” Antimicrobial Implant Coating to Prevent Spinal Implant Infection  
Vishal Hegde, MD, University of California, Los Angeles
- 12:01 pm Discussion
- 12:05 pm Rapid Recovery Pathway for the Adolescent Idiopathic Scoliosis  
Eli S. Ahdoot, DO, Children's Hospital of Orange County
- 12:09 pm Preemptive Opioid-Sparing Pain Protocol Decreases Hospital Stay in Scoliosis Patients  
Selina Poon, MD, Shriners for Children Medical Center, Pasadena  
\*Presented by Cynthia Nguyen, MD
- 12:13 pm Complications Associated with Temporary Internal Distraction in Severe Scoliosis  
Graham T. Fedorak, MD, Shriners Hospital for Children, Salt Lake City  
\*Presented by Cynthia Nguyen, MD
- 12:17 pm Outcomes after Spinal Fusion in Patients with Obstructive Sleep Apnea  
Charles C. Lin, BSE, University of California, Irvine  
\*Presented by Young Lu, MD
- 12:21 pm Discussion
- 12:25 pm Surgical Intervention for Cauda Equina in the Second and Third Trimesters of Pregnancy: A Case Series  
Nicole E. Look, MD, University of Colorado Anschutz Medical Center
- 12:29 pm Insurance and Employment Affect the Presence of Waddell Signs  
Stephanie S. Radoslovich, BA, Oregon Health & Science University
- 12:33 pm Construct Validity of the Fundamentals of Spinal Surgery (FOSS) Simulator  
Winnie Palispis, MD, University of California, Irvine
- 12:37 pm Discussion
- Rapid Fire Session 6C – Trauma** Cathedral Peak  
Moderators: Clifford B. Jones, MD, The CORE Institute & Conor P. Kleweno, MD, Harborview Medical Center
- 11:45 am Greater Trochanteric Fractures with Intertrochanteric Extension: What Is the Rate of Displacement?  
William T. Kent, MD, University of California, San Diego



# Scientific Program Mt. Daly Ballroom B, Unless Otherwise Specified

11:49 am	Kinematic Analysis of Sagittal Plane Stability of Delta Frame External Fixation Addison Wood, DO, PhD, John Peter Smith Hospital	12:05 pm	90-Day Complication Rate following Shoulder Arthroplasty in a Veteran Population Farhad Darbandi, MD, University of Arizona
11:53 am	Current Trends in the Management of Flail Chest J. Brock Walker, MD, University of Arizona College of Medicine *Presented by David Campbell, MD	12:09 pm	Complication of Reverse Shoulder Arthroplasty for Proximal Humerus Fracture Santano L. Rosario, BA, Keck School of Medicine at the University of Southern California *Presented by Alexis Rounds, BS
11:57 am	Diagnosis of Traumatic Shoulder Arthrotomies Using Saline Load Test with Intra-Articular Pressure Monitoring Matthew Belton, MD, University of Colorado School of Medicine	12:13 pm	Hypoalbuminemia Is a Risk Factor for Both Complications and Readmissions after Open Reduction and Internal Fixation of Proximal Humerus Fractures Jonathan Cheah, MD, University of California, San Francisco
12:01 pm	Discussion	12:17 pm	Survivorship of Proximal Humerus Fracture Initial Management Alexis Rounds, BS, Keck School of Medicine at the University of Southern California
12:05 pm	Orthopaedic Trauma Quality Measures for Value Based Healthcare Delivery Malcolm R. DeBaun, MD, Stanford University	12:21 pm	Discussion
12:09 pm	VTE Occurrences in Pelvic & Lower Extremity Trauma Despite Modern Prophylactic Protocols Sean M. Mitchell, MD, University of Arizona College of Medicine Phoenix *Presented by Jason A. Lowe, MD	12:25 pm	Trends of Initial Management Following Proximal Humerus Fracture Santano L. Rosario, BA, Keck School of Medicine at the University of Southern California *Presented by Alexis Rounds, BS
12:13 pm	Prolonged Opioid Use Following Geriatric Hip Fracture Surgery John M. Garlich, MD, Cedars Sinai Medical Center	12:29 pm	Outpatient Total Elbow Arthroplasty: 90-Day Outcomes Michael Stone, MD, Keck School of Medicine at the University of Southern California
12:17 pm	Dramatically Increased Rate of Mortality Associated with Atypical Hip Fractures Robert Walker, MD, University of Arizona College of Medicine	12:33 pm	Ipsilateral Capitellum and Lesser Sigmoid Notch Predict Radial Head Size Brett Schiffman, MD, University of Washington
12:21 pm	Discussion	12:37 pm	Discussion
12:25 pm	Current Trends in Postoperative Opioid Prescriptions after Ankle Fracture Surgery Michael Chen, MD, Stanford University	<b>General Session 7 – Abstract Presentations</b> Moderator: Jeffrey E. Krygier, MD, Santa Clara Valley Medical Center	
12:29 pm	Early Post-Operative Radiographs Have No Effect on Patient Satisfaction Blake J. Schultz, MD, Stanford University	12:50 pm	Limb Length Discrepancy and Walking Performance in Hemiplegic Cerebral Palsy Jason T. Rhodes, MD, Children's Hospital Colorado
12:33 pm	X-Ray Does Not Adequately Assess Intertrochanteric Fracture Lateral Wall Morphology Garin Hecht, MD, Harborview Medical Center *Presented by Augustine M. Saiz, MD	12:56 pm	An MRI Study of Neurovascular Bundle to Popliteus Tendon Distance Kendall A. Shifflett, BS, Orthopaedic Institute for Children
12:37 pm	Discussion	1:02 pm	3D Printed Scaffolds and Regional Gene Therapy for Bone Repair Ram K. Alluri, MD, Keck School of Medicine at the University of Southern California
<b>Rapid Fire Session 6D – Upper Extremity/ Shoulder &amp; Elbow</b> Castle Peak Auditorium Moderators: COL (Ret) Edward D. Arrington, MD, Madigan Army Medical Center & Kimberly L. Furry, MD, Mercy Orthopedics Associates		1:08 pm	Does Day of the Week of Surgery Affect Time to Discharge? Kali R. Tileston, MD, Stanford University
11:45 am	Short-Term Outcomes of Outpatient Total Shoulder Arthroplasty Protocol Richard L. Auran, MD, University of Arizona College of Medicine - Phoenix	1:14 pm	Should We Repair Extensor Tendon Lacerations >50% of Tendon Width? Christina Salas, PhD, University of New Mexico *Presented by Deana Mercer, MD
11:49 am	Socioeconomic and Ethnic Disparities in Pain Following Total Shoulder Arthroplasty Alexis Rounds, BS, Keck School of Medicine at the University of Southern California	1:20 pm	Injections Prior to Rotator Cuff Repair Increase Revision Rotator Cuff Repair Rates Alexander E. Weber, MD, Keck School of Medicine at the University of Southern California
11:53 am	Patient-Specific Planning in Shoulder Arthroplasty: Bending the Learning Curve Henry M. Fox, BS, MA, Oregon Health & Science University	1:26 pm	Discussion
11:57 am	Smoking as a Risk Factor for Complications Following Shoulder Arthroplasty: A Population-Based Study Jae Kim, MA, Keck School of Medicine of the University of Southern California *Presented by Alexis Rounds, BS	1:30 pm	Farewell
12:01 pm	Discussion	<b>Tumor Answer Session</b> Moderators: Jeffrey E. Krygier, MD, Santa Clara Valley Medical Center & Bryan S. Moon, MD, MD Anderson Cancer Center	
		1:35 pm	Questions & Discussion
		2:00 pm	<b>Multimedia Education Session</b> 1 <sup>st</sup> Floor Registration



# Scientific Poster Presentations

Cirque Boardroom, Cathedral Deck, Cathedral Peak & Castle Peak Auditorium

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

Friday, August 3: 6:00 am – 7:00 am / 2:25 pm – 3:25 pm (Tour)

Saturday, August 4: 5:40 am – 6:40 am

## Station A - Cirque Boardroom

### SPORTS MEDICINE

**Poster 1:** Effect of Sport Specialization on Injury in Division I Athletes

Seth Ahlquist, BS, David Geffen School of Medicine at University of California Los Angeles

**Poster 2:** Effect of Correction Angle on Complications Following High Tibial Osteotomy

Derek Axibai, MD, MS, University of Colorado

**Poster 3:** Outcomes of ACL Reconstruction with Planned vs Unplanned Hybrid Graft

Derek Axibai, MD, MS, University of Colorado

**Poster 4:** Rotation Medical Patch Augmentation after Rotator Cuff Repair and Reduced Opioid Consumption

Steven J. Barad, MD, Methodist Hospital

**Poster 5:** Reliability of Preoperative MRI Prediction of Hamstring ACL Autograft Size

Andrew Hanna, MS, Virginia Tech Carilion School of Medicine

**Poster 6:** 2016 Track and Field Olympic Trials: Injuries and Medical Care

Nicholas L. Strasser, MD, Slocum Center for Orthopedics & Sports Medicine

**Poster 7:** Cannabis Use and Fracture Healing: A Matched Case-Control Study

Nicholas L. Strasser, MD, Slocum Center for Orthopedics & Sports Medicine

### TOTAL KNEE

**Poster 8:** Early Results of a New Cementless TKA Design

Russell G. Cohen, MD, Tucson Orthopedic Institute

\*Presented by Sheridan James, BS

**Poster 9:** Arthrodesis with a Cephalomedullary Nail after Failed Total Knee Arthroplasty

Malcolm DeBaun, MD, Stanford University

**Poster 10:** Less Iatrogenic Soft Tissue Damage in Robotic-Arm Assisted Approach TKA

Emily Hampp, PhD, Mahwah, NJ

\*Presented by Laura Scholl, MS

**Poster 11:** Use of Intraoperative Implant Planning to Reduce Occurrence of Soft Tissue Releases

Robert C. Marchand, MD, Ortho Rhode Island

\*Presented by Laura Scholl, MS

### UPPER EXTREMITY

**Poster 12:** Driving After Shoulder Arthroplasty: When Is It Safe?

Santano L. Rosario, BA, Keck School of Medicine at the University of Southern California

\*Presented by Alexis Rounds, BS

**Poster 13:** Trends in Peripheral Nerve Blocks in Shoulder Arthroscopy

Abhinav Sharma, BS, David Geffen School of Medicine at University of California Los Angeles

## Station B - Cathedral Deck

### BASIC SCIENCE

**Poster 14:** A New Orthopedic Screw Design that Does Not Strip

Nicholas Alfonso, MD, University of Colorado

\*Presented by Todd H. Baldini, MSc

**Poster 15:** Does Greater Trochanter Decortication Affect Suture Anchor Pullout Strength in Abductor Tendon Repairs?: A Biomechanical Study

Jill A. Goodwin, MD, University of Arizona College of Medicine

\*Presented by Blake Eyberg, MD

**Poster 16:** Biomechanical Analysis of Retrograde Superior Ramus Screw Fixation Constructs

Justin F. Lucas, MD, Harborview Medical Center

\*Presented by Alvin Shieh, MD

**Poster 17:** Local Bio-Absorbable Antibiotic Calcium Sulfate Beads in Hip and Knee Arthroplasty

Zachary Lum, DO, University of California, Davis

**Poster 18:** Effects of Fondaparinux For Prophylaxis in Total Joint Arthroplasty

Zachary Lum, DO, University of California, Davis

### FOOT & ANKLE

**Poster 19:** Operative Outcomes In Ankle and Talus Fractures Following Organ Transplantation

Bejan A. Alvandi, BS, Keck School of Medicine of the University of Southern California

\*Presented by Venus Vakhshori, MD

**Poster 20:** Calcaneal Fractures Through Prior Schanz Pin Sites in Diabetic Neuropathy

Rachel Larsen, BS, Oregon Health and Science University

**Poster 21:** Dexamethasone Addition to Popliteal Nerve Blocks - Postoperative Nerve Complication and Analgesia Duration

Naudereh Noori, MD, Cedars Sinai Medical Center

\*Presented by Dheeraj R. Yalamanchili, MD

**Poster 22:** A Systematic Review of the Outcome Evaluation Tools for the Foot and Ankle

Pejma Shazadeh Safavi, BS, University of Texas Medical Branch at Galveston

### PEDIATRICS

**Poster 23:** Use of Rotationplasty for Pediatric Trauma and Significant Physeal Injuries

Kristina Barber, BA, University of Colorado School of Medicine

**Poster 24:** Transphyseal Distal Humerus Fracture in a Premature Neonate

Justin Chang, MD, University of Colorado Hospital

**Poster 25:** Atypical Femur Fracture in the Setting of Long-Term Bisphosphonate Use for Osteogenesis Imperfecta

Steven Jones Jr., MD, University of Colorado School of Medicine

**Poster 26:** Morphological Features of the Hip in Skeletal Dysplasia

Adam Lindsay, MD, MS, University of Southern California

**Poster 27:** Current State of the Opioid Epidemic as it Pertains to Pediatric Orthopaedics

Ellen M. Raney, MD, Shriners Hospital for Children



# Scientific Poster Presentations

Cirque Boardroom, Cathedral Deck, Cathedral Peak & Castle Peak Auditorium

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Saturday, August 4: 5:40 am – 6:40 am

## Station C - Cathedral Peak

### SPINE

**Poster 28:** Venous Compression and Stenosis Owing To Lumbo-Sacral Exostosis: Case Report

Jory Wasserburger, MD, University of New Mexico

\*Presented by Anastasia Haponyuk

**Poster 29:** Preoperative Oxycodone ER Impact on Postoperative Opioid Use and Outcomes

Joshua Hwang, BS, University of California, Davis School of Medicine

**Poster 30:** Bariatric Surgery Prior to Posterior Lumbar Fusion Reduces Medical Complications in Infection

Deeptee Jain, MD, University of California, San Francisco

\*Presented by Joseph Patterson, MD

**Poster 31:** Impact of Cirrhosis on Morbidity and Mortality After Spinal Fusion

Young Lu, MD, University of California, Irvine

**Poster 32:** Complications of Harms Atlantoaxial Fixation at an Academic Medical Center

Thomas O'Toole, BA, Oregon Health & Science University

### TOTAL HIP

**Poster 33:** Impact of Spinal Deformity on Acetabular Cup Orientation in Total Hip Arthroplasty

John Attenello, MD, University of Hawaii

**Poster 34:** Blood Loss and THA: Impact of a Bipolar Sealant Device

Tyler Bron, MD, University of Colorado School of Medicine

\*Presented by Michael Dayton, MD

**Poster 35:** Early Clinical Outcomes with an Additive Manufactured Porous Acetabular Cup

Russell G. Cohen, MD, Tucson Orthopedic Institute

**Poster 36:** Pre-Operative Rehabilitation Correlates With Decreased Hospital Stay After Hip/Knee Arthroplasty

Sahitya Denduluri, MD, Stanford University

\*Presented by Derek F. Amanatullah, MD, PhD

**Poster 37:** Impact of Depression on Opioid Requirements after Total Joint Arthroplasty

Trevor Grace, MD, University of California, San Francisco

**Poster 38:** Acetabular Liner Geometry and Dislocation Rate: Does it Really Matter?

Alex Joufflas, BS, University of Colorado School of Medicine

**Poster 39:** Correlation Of Modular Tapered Stem Subsidence In Revision THA

Emmanuel C. Nwelu, MD, University of Texas Southwestern

\*Presented by Sean Shahrestani, MD

**Poster 40:** Ten-Year Outcomes Following Kinematically Aligned Total Knee Arthroplasty

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

## Station D - Castle Peak Auditorium

### TRAUMA

**Poster 41:** Effect of Organ Transplantation on Operative Outcomes Following Tibial Plateau Fractures

Bejan A. Alvandi, BS, Keck School of Medicine of the University of Southern California

\*Presented by Venus Vakhshori, MD

**Poster 42:** Effect Of Bariatric Surgery On Operative Outcomes In Pelvic and Acetabular Fractures

Bejan A. Alvandi, BS, Keck School of Medicine of the University of Southern California

\*Presented by Venus Vakhshori, MD

**Poster 43:** How Feasible Are Routine Intraoperative Plain Radiographs in Orthopaedic Trauma Surgery?

Eric D. Farrell, MD, University of California Los Angeles

\*Presented by Brian M. Cash, MD

**Poster 44:** Knee Radiographs? Ottawa Rules Need Change

Rand Floyd, MS, Georgetown University Medical School

**Poster 45:** Fat Emboli Syndrome and the Orthopedic Trauma Surgeon

Trevor Jackson, MD, University of Colorado School of Medicine

**Poster 46:** Body Habitus and Soft Tissue Envelope Thickness Overlying Knee Joint

Paul Johnson, MD, University of New Mexico

**Poster 47:** Spectrum of Orthopaedic Injuries Associated with Hoverboard Use

Derek Ju, MD, Cedars-Sinai Medical Center

\*Presented by John Garlich, MD

**Poster 48:** Implant Removal Rates for Stable and Unstable Ankle Fractures

David S. Putnam, MD, Oregon Health and Science University

**Poster 49:** Orthopedic Surgeons Have Inadequate Knowledge Regarding Costs of Imaging Studies

Blake Schultz, MD, Stanford University

**Poster 50:** A Review of Surgical Approaches and Outcomes for Hoffa Fracture

Kristin Toy, MS, University of Toledo College of Medicine

\*Presented by Adam T. Mierzwa, MS

### TUMOR

**Poster 51:** Observing Clinical and Radiographic Outcomes of Limb Salvage with a 3D Printed Custom Titanium Cage

David B. Hahn, MD, Institute for Limb Preservation

**Poster 52:** Results of Femoral Head AVN Decompression and Autologous Stem Cell Injection

Cynthia M. Kelly, MD, Colorado Limb Consultants



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