

2017 COMBINED

EPOS /POSNA

EPoSNA

ANNUAL MEETING

MAY 3–6, 2017 • BARCELONA, SPAIN

PRELIMINARY PROGRAM



Pre-Registration Deadline: March 6, 2017 | Register Online Today at www.eposna.org

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DATES TO REMEMBER

Pre-Registration Closes: March 6, 2017
 After March 6, 2017 please register onsite





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YOU'RE INVITED...



Dear Colleagues,

On behalf of EPOS President, Manuel Cassiano Neves, MS, and POSNA President, James McCarthy, MD, it is our great pleasure to invite you to attend EPOSNA. The first combined annual meeting of the European Paediatric Orthopaedic Society (EPOS) and the Pediatric Orthopaedic Society of North America (POSNA) will take place in Barcelona, Spain on May 3 – 6, 2017. On the program are papers from 38 countries and 6 continents, chosen from 1400 submitted abstracts by EPOS and POSNA readers to promote a global exchange of ideas. The meeting agenda is as follows:

- "Cutting-Edge Pediatric Orthopaedics 2017: A Global Perspective," the Pre-Course chaired by Rudolf Ganger, MD, Jeffrey R. Sawyer, MD, will begin the conference on Wednesday morning. Thought-leaders from Europe and North America will discuss topics including Slipped Capital Femoral Epiphysis, Neuromuscular Hip Subluxation/Dislocation, Trauma, and Early Onset Scoliosis.
- The first Scientific Session takes place on Wednesday afternoon and will include papers discussing Pediatric Hip disorders and Spine topics. On Wednesday evening the Opening Ceremony will occur, followed by a Welcome Reception around the pool at beautiful Fairmont Rey Juan Carlos Hotel.
- After a plenary session Thursday morning, the afternoon will feature Concurrent Sessions in which papers will be presented discussing Lower Extremity, Neuromuscular Disorders, Sports, Basic Science and Upper Extremity.
- Award Papers will be presented Friday morning and winners will be determined by audience vote using the Meeting App. Concurrent Sessions Friday afternoon will cover 6 topics including Clubfoot, Hip, Tumor, Spine, Syndromes, and Foot/Ankle. A very busy day will conclude with the Gala Dinner taking place at the historic Casa Llotja de Mar.
- Industry-sponsored Symposia will be held during the mid-day break on Wednesday and Thursday. SLAOTI and APPOS will conduct symposia on Friday.
- Young Member Forum – with refreshments - will take place at 6:00 pm on Thursday.
- The meeting concludes on Saturday at 12:00 pm following a General Session featuring Hip and Lower Extremity presentations.

Contemporary architecture, abundant natural light, and spacious meeting facilities make the Palau De Congressos De Catalunya a perfect venue for this international meeting. Local hosts, Julio de Pablos, MD, President of the Spanish Pediatric Orthopaedic Society, Jorge Knorr, MD, and Pedro Domenech, MD have arranged perfect weather for the gathering. In May, Barcelona has an average daytime high of 22° C (71° F) with 8 hours of sunshine. EPOS and POSNA are excited to welcome you to Barcelona to attend this first combined EPOSNA meeting!

See you in Barcelona!

EPOSNA Program Committee
Antonio Andreacchio, MD
Rudolf Ganger, MD
Manuel Cassiano Neves, MD
Darko Anticevic, MD, PhD

Michelle Caird, MD
Jeffrey Sawyer, MD
Susan Scherl, MD
Anthony Stans, MD

GENERAL MEETING INFORMATION

LEARNING OBJECTIVES

- Objective 1: Discuss and understand at least three new developments in pediatric orthopaedics from outside your home continent.
- Objective 2: Assess the outcomes of at least two new techniques or practices.
- Objective 3: Understand the impact of advances in basic science on future pediatric orthopaedic practice.
- Objective 4: Identify a quality, safety, and value initiative to implement in your practice.

ACCREDITATION

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American Academy of Orthopaedic Surgeons and POSNA. The American Academy of Orthopaedic Surgeons is accredited by the ACCME to provide continuing medical education for physicians.

CONTINUING MEDICAL EDUCATION

The American Academy of Orthopaedic Surgeons designates this live activity for a maximum of **22** AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This conference is Eucomed approved



DISCLAIMER

The material presented at EPOSNA has been made available by the European Paediatric Orthopaedic Society and Pediatric Orthopaedic Society of North America for educational purposes only. The material is not intended to represent the only, nor necessarily best, method or procedure appropriate for the medical situations discussed, but rather is intended to present an approach, view, statement or opinion of the faculty which may be helpful to others who face similar situations.

EPOS and POSNA disclaims any and all liability for injury or other damages resulting to any individual attending EPOSNA and for all claims which may arise out of the use of the techniques demonstrated therein by such individuals, whether these claims shall be asserted by physician or any other person.

INSURANCE/LIABILITIES

POSNA and EPOS will not be held liable for personal injuries or for loss or damage to property incurred by participants or guests at the Pre-Course or Meeting, including those participating in tours and social events. Participants and guests are encouraged to take out insurance to cover losses incurred in the event of cancellation, medical expenses or damage to or loss of personal effects when traveling outside their own country.

POSNA and EPOS cannot be held liable for any hindrance or disruption of the Meeting arising from natural, political, social or economic events or other unforeseen incidents beyond its control. Registration of a participant implies acceptance of this condition.

LANGUAGE

English will be the official language EPOSNA.

NO SMOKING POLICY

Smoking is not permitted during any meeting or event.

NO CAMERAS OR VIDEO CAMERAS

Cameras or video cameras may not be used in any portion of the scientific session.

NO REPRODUCTIONS

No reproduction of any kind including audio tapes and videotapes may be made of the presentations at this meeting without the prior written permission of EPOS and POSNA. EPOS and POSNA reserves all of its rights to such material and commercial reproduction is specifically prohibited.

PHOTOGRAPHS

Registration and attendance at, or participation in, EPOS and POSNA activities constitutes an agreement by the registrant to allow EPOS and POSNA to use and distribute (both now and in the future) the registrant's or attendee's image in EPOS and POSNA member communications and promotional materials.

INFORMATION

VENUE

Palau de Congressos de Catalunya

The 2017 EPOSNA Meeting will be held at the [Palau de Congressos de Catalunya](#) in Barcelona, Spain.

HOUSING INFORMATION

Online reservations: <https://aws.passkey.com/event/15673139/owner/6893/landing>

Reservations Tel: 844-572-7250
International: 801-438-4839

Please reference the **EPOSNA 2017 Annual Meeting** when making reservations by phone.

TRANSPORTATION

Barcelona Airport El Prat is 6.8 miles/11 km from Palau de Congressos de Catalunya

By car/taxi

Coming out of the airport take the B-17, in the direction of Barcelona (5 kilometers), follow the signs for B-20, Ronda de Dalt (blue). Once you are on the B-20, continue straight on until you see the exit sign for "salida" 11 (Les Corts - Zona Universitaria). From this point on you can see the hotel. Continue for 200 meters on the right hand side of the Avenida Diagonal and take the second street to the right that leads you directly to the hotel. (Overall duration of trip: approximately 15 minutes.)

By train/metro

The train station is located just next to the Airport. Take the train as far as Sants Estació, the city's main train station. Once you arrive, take the subway train (Metro), Line 3 (green line) and get off at the Zona Universitaria stop (2 minutes walking distance from the hotel). (Overall duration of trip: approximately 40 minutes.)

By Aerobus

The aerobus, express airport bus service, links the airport with the main areas of interest in the city. The terminal for the Aerobus is just in front of airport itself and it stops at every terminal. In order to get to the hotel you must get off at the Plaza España stop (first stop within the city). Take the subway Line 3 from here (red line) and get off at the Zona Universitaria station (2 minute walk from the hotel). (Overall duration of trip: approximately 35 minutes.)



MEETING REGISTRATION

MEETING REGISTRATION

Complete the registration online at www.eposna.org.

Full meeting registration includes educational programming: Wednesday afternoon, May 3, 2017 through Saturday, May 6, 2017, as well as, course materials, Opening Ceremony and Reception, coffee breaks, lunches and entrance to the exhibit hall. All rates are in U.S. Dollars.

A \$50 late fee will be charged for meeting registration received after January 1, 2017. Registration closes on March 6, 2017. After March 6, please register onsite. There will be an additional \$50 fee for onsite registration.

FRIDAY EVENING GALA DINNER

The gala dinner of EPOSNA 2017 will be held at the house of La Llotja in Barcelona.

La Llotja was built in the 14th century and a century later extended as a goods warehouse and commodity exchange. Nowadays, this historical building is the perennial hub of the Catalan commerce and the former seat of institutions. The history of this building promises a wonderful dining experience.

There is a separate charge per person for this event of \$140.00 USD

ACCOMPANYING PERSONS MUST BE REGISTERED IN ORDER TO ATTEND ANY FUNCTION OR GAIN ACCESS TO THE EXHIBIT HALL

PRE-COURSE REGISTRATION

The Pre-Course requires a separate registration and fee.

Early registration is advised as events are frequently oversubscribed.

NOTE: POSNA Members: Attendance at the Pre-Course does not meet the meeting attendance requirement for members.

PAYMENTS BY CHECK

If paying by check, please mail your registration to:

POSNA
6665 Eagle Way
Chicago, IL 60678-1066

All checks must be in U.S. Dollars drawn on a U.S. Bank.

CANCELLATION POLICY

A full refund will be granted if notification is received, in writing, by mail at POSNA, 9400 W. Higgins Road, Suite 500, Rosemont, IL 60018-4976, USA or by email at posna@aaos.org, through March 6, 2017. A 20% administrative fee will be charged after March 6, 2017. No refunds will be given after April 28, 2017.

DATES TO REMEMBER

Early Registration Deadline: January 1, 2017

Pre-Registration Closes: March 6, 2017

After March 6, 2017 please register onsite.

	EARLY Registration	LATE Registration	ONSITE Registration
Deadline:	Jan. 1 2017	March 6 2017	After March 6

EPOSNA MEETING REGISTRATION

POSNA or EPOS Member	\$500	\$550	\$600
Non-Member	\$700	\$750	\$800
Resident/Fellow/Trainee*	\$300	\$350	\$400
RN/PA/Allied Health	\$375	\$425	\$475
Low & Low-Middle Income Countries	\$300	\$300	\$300
POSNA/EPOS Senior Members	\$275	\$275	\$275
Industry/Exhibit Representative	\$700	\$750	\$800
Accompanying Person	\$125	\$125	\$125
Children (1-17)	FREE	FREE	FREE

PRE-COURSE REGISTRATION

POSNA or EPOS Member	\$100	\$100	\$125
Non-Member	\$150	\$150	\$175
RN/PA/Allied Health	\$75	\$75	\$100
Resident/Fellow/Trainee*	\$75	\$75	\$100

*Residents/Fellows/Trainees using the mail-in printed form must have the phone number and signature of your program director on your registration form to qualify for the reduced fee. Without a signature and phone number, you will be charged the non-member fee. Registration onsite will require showing either a training status ID or letter from your program director to get the R/F/T rate.

DISCLOSURE OF PERSONAL INFORMATION

When registering for the EPOSNA Meeting, your personal identifying information is retained by POSNA. You understand and agree that EPOS and POSNA may disclose your name, address and contact information to your hotel in order to confirm hotel room reservations and meeting attendance numbers. Also, name and addresses may be shared with our corporate sponsors pre-meeting or post-meeting. No financial or other personally identifying information is disclosed.

ABOUT EPOS and POSNA



European Paediatric Orthopaedic Society

ABOUT EPOS

The European Paediatric Orthopaedic Society (EPOS) was founded in 1981, in Paris by a group of five paediatric orthopaedic surgeons. The first EPOS meeting was held in Paris and was attended by 13 surgeons. Now the society has more than 300 surgeons spread around the world.

EPOS MISSION STATEMENT

To increase the quality of care of children with orthopaedic conditions.



ABOUT POSNA

The Pediatric Orthopaedic Society of North America (POSNA) is a group of professionals comprised mostly of pediatric orthopaedic surgeons. We are board certified in orthopaedic surgery and have participated in additional training to become specialized in the care of children's musculoskeletal health and our practice reflects this dedication. We, as a group, strive to become the authoritative source on such care through appropriate research that will lead to the best evidence-based patient care.

POSNA MISSION STATEMENT

To improve the care of children with musculoskeletal disorders through education, research, and advocacy.



2017 EP^{OSNA} MEETING PROGRAM AT A GLANCE

Palau De Congressos De Catalunya, Barcelona, Spain

TUESDAY, MAY 2

EPOS Board of Directors Meeting	10:00 AM–6:00 PM	Press Room I
POSNA Board of Directors Meeting	8:00 AM–2:00 PM	Press Room II
Registration	4:00 PM–6:00 PM	Hall O
POPS Meeting	8:30 AM–6:30 PM	Sala A

WEDNESDAY, MAY 3

Registration	7:00 AM–6:00 PM	Hall O
Pre-Course	8:00 AM–12:00 PM	Auditorium
Lunch Break	12:00 PM–1:00 PM	Exhibition Hall
Industry Symposia	12:45 PM–1:45 PM	Sala H1-H2
Industry Symposia	12:45 PM–1:45 PM	Sala H3
Industry Symposia	12:45 PM–1:45 PM	Sala F
Industry Symposia	12:45 PM–1:45 PM	Sala J
Scientific Program	2:00 PM–6:02 PM	Auditorium
Evening		
Opening Ceremony	6:30 PM–7:30 PM	Auditorium
Welcome Reception	8:00 PM–9:30 PM	Fairmont Pool

THURSDAY, MAY 4

Registration	7:00 AM–6:00 PM	Hall O
Scientific Program	8:00 AM–12:02 PM	Auditorium
Lunch Break	12:02 PM–1:00 PM	Exhibition Hall
Industry Symposia	12:45 PM–1:45 PM	Sala H1-H2
Industry Symposia	12:45 PM–1:45 PM	Sala H3
Industry Symposia	12:45 PM–1:45 PM	Sala F
Industry Symposia	12:45 PM–1:45 PM	Sala J
Concurrent Session I		
Neuromuscular I	2:00 PM–3:48 PM	Sala H1-H2
Break	3:49 PM–4:09 PM	
Neuromuscular II	4:10 PM–5:58 PM	Sala H1-H2
Concurrent Session II		
Basic Science	2:00 PM–3:48 PM	Sala F
Break	3:49 PM–4:09 PM	
Sports	4:10 PM–5:58 PM	Sala F
Concurrent Session III		
Upper Extremity	2:00 PM–3:48 PM	Auditorium
Break	3:49 PM–4:09 PM	
Lower Extremity	4:10 PM–5:58 PM	Auditorium
Young Members Forum	6:00 PM–7:00 PM	Sala A

FRIDAY, MAY 5

Registration	7:00 AM–6:00 PM	Hall O
Scientific Program	8:00 AM–12:11 PM	Auditorium
Basic Science Award Papers	8:04 AM–9:04 AM	Auditorium
EPOSNA Presidential Speaker	9:05 AM–9:25 AM	Auditorium
Break	9:26 AM–9:46 AM	
Clinical Award Papers	9:47 AM–11:27 AM	Auditorium
Pro Maximus Awards	11:28 AM–11:38 AM	Auditorium
Distinguished Achievement Award	11:39 AM–11:49 AM	Auditorium
EPOS Presidential Transfer	11:50 AM–12:00 PM	Auditorium
POSNA Presidential Transfer	12:01 AM–12:11 PM	Auditorium
Lunch Break	12:12 PM–1:00 PM	Exhibition Hall
EPOS General Assembly	12:20 PM–1:50 PM	Room J
POSNA Business Meeting	12:20 PM–1:50 PM	Multifunctional Room
SLAOTI Symposia	12:50 PM–1:50 PM	Sala H1-H2
APPOS Symposia	12:50 PM–1:50 PM	Sala F
Concurrent Session IV		
Club Foot	2:00 PM–3:48 PM	Sala H1-H2
Break	3:49 PM–4:09 PM	
Foot and Ankle	4:10 PM–5:58 PM	Sala H1-H2
Concurrent Session V		
Spine	2:00 PM–3:48 PM	Auditorium
Break	3:49 PM–4:09 PM	
Hip	4:10 PM–5:58 PM	Auditorium
Concurrent Session VI		
Tumor/Infection	2:00 PM–3:48 PM	Sala F
Break	3:49 PM–4:09 PM	
Congenital/Syndrome	4:10 PM–5:58 PM	Sala F
Evening		
Gala Dinner	7:30 PM–10:00 PM	Casa Llotja de Mar

SATURDAY, MAY 6

Registration	7:00 AM–12:00 PM	Hall O
POSNA 2 nd Board of Directors Meeting	8:00 AM–9:00 AM	Press Room II
Scientific Program	8:00 AM–12:03 PM	Auditorium



This conference is Eucomed approved

Pre-Registration Deadline: March 6, 2017
Register Online Today at www.eposna.org

2017 PRE-COURSE

CUTTING-EDGE PEDIATRIC ORTHOPAEDICS 2017: A GLOBAL PERSPECTIVE

Chairs: Rudolf Ganger, MD, Jeffrey R. Sawyer, MD
Wednesday, May 3, 2017
8:00 AM – 12:00 PM

DESCRIPTION

This activity will highlight the similarities and differences in the European (EPOS) and North American (POSNA) perspective on the diagnosis and treatment of four challenging problems in pediatric orthopaedics:

OBJECTIVES

Upon completion of this program, participants should be able to:

- Objective 1: To gain a global perspective in the diagnosis and treatment of complex pediatric orthopaedic problems/conditions.
- Objective 2: To facilitate international discussion and collaboration regarding these problems and conditions.
- Objective 3: To gain an understanding of how different health care systems influence the diagnosis and treatment of complex pediatric problems.
- Objective 4: To highlight areas of future international study in pediatric orthopaedics.

ACCREDITATION

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American Academy of Orthopaedic Surgeons and the Pediatric Orthopaedic Society of North America. The American Academy of Orthopaedic Surgeons is accredited by the ACCME to provide continuing medical education for physicians.

CONTINUING MEDICAL EDUCATION

The American Academy of Orthopaedic Surgeons designates this live activity for a maximum of 3.75 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This conference is Eucomed approved



WEDNESDAY, MAY 3

8:00 AM–8:05 AM	Introduction
Pre-Course Chairs:	<i>Rudolf Ganger, MD, Vienna, Austria</i> <i>Jeffrey R. Sawyer, MD, Memphis, TN</i>
8:05 AM–8:55 AM	Approach to the Hip (SCFE)
Moderators:	<i>Manuel Cassiano Neves, MD, Lisbon, Portugal</i> and <i>James R. Kasser, MD, Boston, MA</i>
8:05–8:20	EPOS Speaker - <i>Manoj Ramachandran, FRCS, London, United Kingdom</i>
8:20–8:35	POSNA Speaker - <i>Daniel J. Sucato, MD, MS, Dallas, TX</i>
8:35–8:55	Q&A
8:55 AM–9:45 AM	Approach to the Spine (EOS)
Moderators:	<i>Dror Ovadia, MD, Tel Aviv, Israel</i> and <i>Michael G. Vitale, MD, MPH, New York, NY</i>
8:55–9:10	POSNA Speaker - <i>John B. Emans, MD, Boston, MA</i>
9:10–9:25	EPOS Speaker - <i>Carol C. Hasler, MD, Basel, Switzerland</i>
9:25–9:45	Q&A
9:45 AM–10:05 AM	Break
10:05 AM–10:55 AM	Approach to the Neuromuscular (Hip)
Moderators:	<i>Reinald Brunner, MD, Basel, Switzerland</i> and <i>Dennis R. Wenger, MD, San Diego, CA</i>
10:05–10:20	EPOS Speaker – <i>Gunnar Hagglund, MD, Lund, Sweden</i>
10:20–10:35	POSNA Speaker – <i>Jon R. Davids, MD, Sacramento, CA</i>
10:35–10:55	Q&A
10:55 AM–11:45 AM	Approach to Complex Pediatric Fractures
Moderators:	<i>Pierre F. Lascombes, MD, Geneva, Switzerland</i> and <i>James H. Beaty, MD, Memphis, TN</i>
10:55–11:10	POSNA Speaker - <i>John (Jack) M. Flynn, MD, Philadelphia, PA</i>
11:10–11:25	EPOS Speaker – <i>Franck Accadbled, MD, Toulouse, France</i>
11:25–11:45	Q&A
11:45 AM–12:00 PM	Wrap up and Closing
	<i>Rudolf Ganger, MD</i> <i>Jeffrey R. Sawyer, MD</i>

2017 EPOSNA MEETING SCIENTIFIC PROGRAM

WEDNESDAY, MAY 3

2:00 PM–2:04 PM **WELCOME REMARKS**

HIP

1

2:04 PM–2:09 PM

Diagnostic and Treatment Preferences for Developmental Dysplasia of the Hip: A Survey of EPOS and POSNA Members
Cristina Alves, MD; Walter Truong, MD;
Michaela Thompson, BA;
Joash Suryavanshi, BA; Huong Do, MA;
Emily Dodwell, MD
Hospital for Special Surgery,
New York, New York, United States

2

2:10 PM–2:15 PM

Developmental Dysplasia of the Hip Presenting Between 12 and 18 Months: Medial Open Reduction or Delayed Anterior Approach Plus Innominate Osteotomy
Christopher Bache, FRCS;
Mohammad Shahid; Feiran Wu;
Rosamond Tansey MBChB
Birmingham Children's Hospital,
Birmingham, United Kingdom

3

2:16 PM–2:21 PM

Patient-Reported Outcomes in Young Adults with Osteonecrosis Secondary to Developmental Dysplasia of the Hip
Andreas Roposch, FRCS (Ortho);
Avi Marks, MBChB;
Aresh Hashemi-Nejad, FRCS;
Mario Cortina-Borja, PhD
Great Ormond Street UCL Institute of
Child Health, Royal National
Orthopaedic Hospital,
London, United Kingdom

2:22 PM–2:31 PM **Discussion**

4

2:31 PM–2:36 PM

Secondary Spherical Remodeling from the Healed Stage to Skeletal Maturity in Legg-Calvé-Perthes Disease Treated with Salter Innominate Osteotomy
Hiroshi Kaneko, MD, PhD;
Hiroshi Kitoh, MD; Masaki Matsushita, MD;
Hiroki Furuhashi, MD; Tadashi Hattori
Nagoya University School of Medicine,
Nagoya, Aichi, Japan

5

2:37 PM–2:42 PM

Abnormal Growth of the Upper Femur following the Modified-Dunn Procedure
Ira Zaltz, MD; Eduardo Novais, MD;
Michael Millis, MD; Young Jo Kim, MD;
Wudbhav Sankar, MD
William Beaumont Hospital,
Royal Oak, Michigan, United States

6

2:43 PM–2:48 PM

Hip Migration Percentage as the Outcome Parameter of Hip Reconstruction in Children with Spastic Hip Disease
Brian Po-Jung Chen, MD;
Julianne Sees, DO; Mutlu Cobanoglu;
Lucio Perotti, MD; Kenneth Rogers, PhD;
Freeman Miller, MD
Nemours/Alfred I. duPont Hospital
for Children,
Wilmington, Delaware, United States

2:49 PM–2:58 PM **Discussion**

7

2:58 PM–3:03 PM

Bernese Treatment Algorithm for Patients with Slipped Capital Femoral Epiphysis (SCFE) has Low Rate of Adverse Events
Kai Ziebarth, MD; Nadine Kaiser;
Thoralf Liebs; Teddy Slongo, MD;
Klaus Siebenrock, MD
University Children's Hospital Bern,
Pediatric Orthopaedics,
Bern, Switzerland

8

3:04 PM–3:09 PM

Bernese Periacetabular Osteotomy for Severe Acetabular Dysplasia: Are the Good Clinical Results Maintained at Long-Term Follow-Up?
Jeffrey Petrie, MD; Kayla Thomason, BS;
Geneva Baca; Perry Schoenecker, MD;
John Clohisy, MD
Washington University School of Medicine,
Saint Louis, Missouri, United States

9

3:10 PM–3:15 PM

Do Compensatory Anterior Pelvic Tilt and Lumbar Lordosis Decrease Following Bilateral Periacetabular Osteotomy?
Erika Daley, MD; Nickolas Nahm, MD;
Denise Koueiter; **Ira Zaltz, MD**
William Beaumont Hospital,
Royal Oak, Michigan, United States

3:16 PM–3:25 PM **Discussion**

10

3:25 PM–3:30 PM

Reverse Periacetabular Osteotomy to Uncover the Hip in Pincer Impingement
Stephanie Pun, MD; Michael Merz, MD;
Garrett Bowen; Andreas Hingsammer, MD;
Yi-Meng Yen, MD; Young Jo Kim, MD;
Michael Millis, MD
Stanford University and Boston Children's
Hospital, Stanford, California and
Boston, Massachusetts, United States

WEDNESDAY, MAY 3, continued

11

3:31 PM–3:36 PM

Is Osteotomy Better than Resection for Painful, Dislocated Hips in Cerebral Palsy?
Priscella Chan; Angela Hsu, BS;
Jenna Godfrey, MD; Selina Silva, MD;
Rachel Goldstein, MD; Deirdre Ryan, MD;
Paul Choi, MD; Robert Kay, MD
Children's Hospital Los Angeles,
Los Angeles, California, United States

12

3:37 PM–3:42 PM

Outcomes of Primary Total Hip Arthroplasty Compared to Conversion Arthroplasty After Failed Hip Preservation Surgery in Patients Less Than 30 Years of Age
Jakub Sikora-Klak, MD;
Vidyadhar Upasani, MD; James Bomar;
Dennis Wenger, MD; Jesal Parekh, PhD;
Scott Ball, MD
Rady Children's Hospital, San Diego,
San Diego, California, United States

3:43 PM–3:52 PM

Discussion

3:53 PM–4:13 PM

Break

SPINE

13

4:14 PM–4:19 PM

Vancomycin Powder Lowers Infection Rate in Growing Rod Surgery in Early Onset Scoliosis: A Preliminary Report
George Thompson, MD;
Connie Poe-Kochert, RN;
Christina Hardesty, MD;
Jochen Son-Hing, MD;
R. Justin Mistovich, MD
Rainbow Babies and Children's Hospital,
Cleveland, Ohio, United States

14

4:20 PM–4:25 PM

Topical Vancomycin in Pediatric Spine Surgery Does Not Reduce Surgical Site Infection: A Retrospective Cohort Study
Sumeet Garg, MD; Nikki Bloch, BA;
Morgan Potter; Claire Palmer, MS;
Nicole Michael, BA; Courtney O'Donnell, MD;
Mark Erickson, MD
Children's Hospital Colorado,
Aurora, Colorado, United States

15

4:26 PM–4:31 PM

Early Deep Surgical Site Infection Following 740 Primary Single-Stage Pediatric Scoliosis Surgery: A Multivariate Analysis of Risk Factors
Jerry Du, MD; Connie Poe-Kochert, RN;
George Thompson, MD; Jochen Son-Hing, MD;
Christina Hardesty, MD;
R. Justin Mistovich, MD
Rainbow Babies and Children's Hospital,
Cleveland, Ohio, United States

4:32 PM–4:41 PM

Discussion

16

4:41 PM–4:46 PM

2-Year Follow-up in Spine Clinical Research: An Adequate Benchmark?
Firoz Miyanji, MD; Amer Samdani, MD;
Suken Shah, MD; Maty Petcharaporn, BS;
Jahangir Asghar, MD; Burt Yaszay, MD;
Harry Shufflebarger, MD; Randal Betz, MD;
Peter Newton, MD
British Columbia Children's Hospital,
Vancouver, British Columbia, Canada

17

4:47 PM–4:52 PM

Surgery for the Adolescent Idiopathic Scoliosis Patients after Skeletal Maturity: Now or Later?
Baron Lonner, MD; Yuan Ren;
Robert Bess, MD; Michael Kelly, MD;
Han Jo Kim, MD; Burt Yaszay, MD;
Virginie Lafage, PhD; Firoz Miyanji, MD;
Peter Newton, MD
Mount Sinai Hospital,
New York, New York, United States

18

4:53 PM–4:58 PM

Evolution of Surgery for Adolescent Idiopathic Scoliosis over 20 Years: Have Outcomes Improved?
Baron Lonner, MD; Yuan Ren;
Burt Yaszay, MD; Patrick Cahill, MD;
Suken Shah, MD; Randal Betz, MD;
Amer Samdani, MD;
Harry Shufflebarger, MD; Peter Newton, MD
Mount Sinai Hospital,
New York, New York, United States

4:59 PM–5:08 PM

Discussion

19

5:08 PM–5:13 PM

Is the Story Over? Curve Progression after Bracing in AIS
Elizabeth Hubbard, MD;
Rachel Mednick Thompson, MD;
Chan-Hee Jo, PhD; Donald Virostek;
Lori Karol, MD
Texas Scottish Rite Hospital for Children,
Dallas, Texas, United States

20

5:14 PM–5:19 PM

Maturity Indicators and Adolescent Idiopathic Scoliosis: Evaluation of the Sanders Maturity Scale
Kevin Neal, MD; Eric Shirley, MD;
Gary Kiezbak, PhD
Nemours Specialty Care,
Jacksonville, Florida, United States

21

5:20 PM–5:25 PM

A Novel Method of Predicting Pulmonary Function of AIS Patients Undergoing PSF on Routine Radiographs
Vishwas Talwalkar, MD; Ryan D. Muchow;
Alison Dittmer, MD; John Whitaker, BS;
Cale Jacobs, PhD; Henry Iwinski, MD
Lexington Shriners Hospital for Children,
Lexington, Kentucky, United States

WEDNESDAY, MAY 3, continued

5:26 PM–5:35 PM Discussion

22
5:35 PM–5:40 PM **Decreasing Blood loss in Pediatric Idiopathic Scoliosis Surgery: The Efficacy and Pharmacokinetic Profile of Intravenous Tranexamic Acid**
Susan Goobie; Michael T. Hresko, MD; Robert Brustowicz, MD; Elisabeth Dwyer; John Emans, MD; Michael Glotzbecker, MD; Daniel Hedequist, MD; Lawrence Karlin, MD; Mary Ellen McCann; Andres Navedo, MD; Luis Pereira, PhD; Navil Sethna, MD
Boston Children's Hospital, Harvard Medical School, Boston, Massachusetts, United States

23
5:41 PM–5:46 PM **A Novel Risk Severity Score for Early Onset Scoliosis Predicts SSI Rates Ranging from 5.7% to 79.6%**
Hiroko Matsumoto, MA; David Royce, MD; Nicholas Feinberg, BA; John Smith, MD; Amer Samdani, MD; Michael Glotzbecker, MD; Jeffrey Sawyer, MD; David Skaggs, MD; Michael G. Vitale, MD, MPH; Growing Spine Study Group; Children's Spine Study Group
Columbia University Medical Center, New York, New York, United States

24
5:47 PM–5:52 PM **Successes and Failures Following Spinal Growth Tethering for Scoliosis**
Peter Newton, MD; Wataru Saito; Burt Yaszay, MD; Carrie Bartley, MA; Tracey Bastrom, MA
Rady Children's Hospital, San Diego, California, United States

5:53 PM–6:02 PM Discussion

THURSDAY, MAY 4

8:00 AM–8:04 AM OPENING REMARKS

TRAUMA

25
8:04 AM–8:09 AM **Does Delay to Surgery in Type III Supracondylar Humerus Fractures Lead to Longer Surgical Times and More Difficult Reductions?**
Pooja Prabhakar; Christine Ho, MD
Children's Medical Center, Dallas, Texas, United States

26
8:10 AM–8:15 AM

What is an "Acceptable Reduction" for Supracondylar Humerus Fractures in Children?
Unni Narayanan, FRCSC; William Wood, MD; Yongyao Tan, MSc; James Turner, FRCS (Ortho); Anshika Gangwar, MD
The Hospital for Sick Children, Toronto, Ontario, Canada

27
8:16 AM–8:21 AM

Flexion–Extension Cross Pinning of Supracondylar Humeral Fractures in Children: Does It Really Increase Stability and Prevent Ulnar Nerve Injury?
Utai Rudich; Doron Keshet; Mikhail Zaidman; Alexander Katsman; Mark Eidelman, MD
Rambam Healthcare Center, Haifa, Israel

8:22 AM–8:31 AM Discussion

28
8:31 AM–8:36 AM **Complications Associated with Lateral Humeral Condylar Fractures in Children**
Rafael Escobar, MD; Luis Moraleda, MD; Jesus Diez; Gaspar Gonzalez, MD
Hospital Universitario La Paz, Madrid, Spain

29
8:37 AM–8:42 AM **No Difference in Time to Full ROM, Union or Incidence of Complications in a Matched Cohort of Operative versus Non-Operatively Treated Displaced Medial Epicondyle Fractures**
Stephanie Mayer, MD; Derek Axibal, MD; Brian Ketterman; Anne Skelton, BS; Patrick Carry, MS; Gaia Georgopoulos, MD; Nancy Miller, MD
Children's Hospital Colorado, Aurora, Colorado, United States

30
8:43 AM–8:48 AM **To Fix or Not to Fix: Fracture Type and Outcomes of Operative vs Nonoperative Management of Pediatric Humeral Shaft Fractures**
Todd Milbrandt, MD; Maureen O'Shaughnessy; Annalise Larson, MD; William Shaughnessy, MD; Anthony Stans, MD; Ernest Young, MD
Mayo Clinic, Rochester, Minnesota, United States

8:49 AM–8:58 AM Discussion

THURSDAY, MAY 4, continued

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8:58 AM–9:03 AM

Effect of NSAID Use in the Acute Phase of Skeletally Immature Bone Healing: A Prospective, Randomized, Blinded, Controlled Trial

Julia Nuelle, MD; Kelsie Coe, BA; Harvey Oliver, MD; James Cook; Daniel Hoernschemeyer, MD; Sumit Gupta, MD
University of Missouri Hospital and Clinics/Missouri Orthopaedic Institute, Columbia, Missouri, United States

32

9:04 AM–9:09 AM

Risk of Fracture and 25-OH Vitamin D Level in Pediatric Population

David M. Farrington, MD; Marisol Martínez Vázquez, MMED (Ortho); Francisco Downey-Carmona, MD; Jose Lirola, MD; José Manuel Martínez Salas
Hospital Infantil Virgen del Rocío, Seville, Spain

33

9:10 AM–9:15 AM

Best Pediatric Trauma Paper from the 2016 Orthopaedic Trauma Association Annual Meeting

9:16 AM–9:25 AM

Discussion

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9:25 AM–9:30 AM

Descriptive Epidemiology of Adolescent Clavicle Fractures: Early Results from the FACTS (Function After Adolescent Clavicle Trauma and Surgery) Prospective, Multi-Center Cohort Study

Henry Ellis, MD; Philip Wilson, MD; G. Li, MD; Andrew Pennock, MD; Jeffrey Nepple, MD; Donald Bae, MD; Kyna Donohue; Leslie Kalish; FACTS Study Group; Benton Heyworth, MD
Boston Children's Hospital, Boston, Massachusetts, United States

35

9:31 AM–9:36 AM

To Nail or Plate Forearm Fractures in the Adolescent: Using Bone Age as Guide

Arjandas Mahadev, MD; Si Heng Sharon Tan; Sumanth Gera
KK Women's and Children's Hospital, Singapore, Singapore

36

9:37 AM–9:42 AM

Pediatric Forearm Fractures Are Effectively Immobilized with a Sugar-Tong Splint Following Closed Reduction

Janet Walker, MD; Vishwas Talwalkar, MD; Domingo Molina, MD; Alison Dittmer, MD; Mitchell Wattles, MD; Cale Jacobs, PhD; Scott Riley, MD; Henry Iwinski, MD; Ryan D. Muchow, MD
University of Kentucky, Lexington, Kentucky, United States

9:43 AM–9:52 AM

Discussion

9:53 AM–10:13 AM

Break

QUALITY, SAFETY AND VALUE

37

10:14 AM–10:19 AM

Significant Reductions in Surgical Site Infection (SSI) In Spinal Fusion Patients Using a Bundled Intervention Approach

Amy McIntosh, MD; Kerry Wilder
Texas Scottish Rite Hospital for Children, Dallas, Texas, United States

38

10:20 AM–10:25 AM

Bundles, Surveillance and Committees: Results of an All-Out Assault on Spinal Fusion Surgical Site Infection

Christian Refakis, BA; Jack Flynn, MD
The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, United States

39

10:26 AM–10:31 AM

Development Of Consensus-Based Best Practice Guidelines (BPG) for Postoperative Care Following Posterior Spinal Fusion for AIS

Nicholas Fletcher, MD; Michael Glotzbecker, MD; Michelle Marks; Mark Abel, MD; Suken Shah, MD; Burt Yaszay, MD; Peter Newton, MD
Emory University, Atlanta, Georgia, United States

10:32 AM–10:41 AM

Discussion

40

10:41 AM–10:46 AM

Cost Effectiveness Analysis of Operative vs. Non-Operative Treatment for Adolescent Idiopathic Scoliosis

Michelle Marks, PT, MA; Amit Jain, MD; Michael Kelly, MD; Lawrence Lenke, MD; Thomas Errico, MD; Khaled Kebaish, MD; Paul Sponseller, MD
The Johns Hopkins Hospital, Baltimore, Maryland, United States

THURSDAY, MAY 4, continued

41

10:47 AM–10:52 AM **Decreasing Unexpected Returns to Orthopaedic Hand Clinic: Improving Efficiency of Health Care Delivery While Decreasing Medical and Non-Medical Costs**
Kevin Little, MD; Roger Cornwall, MD;
 Stephanie Pinkstock, PA-C;
 Emily Dastillung; Lisa McFadden
 Cincinnati Children's Hospital
 Medical Center,
 Cincinnati, Ohio, United States

42

10:53 AM–10:58 AM **Implementation of a Dedicated Clubfoot Clinic Significantly Decreases the Occurrence of Major Unplanned Clubfoot Surgery: A Quality Improvement Initiative**
 Robin Baschal; Susan Graham, PA;
 Karen Whalen; Alexander Jones, BA;
 Debbie Burke, PA-C; Patrick Carry;
 Gaia Georgopoulos, MD;
Nancy Miller, MD
 Children's Hospital Colorado,
 Aurora, Colorado, United States

10:59 AM–11:08 AM Discussion

43

11:08 AM–11:13 AM **Training Effect of Using A Mobile App-Based Simulation for the Treatment of Pediatric Septic Arthritis – A Pilot Study**
Benjamin Shore, MD; Andre Chow, MBBS;
 Ali Bahsoun, MBBS; Donald Bae, MD
 Boston Children's Hospital,
 Boston, Massachusetts, United States

44

11:14 AM–11:19 AM **A Coordinated Discharge Pathway Following Posterior Spinal Fusion for Neuromuscular Scoliosis Associated with GMFCS 4/5 Cerebral Palsy Resulted in a 50% Decrease in Complications and a 25% Shorter Length of Stay**
Nicholas Fletcher, MD; Laura Bellaire, MD;
 Christine Bowman, MD; Laura Ward;
 Robert Bruce, MD
 Emory University,
 Atlanta, Georgia, United States

45

11:20 AM–11:25 AM **Complications of Peripheral Nerve Blocks Following Pediatric Knee Surgery**
 Robert Tamai, BA; Brian Sullivan, BS;
Rushyuan Lee, MD
 The Johns Hopkins Hospital,
 Baltimore, Maryland, United States

11:26 AM–11:35 AM Discussion

46

11:35 AM–11:40 AM **Utilization of a Wide Array of Non-Validated Outcome Scales in Pediatric Orthopaedic Publications: Can't We All Measure the Same Thing?**
Emily Dodwell, MD; Walter Truong, MD;
 Sahana Somasegar, BS;
 Michaela Thompson, BA;
 Kunal Agarwal, MS; Meghan Price, BS;
 Joash Suryavanshi, BA; Peter Fabricant
 Hospital for Special Surgery,
 New York, New York, United States

47

11:41 AM–11:46 AM **Clinical Assessment of Generalized Ligamentous Laxity Using a Single Test: Is Thumb-to-Forearm Flexion Enough?**
 Sean Cahill, BA; Melinda Sharkey, MD;
Cordelia Carter, MD
 Yale University,
 New Haven, Connecticut, United States

48

11:47 AM–11:52 AM **Why is SCFE Decreasing While Obesity is Increasing?**
Andrew Howard, MD;
 Benjamin Escott, MBBS;
 James Rofaiei, MD; Robert Ravinsky, MD;
 Bheeshma Ravi, MD
 Hospital for Sick Children,
 Toronto, Ontario, Canada

11:53 AM–12:02 PM Discussion

12:02 PM –1:00 PM Lunch

CONCURRENT SESSION I: NEUROMUSCULAR I

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2:00 PM–2:05 PM **Hip Surveillance for Children with Cerebral Palsy: A Survey of the POSNA Membership**
Benjamin Shore, MD; Michael Shrader, MD;
 Unni Narayanan, MD; Freeman Miller, MD;
 H. Kerr Graham, MD; Kishore Mulpuri, MD
 Boston Children's Hospital,
 Boston, Massachusetts, United States

50

2:06 PM–2:11 PM **Is There a Consensus in Diagnosing and Preventing Hip Dislocation in CP Patients?**
Prof. Bettina Westhoff; Nikolaj Jung;
 Volker Mall; Ruediger Krauspe, MD
 Orthopaedic Department,
 University Hospital Duesseldorf,
 Duesseldorf, Germany

THURSDAY, MAY 4, continued

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2:12 PM–2:17 PM

Radiation Prophylaxis for Hip Salvage Surgery in Cerebral Palsy – Can We Reduce the Incidence of Heterotopic Ossification?
Brian Snyder, MD; Eric Davis, BS; Kathryn Williams, MS; Karen Marcus, MD; Travis Matheney, MD; Benjamin Shore, MD; Boston Children's Hospital, Boston, Massachusetts, United States

2:18 PM–2:27 PM

Discussion

52

2:27 PM–2:32 PM

Trochanteric Sparing Proximal Femoral Resection for Spastic Hip Arthritis
Jonathan Schoenecker, MD; Jennifer Bauer, MD; Perry Schoenecker, MD; Vanderbilt University Medical Center, Nashville, Tennessee, United States

53

2:33 PM–2:38 PM

San Diego Pelvic Osteotomy in Patients with Closed Triradiate Cartilage
Jozef Murar, MD; Stephanie Ihnow, MD; Luciano Dias, MD; Vineeta Swaroop, MD; Ann and Robert H Lurie Children's Hospital of Chicago, Chicago, Illinois, United States

54

2:39 PM–2:44 PM

Long-term Outcome of Hip Instability Following Non-Surgical and Surgical Interventions in Children with Cerebral Palsy
Walter Strobl, MD; Clinic for Pediatric Orthopaedics & Neuro-Orthopaedics, Rummelsberg, Bavaria, Germany

2:45 PM–2:54 PM

Discussion

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2:54 PM–2:59 PM

Is Percutaneous Myofascial Lengthening of Medial Hamstrings as Effective and Safe as the Open Procedure?
Toni Mansour, MD; Joseph Derienne, MD; Michel Daher, MD; Saliba Eliw; Ayman Assi, PhD; Ismat Ghanem, MD; Faculty of Medicine, University of Saint Joseph, Beirut, Lebanon

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3:00 PM–3:05 PM

Minimal Invasive Multi-level Surgery Allows Early Mobilisation by Locomotion Therapy in Children and Young Adults with Cerebral Palsy
Walter Strobl, MD; Clinic for Pediatric Orthopaedics & Neuro-Orthopaedics Rummelsberg, Rummelsberg, Bavaria, Germany

57

3:06 PM–3:11 PM

Longitudinal Follow-up of Children with Cerebral Palsy after Single-Event Multilevel Surgery
Anja Van Campenhout, PhD, MD; University Hospital Leuven, Leuven, Belgium

3:12 PM–3:21 PM

Discussion

58

3:21 PM–3:26 PM

The Role of Hip Power in the Treatment of "Stiff Knee"
Brunno Moreira, MD; Tasos Karakostas; Luciano Dias, MD; Rehabilitation Institute of Chicago, Chicago, Illinois, United States

59

3:27 PM–3:32 PM

Factors Influencing Outcomes After Medial Hamstring Lengthening with Semitendinosus Transfer in Patients with Cerebral Palsy
Ki Hyuk Sung, MD; Chin Youb Chung, MD; Kyoung Min Lee, MD; Myungki Chung; Byung Chae Cho, MD; Seung Jun Moon, MD; Jaeyoung Kim, MD; Gye Wang Lee, MD; Seung Yeol Lee, MD; Tae Gyun Kim, MD; Moon Seok Park, MD; Department of Orthopaedic Surgery, Seoul National University Bundang Hospital, Seongnam-si, Gyeonggi-do, Republic of Korea

60

3:33 PM–3:38 PM

Rectus Femoris Transfer Surgery Leads to Increased Crouch in Children with Cerebral Palsy at GMFCS Levels III and IV
Ted Sousa, MD; Alexander Nazareth, MS; Susan Rethlefsen, PT; Nicole Mueske, MS; Tishya Wren, PhD; Rachel Goldstein, MD; Robert Kay, MD; Children's Hospital Los Angeles, Los Angeles, California, United States

3:39 PM–3:48 PM

Discussion

3:49 PM–4:09 PM

Break

CONCURRENT SESSION II:
BASIC SCIENCE

- 61**
2:00 PM–2:05 PM **Increased Hip Intra-Capsular Pressure Decreases Perfusion of the Capital Femoral Epiphysis in a Skeletally Immature Porcine Model**
Vidyadhar Upasani, MD; Raghav Badrinath, MD; Christine Farnsworth, MS; Megan Jeffords, MS; Jericho Hallare; Syed Ahmed, MD; Tim Schrader, MD
Rady Children's Hospital, San Diego, California, United States
- 62**
2:06 PM–2:11 PM **3D Printed Highly Functional Implants for Osteochondral Repair and Bone Ingrowth in a Rodent Model**
Matthew Oetgen, MD; Che-Ying Kuo; Nathan Castro, PhD; Christopher Rossi, MD; John Fisher, PhD; Grace Zhang, PhD; Benjamin Holmes
Children's National Medical Center, Washington, District of Columbia, United States
- 63**
2:12 PM–2:17 PM **Combination Antibiotic Therapy Demonstrates a Synergistic Effect in the Treatment of Implant Infection**
Howard Park, MD; Vishal Hegde, MD; Stephen Zoller, MD; Yan Hu; Amanda Loftin; Christopher Hamad, BS; Anthony A. Scaduto, MD; Nicholas Bernthal, MD
University of California, Los Angeles, Los Angeles, California, United States
- 2:18 PM–2:27 PM **Discussion**
- 64**
2:27 PM–2:32 PM **Celecoxib Leads to Impaired Cartilage and Bone Extracellular Matrix Formation in the Growth Plate of Skeletally Immature Mice**
Marjolein Caron, PhD; Tessy Castermans; Bert Van Rietbergen, PhD; Lodewijk Van Rhijn; Tim Welting, PhD; **Adhiambo Witlox, MD**
Maastricht University Medical Center, Maastricht, Netherlands
- 65**
2:33 PM–2:38 PM **Sexual Dimorphism in Bone Morphology and Density during Adolescent Growth**
Tsz Ping Lam, MD, MBBS; Ka-Yee Cheuk; Xiaofang Wang; Fiona Yu; Wayne Lee, PhD; Bobby Ng, MD; Alec Lik Hang Hung; Feng Zhu; Huanxiong Chen; Ali Ghasem-Zadeh; Roger Zebaze; Ego Seeman; Jack Cheng, MD
The Chinese University of Hong Kong, Hong Kong, Hong Kong
- 66**
2:39 PM–2:44 PM **Obesity Affects Growth Plate Structure and Gene Expression**
Shawn Gilbert, MD; Kenneth Smith, MD; Alan Eberhardt, PhD
University of Alabama Birmingham, Birmingham, Alabama, United States
- 2:45 PM–2:54 PM **Discussion**
- 67**
2:54 PM–2:59 PM **Therapeutic Effect of Metformin in Ischemic Osteonecrosis Via Angiopoietin1 Induced Osteoblastic Differentiation**
Jung-Ryul Kim, MD
Chonbuk National University, Medical School, Jeonju, Jeonbuk, Republic of Korea
- 68**
3:00 PM–3:05 PM **Heparan Sulfate for OCD Regeneration: An Animal Study**
James Hoi Poi Hui, MD; Jonathan Lee, PhD; Raymond Smith, PhD; Ren Xiafei; Victor Nurcombe; Simon M. Cool
National University of Singapore, Singapore, Singapore
- 69**
3:06 PM–3:11 PM **Enhancing Human Mesenchymal Stem Cells for Improved Regeneration of OCD Defects**
James Hoi Poi Hui, MD; Hassan Afizah; Ren Xiafei; Ling Ling; Victor Nurcombe, PhD; Simon M. Cool, PhD
National University of Singapore, Singapore, Singapore
- 3:12 PM–3:21 PM **Discussion**
- 70**
3:21 PM–3:26 PM **Investigation of Regulation and Function of ST2 in Controlling Chondrocyte Differentiation**
Ehsan Bonyadi Ran, MSc; Annelie Weinberg, MD; Sriveena Srinivasaiah, MSc; Ute Schaefer
Medical University Graz, Graz, Austria
- 71**
3:27 PM–3:32 PM **Fiber Optic Detection of Spinal Ischemia During Vertebral Column Distraction**
James Barsi, MD; Wei Lin, PhD; David Busch, PhD; James Davis, MD; Jakub Tatka, MD; Arjun Yodh, PhD; Thomas Floyd
Stony Brook University, Stony Brook, New York, United States

THURSDAY, MAY 4, continued

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3:33 PM–3:38 PM

Genomewide Association Identifies FSTL5 Associated with Idiopathic Clubfoot

Jonathan Rios, PhD; Anas Khanshour, PhD;
Lucas Rosa Fraga, MSc;
Alexandra Diamond; Vanessa De Mello;
Julia Kozlitina, PhD; Mitchell Weston;
Megan Wilson; Jacqueline Hecht;
B. Stephens Richards, MD;
Matthew Dobbs, MD; Neil Vargesson, PhD;
Christina Gurnett
Texas Scottish Rite Hospital for Children,
Dallas, Texas, United States

3:39 PM–3:48 PM

Discussion

3:49 PM–4:09 PM

Break

CONCURRENT SESSION III: UPPER EXTREMITY

73

2:00 PM–2:05 PM

Arthroscopic Release for Shoulder Internal Rotation Contractures Secondary to Brachial Plexus Birth Palsy in Children Four Years of Age and Older

David Kahan, MD; **Dan Zlotolow, MD**;
T. Gibson, DO; Landon Bulloch;
Kaylee Dowling;
Grigory Gershegov, MD; Scott Kozin, MD
Shriners Hospital for Children,
Philadelphia, Pennsylvania, United States

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2:06 PM–2:11 PM

Double versus Single Tendon Transfers to Improve Shoulder Function in Brachial Plexus Birth Palsy

Dustin Greenhill; **William Smith, MD**;
Frederick Ramsey, PhD; **Scott Kozin, MD**;
Dan Zlotolow, MD
Shriners Hospital for Children,
Philadelphia, Pennsylvania, United States

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2:12 PM–2:17 PM

Humeral Lengthening with a Magnetic-Powered Lengthening Nail

Ahmed Hammouda, MD;
Shawn Standard, MD; **S. Rozbruch, MD**;
John Herzenberg, MD
International Center for Limb Lengthening,
Sinai Hospital of Baltimore,
Baltimore, Maryland, United States

2:18 PM–2:27 PM

Discussion

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2:27 PM–2:32 PM

Finger Tip Amputation in New York State: Correlation with Abuse and Neglect

Christopher Klifto, MD; **Jessica Lavery, MS**; **Raj Karia, MPH**; **Alice Chu, MD**;
Debra Sala, PT
NYU Hospital for Joint Diseases,
New York, New York, United States

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2:33 PM–2:38 PM

Radial Head Changes in Osteochondritis Dissecans of the Humeral Capitellum

Mark Wu, BS; **Katherine Eisenberg, BS**;
Kathryn Williams, MS; **Donald Bae, MD**
Boston Children's Hospital,
Boston, Massachusetts, United States

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2:39 PM–2:44 PM

Long-term Outcome Following Surgical Treatment of Wrist Contractures in Children with AMC

Evgeniia Kochenova, MD;
Olga Agranovich, PhD
Federal State Institution "Research
Pediatric Orthopaedic Institute named
after G.I. Turner",
Saint-Petersburg, Pushkin,
Russian Federation

2:45 PM–2:54 PM

Discussion

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2:54 PM–2:59 PM

Incidence of Compartment Syndrome in Patients with Supracondylar Humerus and Floating Elbow Fractures

Alysia Robertson, MD; **Erica Gonzalez, BA**;
Lisa Wilsford; **Theodora Browne, BA**;
Sha'Tia Safford; **Lee Haruno, BS**;
Ifeoma Inneh; **Jaclyn Hill, MD**
Texas Children's Hospital,
Houston, Texas, United States

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3:00 PM–3:05 PM

Divergence between AAOS Appropriate Use Criteria Recommendations and Actual Management of Pediatric Supracondylar Humerus Fractures at a Pediatric Level One Trauma Center

B. Bafus, MD; **Joanne Wang, MD**;
William Morris, MD; **Raymond Liu, MD**
University Hospitals/Cleveland Medical
Center,
Cleveland, Ohio, United States

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3:06 PM–3:11 PM

The Impact of Direction of Displacement, Pin Configuration, and Surgeon Training on Clinical and Radiographic Outcomes in Type III Pediatric Supracondylar Humerus Fractures

Andrew Livermore, MD;
Jason Sansone, MD; **Scott Hetzel, MS**;
Maxwell Machurick, BA;
Jason Browne, BA; **Ken Noonan, MD**
University of Wisconsin Department of
Orthopaedics and Rehabilitation,
Madison, Wisconsin, United States

3:12 PM–3:21 PM

Discussion

THURSDAY, MAY 4, continued

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3:21 PM–3:26 PM

A Retrospective Review of 10 Years of Pediatric Both Bone Forearm Fractures: Comparison of Single Bone versus Both Bone Fixation

Tyler Keller, MD; Ashley Miller, MD;
Kevin Little, MD
Cincinnati Children's Hospital
Medical Center,
Cincinnati, Ohio, United States

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3:27 PM–3:32 PM

Variation Amongst Pediatric Orthopaedic Surgeons When Treating Medial Epicondyle Fractures

Meghan Hughes, MPH; Karan Dua, MD;
Nathan O'Hara; Brian Brighton, MD;
Theodore Ganley, MD;
William Hennrikus, MD; Martin Herman, MD;
Joshua Hyman, MD; J. Todd Lawrence, MD;
Charles T. Mehlman, DO, MPH;
Norman Otsuka, MD; Richard Schwend, MD;
Ken Noonan, MD; Brian Smith, MD;
Paul Sponseller, MD; **Joshua Abzug, MD**
University of Maryland
School of Medicine,
Baltimore, Maryland, United States

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3:33 PM–3:38 PM

Non-operative Management of Stable Pediatric Osteochondritis Dissecans of the Capitellum

Emily Niu, MD; Donald Bae, MD;
Frances Tepolt, MD; **Mininder S. Kocher, MD**
Boston Children's Hospital,
Boston, Massachusetts, United States

3:39 PM–3:48 PM

Discussion

3:49 PM–4:09 PM

Break

CONCURRENT SESSION I: NEUROMUSCULAR II

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4:10 PM–4:15 PM

The Effect of Co-Surgeon on Outcomes in CP Spine Surgery

Rachel Mednick Thompson, MD;
Oussama Abousamra, MD;
Meryl Ludwig, MD; Freeman Miller, MD;
Kirk Dabney, MD; Julieanne Sees, DO
Nemours A.I. Dupont Hospital
for Children,
Wilmington, Delaware, United States

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4:16 PM–4:21 PM

Assessing the Risk/Benefit Ratio of Surgery in CP: Is Surgery Worth It?

Firoz Miyanji, MD; Suken Shah, MD;
Amer Samdani, MD; Baron Lonner, MD;
Burt Yaszay, MD; Jahangir Asghar, MD;
David Clements, MD; Peter Newton, MD
British Columbia Children's Hospital,
Vancouver, British Columbia, Canada

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4:22 PM–4:27 PM

Perioperative Management of Patients with Cerebral Palsy Undergoing Scoliosis Surgery: Survey of Surgeon Practices

Mohan Belthur, MD; Liam Bosch, BA;
William Wood, MD; Carla Boan;
Michael Shrader, MD; Freeman Miller, MD
Phoenix Children's Hospital,
Phoenix, Arizona, United States

4:28 PM–4:37 PM

Discussion

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4:37 PM–4:42 PM

The Use of Guided Growth Technique for Coxa Valga in Cerebral Palsy Children

Hsiang-Chieh Hsieh; **Kuan-Wen Wu, MD;**
Ting-Ming Wang, MD; Ken Kuo, MD
National Taiwan University Hospital,
Taipei, Taiwan

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4:43 PM–4:48 PM

Reverse Periacetabular Osteotomy in the Treatment of Neurogenic Hip Dysplasia in Cerebral Palsy

Andrew Georgiadis, MD; Vivek Dutt;
Susan Novotny; Walter Truong, MD;
Tom Novacheck, MD
Gillette Children's Specialty Healthcare,
St. Paul, Minnesota, United States

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4:49 PM–4:54 PM

Does Correction of Femoral Lever-Arm Influences The Effect of Selective Dorsal Rhizotomy on Gait in Children with Spastic Diplegic Cerebral Palsy?

Anja Van Campenhout, PhD, MD
University Hospital Leuven,
Leuven, Belgium

4:55 PM–5:04 PM

Discussion

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5:04 PM–5:09 PM

The Effect of Scoliosis Surgery on Pulmonary Function in Spinal Muscular Atrophy Type II Patients

Shih-Hsiang Chou, MD; Pochih Shen;
Cheng-Chang Lu, MD; Jian-Chih Chen;
Chih-Ming Kao; Yin-Chun Tien
Department of Orthopaedics, Kaohsiung
Medical University Hospital,
Kaohsiung City, Taiwan

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5:10 PM–5:15 PM

Improvement of Pulmonary Function Measured by Patient-Reported Outcomes in Patients with Spinal Muscular Atrophy after VEPTR Surgery

Michael G. Vitale, MD, MPH;
David Royce, MD; John Mueller, BS;
Hiroko Matsumoto, MA; Patrick Cahill, MD;
Peter Sturm, MD; John Smith, MD;
Children's Spine Study Group
Columbia University Medical Center,
New York, New York, United States

THURSDAY, MAY 4, continued

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5:16 PM–5:21 PM

The Impact of Pamidronate on the Progression of Vertebral Fractures in Patients with Duchenne Muscular Dystrophy Undergoing Corticosteroid Treatment

Emily Schaeffer, PhD; Miles Jaques;
Chris Reilly, MD
British Columbia Children's Hospital,
Vancouver, British Columbia, Canada

5:22 PM–5:31 PM

Discussion

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5:31 PM–5:36 PM

The Alteration of Lower Limbs' Muscle Size During Growth in Ambulant Children with Cerebral Palsy

Abir Massaad, PT; Ayman Assi, PhD;
Ziad Bakouny, MSc; Wafa Skalli, PhD;
Saliba Eliw; **Ismat Ghanem, MD**
Faculty of Medicine, University of
Saint Joseph,
Beirut, Lebanon

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5:37 PM–5:42 PM

A Novel Risk Severity Score to Predict Pediatric Spine Surgical Site Infection in Patients with Cerebral Palsy Ranges from 0.88% to 23.3%

David Roye, MD; Hiroko Matsumoto, MA;
Chun Wai Hung; Jeanne Franzone, MD;
Nicholas Feinberg, BA;
William Mackenzie, MD; Michael Troy, BS;
Brendan Striano, BA; Jack Flynn, MD;
David Skaggs, MD;
Michael Glotzbecker, MD;
Michael G. Vitale, MD, MPH
Columbia University Medical Center,
New York, New York, United States

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5:43 PM–5:48 PM

Long-term Outcomes After Distal Femoral Extension Osteotomy and Patellar Tendon Advancement in Individuals with Cerebral Palsy

Tom Novacheck, MD; Elizabeth Boyer;
Jean Stout, PT; Jennifer Laine, MD;
Sarah Gutknecht;
Lucas Araujo De Oliveira;
Meghan Munger, MPH;
Michael Schwartz, PhD
Gillette Children's Specialty Healthcare,
St. Paul, Minnesota, United States

5:49 PM–5:58 PM

Discussion

CONCURRENT SESSION II: SPORTS

97

4:10 PM–4:15 PM

Comparison of Early Lower Extremity Functional Recovery in Pediatric Patients following Anterior Cruciate Ligament Reconstruction Using Transphyseal Hamstring vs. Physeal-Sparing IT Band Autograft

Benton Heyworth, MD; Lyle Micheli, MD;
Dai Sugimoto; Sara Collins;
Mininder S. Kocher, MD
Boston Children's Hospital / The Micheli
Center for Sports Injury Prevention,
Boston, Massachusetts, United States

98

4:16 PM–4:21 PM

Magnetic Resonance Imaging Detection of Meniscal Injuries in Pediatric and Adolescent Patients with Anterior Cruciate Ligament Tears

Alana Munger, BS; Nicholas Gonsalves, BA;
Emily Clarke, BS; Curtis VandenBerg, MD;
James Pace, MD
Children's Hospital Los Angeles,
Los Angeles, California, United States

99

4:22 PM–4:27 PM

Analysis of Failure and Outcomes After Revision Medial Patellofemoral Ligament Reconstruction

Shital Parikh, MD
Cincinnati Children's Hospital,
Cincinnati, Ohio, United States

4:28 PM–4:37 PM

Discussion

100

4:37 PM–4:42 PM

The Warm-up Programme "FIFA 11+ Kids" in Prevention of Injuries in Children's Football: A Cluster Randomized Controlled Trial

Jiri Chomiak, MD; Roland Rössler;
Astrid Junge; Mario Bizzini;
Evert Verhagen, PhD;
Karen Aus Der Fütten, MD; Jiri Dvorak;
Eric Lichtenstein; Tim Meyer;
Florian Beaudouin; Oliver Faude
Department of Orthopaedics, 1st Faculty
of Medicine, Charles University and
Hospital Na Bulovce,
Prague, Czech Republic

101

4:43 PM–4:48 PM

Arthroscopic Capsulolabral Reconstruction for Posterior Shoulder Instability Is Successful in Adolescent Athletes

Justin Arner, MD; **Michael McClincy, MD;**
James Bradley, MD
University of Pittsburgh,
Pittsburgh, Pennsylvania, United States

THURSDAY, MAY 4, continued

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4:49 PM–4:54 PM

12 Year Follow Up of Autologous Chondrocyte Implantation (ACI) for Knee Juvenile Osteochondritis Dissecans (JOCD)

Jennifer Beck, MD; Dai Sugimoto;
Lyle Micheli, MD
Boston Childrens Hospital,
Boston, Massachusetts, United States

4:55 PM–5:04 PM

Discussion

103

5:04 PM–5:09 PM

Pediatric ACL Reconstruction and Return to the Operating Room: Graft Failure is Less Than Half of the Story

Christopher DeFrancesco; Eileen Storey, BA;
Jack Flynn, MD; **Theodore Ganley, MD**
The Children's Hospital of Philadelphia,
Philadelphia, Pennsylvania, United States

104

5:10 PM–5:15 PM

Risk of Graft Failure after All-Epiphyseal ACL Reconstruction Compared to Adult-Type ACL Reconstruction with Hamstrings Autograft Tissue in Young Athletes

Mark Paterno, PT; **Eric Wall, MD;**
Staci Thomas; Shital Parikh, MD;
Timothy Hewett, PhD; Laura Schmitt
Cincinnati Children's Hospital
Medical Center,
Cincinnati, Ohio, United States

105

5:16 PM–5:21 PM

Early Results and Safety of the "Hybrid" Physseal Sparing ACL Reconstruction in Skeletally Immature Athletes

Carl Nissen, MD; Regina Kostyun;
Robert Willson, MD; Matthew Milewski, MD
Elite Sports Medicine/Connecticut
Childrens Medical Center,
Hartford, Connecticut, United States

5:22 PM–5:31 PM

Discussion

106

5:31 PM–5:36 PM

Arthroscopic Implantation of Meniscal Scaffold for the Treatment of Irreparable Meniscal Injury - Preliminary Study

Michal Walczak, MD
Wiktor Dega Orthopaedic Hospital,
Poznan, Poland

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5:37 PM–5:42 PM

Effect of Meniscal Tear on Strength and Functional Performance in Young Athletes at 6 Months Following Anterior Cruciate Ligament Reconstruction with Hamstring Autograft

Lauren Redler, MD; Dai Sugimoto;
Ashley Tisosky, MD;
Mininder S. Kocher, MD; Lyle Micheli, MD;
Benton Heyworth, MD
Boston Children's Hospital,
Boston, Massachusetts, United States

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5:43 PM–5:48 PM

Are Basketball and Soccer Risk Factors for Juvenile Osteochondritis Dissecans of the Trochlea? A Cohort Study of 34 Trochlear Lesions

Daniel Green, MD; Meghan Price, BS;
Maria Tuca, MD; Jason Silberman, BA;
Eva Luderowski, BA
Hospital for Special Surgery,
New York, New York, United States

5:49 PM–5:58 PM

Discussion

CONCURRENT SESSION III: LOWER EXTREMITY

109

4:10 PM–4:15 PM

Transplantation of Autologous Culture-Expanded Bone Marrow Cells and Platelet Rich Plasma for Bone Regeneration-Comprehensive Clinical Study of the Lower Limb Lengthening

Hiroshi Kitoh, MD; Kenichi Mishima;
Masaki Matsushita, MD; Hiroshi Sugiura;
Akiko Kitamura; Naoki Ishiguro, MD
Nagoya University Graduate
School of Medicine,
Nagoya, Japan

110

4:16 PM–4:21 PM

Simultaneous Acute Femoral Deformity Correction and Gradual Limb Lengthening Using the Retrograde PRECICE® Femoral Nail: Technique and Clinical Results

Christopher Iobst, MD; Scott Nelson, MD;
S Rozbruch, MD; Austin Fragomen, MD
Nemours Children's Hospital,
Orlando, Florida, United States

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4:22 PM–4:27 PM

The Creation and Validation of a Bone Age Atlas Utilizing Knee MRIs

Andrew Pennock, MD;
John Manning, MD; James Bomar
Rady Children's Hospital, San Diego,
San Diego, California, United States

4:28 PM–4:37 PM

Discussion

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4:37 PM–4:42 PM

Sagittal Plane Deformity After Temporary Epiphysodesis for Correcting Leg Length Discrepancy

Hiroki Furuhashi, MD; Hiroshi Kaneko;
Koji Iwata; Tadashi Hattori
Aichi Children's Health and Medical Center,
Obu, Aichi, Japan

THURSDAY, MAY 4, continued

113
4:43 PM–4:48 PM **Can We Predict Amount of Correction Using Guided Growth Around the Knee?**
Barry Danino, MD; Robert Roedl, MD;
John Herzenberg, MD; Lior Shabtai, MD;
Franz Grill; Unni Narayanan, MD;
Eitan Segev, DMed; Shlomo Wientroub
Dana Children's Hospital, Tel-Aviv Sourasky
Medical Center,
Tel Aviv, Israel

114
4:49 PM–4:54 PM **Is Proximal Fibula Epiphysiodesis Necessary When Performing a Proximal Tibial Epiphysiodesis?**
Jonathan Boyle, MD; Marina Makarov;
David Podeszwa, MD;
Jennifer Rodgers, MA; John Birch, MD
Texas Scottish Rite Hospital for Children,
Dallas, Texas, United States

4:55 PM–5:04 PM **Discussion**

115
5:04 PM–5:09 PM **Assessment of Femoral Deformity in Blount's Disease**
Anati Ngcakani, MD;
Gregory Firth, MMED (Ortho);
Yammesh Ramguthy, MBChB;
Anthony Robertson, PhD
University of Witwatersrand,
Johannesburg, South Africa

116
5:10 PM–5:15 PM **Risk Factors for Short-Term Morbidity in Pediatric Orthopaedic Patients Undergoing Pelvic and Femoral Osteotomies**
Dorothy Harris, MD; Erica Gonzalez, BA;
Cody Sanderson, BS; Wei Zhang, PhD;
Ifeoma Inneh; Lee Haruno, BS;
John Dormans, MD
Texas Children's Hospital,
Houston, Texas, United States

117
5:16 PM–5:21 PM **8 Plate Epiphysiodesis: Are We Creating an Intra-articular Deformity?**
Ritesh Sinha; Elhanan Bar-On, MD;
Daniel Weigl, MD; Eyal Mercado;
Tali Becker, MD
Schneider Children's Medical Center,
Petah Tikva, Israel

5:22 PM–5:31 PM **Discussion**

118
5:31 PM–5:36 PM **Results of Progressive Limb Lengthening in High-Frequency Distraction Mode Associated with Hydroxyapatite-Coated Intramedullary Nailing**
Dmitry Popkov, MD
Russian Ilizarov Centre,
Kurgan, Russian Federation

119
5:37 PM–5:42 PM **Intramedullary Lengthening Nails and MRI Compatability**
Scott Nelson, MD; Charles Gomez, MD
Loma Linda University,
Loma Linda, California, United States

120
5:43 PM–5:48 PM **The Importance of Considering Ultimate Height in the Treatment of Limb Length Discrepancy**
Alexander Rascoe, MD; Eric Peng, BA;
Jonathan Copp, MD; **Raymond Liu, MD**
Rainbow Babies and Children's Hospitals
at Case Western Reserve University,
Cleveland, Ohio, United States

5:49 PM–5:58 PM **Discussion**

YOUNG MEMBER FORUM

6:00 PM–7:00 PM **THIRD ANNUAL ARABELLA LEET, MD YOUNG MEMBER FORUM**

The EPOSNA Young Member Forum this year will review the important role of international and cross cultural exchange for pediatric orthopaedists.

Moderators: **James O. Sanders, MD**
Federico Canavese, MD

6:00 PM–6:12 PM **The Importance of International Understandings and Friendship for Individuals and the Profession**
6:00 PM–6:06 PM POSNA Speaker – **James R. Kasser, MD,**
Boston, Massachusetts, United States
6:06 PM–6:12 PM EPOS Speaker – **Alain Dimeglio, MD,**
Montpellier, France

6:12 PM–6:15 PM **Discussion**

6:15 PM–6:27 PM **Extended International Fellowships: Experiences, Value and Practicalities**
6:15 PM–6:21 PM EPOS Speaker – **Cristina Alves, MD,**
Coimbra, Portugal
6:21 PM–6:27 PM POSNA Speaker – **Dan Sucato, MD, MS,**
Dallas, Texas, United States

6:27 PM–6:30 PM **Discussion**

6:30 PM–6:42 PM **Travelling Fellowships as an Opportunity for a Lifetime**
6:30 PM–6:36 PM POSNA Speaker – **Jack M. Flynn, MD,**
Philadelphia, Pennsylvania, United States
6:36 PM–6:42 PM EPOS Speaker – **Virginie Pollet, MD,**
Rotterdam, Netherlands

6:42 PM–6:45 PM **Discussion**

6:45 PM–6:57 PM **Family, Work, Expense? Making International Connections when Fellowships are Not an Option**
6:45 PM–6:51 PM EPOS Speaker – **André J. Kaelin, MD,**
Chêne-Bougeries, Switzerland
6:51 PM–6:57 PM POSNA Speaker – **Charles T. Price, MD,**
Orlando, Florida, United States

6:57 PM–7:00 PM **Discussion**

FRIDAY, MAY 5

8:00 AM–8:04 AM **OPENING REMARKS**

BASIC SCIENCE AWARD PAPERS

121

8:04 AM–8:09 AM

Development of a Novel Non-Invasive Growth Plate Ablation Treatment Using Magnetic Resonance Imaging-guided High-Intensity Focused Ultrasound (MR-HIFU)

Pavel Yarmolenko, PhD;
Olumide Aruwajoye, PhD;
Haydar Celik, PhD; Robert Staruch, PhD;
Debra Szczepanski; Karun Sharma; Aerang Kim; Kavita Prakash;
Avinash Eranki; Rajiv Chopra, PhD;
Peter Kim; Matthew Oetgen, MD;
Harry Kim, MD
Texas Scottish Rite Hospital and
Children's National Medical Center,
Dallas, Texas and Washington,
District of Columbia, United States

8:10 AM–8:14 AM **Discussion**

122

8:14 AM–8:19 AM

An Ex Vivo 3 Dimensional Organotypic Culture Model of The Physis: A First Attempt to Stimulate Endochondral Ossification of the Growth Plate In Vitro
Sriveena Srinivasaiah, MSc;
Giuseppe Musumeci; Sepideh Mostofi;
Ehsan Bonyadi Ran; Ute Schaefer;
Annelie Weinberg, MD
Medical University of Graz,
Graz, Austria

8:20 AM–8:24 AM **Discussion**

123

8:24 AM–8:29 AM

Comparison of Transphyseal Neck-Head Tunneling (TNHT) vs. Multiple Epiphyseal Drilling (MED) on Femoral Head Healing Following Ischemic Osteonecrosis
Harry Kim, MD; Olumide Aruwajoye, PhD;
Felipe Do Monte; Audrey Kim;
Matthew Phipps, PhD
Texas Scottish Rite Hospital,
Dallas, Texas, United States

8:30 AM–8:34 AM **Discussion**

124

8:34 AM–8:39 AM

Effects of Early Anti-inflammatory Cytokine Treatments on Bone Bridge Formation Following Growth Plate Injury
Fulya Ustunkan, MD; Keng Lin Wong;
Zheng Yang, PhD; Wei Seong Toh;
Azlina Abbas, MD; Kamarul Tunku;
James Hoi Poi Hui, MD; **Eng Lee, MD**
National University of Singapore,
Singapore, Singapore

8:40 AM–8:44 AM **Discussion**

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8:44 AM–8:49 AM

Are Serum Bone Metabolic Markers Associated with Abnormal BMD and Bone Phenotypes in AIS?

Huanxiong Chen, PhD; Wayne Lee, PhD;
Ka-Yee Cheuk; Eric Yu; Fiona Yu;
Elisa Tam, PhD; Tsz Ping Lam;
Bobby Ng, MD; Alec Lik Hang Hung;
Feng Zhu; X. Edward Guo, PhD;
Jack Cheng, MD
The Chinese University of Hong Kong,
Hong Kong, Hong Kong

8:50 AM–8:54 AM **Discussion**

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8:54 AM–8:59 AM

Genome and Virulence Determinants of Staphylococcus aureus Causing Acute Hematogenous Osteomyelitis
Angela Collins MD; Naureen Tareen, MPH;
Min Soo Kim, MSc; Edward Wakeland;
Prithvi Raj, PhD; Kyle Mercadante;
Jiwoong Kim, MS; **Lawson Copley, MD**
Children's Medical Center Dallas,
Dallas, Texas, United States

9:00 AM–9:04 AM **Discussion**

9:05 AM–9:25 AM

EPOSNA PRESIDENTIAL SPEAKER
Deborah Eastwood, MD

9:26 AM–9:46 AM

Break

CLINICAL AWARD PAPERS

127

9:47 AM–9:52 AM

Research for Fetal Myelomeningocele Repair

Cesar Fontecha, MD; Margarita Codinach;
Jose Luis Peiro, PhD
Vall d'Hebron Hospital,
Barcelona, Spain

9:53 AM–9:57 AM **Discussion**

128

9:57 AM–10:02 AM

Increased Rate of Malignancy in Children with Syndactyly

Aaron Daluiski, MD; Yen Chen, MD;
Yile Ge, MS; Huong Do, MA
Hospital for Special Surgery,
New York, New York, United States

10:03 AM–10:07 AM **Discussion**

129

10:07 AM–10:12 AM

Flexion Supracondylar Humerus Fractures: Ulnar Nerve Deficit is a Risk for Open Reduction

Kelly Flynn; Apurva Shah; Kelly Leddy, MS;
Christopher Brusalis; **Jack Flynn, MD**
The Children's Hospital of Philadelphia,
Philadelphia, Pennsylvania, United States

10:13 AM–10:17 AM **Discussion**

FRIDAY, MAY 5, continued

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- 10:17 AM–10:22 AM **Non-Operative Management of Salter-Harris II Fractures of the Distal Tibia: No Difference in Functional Outcomes Based on Postreduction Displacement**
Adam Margalit; Kranti Peddada, BS;
Craig Remenapp, MS; **Rushyuan Lee, MD**
Johns Hopkins Medicine,
Baltimore, Maryland, United States

10:23 AM–10:27 AM Discussion

131

- 10:27 AM–10:32 AM **Sequential Intravenous High Dose Oral Antibiotics in the Treatment of Osteoarticular Infections in Children – A Randomised Controlled Trial**
Haemish Crawford, FRACS;
Karen Tsui, MBChB; Diana Lennon;
N. Stott, MD; Lesley Voss;
Joanna Stewart, MSc
Starship Children's Hospital,
Auckland, New Zealand

10:33 AM–10:37 AM Discussion

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- 10:37 AM–10:42 AM **A Novel MRI Measurement to Assess Patellar Instability: Width of Patellar Tendon Beyond Lateral Trochlear Ridge**
R. Justin Mistovich, MD; John Urwin, BS;
Peter Fabricant, MD; J. Todd Lawrence, MD
The Children's Hospital of Philadelphia,
Philadelphia, Pennsylvania, United States

10:43 AM–10:47 AM Discussion

133

- 10:47 AM–10:52 AM **Clinical Screening Lowers the Risk of Late Diagnosed Hip Dislocation – Results from 1 Million Children Born in Sweden from 2000 through 2009**
Henrik Duppe; **Daniel Wenger, MD**;
Carl Tiderius
Dept. of Clinical Sciences Malmö,
Lund University,
Malmö, Sweden

10:53 AM–10:57 AM Discussion

134

- 10:57 AM–11:02 AM **Operative Treatment for Perthes Disease Yields Better Outcomes than Non-operative Treatment at 20 Year Follow-up**
Daniel J. Sucato, MD, MS;
Adriana De La Rocha, PhD;
Lauren Paraison, BA; Harry Kim, MD;
John Anthony Herring, MD
Texas Scottish Rite Hospital for Children,
Dallas, Texas, United States

11:03 AM–11:07 AM Discussion

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- 11:07 AM–11:12 AM **Bracing Idiopathic Scoliosis Greater than 40°**
Amanda Whitaker, MD; Alexandra Grzywna, BA;
Michael Glotzbecker, MD;
Daniel Hedequist, MD;
Lawrence Karlin, MD; John Emans, MD;
Michael T. Hresko, MD
Boston Children's Hospital,
Boston, Massachusetts, United States

11:13 AM–11:17 AM Discussion

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- 11:17 AM–11:22 AM **Radiographic, Pulmonary and Clinical Outcomes with Halo Gravity Traction**
Lauren Lamont, MD; Chan-Hee Jo, PhD;
Sarah Offley, MD; Dong-Phuong Tran, MS;
Heather Caine; Kaitlyn Brown;
Wendy Wittenbrook;
Charles Johnston, MD; **Brandon Ramo, MD**
Texas Scottish Rite Hospital for Children,
Dallas, Texas, United States

11:23 AM–11:27 AM Discussion

11:28 AM–11:38 AM **PRO MAXIMUS AWARDS**

11:39 AM–11:49 AM **DISTINGUISHED ACHIEVEMENT AWARD**

11:50 AM–12:00 PM **EPOS PRESIDENTIAL TRANSFER**

12:01 PM–12:11 PM **POSNA PRESIDENTIAL TRANSFER**

12:12 PM–1:00 PM **Lunch**

12:50 PM–1:50 PM **SLAOTI SYMPOSIA**

In this segment, we will try to address the most important aspects of foot deformities that occur as sequelae of spasticity in patients with potential walking and cerebral palsy.

12:50 PM–1:02 PM **Assessment of the Foot in Cerebral Palsy**
Juan Carlos Couto, MD

1:02 PM–1:14 PM **Kinematic and Kinetic Findings on the Foot in Cerebral Palsy**
Camilo Turriago, MD

1:14 PM–1:26 PM **Spastic Valgus Flatfoot: How to Treat It?**
Patricia Fucs, MD

1:26 PM–1:38 PM **Club Foot: How to Treat It?**
Ricardo Trevisán, MD

1:38 PM–1:50 PM **Questions and Answers**

12:50 PM–1:50 PM **APPOS SYMPOSIA**

Complex Lower Limb Deformities

This session will focus on severe congenital and acquired lower limb deformities in children and available treatment options.

Moderators: **Aik Saw, MBBS, MMed, FRCS**
Ashok Johari, MD

12:50 PM–1:05 PM **Stabilization of the Lower Extremity in Osteogenesis Imperfecta Patients**
Tae-Joon Cho, MD, PhD (Korea)

1:05 PM–1:20 PM **Strategies for Limb Reconstruction in Sepsis Sequelae in Lower Limb**
Vrisha Madhuri, MS (India)

1:20 PM–1:35 PM **Correction of Lower Limb Malalignment due to Ollier Disease**
Makoto Kamegaya, MD (Japan)

1:35 PM–1:50 PM **Strategies for Lengthening the Limb in the Skeletally Immature**
Leo Donnan, MD (Australia)

FRIDAY, MAY 5, continued

CONCURRENT SESSION IV: CLUB FOOT

137 2:00 PM–2:05 PM	Early Anterior Tibial Tendon Transfer for Clubfoot Patients <i>Jolita Gintautiene, MD; Emilis Cekanauskas; Mindaugas Gruzauskas, MD; Rasa Simonaityte</i> The Hospital of Lithuanian University of Health Sciences, Kaunas, Lithuania	2:45 PM–2:54 PM Discussion	
138 2:06 PM–2:11 PM	A 13 Year Follow-up of Split Tendon Transfers for Equinovarus Deformity Secondary to Cerebral Palsy <i>Peter Smith, MD; Ann Flanagan; Joseph Krzak; Karen Kruger; Adam Graf, MS; Sahar Hassani, MS</i> Shriners Hospitals for Children - Chicago, Chicago, Illinois, United States	143 2:54 PM–2:59 PM	The Outcome of the Ponseti Method at a Minimum of 5 Years: What Have We Learned? <i>Lewis Zionts, MD; Sophia Sangiorgio, PhD; Michael Jew, BS; Rebecca Morgan, BS; Edward Ebramzadeh, PhD</i> Orthopaedic Institute for Children, Los Angeles, California, United States
139 2:12 PM–2:17 PM	Normalization of Foot Motion after Tibialis Anterior Tendon Transfer for Clubfoot Recurrence <i>Gabriel Mindler, MD; Andreas Kranzl, PhD; Christof Radler, MD</i> Orthopaedic Hospital Speising, Vienna, Austria	144 3:00 PM–3:05 PM	Treatment of Neuromuscular and Syndromic (Non-idiopathic) Clubfeet Using the Ponseti Method <i>Rujuta Mehta, MD; Alaric Aroojis, MD; Avi Shah</i> B J Wadia Hospital for Children, Mumbai - Maharashtra, India
2:18 PM–2:27 PM	Discussion	145 3:06 PM–3:11 PM	Mid-term Results of the Ponseti Method for Treatment of Clubfoot in Patients with Spina Bifida <i>Stephanie Ihnow, MD; Meraaj Haleem, BA; Luciano Dias, MD; Vineeta Swaroop, MD</i> Ann and Robert H. Lurie Children's Hospital of Chicago, Chicago, Illinois, United States
140 2:27 PM–2:32 PM	Ponseti Treatment of Clubfeet Results in Less Foot Size Asymmetry than Comprehensive Surgical Releases <i>Juanita Wallace, MS; Hank White; Samuel Augsburg, MS; Vishwas Talwalkar, MD; Ryan Muchow, MD; Henry Iwinski, MD; Janet L. Walker, MD</i> Shriners Hospital and University of Kentucky Department of Orthopaedic Surgery, Lexington Kentucky, United States	3:12 PM–3:21 PM	Discussion
141 2:33 PM–2:38 PM	Community Ambulatory Activity and Gross Motor Function Following Treatment for Clubfoot at age 10yrs <i>Wilshaw Stevens Jr., BS; Kelly Jeans, MSc; Kirsten Tulchin-Francis, PhD; Fernanda Pinarte, MBA; Karina Zapata; Lori Karol, MD</i> Texas Scottish Rite Hospital for Children, Dallas, Texas, United States	146 3:21 PM–3:26 PM	Can Repeated Ponseti Management for Relapsed Clubfeet Produce the Outcome Comparable to the Case without Relapse? A Clinical Study in Term of Gait Analysis <i>Li Zhao, MD; Yu-Bin Liu</i> Xin-Hua Hospital, Shanghai Jiao Tong University School of Medicine, Shanghai, People's Republic of China
142 2:39 PM–2:44 PM	Motor Skills in 191 School Children with Idiopathic Clubfoot <i>Vera Halvorsen, MD; Vibeke Smith Aulie, PT; William Brox, MD</i> Oslo University Hospital, Oslo, Norway	147 3:27 PM–3:32 PM	Gait Analysis in Children in Middle Childhood with Clubfoot: Posterior-Only Release vs. Ponseti Method <i>Albert Ferrando, MD; Marta Salom</i> Hospital Universitari i Politècnic La Fe, Valencia, Spain
		148 3:33 PM–3:38 PM	Surgical Management of Idiopathic Clubfoot in the United States from 1997-2012: An Analysis of 11,940 Discharges <i>Brandon Wilkinson, MD; Natalie Glass, PhD; Thomas Cook; Jose Morcuende, MD</i> University of Iowa Hospitals and Clinics Department of Orthopaedics, Iowa City, Iowa, United States

FRIDAY, MAY 5, continued

3:39 PM–3:48 PM Discussion

3:49 PM–4:09 PM Break

CONCURRENT SESSION V: SPINE

149

2:00 PM–2:05 PM

Health-Related Quality of Life in Early-Onset Scoliosis Patients Treated Surgically: EOSQ scores in Traditional Growing Rod vs. Magnetically-Controlled Growing Rods

Z. Deniz Olgun, MD; Michael Doany, BS; Gizem Kinikli; Senol Bekmez, MD; Ismail Aykut Kocyigit; Gokhan Demirkiran, MD; Mehmet Berktaş, MD; Muharrem Yazici, MD Hacettepe University, Ankara, Turkey

150

2:06 PM–2:11 PM

Shilla Growth Guidance-Evolution of a New Procedure: Rate of Complications in the First Two Years Following Implantation in the First 80 Patients

Richard McCarthy, MD; Frances McCullough, NP Arkansas Children's Hospital, Little Rock, Arkansas, United States

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2:12 PM–2:17 PM

Limiting Pre-incision Instrument Uncovered Time via Quality Practice Intervention Decreases VEPTR Implantation Surgical Site Infections

Patrick Cahill, MD; Diane Hartman, RN; Robert Campbell, MD; Jack Flynn, MD; Keith Baldwin, MD; Nikita Lakomkin; Michael Nance, MD; Thane Blinman, MD; Oscar Mayer, MD; Howard Panitch, MD; Lloydine Jacobs, MD; Anthony Capraro; Brian Hanna; Jesse Taylor, MD The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, United States

2:18 PM–2:27 PM Discussion

152

2:27 PM–2:32 PM

Determinants of Effective Control of Curve Progression Using Calcium and Vitamin D Supplementation in Adolescent Idiopathic Scoliosis – In-depth Analysis of a Randomized Double-blinded Placebo-controlled Trial

Tsz Ping Lam, MBBS; Benjamin Yip; Ka-Yee Cheuk; Elisa Tam, PhD; Gene Man, PhD; Wayne Lee, PhD; Simon Lee, PhD; Fiona Yu; Feng Zhu; Alec Lik Hang Hung; Bobby Ng, MD; Jack Cheng, MD Department of Orthopaedics and Traumatology, The Chinese University of Hong Kong, Shatin, Hong Kong

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2:33 PM–2:38 PM

Alternatively Repetitive Cast/Brace Treatment without General Anesthesia for Early Onset Scoliosis

Noriaki Kawakami, MD; Toshiki Saito; Ryoji Tauchi; Kazuki Kawakami; Hiroki Matsui; Taichi Tsuji, MD; Tetsuya Ohara, MD Meijo Hospital, Nagoya, Japan

154

2:39 PM–2:44 PM

Clinical Impact of Corrective Cast Treatment for Early Onset Scoliosis: Is It Worthwhile Doing to Suppress Scoliosis Progression Prior to Surgical Intervention?

Noriaki Kawakami, MD; Izumi Komoto, MD; Yoshihiro Dogaki; Toshiki Saito; Ryoji Tauchi; Kazuki Kawakami; Teppei Suzuki; Taichi Tsuji, MD; Uno Koki Meijo Hospital, Nagoya, Japan

2:45 PM–2:54 PM

Discussion

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2:54 PM–2:59 PM

Effect of Curve Type in Brace Success in Patients with Idiopathic Scoliosis

Rachel Mednick Thompson, MD; Elizabeth Hubbard, MD; Chan-Hee Jo, PhD; Donald Virostek; Lori Karol, MD Texas Scottish Rite Hospital for Children, Dallas, Texas, United States

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3:00 PM–3:05 PM

Even if Bracing Fails to Prevent Surgery, It May Benefit the Lumbar Spine in Adolescent Idiopathic Scoliosis

Paul Sponseller, MD; Moustafa Abou Areda, BA; Adam Margalit, BS Johns Hopkins School of Medicine, Baltimore, Maryland, United States

FRIDAY, MAY 5, continued

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3:06 PM–3:11 PM

Ultralow Dose Radiation 3D Intraoperative Imaging: How Low Can We Go? An O-Arm, CT Scan, Cadaveric Study
Vishal Sarwahi, MD; Monica Payares, MD;
Stephen Wendolowski, BS;
Adam Wollowick, MD;
Beverly Thornhill, MD; Dan Wang, MS;
Terry Amaral, MD
Cohen Children's Medical Center,
New Hyde Park, New York, United States

3:12 PM–3:21 PM

Discussion

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3:21 PM–3:26 PM

Prospective Evaluation of Outcomes After Selective and "Non-selective" Fusions of C Type Curves in AIS
Brian Kaufman, MD; Suken Shah, MD;
Petya Yorgova, MS; Geraldine Neiss, PhD;
Burt Yaszay, MD; Baron Lonner, MD;
Kenneth Rogers, PhD
Nemours / A.I. Dupont Hospital
for Children,
Wilmington, Delaware, United States

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3:27 PM–3:32 PM

Can Surgical Innovation Decrease Operative Time, Surgeon Variability and Surgical Morbidity in AIS Surgery: A Study of Operative Efficiency
Burt Yaszay, MD; Baron Lonner, MD;
Yuan Ren; Gabrielle Kassir, BS;
Peter Newton, MD
Mount Sinai Hospital,
New York, United States

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3:33 PM–3:38 PM

Is It Surgical Volume, Surgeon's Experience, or the Number of Surgeons That Determine Safety, Efficacy, and Efficiency?
Vishal Sarwahi, MD; Jesse Galina, BS;
Stephen Wendolowski, BS;
Rachel Gecelter, BS; Dan Wang, MS;
Selina Poon, MD; Melanie Gambassi, NP;
Jon-Paul DiMauro, MD; Terry Amaral, MD
Cohen Children's Medical Center,
New Hyde Park, New York, United States

3:39 PM–3:48 PM

Discussion

3:49 PM–4:09 PM

Break

CONCURRENT SESSION VI: INFECTION/TUMORS

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2:00 PM–2:05 PM

The Safety and Feasibility of Magnetic Resonance Guided High Intensity Focused Ultrasound to Treat Symptomatic Osteoid Osteoma
Matthew Oetgen, MD; Karun Sharma;
Pavel Yarmolenko, PhD; Haydar Celik, PhD;
Avinash Eranki; Ari Partanen, PhD;
Anilawan Smitthimedhin, MD;
Aerang Kim; Domiciano Santos, MD;
Janish Patel, MD; Peter Kim
Children's National Medical Center,
Washington, District of Columbia,
United States

162

2:06 PM–2:11 PM

Surgical Treatment of Active or Aggressive Aneurysmal Bone Cysts in Children-Revisited
Bulent Erol, MD; Mert Topkar, MD
Marmara University Hospital,
Istanbul, Turkey

163

2:12 PM–2:17 PM

Mid-Term Radiological and Functional Results of Biological Reconstructions of Extremity-Located Bone Sarcomas in Children and Young Adults
Bulent Erol, MD; Mert Topkar, MD
Marmara University Hospital,
Istanbul, Turkey

2:18 PM–2:27 PM

Discussion

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2:27 PM–2:32 PM

Bedside Aspiration in Children with Septic Arthritis of the Hip Joint Should We Still Do Arthrotomy?
Pavel Kotlarsky, MD; Doron Keshet;
Alexander Katsman; **Mark Eidelman, MD**
Rambam Healthcare Campus,
Haifa, Israel

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2:33 PM–2:38 PM

Septic Arthritis of the Hip in the Newborn and Young Child
Collin May, MD; Rachel Goldstein, MD;
Victoria Prete, BS; James Kasser, MD
Boston Children's Hospital,
Boston, Massachusetts, United States

FRIDAY, MAY 5, continued

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2:39 PM–2:44 PM

Septic Arthritis of the Hip - Who Needs a Second Look?

Robert Murphy, MD; Leah Nunez, MS;
William Barfield, PhD; Joshua Murphy, MD;
Nicholas Fuerstenau; David Spence, MD;
Derek Kelly, MD; Matthew Dow, MD;
James Mooney, MD
Medical University of South Carolina,
Charleston, South Carolina, United States

2:45 PM–2:54 PM

Discussion

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2:54 PM–2:59 PM

Improved Diagnosis and Treatment of Pediatric Bone and Joint Infections Using an Evidence-based Treatment Guideline

John Williams, MD; Hilton Gottschalk, MD;
Sarmistha Hauger, MD; Marisol Fernandez;
Lynn Thoreson, DO; Rachel Quick, RN;
Kyle Kahlden, MD; John McNamara;
Ryan Schexnaildre
Dell Children's Medical Center,
Austin, Texas, United States

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3:00 PM–3:05 PM

Does Pre-Culture Antibiotic Administration Lead to Non-Diagnostic Bone and Joint Culture Results in Pediatric Osteomyelitis and Septic Arthritis: A 12-Year Retrospective Review

John Schlechter, DO;
Michael Basso-Williams, DO
Children's Hospital of Orange County,
Orange, California, United States

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3:06 PM–3:11 PM

Wash, Rinse, Repeat: Which Patients Require Serial Joint Irrigation in Pediatric Septic Hip Arthritis?

Kristin Livingston, MD; Leslie Kalish;
Donald Bae, MD; Young Jo Kim, MD;
Benjamin Shore, MD
Boston Children's Hospital,
Boston, Massachusetts, United States

3:12 PM–3:21 PM

Discussion

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3:21 PM–3:26 PM

Functional Outcome after Pediatric Osteomyelitis Treated with a Multidisciplinary Evidence-Based Clinical Practice Guideline: 2 Year Follow-up

John Vorhies, MD; Eduardo Lindsay, MD;
Mary Jones; Lori Thornton;
Lawson Copley, MD
Children's Medical Center Dallas,
Dallas, Texas, United States

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3:27 PM–3:32 PM

Kingella Kingae the Commonest Cause of Paediatric Septic Arthritis in a Prospective Cohort

Derfel Williams, FRCS (Ortho);
Georgia Antoniou; Peter Cundy;
Amit Kochar, MD; Celia Cooper;
Christina Boros; Nicole Williams
Women & Children's Hospital,
Adelaide, South Australia, Australia

172

3:33 PM–3:38 PM

Does Staphylococcus Nasal Decontamination Affect the Rate of Early Surgical Site Infections in Adolescent Idiopathic Scoliosis Surgery?

Cindy Mallet, MD; Marion Caseris, PhD;
Anne-Laure Simon, MD; Virginie Mas, MD;
Keyvan Mazda; Brice Ilharreborde
Robert Debre Hospital,
Paris, France

3:39 PM–3:48 PM

Discussion

3:49 PM–4:09 PM

Break

CONCURRENT SESSION IV: FOOT/ANKLE

173

4:10 PM–4:15 PM

Interrater Reliability and Age-Based Normative Values for Radiographic Indices of Syndesmosis and Deltoid Ligament Stability in Children

Nikita Lakomkin; Peter Fabricant, MD;
Aristides Cruz, MD;
Christopher Brusalis, BA;
Nancy Chauvin, MD;
J. Todd Lawrence, MD
The Children's Hospital of Philadelphia,
Philadelphia, Pennsylvania, United States

174

4:16 PM–4:21 PM

Innovative Treatment for Pes Cavo Varus

Ignacio Sanpera-Trigueros, MD;
Laura Corominas Frances; Marta Salom;
Julia Sanpera-Iglesias, MD;
Guiem Frontera, MD
Hospital Universitari Son Espases,
Palma de Mallorca, Spain

175

4:22 PM–4:27 PM

One-stage Correction of Brachymetatarsias Involving the Greater Toe

Huitaek Kim, MD; Sungmin Hong;
Tae Young Ahn; Jeung Seung Hyeon, MD
Pusan National University,
Busan, Republic of Korea

4:28 PM–4:37 PM

Discussion

FRIDAY, MAY 5, continued

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4:37 PM–4:42 PM

Resection of Tarsal Coalition and Surgical Correction of the Hindfoot Deformity in One Step

Dario Fracassetti, MD;
Desiree Moharamzadeh;
Maurizio De Pellegrin
San Raffaele Hospital,
Milano, Italy

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4:43 PM–4:48 PM

Arthroscopic Calcaneonavicular Coalition and Too-long Anterior Process of the Calcaneus Resection in Children

Jorge Knörr, MD; Francisco Soldado;
Pedro Domenech, MD;
Sergi Barrera-Ochoa;
Jerome Sales De Gauzy; Moreno David
Hospital Sant Joan de Deu,
Barcelona, Spain

178

4:49 PM–4:54 PM

Calcaneal Lengthening Using Ipsilateral Fibula Autograft in the Treatment of Adolescent Symptomatic Pes Valgus

Tsung-yu Lan, MD; Chien-Cheng Lai, MD
Far-eastern Memorial Hospital,
New Taipei City, Taiwan

4:55 PM–5:04 PM

Discussion

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5:04 PM–5:09 PM

Structural Hydroxyapatite Tricalciumphosphate Graft vs. Tricortical Iliac Crest Autograft In Paediatric Calcaneal Lengthening Osteotomies: Results from a Randomised Controlled Noninferiority Trial

Polina Martinkevich, MD;
Ole Rahbek, MD; Maiken Stilling;
Line Kjeldgaard Pedersen, MD;
Martin Gottlieb;sen;
Bjarne Møller-Madsen, MD
Aarhus University Hospital,
Aarhus, Denmark

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5:10 PM–5:15 PM

Acute Correction of Congenital Brachymetatarsia in Adolescent and Young Adults

Mark Eidelman, MD; Doron Keshet, MD;
Alexander Katzman, MD
Rambam Health Care Center,
Haifa, Israel

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5:16 PM–5:21 PM

Hemiepiphysiodesis for the Correction of Juvenile Hallux Valgus

Patricia Gomes, MD;
Patricia Rodrigues, MD;
Delfin Tavares, MMED (Ortho);
Susana Ramos
Hospital Dona Estefânia - CHLC,
Lisboa, Portugal

5:22 PM–5:31 PM

Discussion

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5:31 PM–5:36 PM

Does Pseudarthrosis of the Fibula After Lower Limb Lengthening Predispose Patients to Increase of Ankle Valgus?

Daisuke Kobayashi, MD; Shinichi Satsuma;
Ryosuke Sakata; Maki Kinugasa;
Ayana Yamanaka, MD;
Yamamoto Tetsuya, MD
Kobe Children's Hospital,
Kobe, Hyogo, Japan

183

5:37 PM–5:42 PM

Are Two Radiographic Views as Good as Three Views to Diagnose Ankle Fractures in Children and Adolescents?

Marcel Abouassaly, MD; Paul Moroz, MD;
R. Baxter Willis, MD; Ken Kontio, MD;
Francesco Blumetti, MD;
Luke Gauthier, MD; Kerri Highmore;
Nishard Abdeen, MD; Sandy Tse, MD;
Amy Plint; Nick Barrowman, PhD
Children's Hospital of Eastern Ontario,
Ottawa, Ontario, Canada

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5:43 PM–5:48 PM

Short Leg Cast Immobilization of Distal Tibial Physeal Fractures

Clayton T. Vaughan, MD;
Christopher Souder, MD;
Jillian McAngus, MD; Gregory Sprowls, BS
Baylor Scott & White Memorial Hospital,
Temple, Texas, United States

5:49 PM–5:58 PM

Discussion

CONCURRENT SESSION V:

HIP

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4:10 PM–4:15 PM

Brace Treatment Can Result in Improved Acetabular Indices in Infantile Dislocated Hips

Ryan Fitzgerald, MD; Alexander Schupper;
James Bomar; Simon Kelley, MD;
Nicholas Clarke, FRCS; Scott Mubarak, MD;
Vidyadhar Upasani, MD;
R-IHDI Study Group
Rady Children's Hospital, San Diego,
San Diego, California, United States

FRIDAY, MAY 5, continued

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4:16 PM–4:21 PM

Open Reduction for Developmental Dysplasia of the Hip: Early Outcomes from a Multi-Centre, International Prospective Cohort Study

Emily Schaeffer, PhD; Kishore Mulpuri, MD; Wudbhav Sankar, MD; Vidyadhar Upasani, MD; Nicholas Clarke, FRCS; Jose Herrera Soto, MD; Young Jo Kim, MD; Bruce Foster, MD; **Travis Matheney, MD**; R-IHDI Study Group
Boston Children's Hospital,
Boston, Massachusetts, United States

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4:22 PM–4:27 PM

Efficacy of Maintaining the Ligamentum Teres in Medial Open Reduction for DDH: A Comparative Study Of Shortening/ Reattachment vs Excision

Raghav Badrinath, MD; **Dennis Wenger, MD**; Scott Mubarak, MD; Vidyadhar Upasani, MD
Rady Children's Hospital,
San Diego, California, United States

4:28 PM–4:37 PM

Discussion

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4:37 PM–4:42 PM

Intermediate Results of the Bernese Periacetabular Osteotomy for the Treatment of Hip Instability in Patients with Down Syndrome

Daniel Maranhão, MD; Young Jo Kim, MD; Michael Millis, MD; Garrett Bowen; Eduardo N. Novais, MD
Boston Children's Hospital,
Boston Massachusetts, United States

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4:43 PM–4:48 PM

Clinical Outcomes of Periacetabular Acetabular Osteotomy Outcomes at Mid-term? A Prospective Multi-center Cohort Study

Ernest Sink, MD; John Clohisy, MD; Geneva Baca; Paul Beaule, MD; Young Jo Kim, MD; Michael Millis, MD; David Podeszwa, MD; Perry Schoenecker, MD; Rafael Sierra, MD; Daniel J. Sucato, MD, MS; Robert Trousdale, MD; Ira Zaltz, MD
Washington University School of Medicine,
Saint Louis, Missouri, United States

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4:49 PM–4:54 PM

What is the Impact of PAO Surgery on Patient Function and Activity Levels?

David Podeszwa, MD; Jeffrey Petrie, MD; Tonya An, MD; Perry Schoenecker, MD; Ira Zaltz, MD; Young Jo Kim, MD; Michael Millis, MD; Rafael Sierra, MD; Robert Trousdale, MD; Daniel J. Sucato, MD, MS; Ernest Sink, MD; Paul Beaule, MD; John Clohisy, MD; ANCHOR Group
Washington University School of Medicine,
Saint Louis, Missouri, United States

4:55 PM–5:04 PM

Discussion

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5:04 PM–5:09 PM

Determining Hinge Abduction in LCPD: Can We Confidently Make the Diagnosis?

Wudbhav Sankar, MD; Perry Schoenecker, MD; Ira Zaltz, MD; Patricia Miller, MS; Benjamin Shore, MD
Boston Children's Hospital,
Boston, Massachusetts, United States

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5:10 PM–5:15 PM

Triple Innominate Osteotomy versus Shelf Acetabuloplasty for Legg-Calvé-Perthes Hips Presented in the Transitional Stage

Chang Ho Shin; **In Choi, MD**; Won Joon Yoo, MD; Tae-Joon Cho
Seoul National University
Children's Hospital,
Seoul, Korea, Republic of

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5:16 PM–5:21 PM

Can Epiphyseal Unstable SCFE Be Reduced By Closed Reduction with Minimal AVN?

Jonathan Schoenecker, MD; Holly Leshikar, MD; Emilie Amaro, BS; Megan Mignemi, MD; Jeffrey Martus, MD; Steven Lovejoy, MD; Gregory Mencia, MD
Vanderbilt University Medical Center,
Nashville, Tennessee, United States

5:22 PM–5:31 PM

Discussion

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5:31 PM–5:36 PM

A Nationwide 23-Year Cohort Study of Slipped Capital Femoral Epiphysis in the United Kingdom

Daniel Perry, FRCS (Ortho); David Metcalfe; Matthew Costa, FRCS
Alder Hey Hospital,
Liverpool, United Kingdom

FRIDAY, MAY 5, continued

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5:37 PM–5:42 PM

Previous Hip Arthroscopy is Associated with Inferior Early Functional Outcomes After Periacetabular Osteotomy for Acetabular Dysplasia
Benjamin Ricciardi, MD; Kara Fields, MS; Catherine (Sally) Wentzel; Bryan Kelly, MD; Ernest Sink, MD
Hospital for Special Surgery,
New York, New York, United States

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5:43 PM–5:48 PM

Outcomes of Hip Arthroscopy in Adolescents: A Comparison of Acute vs. Chronic Labral Tears. Two Year Minimum Follow-Up
Lyll J. Ashberg, MD; John Walsh, MA; Mary R. Close, BS; Itay Perets, MD; Edwin O. Chaharbakhshi, BS; Benjamin G. Domb, MD
American Hip Institute,
Westmont, Illinois, United States

5:49 PM–5:58 PM

Discussion

CONCURRENT SESSION VI: CONGENITAL/SYNDROMES

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4:10 PM–4:15 PM

Congenital Pseudarthrosis of the Clavicle: Outcomes Following Surgical and Nonsurgical Management
Carley Vuillermin, MD; Arin Kim, BS; Donald Bae, MD; Peter Waters, MD; Andrea Bauer, MD
Boston Children's Hospital,
Boston, Massachusetts, United States

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4:16 PM–4:21 PM

Poland Syndrome: Approach to a New Classification. Association with Final Functional Results and Number of Surgeries.
Diego Gutierrez-de la Iglesia, MD; Laura M. Perez-Lopez; Marisa Cabrera-Gonzalez, MD
Sant Joan de Déu Children's Hospital,
University of Barcelona,
Barcelona, Spain

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4:22 PM–4:27 PM

Aetiology of Hand Clawing in MPS Children
Chris Talbot, FRCS (Ortho)
Central Manchester Childrens Hospital,
Manchester, United Kingdom

4:28 PM–4:37 PM

Discussion

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4:37 PM–4:42 PM

Lengthening with Monolateral External Fixation versus Intramedullary Nail in Congenital Femoral Deficiency
Ahmed Hammouda, MD;
Vivian Szymczuk, MD; Martin Gesheff, BS; Shawn Standard, MD; John Herzenberg, MD
International Center for Limb Lengthening,
Sinai Hospital of Baltimore,
Baltimore, Maryland, United States

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4:43 PM–4:48 PM

Does the Lateral Malleolus Reconstruction Provide a Stable Ankle Joint in Patients with Fibular Hemimelia?
Milud Shadi; Bartosz Musielak, MD; Pawel Koczewski
Dega Hospital,
Poznan, Poland

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4:49 PM–4:54 PM

Amputation versus Limb Reconstruction for Fibula Hemimelia: A Systemic Review and Meta-Analysis
Aissam Elmhiregh, MD; Muhammad Riaz, MPH; Abdelsalam Hegazy, MD; Talal Ibrahim, MD
Hamad Medical Corporation,
Doha, Qatar

4:55 PM–5:04 PM

Discussion

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5:04 PM–5:09 PM

Guided Growth for Genu Valgum in Patients with Skeletal Dysplasias Can Lead to Hip Deterioration
Vladimir Kenis, MD; Eugeniy Melchenko; Ali Al Kaissi, DMed; Ekaterina Morenko
The Turner Institute for Children's Orthopaedics,
Saint-Petersburg, Russian Federation

204

5:10 PM–5:15 PM

Congenital Pseudoarthrosis of Tibia (CPT): Comparison of the Effect of Lengthening Rhythm to the Quality of Callus and Complications
Halil Balci, MD; Tuna Pehlivanoglu, MD; Cengiz Sen; Levent Eralp, MD; Mehmet Kocaoglu
Istanbul University,
Istanbul, Turkey

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5:16 PM–5:21 PM

Surgical Treatment of Lower Limbs Deformities in Pseudoachondroplasia: Influence of Post-Operative Residual Knee Joint Obliquity

Alexandra Brassac; Philippe Wicart, MD; Christophe Glorion, MD; Zagorka Péjin; Valérie Cormier-Daire; Georges Finidori
Hôpital Necker-Enfants Malades,
Paris, France

5:22 PM–5:31 PM

Discussion

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5:31 PM–5:36 PM

Best Practices in Peri-Operative Management of Patients with Skeletal Dysplasias

Klane White, MD; Viviana Bompadre, PhD; Michael Goldberg, MD; Michael Bober; Tae-Joon Cho; Julie Hoover-Fong; Melita Irving; William Mackenzie, MD; Shawn Kamps, MD; Cathleen Raggio, MD; Gregory Redding, MD; Samantha Spencer, MD; Ravi Savarirayan; Mary Theroux, MD
Seattle Children's Hospital,
Seattle, Washington, United States

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5:37 PM–5:42 PM

Spondylolisthesis is Common, Early and Severe in Loeys-Dietz Syndrome

Paul Sponseller, MD; David Kirby, BS
The Johns Hopkins Hospital,
Baltimore, Maryland, United States

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5:43 PM–5:48 PM

Outcomes of Orthopaedic Surgery in a Cohort of 49 Patients with X-linked Hypophosphatemic Rickets (XLHR)

Gizard Alette, MD; Anya Rothenbuhler, DMed; Zagorka Pejin-Arroyo; Georges Finidori; Christophe Glorion MD; Benoît de Billy; Agnes Linglart; Philippe Wicart, MD
CHU Necker,
Paris, France

5:49 PM–5:58 PM

Discussion

SATURDAY, MAY 6

8:00 AM–8:04 AM

OPENING REMARKS

TRAUMA

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8:05 AM–8:10 AM

"Next Day" Exam Reduces Radiation Exposure in Cervical Spine Clearance at a Level 1 Pediatric Trauma Center: A Pilot Study

Venkat Kavuri, MD; Gurpal Pannu, MD; Martin Herman, MD
St. Christopher's Hospital for Children,
Philadelphia, Pennsylvania, United States

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8:11 AM–8:16 AM

Operative Treatment of Cervical Spine Injuries Sustained During Youth Sports

Daniel Hedequist, MD; Michael Glotzbecker, MD
Children's Hospital Boston,
Boston, Massachusetts, United States

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8:17 AM–8:22 AM

Does a Delay in Treatment of Displaced Pediatric Lateral Condyle Fractures Increase the Risk of Complications?

Henry Ellis, MD; Brandon Hull, MD; Philip Wilson, MD; Shawn Funk, MD; Brandon Ramo, MD
Texas Scottish Rite Hospital for Children,
Dallas, Texas, United States

8:23 AM–8:32 AM

Discussion

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8:32 AM–8:37 AM

An Increasing Rate of Operative Fixation in Four and Five-Year-Old Children with Femoral Shaft Fractures

Ram Alluri, MD; Andrew Sabour, BS; Nathanael Heckmann, MD; Curtis Vandenberg, MD
Children's Hospital Los Angeles,
Los Angeles, California, United States

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8:38 AM–8:43 AM

The Effect of Length Stability on the Outcome of Preadolescent Femur Fractures Treated with Flexible Intramedullary Nailing

J. Eric Gordon, MD; Devon Nixon, MD; Lauren Davis, MPH; Perry Schoenecker, MD; Matthew Dobbs, MD; Scott Luhmann, MD; Mark Miller, MD
Washington University School of Medicine,
St Louis, Missouri, United States

SATURDAY, MAY 6, continued

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8:44 AM–8:49 AM

Flexible Intramedullary Nailing has Superior Quality and Value to Plate Fixation of Midshaft Femur Fractures in Children 5-11 Years
Vishwas Talwalkar, MD; Jerad Allen, MD;
 Kevin Murr, MD; Cale Jacobs, PhD;
 Janet Walker, MD; Henry Iwinski, MD;
 Eric Moghadamian, MD;
 Ryan D. Muchow, MD
 University of Kentucky,
 Lexington, Kentucky, United States

8:50 AM–8:59 AM

Discussion

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8:59 AM–9:04 AM

Early versus Late Treatment of Pediatric Femur Neck Fractures: A Systematic Review and Meta-Analysis
Talal Ibrahim, MD; Nedat Alkhatib, MD;
 Manaf Younis, MD;
 Abdelsalam Hegazy, MD
 Hamad Medical Corporation,
 Doha, Qatar

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9:05 AM–9:10 AM

Clinical Outcomes of Suture vs. Screw Fixation of Tibial Spine Avulsion Fractures
Mininder S. Kocher, MD; Mark Callanan;
 Brett Flutie; Dennis Kramer, MD
 Boston Childrens Hospital,
 Boston, Massachusetts, United States

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9:11 AM–9:16 AM

Tillaux and Triplane Fractures: K-wires or Just Screw It?
 Shiyao Wang, MD; Neeraj Mishra;
Arjandas Mahadev, MD
 KK Women's and Children's Hospital,
 Singapore, Singapore

9:17 AM–9:26 AM

Discussion

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9:26 AM–9:31 AM

Do All Pediatric Monteggia Fractures with a Complete Ulna Fracture Require Surgical Stabilization?
 Ian Foran, MD; Vidyadhar Upasani, MD;
 Elise Britt, MD; Tracey Bastrom, MA;
 Charles Wallace, MD;
Andrew Pennock, MD
 Rady Children's Hospital,
 San Diego, California, United States

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9:32 AM–9:37 AM

Long-term Results after Sustaining a Monteggia Fracture-dislocation During Childhood
Joaquín De Armas, MD;
 Luis Moraleda, MD;
 Luis Cuadrado Rubio, MD;
 Maria Valencia, MD; Raul Barco, MD;
 Enrique Gil-Garay, MD
 Hospital Universitario La Paz,
 Madrid, Spain

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9:38 AM–9:43 AM

Telemedicine: A Novel Approach to the Treatment of Non-displaced Pediatric Elbow Fractures
Mauricio Silva, MD; Hemali Panchal;
 Erin Delfosse, NP; Maria Kazantsev, BS;
 Edward Ebramzadeh, PhD
 Orthopaedic Institute for Children,
 Los Angeles, California, United States

9:44 AM–9:53 AM

Discussion

9:54 AM–10:14 AM

Break

LOWER EXTREMITY/HIP

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10:15 AM–10:20 AM

An Anatomic Study on Whether Femoral Anteversion Originates in the Neck versus the Shaft
 Hunter Archibald, BS; Kathleen Petro, MD;
Raymond Liu, MD
 University Hospitals and Case Western
 Reserve University School of Medicine,
 Cleveland, Ohio, United States

222

10:21 AM–10:26 AM

Distance from Posterior Menisci to the Popliteal Artery in Children: A Cadaver Study
 Alexandra Styhl; Peter Cannamela, BS;
 Yi-Meng Yen, MD; Aleksei Dingel;
 Theodore Ganley, MD; **Kevin Shea, MD**
 St. Luke's Health System,
 Boise, Idaho, United States

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10:27 AM–10:32 AM

3-D Modeling of Lower Extremities with Biplanar Radiographs: Reliability of Measures on Subsequent Examinations
David Westberry, MD; Ashley Carpenter, BS;
 Rachel Binkley-Vance, MS
 Shriners Hospital for Children,
 Greenville, South Carolina, United States

10:33 AM–10:42 AM

Discussion

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10:42 AM–10:47 AM

Dynamic Analysis of Surgical Stabilization Options for Pediatric Patellar Instability
Kerwyn Jones, MD; Joseph Gabra, PhD;
 John Elias, PhD
 Akron Children's Hospital,
 Akron, Ohio, United States

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10:48 AM–10:53 AM

Trochanteric Entry for Femoral Lengthening Nails in Children: Is It Safe?
 Ahmed Hammouda, MD;
 Julio Jauregui, MD; Martin Gesheff, BS;
 Shawn Standard, MD;
John Herzenberg, MD
 International Center for Limb Lengthening,
 Sinai Hospital of Baltimore,
 Baltimore, Maryland, United States

SATURDAY, MAY 6, continued

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10:54 AM–10:59 AM **Changes of Sagittal Plane Alignment of Proximal Tibia after Limb Lengthening Surgery**
Kwang Won Park, MD; Tae-Jin Lee; Jawoon Lee, MD; Jeong Seongmin; Hae Ryong Song, MD
Korea University Guro Hospital,
Seoul, Republic of Korea

11:00 AM–11:09 AM Discussion

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11:09 AM–11:14 AM **Treatment of Slipped Capital Femoral Epiphysis with Disrupted Junction of the Epi- and Metaphysis by the Modified Dunn Procedure**
Kai Ziebarth, MD; Nadine Kaiser; Thoralf Liebs; Teddy Slongo, MD; Klaus Siebenrock, MD
University Children's Hospital Inselspital,
University Hospital for Orthopaedic Surgery, Inselspital,
Bern, Switzerland

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11:15 AM–11:20 AM **The Early Experience with Open Reduction/Dunn Osteotomy for Unstable SCFE: Predictors of Failure**
Daniel J. Sucato, MD, MS; Stephan Zmugg, MD; David Podeszwa, MD; Adriana De La Rocha, PhD
Texas Scottish Rite Hospital,
Dallas, Texas, United States

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11:21 AM–11:26 AM **Diagnosing Slipped Capital Femoral Epiphysis (SCFE) Amongst Various Medical Specialists**
Aaron Lam BA; Suhas Abel Boenerjous; Regina Hanstein; Norman Otsuka, MD
Children's Hospital at Montefiore,
Bronx, New York, United States

11:27 AM–11:36 AM Discussion

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11:36 AM–11:41 AM **Hip Arthroscopy Successfully Treats Femoroacetabular Impingement in Adolescent Athletes**
Jody M. Litrenta, MD; Brian H. Mu, BA; Victor Ortiz, MD; Itay Perets; Austin W. Chen, MD; Benjamin G. Domb, MD
American Hip Institute,
Westmont, Illinois, United States

231

11:42 AM–11:47 AM **Does Concurrent Femoral Head-Neck Osteochondroplasty Improve the Long-term Clinical Results of PAO Surgery for Symptomatic Acetabular Dysplasia?**
Perry Schoenecker, MD; Joel Wells; Kayla Thomason, BS; John Clohisy, MD
Washington University School of Medicine,
Saint Louis, Missouri, United States

232

11:48 AM–11:53 AM **The Need for Further Corrective Surgery in Developmental Dysplasia of the Hip: Surgical Decision-Making and Practice Variability**
Emily Schaeffer, PhD; Wudbhav Sankar, MD; Nicholas Clarke, FRCS; Alaric Aroojis, MD; Charles Price, MD; Kishore Mulpuri, MD; R-IHDI Study Group
British Columbia Children's Hospital,
Vancouver, British Columbia, Canada

11:54 AM–12:03 PM Discussion

12:03 PM–12:05 PM CLOSING REMARKS

SOCIAL EVENT OFFERINGS

WELCOME TO BARCELONA

The capital of Spain's Catalonia region, Europe's largest metropolis on the Mediterranean coast and Spain's second-largest city, Barcelona is a place rich in culture and history. <http://www.barcelonaturisme.com/wv3/en/>



BARCELONA DISTRICTS

Each of Barcelona's neighborhoods has something different to offer. View a map and learn about each district. Map: <http://www.barcelonaturisme.com/wv3/en/page/12/interesting-districts.html?>

MARKETS

Perhaps one of the best ways to experience the city is by visiting one of Barcelona's many markets. There are 39 food markets and 4 markets selling additional goods spread out among the different neighborhoods. View a map and learn more about each market.



TOUR GUIDE

Experience Barcelona with your own personal tour guide from Robbcn. Robb is an official licensed tour guide of the Catalonia region and a specialist in Barcelona and its surroundings. He offers a variety of tours allowing you to see Barcelona in many different ways. Visit www.robbtn.com to see tours offered.

GETTING AROUND METRO, FGC OR TRAM

The simplest and most convenient way to get around the city. www.barcelonaturisme.com/wv3/en/page/5/getting-around-the-city.html

THINGS TO DO

Make the most of your visit and experience Barcelona any way you want, whether it's sightseeing, relaxing, visiting parks and museums, or exploring with the family.

CUTTING-EDGE PEDIATRIC ORTHOPAEDICS 2017: A GLOBAL PERSPECTIVE

WEDNESDAY, MAY 3, 2017
8:00 AM - 12:00 PM
Palau Congress Center, Barcelona, Spain

REGISTRATION CLOSES

March 6, 2017

Please register onsite after this date.

COURSE REGISTRATION INFORMATION

NAME		DEGREE(S)	
ADDRESS			
CITY	STATE	ZIP	COUNTRY
OFFICE PHONE		OFFICE FAX	
E-MAIL			

PRE-REGISTRATION TUITION

CHECK ONLY ONE:

USD

- | | |
|---|-------|
| ☐ Member (POSNA or EPOS) | \$100 |
| ☐ Non-Member | \$150 |
| ☐ *Resident / Fellow / Trainee | \$ 75 |
| ☐ RN / PA / Allied Health | \$ 75 |
| ☐ Faculty | N/C |

* Residents/Fellows/Trainees: You must have the signature of your Chief of Service/Program Director to qualify for the reduced fee. If this form is not signed, you will be charged the Non-Member fee.

Chief of Service/
Program Director _____

PAYMENT

My Pre-Course Registration in the amount of \$_____ (U.S. Dollars only) is enclosed.

Method of payment must be enclosed or form will be returned. Only one method of payment is acceptable.

- ☐ Checks payable to POSNA in U.S. Dollars only, drawn on U.S. Bank (registrant is responsible for all bank charges) Travelers Checks (must be signed).
- ☐ Master Card ☐ Visa ☐ American Express Please put this amount \$_____ on my credit card.

CARD NUMBER (PLEASE CHECK FOR ACCURACY)	CCV CODE	EXP. DATE	SIGNATURE
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- **REGISTER ONLINE** at www.eposna.org
- **PRE-REGISTRATION CLOSES March 6, 2017.** PLEASE REGISTER AT THE MEETING after this date.
- Registrations received after March 6, 2017 will not be processed.
- The bank will not accept overnight or courier packages.
- Registration forms may be mailed to POSNA, 6665 Eagle Way, Chicago, IL 60678 – 1066. Payment must be enclosed.

REFUND POLICY: Written notice of cancellation must be sent for refund. Full refund through March 6, 2017. 20% administrative fee after March 6, 2017. No refunds after April 28, 2017.

EP^{OSNA} 2017 ANNUAL MEETING REGISTRATION FORM

- **EARLY REGISTRATION DEADLINE: January 1, 2017**
- **REGISTER ONLINE at www.eposna.org**
- **PRE-REGISTRATION CLOSES March 6, 2017.** PLEASE REGISTER AT THE MEETING after this date.
- Registration forms may be mailed to POSNA, 6665 Eagle Way, Chicago, IL 60678-1066. Payment must be enclosed.
- The bank will not accept overnight or courier packages.
- Use this online link for [Hotel Reservations in Barcelona](#).
- Registration includes: Course material, Wednesday Opening Ceremony and Reception and coffee breaks. Accompanying persons must be registered to attend these social events.

NAME		DEGREE(S)	
ADDRESS			
CITY	STATE	ZIP	COUNTRY
OFFICE PHONE		OFFICE FAX	
E-MAIL			

EARLY REGISTRATION FEES

	USD	Amount
Member (POSNA or EPOS)	\$500	
Non-Member	\$700	
*Resident / Fellow / Trainee	\$300	
RN / PA / Allied Health	\$375	
Delegates from Reduced Rate Countries		
Low/Low-Middle Income	\$300	
(Visit http://data.worldbank.org/country for a list of reduced rate countries)		
Senior Member	\$275	
Accompanying Person†	\$125	
Children 1 – 17‡	FREE	
Friday Gala Dinner (optional) _____ @ \$140 each		SOLD OUT
After January 1, 2017, Late Fee	\$50	
Onsite registration (After March 6) additional fee	\$50	

TOTAL REGISTRATION FEES

POSNA DIRECT Donation

* If you are registering as a Resident/Fellow/Trainee, Name and Phone Number of your Chief of Staff or Dept. Head is required here:

OPTIONAL EVENTS

	USD	Attendee	Guest
Wednesday Opening and Reception	N/C	☐	☐
(included in registration, please check if you are planning to attend)			
Thursday Concurrent Sessions			
Concurrent Session 1	N/C	☐	☐
Neuromuscular Parts 1 & 2			
Concurrent Session 2	N/C	☐	☐
Basic Science / Sports			
Concurrent Session 3	N/C	☐	☐
Upper Extremity / Lower Extremity			
Young Member Forum	N/C	☐	☐
Friday Concurrent Sessions			
Concurrent Session 4	N/C	☐	☐
Club Foot / Foot & Ankle			
Concurrent Session 5	N/C	☐	☐
Spine / Hip			
Concurrent Session 6	N/C	☐	☐
Tumor & Infection / Congenital & Syndrome			
Friday Closing Gala Dinner (per person)	\$140	☐	☐
(Please include under registration fees and check if you are attending)			

†ACCOMPANYING PERSON NAME: _____

‡CHILD(REN) NAMES: _____

- ☐ Check if ADA (Americans with Disabilities Act) accommodation is desired. Please specify. _____
- ☐ Check if you have any dietary restrictions. Please specify. _____

PAYMENT

PAYMENT MUST BE ENCLOSED OR FORM WILL BE RETURNED: ONLY ONE METHOD OF PAYMENT IS ACCEPTABLE (PRE-COURSE IS A SEPARATE REGISTRATION FORM & FEE)

- ☐ Check payable to POSNA in U.S. Dollars only, drawn on U.S. Bank (registrant is responsible for all bank charges) Travelers Checks (must be signed).
- ☐ Master Card ☐ Visa ☐ American Express Please put this amount \$ _____ on my credit card.

CARD NUMBER (PLEASE CHECK FOR ACCURACY)	CCV CODE	EXP. DATE	SIGNATURE
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REGISTER ONLINE TODAY at www.eposna.org